

World History
And the Eonic Effect

Civilization, Darwinism, and Theories of Evolution

Fourth Edition

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Eonix Books

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PREFACE

This is the fourth revised edition of *World History and the Eonic Effect*, the underground/online theoretical self-defense kit and exposé of the Darwinian paradigm. The web response to the various editions and associated blog at *Darwiniana.com* has been consistently large, a sign that students of evolution are searching for answers. We can begin to see that the issue of evolution is beginning to undergo a paradigm shift, despite the confusing distractions of the Intelligent Design groups which have made their crypto-theological perspective seem like the only alternative to the failure of Darwinism. It is important to be wary of a new false synthesis. The Darwin debate is really a propaganda war, now with its two dominant factions, Darwinism and Intelligent Design, manipulating opinion in which seems at times a fake debate. The public is ill-served by the false alternatives offered, and a real insight into evolution is needed, one that is independent of this clever brand of dialectical propaganda. The reader has here a different perspective on the subject of human evolution, a second, or third, opinion. The perception of the eonic effect shows the way to a new understanding of evolution and universal history beyond the Social Darwinist ideology and the reductionist scientism now current that has put secularism at risk. The study of the eonic effect has all the pieces of the evolution puzzle in one place, and can preempt false oversimplifications. The eonic effect gives us in many ways the bottom line on evolution.

The prime objective of the book is to demonstrate the unmistakable non-random pattern visible in world history since the rise of civilization and the invention of writing, and to follow a descriptive procedure as we zoom in on that pattern to see what it indicates. The result is the stunning discovery of a mysterious process operating behind the scenes of history, and we realize finally that the only term for this is ‘evolution’, and that this throws light the earlier evolution of man. The term we use for this is the ‘eonic effect’. This pattern, we should note, is quite simply a larger pattern comprising the so-called Axial Age, and can help to come to some understanding of that classic discovery of Karl Jaspers.

World history is at first a surprising source for the solution to the evolution riddle, and the result also suggests at once the reason for the anomaly in the data about human evolution, the so-called ‘great explosion’, and the inability of the Darwinian paradigm to make sense of the sudden emergence of man. The question of evolution is beset with false theories, and reductionist preconceptions. The study of the eonic effect is not about another theory, in the detection of non-random patterning in world history using periodization, resulting in a simple descriptive model.

We need a public philosophy that is not beset with the wrong application of theories to human action in the tragedies of an Oedipus Paradox, which we will explore. Metaphysical Darwinism, echoing Adam Smith and Malthus, applied beyond the limits of observation to deep time, is then reapplied to history, and this blocks our perception of something unaccounted for by reductionists: the braiding of facts and values in the dynamic of evolution. Nothing could be simpler than the strategy of pointing this out, however cumbersome the details, and there is nothing complex about the eonic effect in

that regard. All we have to do is show how this braiding occurs in action, visibly so in the vista of emergent civilization.

The earlier editions have been organized around the so-called 'eonic model', but the development of that is complete and can be displaced into the background under the term 'evolution formalism', which is a descriptive language that is useful but not essential, and which can be described in a few paragraphs. The fourth edition is instead focused on a simple outline of world history in a scheme of periodization that makes 'seeing' the eonic effect very easy. It is thus possible to bypass the 'model' and to simply follow the periodization of world history provided, attempting to visualize the stupendous vista, especially evident in the so-called 'Axial Age' at the core of our discussion. This attempted visualization shows that we can get a 'glimpse' of evolution (up to a point) even if we can't produce a theory to explain it. The eonic model can be confused with a new theory of evolution, but it is not a theory, but a device to assist observation, to help us understand what we are seeing in world history, and probably something about the descent of man. Once that is accomplished we realize where we have been going wrong on the question of evolution theories.

The basic text has been extensively rewritten, in the light of this simplified perspective. The basic model of the eonic effect has remained stable over three editions, and that leaves the author with increased confidence in the method and demonstration. The evolution formalism was almost invented by S. J. Gould with his idea of punctuated equilibrium, which was a great idea before it got Darwinized in the process losing its clarity. The point is that any theory of evolution is about 'what drives evolution', and this should be formally consider a 'macroevolutionary' process, fully compatible with a microevolutionary complement, e.g. natural selection. The two levels are fully visible in the eonic effect, and are blended with a Kantian perspective to produce an extension to the 'evolution formalism', an 'evolution of freedom'. It is significant that this is essentially the insight of Lamarck, the real founder of evolutionary thinking, whose work very naturally spoke of two levels at work, a drive toward complexity, and process of adaptation. This first intimation of the distinction of macro and microevolution was lost to the era of Darwinism, even as the distortion of the idea of evolution was proclaimed an advance in science. In any case this 'evolution formalism' points to something that is clearly evident in world history and is probably an invariant, other things being equal, in all processes of evolution. The question is abstracted analogous to Newtonian distinctions in the first and second laws of motion, which describe the presence or absence of a force. Somehow Darwinists have gotten the idea that evolution just happens by chance with nothing to produce it.

The basic issue should be to simply create a short world history, and show the eonic effect by doing so, in its empirical reality. Thus the basic question of the eonic effect is very simple: we see a clear structure of epochs connected by transitional intervals in the period of world history since the invention of writing. That empirical fact is unsettling, almost unnerving, because it tells us we can never be sure we have the right data to generalize to a theory for deep time, especially as to the evolution of man. We must be especially worried that the so-called Great Explosion in the transition to modern man is hiding precisely the kind of rich data that we see in the emergence of civilization. We must discipline ourselves to a realization that we simply do not have sufficient data to

know how early man evolved. But the eonic effect gives us a possible set of hints. But we must learn to discipline our views of deep time: it is highly probable that the kind of pattern visible in world history is also present in earlier stages, but beyond the resolving power of our data.

The confusions of natural selection are especially dangerous here because they throw us out of whack: we imagine a kind of primordial battle of the beasts and think that this survival game was evolution. But world history itself gives us the remarkable hints of something much different, more benign, and probably beyond our immediate ability to grasp. We should be humble to acknowledge our evolution is still beyond our understanding. The directionality of the eonic effect shows us that a teleological critique of modern science is lurking in the wings, and there the heuristic thinking of the philosopher Kant on the subject are immensely useful. In fact, Kant gave birth to an early paradigm of biology/evolution, with the methodology of the teleomechanists. The eonic effect, unexpectedly, gives us some insight into ‘teleomechanics’.

The text is therefore basically an outline of history, and a very useful guide to its study as it resolves the issues of a ‘science of history’ in the context of a classic ‘philosophy of history’. This world history is also cast in the mould of the recent genre called ‘Big History’, history since the Big Bang, and that preamble to our subject is an illuminating contrast of scales, and a reminder that, as with the Big Bang, the important things can happen in short periods of time.

If we do nothing else we can convince the reader of the sheer size and complexity of the problem to be solved and the inability of standard theories, leastwise one such as that of natural selection, to account for the emergence of complexity. But history gives us one free gift of data taken as ‘evolution’ at close range. We follow the contours of nature’s answer using periodization to construct a ‘tracker-approximator’, which breaks the problem down into a series of intervals joined by transitions. Scientists talk a lot about Newton’s laws but in practice they are forced mostly to use a ‘tracker-approximator. Like the Kantian noumenon, the historical black box is locked and sealed, and beyond knowledge. Too bad for theories then, they have been used to torment people long enough. We can at least seize high ground with our simple model, there to be philosophic snipers picking off the schemes of propaganda elites need to keep the public under control. The age of Postdarwinism is here, all we have to do is realize it.

<image1-pyramid.tif>

1. INTRODUCTION

1.1 A Glimpse of Evolution

The legacy of modern historical research is an ambiguous one: the conductor's baton of the Universal Historian taps the podium, in a concert of art, science and philosophy, the theme of evolution rising aggressively to the fore, soon becoming the basis of all further secular generalization about human origins. Although evolutionary research has proved a success as a project of empirical discovery, beside its cousin, the archaeological uncovering of man's entry into civilization, the claims of evolutionary theory are much less certain than we might expect. Critics of Darwinism often point to the fossil record, upon which Darwin issued a claim of evidence to come, in favor of his thesis. This evidence would now seem less than clear.

But it is important to consider the ambiguity at the heart of evolutionary theory itself, where this pursues the timeless 'laws of nature' onto nature's stage of life where time is of the essence, and the timely arrival of an abundance of creatures finds no reckoning in the orbits of mass and force. As if by a new law, the era of life finds refuge in a global moment, hideaway to beasts of a small planet, making engines of machines to consume mass and force. At last we find man whose claim is to cut history from evolution, graduate from all laws into a domain of freedom, as a law unto himself, in the court of small kingdoms and the self-realization of his individuality. In this ambiguity of chance and necessity we might search for the deeper meaning behind our use of the term 'evolution'.

In parallel with the nineteenth century emergence of evolutionary research, the rise of archaeology has wrought a similar transformation of man's record of his past. This chronicle has often seemed a disparate sequence of cultures and civilizations without overall meaning or coherence. And the enigma of this history has always been the misplaced origin, in classical times, of so much that we see as the content of man's higher culture. This middle clustering of several civilizations in parallel is an entire mystery in itself, and it is no accident the heritage of the western field preserves its riddle in the haunting echoes of the Hebraic epic. One of the consequences of the archaeological revolution has been to suggest why this intermediate phasing is the case, for we had missed a similar generative period in the earlier interval. It is a phenomenon in sequence.

Now Gilgamesh speaks to us from the land of Ur and the chieftains of Upper and Lower Egypt are seen before their crowns are made one as the first Pharaohs. An age in itself has come and gone, glimpsed at its passing by the Prophets of Israel, witnesses to the vanishing Assyrians. A significant piece of a greater puzzle is joined to the form of perceived history, and the indirect signs of macrohistorical context suddenly show their presence. The elegant, yet fearsome, evolutionary unfolding of higher civilization in a

cycling cone of ratchet progression all at once comes into view. As this veil is drawn, we get a glimpse, only that, of ‘evolution in action’, as if seen for the first time.

1.1.1 In Search of History: Using the Text

The debate over evolution has continued since the time of Darwin without resolution, in part because it is a metaphysical contest that is conducted beyond the limits of observation. The claims for natural selection have turned into an ideology short of real science, a kind of metaphysical reductionism. The result has thrown the study of history into confusion, and handed an ideological pseudo-science to many with Social Darwinist agendas. History should instead be the antidote to this kind of speculative excess, for it enforces the discipline of observation at short range, a century or less, something entirely absent in the study of deep time where generalizations about immense intervals of time are taken for granted without direct empirical observation.

A devastating question haunts standard thinking on evolution: what if the real force of evolution acts intermittently at high-speed over a range of mere centuries? The vastness of deep time would swallow up such brief episodes and leave no trace whatever. As we examine world history precisely this possibility becomes confirmed, and it shows one of the most obvious solutions to the evolution mystery. The question of the so-called Axial Age arises in this context with an ominous warning that we can get the question of evolution completely wrong, as a myth of ‘scientism’. The data for this Axial phenomenon shows a direct example of high-speed cultural macroevolution at the level of centuries. We are prone to hallucinate evolution with substitutes, using oversimplifications such as natural selection. And history simply won’t conform to the assumptions of Darwinism and reductionist scientism. We might do better to follow the facts of evolutionary sequences empirically, mindful of the dangers of naïve theories.

The Eonic Effect: A dose of empiricism The revolution in our knowledge of world history has uncovered a challenge to the Darwinian assumptions about random evolution and natural selection. As we extend our view of history to a scale of five thousand or more years, the empirical given of the historical development of civilization in a remarkable portrait of spontaneous self-organization shows us something that Darwinism cannot explain, and, further, the result looks like a complex hybrid of history and evolution. Instead of botched theories that distort our thinking we can follow the empirical outlines of episodes of evolution using periodization and descriptive analysis.

The bottom line on evolution The eonic effect gives us in many ways the bottom line on evolution: it presents a complete portrait of all the pieces of the puzzle and demands that we solve them all at once. Some of issues that make the theory question intractable (there are many others):

A theory of evolution must resolve the fact/value duality. But if it does so, can it be science? That’s the great catch-22 on theories. The harder scientists try to do good science the more ‘evolution’ becomes invisible to their perspective.

Theories of evolution have severe problems of observability. We never directly observe the causal sequence of natural selection. We suspect we can only observe evolution at the level of correctly documented sequences in real time at the level of centuries.

As Lamarck notes, evolution operates on two levels, a drive for complexity and a process of adaptation (Darwinism only deals with the second). That is, we see something driving evolution. But that may be beyond easy observation, inducing a false reliance on the second process

Evolution is not necessarily genetic. What are the correct boundaries of genetic evolution? We will explore non-genetic 'historical evolution' which is not genetic, and then discover that this is probably the key to earlier human evolution (and perhaps evolution as a whole)

Current theories of evolution automatically discard the free will question, and void the possibility of morality. The evolution of consciousness and morality is a problem for such evolutionary biology. In fact, as with the Kantian discourse on ethics, a kind of noumenal veil or boundary conceals the dynamics of evolution. We never truly observe evolution, only its phenomenal aspect.

There are many other issues of this type and we need to be wary of simplistic theories. The obsessive demand for 'science' (reductionism) can make our theoretical understanding false at the first step. A theory of evolution is a big thing, we must beware of handing violent men a false oversimplification that becomes a legitimization of conflict ideologies.

We cannot speculate about deep time and project 'answers' as abstractions. History shows the way: establish chronicles in real time over long intervals. Then we can detect 'evolution' by examining the clusters of directional change in a pattern of developmental emergence. World history gives us a range of five thousand years for this exercise and the result is illuminating, and, further, makes us suspicious similar processes and chronicles are lost to us in the earlier stages of human evolution.

Evolution in history? It is not clear at first how we can bring the idea of evolution into history itself. In fact, this approach is long overdue next to the incoherence of current thinking. Any process of developmental emergence is 'evolution', and the question is rather what relation this has to the earlier descent of man. The answer is that the relationship is most probably direct, and that world history can therefore suggest something to us about man's emergence.

System Action, Free Action Current theories cannot resolve the distinction between the action of a system, e.g. a process of evolution, and the free activity of the agents that make it up. Human (macro) evolution is incomprehensible without something like this distinction. Consider the relationship of an ocean liner and its passengers: the obvious distinction between the 'system action' of the ship and the 'free action' of the passengers in relative motion on the vessel is all we need to proceed with a new perspective on evolution and history.

The moment we examine world history as an evolutionary and developmental process we see immediately that something much more complex than natural selection is

at work. The great champion of Darwin, T. H. Huxley, ended by saying as much as he realized that something was missing in the Darwinian account. It struck him that there must be something more than natural selection at work since we always act as if to oppose it. The complex evolution of ethics in the descent of man is something that the Darwinian framework simply cannot explain. In fact, it is little appreciated, because always soft-pedalled, that reductionist science cannot explain an ethical agent at all. This embarrassing limitation of scientism is seldom made clear to the public as it is induced to accept the Darwinian perspective as some kind of ultimate explanation. The obsession with Darwinism is ideological, and too often connected, whether consciously or not, with economic assumptions.

Another approach is needed, and the study of world history provides it: we must acknowledge that there are limits to our ability to observe evolution in deep time, and to our ability to produce universal theories that are valid in all situations. We can make hard claims only about what we can observe at close range, and world history is about all that is so observed, this to a far greater degree than evolution in deep time. If we honestly acknowledge this limitation, a surprise is in store for us. We can observe the transition from evolution to history, and there achieve some understanding of what earlier evolution must have been like. The result is an unexpected insight into the evolutionary descent of man. In general, history might show us evolutionary episodes of short duration. Such episodes are never observed in deep time, whose units of observation are very large. This braiding of history and evolution feels right, and gives us a sense of the lameness of Darwinian explanations. We need to stop imposing simplistic theories on history. And yet we cannot either leave the question of a science of history unanswered, in the style of much narrative chronicle, the staple of historiography. A contradiction lurks, waiting to be resolved. Universal causality must rule, and yet history makes no sense without the reality of freedom.

One solution to the question of theories is to explore outlines and periodization to highlight historical dynamism as a set of facts, instead of a theory created to satisfy some preconceived agenda. The outline, or periodization, is then the only candidate left to resolve the mystery of dynamics. With the so-called eonic effect it is just this approach that bears spectacular fruit. We can look at world history, on two levels, as evolution, and yet also as the free action of agents creating its chronicle. The combination is illuminating. In fact, world history shows a remarkable rhythm of development, and falls into a simple outline of successive epochs or chapters in a clear narrative of emergent civilizations. This 'narrative' is far more conducive to historical understanding, and the question of evolution, than the counterintuitive imposition of reductionist analysis because it respects the complexity of what history in fact shows. Further, the perennial question of freedom in relation to causality demands a larger framework of explanation than that of reductionism. Scientists are often too embarrassed to inform us that freedom is disallowed in their analyses. We need to produce a new 'science of freedom', at least in principle, to reconcile science and the stubborn facts of historical free activity.

History is too complex for a simplistic evolutionary schema based on the genetics of natural selection. We should therefore restrict ourselves to what we can detect in world history itself, where this fallacy is obviously inadequate. The resolution lies therefore in looking at history itself, where the significance of man and culture alone can be found.

Ironically, if we restrict our vision to the emergence of civilization we unravel the riddle of evolution that might answer to our perplexity over the descent of man.

We are ready, to take a look at world history. Archaeological research has greatly expanded our knowledge of world history, and the result is the unexpected discovery of a mysterious dynamic generating a non-random pattern we call the ‘eonic effect’. In fact, the scale of this process is such that we can only call it ‘evolution’. Thus, for the first time we can detect the unmistakable evidence of non-random evolution, and this in world history itself. This leaves us with the question, What is evolution? And this forces another, long overdue, What is the relationship between history and evolution? This could be recast as the paradoxical question, When did evolution stop and history begin?

A moment’s reflection will tell us that no instantaneous passage between the two is plausible and that our terms have been left ragged. We must, by this logic, be able to detect a Transition between evolution and history. Can we find evidence to match this deduction? Indeed, we can, our non-random pattern, the eonic effect. In fact we can say more: if we apply that same logic to our Transition we should expect it to take the form of a series of transitions in an alternation between evolution and history, as if overlaid, the one emerging from the other. The eonic effect shows just this property of transitions in a series. Have we reached the end of this Great Transition? If not, then our evolution still constitutes our present and future. We should ask who man is, with such wisdom as would constitute achievement of the title, *homo sapiens*.

The Meaning of Evolution We are so accustomed to Darwinian or reductionist definitions of genetic evolution that we forget the meaning of the term: evidence of developmental emergence by any process or dynamic. By that definition history shows a clear pattern of non-random evolution in the development of civilization (and the parallel development of human individuality).

Limits of Observation Biologists often distinguish the ‘fact’ of evolution from the ‘theory’. The difference is crucial, for it is relatively easy to see from the fossil record that evolution occurs as a succession/progression of animal forms, but to confirm that this occurs by a process of natural selection is far more speculative, and probably false. Truly observing evolution is difficult, and we cannot easily infer the mechanism from generalizations about immense vistas of time. What if evolution is an active or intermittent process that occurs at high speed in short intervals that we never observe?

History and Evolution A paradox confronts the distinction of evolution and history: when did evolution stop and history begin? This odd question is the clue to seeing that history and evolution must show an interconnection. Further this braiding together is likely to show a series of transitions between the two. With this clue we can rapidly find the evidence for just this, which we call the ‘eonic effect’.

Theory Failsafe: Do no harm We are beset by the simplistic speculative theory of natural selection with its violent Social Darwinist substrate, the fact/value distinction eliminated, the evolution of ethics turned into a mechanical abstraction that actually negates the ethical domain. This confusion of theories

deserves our protest. Simply tracking an evolutionary sequence over time is a useful discipline and a reminder of the real complexity of evolution.

An Evolution Formalism Darwinism is an oversimplification of what should be a standard formalism or model of evolution: this involves a kind of macro/micro distinction, and in the case of man takes the form of the idea of the ‘evolution of freedom’ as the passage from passive evolution to active free history through a macroevolutionary process or Transition (in this case a series of transitions) matched with a microevolutionary history of man’s self-realization of his emerging freedom. This overall framework (which is not a theory but a generalized descriptive device) fits human history perfectly, and the remarkable data of the eonic effect finds a useful clarification in terms of the evolution formalism. Students of evolution have already seen a distorted example of such an evolution formalism in theories of punctuated equilibrium, where the partition into macro and micro arises spontaneously. Unfortunately the influence of Darwinism made this insight stillborn. The point here is that ‘evolution’ is about some ‘force or process’ that drives development.

Our thinking is conditioned by Darwinism, which throws ‘evolution’ into the past, with a tacit set of assumptions about random evolution. The result is an enforced incoherence. This is often matched with a prejudice against any consideration of a science of history in the large, and/or any attempt using the philosophy of history to seek historical meaning. A further critique of the idea of universal history comes from the postmodern rejection of the Grand Narrative.

In this context the status of a science of history is ambiguous, as the philosopher Karl Popper in his critique of historicism insisted, with his rejection of the idea that history has meaning. Yet as the labors of archaeological research proceed a falsification of this perspective emerges. Karl Popper was wrong: history has meaning, and we can discover large-scale coherence in its unfolding. It is hard to break the habit of thinking universal histories have all been discredited. Suddenly we see the existence of a world system, but this requires looking beyond individual civilizations to the whole phenomenon of Civilization since the Neolithic.¹

As we proceed in search of history we will discover an irony, which is that we will find evolution in history, and then history in evolution, and this will give us an insight into the descent of man. We must move beyond the myth of purely genetic evolution, and the fixation on natural selection. We can recalibrate our definition of ‘evolution’ to include man’s past, present, and future, with a new kind of model that can carefully define the nature of our evolving freedom.

Confusing ‘god’ and ‘evolution’ Once we detect ‘evolution’ in action we are likely to be stunned by its forcefulness, complexity, and the sense of design unfolding, perhaps even that of a designer. Further, we collide directly with the mythology of the Old Testament which, however, detected the phenomenon we call the ‘eonic effect’, that is an evolutionary sequence. As we examine the

¹Introduction

² Karl Popper, *The Poverty of Historicism*, (New York: Routledge, 1991).

phenomenon we begin to see that theistic explanations fail completely and that ‘evolution’ is the only applicable term, and crude ‘systems analysis’ the only method to study it. ‘Evolution’ is the cover term for an immensely subtle creative energy operating across time and space in a global process of spectacular force. Our approach will thus be neither theistic nor atheistic, and we will disallow the terms of divinity in our argument. A Kantian sense of the noumenal and the phenomenal pervades the enquiry into evolution, and we should be wary of producing a new mythology. Our method can disciple us to what we can observe. What is beyond the limits of observation is unknown to us.

In the remainder of this chapter we will look at the history behind the Old Testament, and then at the mysterious structure behind world history. In Chapter Two we will examine the legacy of Darwinism, and the basis for a critique of the theory of natural selection. In Chapter Three we will show the relationship of our discovery to the question of evolution, and develop a simple model to assist us in producing a short world history. This model is really a periodization matrix and will be connected to a classic essay on history by Kant. This model highlights the developmental sequence we see in history. The existence of this pattern of developmental ‘macroevolution’ in world history itself will allow us to resolve the misapplication of Darwinism to historical emergence. Our model will use an ‘evolution formalism’, which is not a theory, but a series of concepts that can help us to describe what we are seeing. The remainder of the book will construct an outline of world history based on our findings of its hidden structure, and ‘idea for a universal history’. We can do this in the context of so-called ‘Big History’. The genre of Big History has been an attempt to rediscover universal history in a reductionist context, but this will not quite work.

Big Histories, Universal Histories: One of the most significant approaches to world history in recent times has been that of the genre so-called ‘Big History’, history since the Big Bang. This perspective, easily adapted to our own, deserves its own critique and revision in light of our renewed consideration of ‘universal history’. There should really be two meanings to the term ‘big history’: the horizontal meaning of history seen in the context of cosmology and the emergence of life, and a vertical meaning in terms not unlike the distinction of microevolution and ‘macro’ or ‘big’ evolution in biology. We will explore both meanings and then invoke the context of Big History before beginning at the conclusion of this chapter. Universal histories are histories that give credence to the reality of freedom.

Deconstructing Flat History Postmodern critics of the philosophy of history wish to deconstruct the ‘grand narrative’ on the basis of its ideological presumption or teleological illusionism. But the need to deconstruct ‘flat history’ is almost more significant given the way reductionist historicism has deprived history of any meaning.

Conflict Theories The legacy of Darwinian natural selection is that of conflict theories, which arise spontaneously in the desert of flat history as attempts to

provide a substitute for a mechanism to drive history (or evolution). Thus, Darwinian natural selection is really saying that nothing, no evolutionary force, drives evolution. Instead, the struggle or competition of organisms does this, a clear case of a conflict theory rushing to fill a void. In fact, as we explore the eonic effect the limits of this perspective rapidly become obvious.

Economic Logic Related to this is the confusion of economic and evolutionary categories. The two are not the same. Evolutionary thinking goes in search of its 'macro' process, fails to find it, and defaults to a conflict theory, sometimes with economic overtones. We must carefully distinguish economies, and evolutionary sequences.

Kant's Challenge: In search of Universal History Although the idea of Big History creates a fertile framework for the study of history, it is a subtle evasion, or retranslation, of the ideas of the philosophy of history. Arising in a association with the rise of modernity, and ultimately the grandchild of Old Testament history, the 'idea for a universal history' spoken of by the philosopher Kant highlights the central paradox of historical theory: the antinomy of freedom and causality, and highlights a basic question, How do we construct a science of history? We can accept the challenge of the philosopher Kant in a famous essay (which also contains a classic pre-Darwinian conflict theory) to answer this question.

The evolution of man is, and remains, a complete mystery, although world history can give us important clues. There is something almost mythological in the projection of Darwinian scenarios of natural selection onto the Paleolithic. Such evidence as we have is mostly that of skeletal remains, highly incomplete, of a series of hominids stretched over millions of years. Dogmatism in such a situation takes on an almost religious character in Darwinists. In the midst of this void of hard information we are to believe that all the complex functions of the human advance are to be ascribed to processes of natural selection and adaptation. Such claims, pressed into service for metaphysical conclusions, are weak in their evidentiary basis. In contradiction to this, flagrantly out in the open, is the evidence of a Great Explosion in the period up to ca. 50,000 BC, when modern man is suddenly in evidence. As if crossing a threshold *homo sapiens* suddenly begins to leave traces of all the forms of higher culture that are characteristic of man as we find him in history. The suddenness and depth of this rapid passage, if we can trust the data, call out for explanation beyond the standard and very vague claims of mysterious mutations. This is really a question of what we mean by 'macroevolution', as opposed to 'microevolution'. Is not Darwin's theory really one of microevolution? The problem is that observing anything that resembles macroevolution demands a very detailed record of evolutionary sequences, and this invokes a crisis of correct observation. There is an irony to our views of evolution. We look to deep time to find the answers to our quest to understand evolution, and yet we have very little data to conclude anything. We then apply that thinking to history, and yet here we have what is really a far more detailed record, seen at close range. We fail to suspect the fallacy here, or that history itself shows the direct evidence of evolution.

1.2 Universal Histories: The Old Testament Enigma

As we enter on the artificially created moment of the new Millennium set by the Christian calendar, an observer skeptical of the eschatological visions of doomsday apocayptics might yet consider that mankind is passing through a crisis in human history as a whole, the end of a long beginning since the passing of the last Ice Age. Globalization and economic interpenetration, the onrush of technology, political cyclone, ecological and demographic alarm, coexist with futurist expectation, and the hopes of temporal salvation rendered over to providential certainties. Ideas of progress and decline seem finally to blend in the antique hope of 'end-time' redemption, to pass as the ultimate 'quick fix' uttered in slogans. Some see the end of the 'modern age', and in a postmodernist mood, survey twentieth century as the close of an era. At least, the expectation of millennial completion seems a desperate impatience in a vault of centuries and a progression of epochs barely underway, barely able to begin. The nature of futurist beliefs, themselves the source of endless confusion, generate historical misperception in the traffic between archetypal 'crisis' and the console red-warning lights of real issues.

It is interesting that the roots of millennial conceptions in their current form emerged from the ideas of Zarathustra, in the second Millennium BC, passed through the vehicle of the Persian Empire into the parallel world of emerging Judaism during the period of the Exile and thence into Christianity and Islam. By this reckoning our crisis is quite ancient indeed, as recycled eschatology. It is difficult to reconstruct the exact relationship of Zoroastrianism and the Hebraic monotheism, although the *Book of Daniel* shows the clear footprints leading back to the era of the Persian Empire in the time of Cyrus the Great.²

Our sense of universal history springs from the Old Testament epic. But this is a complex hybrid of multiple origins. The blend of indigenous Judaic monotheism, as it emerged from its Canaanite, thence Egyptian and Mesopotamian traditions, along with the themes of Iranian dualism and eschatological messianism during the period of the Exile and after, resurfacing strongly during the Qumranic period near the birth of Christianity, is one of the most confusing overlays of the period of cultural advance and integration that occurred with a center of gravity ca. -600, thence to generate the pillars of a great constellation of traditions. This complex parallel emergence and interactive blending constitutes one of the central mysteries of the western religious tradition.

That the record of the period of Exile given in the Old Testament should have preserved the forgotten connection of eschatological ideas with the parallel Zoroastrianism in the world of the Persian Empire is a piece of a greater puzzle. It is the period ca. -600, plus and minus, that is in fact our subject, for it is this era that is the rough center of gravity of a great transformation, known as the Axial Age.

It is the era of the birth of the great religions *in concert* at the fountainhead of the traditions of classical antiquity. The process transcends the phenomenon of religion and we see that the synchronous effect applies as well to the polytheistic Greece in the period of the Ionian Enlightenment. The seeds of modern secular culture are there sown at the

same time, there is no clear differentiation. The Old Testament conceals a riddle, but cannot do justice to its own discovery of the Axial Age. Its perspective is too localized.

The Birth of Universal History The Biblical tradition gives testimony to the birth of ideas of universal, or progressive history, against the backdrop of cyclical myths, and this was influenced by Zoroastrianism. The irony that this linear, eschatological view of history should emerge in the mysterious moment of the so-called Axial Age, whose cyclical interpretation we will discover, and which will drive us to see their synthesis, the cyclical driving the linear, in the eonic effect.³

The myths of the Old Testament require a new understanding in the wake of the findings of Biblical Criticism, and the phenomenon of the Axial Age. We need to recast our understanding of the remarkable significance and context of the Old Testament. It is pointing indirectly to a great historical transition, in the evolution of religion itself toward a new form of monotheism. But that transformation is larger than the phenomenon of religion.

Even secular philosophy finds itself unable to do justice to this seminal epic at the dawn of middle antiquity. It is important to consider how little accurate information we have for this period. By comparison the histories of the Greek period are rich in data. We could not reliably speak of the historical existence of Abraham, Moses, the Exodus, or any of the other details of a history rendered into an ideological collation in the generation before the Exile.

The Bible Unearthed A renewed sense of the extraordinary significance of the Old Testament leaves us with a question, What is the Bible recording? Theistic historicism or an Axial transformation? The natural division into three sections, the Torah, the Prophets, and the post-exilic writings of the period Ezra and Nehemiah, gives the clue: the prophetic period straddles the Axial interval and this, as we will see, is period of transition to a new era, leading to its conclusion at a point of 'divide', ca. -600, in its enigmatic synchrony with Greek, Indian, Chinese, and other parallels. We can decipher this transition by comparison with its isomorphic instances, as in the emergence of Classical Greece from the Greek Archaic. The Bible comes into existence and begins to crystallize in the generation of the Great Reformation of Josiah at the conclusion of its Axial transition.⁴

Seen rightly, the Old Testament's *core account*, the rough interval from -900 to the Exile, unwittingly records an incident in the Axial Age. The puzzle of continuity and discontinuity perplexed the redactors of the Judaic corpus who attempted to seek the sources of their suddenly appearing tradition in earlier figures. Yet the sagas of Abraham and Moses, if historical, clearly precede the crucial phase. One irony of our enquiry will be to inherit the true beauty of the Old Testament in a secular interpretation.⁵

This period seems the source, as an age of 'revelation', of our sense of the sacred. Yet we can now see that the Zoroastrian, Abrahamic, and other sources *precede* this period, whose relative transformation of outstanding cultural streams seems to generate the illusion of an absolute or transcendental source. This is a challenge to our idea of an age of Revelation. Further, Christianity and Islam arise much later, but seem to look

backward to this period, whose actual core shows something quite different, the history of a Canaanite culture zone, 'Israel/Judah', whose religious traditions suddenly transform into a monotheistic vehicle, as it sows the seeds of the religions to come. An almost identical phenomenon, at this high level of abstraction, is visible in India, and in a comparable time frame. In fact this entire period was extraordinary in its generation, and all at once, of new cultural traditions. The complexity of this picture requires a new type of historical model.

The Evolution of Religion? The Old Testament records a paradox: monotheism seems to begin with an 'Abraham', yet also seems to come into existence in the Axial interval. This problem of relative transformation is a prime candidate for analysis using our eonic model. The 'evolution' of religion in the emergence of civilization is a complex overlay of two processes, macro and micro. The micro aspect develops at all times, while the macro is expressed in a larger discontinuous series. The intersection of the two is what leads to the remarkable florescence we see in the Israelite monotheism that surges outward, like an amplified signal, in the wake of the Axial interval. One and the same effect, and one and the same timing, is visible in the emergence of the parallel Axial Buddhism in India.

With the increase of modern historical knowledge this strange phenomenon of synchronous parallelism has become an enigma replacing a myth, in the process casting the Occidental myths of revelation in a most ironic light. This constellation of creative individuals generates a new age of history, and leads us into causal perplexity before such a complex temporal correlation over independent regions of so many effects. It is a phenomenon of Gaian proportions, yet we see only a series of outcomes, never the dynamic behind them. There is nothing simple about it, for while it is true that the Old Testament demonstrates the appearance of Biblical prophets in this period, the effect has nothing as such to do with prophets. Prophets existed before, but none quite like this unique series in their anticipations of a new world to come.

From its archetypal roots, the eschatological idea forever resurfaces, as evidenced in the versions of early modernism, as they influenced, for example, the German and English Civil Wars, Hegel, and Marx. The eschatological nexus moves between its twin realizations, the slow, and the fast, the one conservative dangling the carrot of hope, the other radical, pedal to the floor acceleration and social tumult. The 'end times' are the grounds for the last revolution, or else the 'end of history' is the rationale for the end of revolutions. It is no accident that much contemporary social criticism attempted to expose the fast version embedded in leftist communism, looking the other way at the slow version granted the weight of religious tradition.

The eschatological idea echoes throughout history, reaching the modern world in its inverted secular forms, such as the Hegelian 'end of history' showing the connection between state and transcendence in direct fashion. This thinking echoes the question posed by the philosopher Kant in his classic essay *Idea For A Universal History*. Our secular Zarathustras live in the acceleration of history, the exponential curve as myth. Francis Fukuyama finds, in *The End of History and the Last Man*, that we have reached a political final state, the end of world-historical political evolution in the form of the liberal state. If this is true, it should better be called the Beginning of History, the real

New Age, if its creature could reach future history as a New Man. But the point is rather that in the perception of Hegel the evolution of freedom visible in the realizations of modern democracy tokens a New Axial transformation of the worlds inherited from antiquity. Finally, in the vault of time, the scale of the historical passes to the moment of Earth time and the evolution of life, thence to embrace the Big Bang and even, in new crypto-Zoroastrian theories of physics, a final relativistic Omega Point of converging world-lines at the “end of time”.⁶

1.2.1 Decoding Modernity: In Search of Evolution

Against the backdrop of world history the rise of the modern must constitute one of the most explosive turning points since the beginning of higher civilization, or even the onset of the Neolithic. In the three centuries after 1500 beginning with the Protestant Reformation and the parallel Scientific Revolution an entirely new form of civilization has arisen, set to transform the entire planet via globalization. Such a massive transformation demands an explanation on the scale of evolution itself, and shows a remarkable discontinuity against the backdrop of medievalism. But this issue has been confused by debates over traditionalism or medievalism. It requires a larger context for a solution to the riddle.⁷

The sudden explosion of modernity is an empirical given of world history. And yet a sense of crisis now haunts the idea of the modern. Indeed, a renewed challenge to the meaning of secularism in a resurgence of religious traditionalism seems to threaten the legacy of the Enlightenment. There is even the invention of a spurious ‘postmodern’ age to replace the modern. These gestures might betray the agenda of reactionaries, but demand a reckoning of modernity in terms of world history as a whole. There can be no replacement of modernity with an ad hoc postmodern concoction. The result would be decline, not advance. The sudden explosion of the modern might well show ‘action and reaction’, with a waning of the original impulse. Yet defenders of modernity seem ill-equipped for the task of defending its significance against its critics, or meeting the crisis that threatens its realization and future. What is the source of this sudden chaotification?

The question confronts us, What is the significance of modernity, and how can we understand its sudden transformation of world history?

What is modernity? We are left with the ambiguity of what we call the modern, next to the equal confusion over the meaning of secularism.

Is there a postmodern age? One of the most radical attacks on modernity is the gesture to posit a ‘postmodern’ age. But this idea suffers a curious contradiction, and expresses an agenda that is ambiguously reactionary. Postmodernists have wished to ‘deconstruct’ grand narratives, but we might as well wish to deconstruct the flat histories that are the result.

In one sense, the crisis is real enough. Environmental catastrophe looms, as the Age of Oil seems destined to a swift conclusion. As if to summon the spectre of Marx all over again, the Industrial Revolution itself seems under siege as a Faustian gamble, the automatic dynamism of modern capitalism looms as a monster out of control. A

postmodern gloom seems to have settled on the prospects of the new age spawned in the centuries from the Reformation to the Enlightenment. But the modern is far larger than its economic contradictions, which have no pre-modern solutions. We seem to confuse economic dynamics with the fact of modernity as an already irreversible stage of history.

Ecological Reductionism One source of our environmental crisis lies in confusion of universal history with economic history and/or Darwinian evolution. This results in an ecological reductionism that makes wrong assumptions about environmental dynamics. In a period of mass extinctions the domination of Darwinian thinking makes us think speciation is purely an effect of survival of the fittest. But ecological environments show a Gaian aspect, and a balance upset by reductionist assumptions.

Our situation is not helped by the incoherence in our views of history. Here the influence of evolutionary thinking next to the economic interpretation of history has blinded us to any sense of universal history. The result is a kind of Darwinian economic fundamentalism resulting in a reductionist inability to grasp even the significance of secularism, or to see the complexity of innovations to which we cannot do justice beyond the questions of technology and the Industrial Revolution. The rise of the modern is a puzzle in itself, an almost evolutionary break in the continuity of world history. Exploding in the sixteenth century with the Reformation and the incipient rebirth of the Scientific Revolution, the early modern ignited a transition to a new phase of human culture, and by the eighteenth century the foundations of an entire new era in world history had been laid, graduating in the climactic moment of the Enlightenment, the French and American Revolutions, and the onset of the Industrial era. And this is the historical transformation that has produced so-called secularism, and its collision with religious traditionalism.

There is an irony here: this phenomenon of sudden discontinuity is not unique and resembles the seminal moment of the foundation of our traditions. We can see clearly that a moment of great discontinuity, the onset of classical antiquity, was the source of the great religions as we know them now. But also, ironically, of the very secularism that now seems to challenge these traditions. It is altogether strange, and yet surely significant, that the age of the *Upanishads*, and that of the Israelites in the period of the Prophets, should occur in rough simultaneity, and gestate from the Indic direction the great religion of Buddhism, while in the case of Israel a reaction to polytheism should generate a new type of monotheism destined to characterize three subsequent religions of Judaism, Christianity, and Islam. We must pursue the investigation to the end, to find in the parallel age of Greece the seeds of modernity itself.

It is an odd pairing of opposites to see the parallel emergence of two world religions, of such different character. It is obvious that what we consider to be a secular age is a reaction to this legacy of the religions inherited from antiquity. But it is a reaction to their medieval construction. The period of their birth was something quite different. And these religious formations in turn were a reaction to the religions of their time. We should note that the rise of the secular is not so much a reaction against religion, as its transformation, visible in the Protestant Reformation. The distinction between 'sacred' and 'secular' is misleading. We seem to detect a cyclical phenomenon. And, the enlarging scope of our historical vista is starting to show us eras of religion far earlier

than what we take as religious tradition. Beyond even the world of Egypt and Sumer we can observe the archaeological remains of temples already ancient by the time of the first Sumerian cities. We can begin to see that organized religion was already ancient by the time of the first Pharaohs, and that temple complexes were already in existence in the millennia before the rise of the first great technological civilizations of Sumer and Egypt.

It is more than whimsical to cite a cyclical metaphor in a progression of epochs, for it will challenge us to consider the history of the many mythologies of cyclical history, and this in counterpoint to some reckoning of the idea of progress, the clue in fact to its reality. The trick is to reconcile so-called linear and cyclical views of history into a higher unity. The idea of progress has fallen on hard times, and in a postmodern period it is almost an idea in exile, and yet its significance for the rise of modernity is crucial, and its emergence in the early modern was as a challenge to the dominance of antiquity in the minds of those who began to see that what they called the 'modern' period was starting to outstrip the achievements of Greece and Rome. The ideological character of the idea of progress, and its degeneration into a form of economic propaganda, is a later development. The idea of progress was a great challenge to the myths of cyclical history, but there is an irony here, that the cyclical and progressive views of history might be reconciled in a fashion that actually demonstrates the progressive character of world history. Already as a first impression we have seen a series of discontinuities express the timing of a series of advances or reborn eras in world history, among them the rise of modernity. The riddle of linear progress is ironically resolved by seeing its cyclical aspect, an idea to confound cyclical myth-mongers.

The idea of progress is rejected by biologists in the discussion of evolution, and this has become one of the central dogmas of Darwinism, but at the very least the idea serves an essential function in our understanding of history, whatever the case with biology. Can we really look at the spectacle of emerging civilizations as a stasis of undeveloping entities? Clearly the notion that things are somehow in a process of development and complexification is indispensable in the attempt to chronicle man's historical emergence from the Paleolithic. We need a new way to look at the idea of progress, to see at once its ideological abuses, and its essential rightness or inevitability in any understanding of evolution. Part of the confusion lies in the obvious way in which what might be seen as periods of advance, are in clear contrast to the longer intervals, all too visible in history, of what might almost seem retrograde motion.

In fact, prior to the archaeological revolution of the nineteenth century, the Western view of world history consisted of the tale of classical civilizations beginning with the Classical Greeks, and the saga of the Old Testament, followed by the story of Roman turning into an empire, which endured for many centuries and then declined into a medievalism whose total historical interval outstripped all else, and dominated the historical portrait until the quite recent rise of the modern. This overall perspective was not conducive to clarifying the demonstration of progress in history. As we move backwards, a strange perception arises. The same constellation of advance, then a 'medieval' stasis, is visible in an earlier cycle, beginning with the surge of higher civilization at the end of the fourth millennium, in Sumer and Egypt, followed by the less seminal centuries enclosed by its beginning, that finally fades away into the decline preceding the rise of a new era at the time of the classical Greeks.

1.2.2 Decline and Fall

This brings us to the dynamical mystery of civilizations, their apparent rise and decline, and the misleading way in which a postmodern perspective has become a version of declinism. Modernity is barely underway, and yet a version of leftist or religious ideology has declared the 'age of modernity' to be finished. It is significant that the term 'postmodern' appears, before its appropriation by a cultic wing of the modern left, in the historian Toynbee. And next to Toynbee we have the figure of Spengler whose 'postmodernism before the fact' defines very clearly the genesis of the postmodern reaction to modernism. This in turn shows the clear influence of the philosopher Nietzsche whose attack on modern liberal civilization is one of the pivot points of the anti-modern reaction. The thinking of Toynbee and Spengler has proven strangely influential despite the many critical exposés of the limitations of their historical models.⁸

The idea of the 'civilization' is central to the thinking of Toynbee and Spengler whose works constructed a kind of botanical classification of the various specimens of such, and the result has been a rigidification of the concept as some kind of dynamical entity, or even as an expression of the organismic. And this in turn leads to some notion of the lifespan of a civilization, resulting in the predictable onset of its decline. The great exemplar is the 'decline and fall of the Roman Empire', which becomes by analogy the misleading template for editorializing the fall of modernity. And this declinism has become the warning cry of many 'spenglerians in spite of themselves' who are nervous that the 'modern civilization' is about to enter the final stages of Rome's later empire. There is something amiss in this reasoning. The modern world is a mere centuries from its dramatic initial incidents, such as the Enlightenment. It would seem a desperate shortening of a potential future for this to be already in decline. Between the onset of the Roman Republic and the final decline of its empire is an interval of a thousand years.

Toynbee seems to wish for a new manifestation of traditionalism, Spengler a renewed barbarism in the aesthetics of Nietzsche. There is something confused about this legacy of Toynbee and Spengler, and it becomes important to try and come to an understanding of the limits of their analyses of world history, with their concealed cyclical perspective. The rise and fall of civilizations is not a difficult concept to document, up to a point, in the chronicle of civilization, but something is awry in the methodology of these two thinkers. We can see the problem perhaps in the way Spengler concocts a 'Faustian civilization' for the West, beginning in the year 1000, and now reaching its final stages. Can this be right? The arbitrary start at the moment of the first millennium, the depiction of the rise of the modern period and the Enlightenment as somehow the approaching decline, and the final 'decline of the West' trumpeted at the beginning of the twentieth century leaves one to ask if the concept of 'civilization' is really the right one for the study of the historical dynamics of the modern 'west'. The civilization, as a rubric is directly intuitive as a descriptive device, but the moment we

⁸ Oswald Spengler, *The Decline of the West* (New York: Knopf, 1926), Arnold Toynbee, *A Study of History* (New York: Oxford, 1957), abridgement by D.C. Somervell.

begin to make assumptions about its 'evolution' in some fashion, we seem to be on less certain grounds. There is a much simpler pattern of civilizations than that of their rise and fall. We see a progression of eras beginning with the rise of higher civilization in a system that transcends civilizations and seems to generate Civilization, in a process of localization and globalization.

The gloom of Spengler is in one way understandable, composing the elements of his immense tome against the backdrop of the First World War whose unexpected savagery left the idea of progress shattered in the minds of a whole generation. It seemed as if the hopes and expectations of modernity had been betrayed by a regression. And there was worse to come. The unimaginable, like a cusp in history, was soon to emerge in the convulsion of Nazism and the Holocaust. It was, and is, hard for many to even consider the idea of progress again after such an unprecedented outbreak of the demonic. And yet the very tone of Spengler's perspective, with its implicit Nietzschean embrace of wars to come and to be unparalleled in their virulence, is itself the self-destructive omen, the curious prophecy of the psychosis that seemed to overtake the 'West'.

And yet the intervening years did not really show the decline of the West. Perhaps it has demonstrated globalization beyond the vehicles of the early modern, or the limits of imperialism in these incipient champions of the modern. But this might be progress, not decline. From the First to the even more cataclysmic Second World War and beyond the fate of this 'west' was one of triumph and recovery, and a second act of the realization of modernity. And the very notion of the 'West' began to yield to the globalization of its idea, and the creation of a new and larger oikoumene. For the idea of the modern competes with the idea of the civilization, as a term of periodization, and has no geographical or cultural bounds. We become suspicious that the idea of some 'western civilization', with its inherent Eurocentrism, has missed the point. There is a flaw therefore in the idea of the 'civilization' as the basic unit of analysis, in some organismic metaphor of its life. For the larger direction of history has shown the supposed civilization of the 'west' to be an appropriate stepping stone toward a larger sphere of modernity, which is more than a civilization.

The American Empire? The theme of leftist critique of American imperialism has recently seen a revival of the declinist genre applied to the United States of America. In *Nemesis*, for example, the author sees the analog of the lost of the Roman Republic in the American democratic system. This is a somewhat more relevant comparison than to the fall of the Roman Empire, but the very nature of this periodization could be misleading. In any case, the challenge to imperialism is not the same as the decline and fall of a civilization.⁹

The study of history would seem to require a larger concept than that of the civilization. The issue appears to be not the lifetime of a culture, but the interval of transition to a new era, and the spread by diffusion of its idea, in the creation of an oikoumene. Once we adopt this altered perspective, many examples come to light. The lifespan of Greek civilization is very long, stretching from almost the Neolithic to modernity, and undergoes many changes in the form of its culture. But this is not necessarily the right concept of its history. Rather we see that this stream of historical culture has given birth to a whole series of significant moments, of lesser duration. The great classical era of Greece, which produced a turning point in world history, was

merely an interval of short duration, several centuries, in a mysterious flowering of culture, one that, just as with modernity, produced by diffusion a new and larger oikoumene in a process of incipient globalization.

The brief era of the flowering of Classical Greece is one of the most remarkable in world history, and behind a disguise closely resembles the rise of the modern. It is in fact the birthplace, however inchoate, of the secular. The remarkable thing about this was the speed, and brevity, of the transformation. Between the eighth and fourth century BCE the entire spectacle of the Classical Greeks opens and closes, leaving behind an achievement whose immensity remains with us to this day as one of the foundational moments of Western, we should say, world civilization. We cast about for some means to explain this apparition in world history, but are left with an absence of clues of the sociological variety. We assign causes to antecedents, but if we examine early Greece emerging from its Dark Age we are left empty-handed as to causal explanation. What sociological factors could we list that might explicate this spectacular phenomenon? Probably none. We need a new perspective altogether.

In our search for the causes of the Greek achievement, sometimes called the 'Greek Miracle', we are left with the impression of something uncaused in its suddenness of emergence, and also with the unsettling data of synchronous phenomena in several places at the same time. Even as the Greeks in a strange spontaneity emerged from their Archaic period to a moment of greatness, nearby, and in a strange simultaneity, the drama of the Israelites was playing itself out, as the epic of a Canaanite people, again almost a frontier culture, who inexplicably entered the world stage with the creation of a new monotheistic conception of religion, and a great literature, parallel to the Greek, documenting the stages of the emergence of this challenge to polytheism, and the religious heritage of civilization, outstanding since the Neolithic. We are coming to one of the most significant discoveries of modern historiography, that of the Axial Age.

1.2.3 Discovery of The Axial Age

Our search for causes is confronted with the phenomenon of the so-called Axial Age, a term invented by the philosopher Karl Jaspers who collated a whole series of observations of this phenomenon, as it came to be discovered in the nineteenth century. The discovery of the Axial Age is one of the great episodes in the more general drama of the archaeological revolution, whose most notable incident is perhaps the discovery of the Rosetta Stone by the army of Napoleon in its invasion of Egypt. The sudden opening to the mystery of ancient Egypt in the decipherment of its ancient hieroglyphics heralded the massive new findings of the nineteenth century. The at first less spectacular but in many ways as significant discovery of the Axial Age did not impinge on public consciousness until much later, and in fact has still not done so. From his *The Origin and Goal of History*, we have Karl Jaspers' observation:

The most extraordinary events are concentrated in this period. Confucius and Lao-tse were living in China, all the schools of Chinese philosophy came into being, including those of Mo-ti, Chuang-tse, Lieh-tsu and a host of others; India

produced the Upanishads and Buddha and, like China, ran the whole gamut of philosophical possibilities down to skepticism, to materialism, sophism and nihilism; in Iran Zarathustra taught a challenging view of the world as a struggle between good and evil; in Palestine the prophets made their appearance, from Elijah, by way of Isaiah and Jeremiah to Deutero-Isaiah; Greece witnessed the appearance of Homer, of the Philosophers—Parmenides, Heraclitus and Plato—of the tragedians, Thucydides and Archimedes. Everything implied by these names developed during these few centuries almost simultaneously in China, India, and the West, without any one of these regions knowing of the others.¹⁰

Our perception of the suddenness of the Greek transformation, and the parallel emergence of the prophetic age of the Israelites now finds its explanation, or rather a larger question in search of an explanation, in the realization that an entire spectrum of cultures across Eurasia in the period, as Jaspers depicts it, from -800 to -200.

Here simple periodization uncovers something spectacular, however we are to interpret the result. And yet this discovery has been almost orphaned by an inability to properly grasp what the evidence shows. Jaspers is not alone in his observations, which collate a whole series of such. Joseph Needham, in *Science and Civilization in China*, notes:

The close coincidence in date between the appearance of many of the great ethical and religious leaders has often been remarked upon: Confucius, c. -550; Gautama (Buddhism), c. -560; Zoroaster (if a historical personage), c. -600; Mahavira (Jainism), c. -560, and so on. But the Chhun Chhiu period was also contemporary with many important political events, such as the taking of Nineveh by the Medes in -612, the fall of Babylon to Cyrus in -538, and the invasion of the Punjab by Darius in -512, all examples of Iranian expansion. At the beginning of the Warring States period, the Greeks checked Iranian expansion westwards (-480), and the middle of the -5th century saw the erection of the Athenian Parthenon. The concluding stages of the Warring States time are contemporary with many outstanding events, such as the conquest of Alexander the Great (c. -327), the foundation of the Maurya dynasty in India and the beginning of the reign of Asoka (-300 and -274 respectively), and the Punic Wars in the Mediterranean (-250 to -150) which overlap with the first unification China under Chhin Shih Huang Ti. But the beginning of the Roman Empire (-31) does not take place until well into the Han dynasty.¹¹

These observations began earlier in the nineteenth century as global historiography began to force the issue of a multicultural perspective, and this entailing the need for synchronous study. The first philosopher of history to mention the Axial phenomenon would appear to be the little known Lasaulx (1856), who observes,

It cannot possibly be an accident that, six hundred years before Christ, Zarathustra in Persia, Gautama Buddha in India, Confucius in China, the prophets in Israel, King Numa in Rome and the first philosophers—Ionians, Dorians, Eleatics—in Hellas, all made their appearance pretty well simultaneously as reformers of the national religion.

A sense of something defying probability arises spontaneously as we notice this phenomenon. Victor Von Strauss (1870) notes,

During the centuries when Lao-tse and Confucius were living in China, a strange movement of the spirit passed through all civilized peoples. In Israel Jeremiaah, Habakkuk, Daniel and Ezekiel were prophesying and in a renewed generation (521-516) the second temple was erected in Jerusalem. Among the Greeks Thales was still living, Anaximander, Pythagoras, Heraclitus and Xenophanes appeared and Parmenides was born. In Persia an important reformation of Zarathustra's ancient teaching seems to have been carried through, and India produced Sakyamuni, the founder of Buddhism.¹²

We can now return to consider the Greeks, and note that many observations of the type collected by Jaspers exist for isolated instances of what we can see is connected to this 'Axial Age' phenomenon. Thus the philosopher Bertrand Russell opens his *A History of Western Philosophy* with an exclamation of wonder at this generative era:

In all history, nothing is so surprising or difficult to account for as the sudden rise of civilization in Greece. Much of what makes civilization had already existed in Egypt and Mesopotamia, and spread thence to neighboring countries. But certain elements had been lacking until the Greeks supplied them...What occurred was so astonishing that, until very recent times, men were content to gape and talk mystically about the Greek genius. It is possible, however, to understand the development of Greece in scientific terms, and it is well worthwhile doing so.¹³

We suddenly see the question of Greece in the larger context of the Axial Age, and to understand the question in scientific terms requires an objective look at a phenomenon that we had not suspected, where the occurrence of so many novelties in parallel seems at first inexplicable. In any case we are left with a question, is there a science of history?

The implications of the Axial Age have thus left its study stranded in a kind of limbo, as the phenomenon has tended to drift into misinterpretation. Karl Jaspers, in a curious blend of the religious and the secular, brought a carefully balanced sense of the philosophy of history to his depiction of the question, but many in his wake have tended to see a kind of generalized 'age of revelation' in which the issue of religion is given center stage. And this has tended to scare away serious students of the subject. But if we examine the data of the Axial Age more closely we discover to our surprise that it is more than just an historical garlanding of sages and prophets. If we zoom in more closely we discover to our astonishment that these sages and prophets are merely the tip of an iceberg, that the Axial phenomenon encompasses an entire social transformation in place of an entire stream of culture. And we soon see that the question of religion is only one aspect of the mystery. For as the remark of Bertrand Russell suggests the case of Greece comes to the fore in the synchronous emergence in parallel of multiple Axial exemplars, and leaves as its clearest case the spectacle of secularism at the point of its birth in world history.

As we examine the Axial Age in its breadth we are confronted with the difficult question of arriving at the history behind each of its exemplars. Thus the history of India

behind and leading up to the remarkable era from the appearance of the Upanishads to the birth of Buddhism is difficult to reconstruct. And yet the basic outline of the Axial phenomenon is clear. And the question of what is historical in the Old Testament at first bedevils any simple account of the birth of that remarkable document. China, in turn, while it clearly echoes its parallel cousins, confronts us again with a confusing picture of the period in question. Ironically, then, despite the hopes of religionists for some secular version of the idea of an 'age of revelation', the clearest example given to us, the period of the Greek Archaic onward, shows us in detail something quite different, and in many ways far more remarkable: a kind of evolutionary leap or jump to a higher level of civilization, one very well balanced between all the categories of culture.

The notion of the era of Classical Greece as the birth of the secular would at first seem paradoxical. We need not press the point save to note that the birth of philosophy as a critical consciousness sows the seeds of rationalism for the first time. In fact, a balanced view is essential, for the essence of the Greek phenomenon could as well be argued as the last flowering of a strange form of political polytheism, and we should be wary of assigning a modernist label to what we see. But the gestation of philosophical tradition in Greece shows us the first birth of the Enlightenment, as it were, along with the first birth of science, the first Scientific Revolution millennia before the one that centers the transformation to the modern world in the sixteenth and seventeenth centuries. The point here is that the Axial phenomenon is clearly connected to a larger set of categories than the merely religious, a point that is clearly indicated in Jaspers' original description, although he is struggling in the text of his work on the subject to remain without his theological boundaries, and yet to see that something larger is at work than the legacy of Christian historicism. Axial Age Greece was a multidimensional masterpiece whose legacy has ultimately transformed world civilization.

As we look beyond the pointillistic sprinkling of great minds in the Axial interval and examine the question of what happened to the culture as a whole we begin to see that there is a kind of transition in a cultural totality leading to a new and more advanced stage of civilization. The Greek phenomenon thus crystallizes as new cultural substrate in its Dark Age, then begins a kind of take-off in the Archaic period beginning in the eighth and ninth centuries. We see a field of city-states emerge in a spectrum of political experiments, as dramas of class struggle and republicanism yield finally to the first great democracy in world history in the case of Athens. Pervading this general tide of sociological rebirth is the manifold of cultural achievements that we associate with the classical era, from the creation of the Homeric epics from an oral tradition, with a great flowering of poetic art climaxing in the birth of the Greek tragic genre. We see the birth of philosophy, and science, and, indeed, the birth of historiography in the works of Herodotus and Thucydides, and others. The entire account of the Greek achievement here is then something far larger than the individuals that make it up and constitutes a kind of eerie time-slice of creative upheaval, one as remarkable in swiftly coming to a close as in the suddenness of its arising.

In fact the dates suggested by Jaspers for his 'Axial Age', -800 to -200 seem overly generous, for we can see, if we take the example of Greece as a defining instance, that the interval of great innovations is essentially over by -400, and that the onset of the Hellenistic period is of a quite different character. This is clear from the way the great

experiment in democracy yields to the resurgence of empire in the conquests of Alexander the Great whose legacy is to create a larger oikoumene into which the achievements of Greek civilization diffuse. We thus are confronted with an interval of the Greek Axial Age that almost suggests a kind of ‘punctuated equilibrium’, to use the phrase of the evolutionists, for we can almost clock the ‘punctuation’ in the brief period from the late ninth century to the generation of Plato and Aristotle, followed swiftly by the seeming ‘equilibrium’ period in its wake as history seems to resume its less spectacular course.

While many who have attempted to grapple with Jaspers’ framework of an Axial Age have narrowed their focus to the issue of religion, we can begin to suspect, to the contrary, that the case of Greece suggests something broader. And if we take to heart the case of Archaic Greece, and look at the emergence of Israel, we begin to see an analogous period of social transformation that just so happened to produce the seeds of what was later to become a series of monotheistic religions. It is important to see that the history of Israel in the Axial period at least is that of a Canaanite culture and its passage through an age of empires, as it creates an epic literature of itself, and leaves this in its wake, as a set of seeds that will, as with the case of Greece, diffuse into a larger oikoumene. We can begin to see the structural similarity between the two histories, and to notice what is most surprising, the way in which whole literatures seem to come into existence in a strange timing, that of the Axial Age itself.

Later we can attempt to grapple with the parallel histories in India and China, but already we seem to have a basic clue: the general stream of historical emergence is punctuated with a set of innovations that pass into the larger field of history to influence a later oikoumene. The effect is obvious in both China and India, where a close look might also resolve the two harsh contrast between the religious and the secular. For the effect as a whole shows clearly the way in which categories are fluid, as philosophy becomes religion, and religion becomes politics, and politics becomes ‘sacred’. From Confucius to the prophets of Israel, to the philosophers of Greece and India, we sense of continuous spectrum of realization that is in a most spectacular display of historical dynamics producing a new whole new epoch of civilization in its wake, as this takes the form of a series of reborn ‘civilizations’.

1.2.4 The Rise of the Modern: A Second Axial Age?

Almost as remarkable as the sudden onset of the Axial Age is its sudden waning and the return of what we should almost call ‘history as usual’. There is something odd about it. The world against which the Axial phenomenon reacts was itself a kind of middle age. And the succession to the Axial period is another. We are left to wonder what the significance of the Axial Age might be. And most of all we are confronted with a question of dynamics. And we are confronted with something unlikely: the uniqueness of this period. Jaspers’ use of the term ‘axial’ is ambiguous in that respect. It seems to point to a unique period in history, a pivot point. But a larger look at world history suggests something quite different, a succession of ‘axial’ periods. We have but to zoom out to see that a very simple pattern is at work in the progression of civilizations since the Neolithic.

Jaspers himself attempts to generalize his finding, but is obstructed by the issue of 'civilizations'. And his examination of modernity is on the threshold of discovering a 'second axial age', but is thrown off the scent by the confusions of secularism.

It is odd at first to consider the solution to be a frequency hypothesis, but, whatever the case, the basic facts speak for themselves: the Axial Age is part of a larger sequential structure. We should start moving in two directions, backward toward the Neolithic and forward toward the present. The 'axial' character of modernity is often noticed. Thus Bruce Mazlish observes, "The German philosopher Karl Jaspers has spoken of the periods when the great religions arose as 'axial periods'. At such times, there is a 'revolution' in the conditions of human existence and society turns on its axis."¹⁴

Postmodern riddle explained? All at once, if we can trust the analogy, we see why the sense of a 'postmodern' age arises: it is not the decline of a civilization, but the waning of an impetus, clearly visible after the Axial interval, that mimics 'decline'. Our postmodern confusion is a similar reaction to the immense impetus of the rise of the modern.

We should begin to backtrack to find the 'axial' before the 'Axial'. Joseph Campbell finds an axial period at the dawn of Sumer. The Sumerian source is easy to underestimate. It looks primitive to us now, but its immediacy of creative surging gives birth to 'real civilization' in the odd 'early hybrid modern' where the village passes to the large city-complex. Its effect must have been as seminal as the later Greek transitional era to those who received its influences. It is as if everything was invented all at once, in embryo, to constitute the root-ideas of coming civilization. Thus,

In the epoch of the hieratic city-state (3500-2500 B.C.), the basic cultural traits of all the high civilizations that have flourished since (writing, the wheel, the calendar, mathematics, royalty, priest craft, a system of taxation, bookkeeping, etc.) suddenly appear, prehistory ends, and the literate era dawns. The whole city now, and not simply the temple compound, is conceived of as an imitation on earth of the cosmic order, while a highly differentiated, complexly organized society of specialist, comprising priestly, warrior, merchant, and peasant classes, is found governing all its secular as well as specifically religious affairs according to an astronomically inspired mathematical conception of a sort of magical consonance uniting in perfect harmony the universe.¹⁵

We note the obvious similarity of this statement to Jaspers' observation of the later 'Axial' Age. Describing the swift transition from the era of earliest Egypt, Michael Hoffman, in *Predynastic Egypt*, is driven in some puzzlement to adopt the economic take-off idea of the economist W. W. Rostow as a metaphor to account for the sudden change that produces the unification of Upper and Lower Egypt under the Pharaoh Menes:

The immediate archaeological problem in explaining the cultural identity of Menes and his state is to account for the sudden embarrassment of riches that characterizes the material culture of Egypt between the Late Gerzean (ca. 3300 BC) and Archaic period (ca. 3100-2700 BC) in terms of a sophisticated, multifaceted explanation. Professor Renfrew borrows the term 'take-off point'

from the economist Walter Rostow to characterize the rise of civilization and the proliferation of certain types of artifacts. Over the years a number of propensities develop within a social system, which predisposes it to a really major transformation. When that transformation does occur, it is so thorough as to convey the impression of crossing a critical threshold.¹⁶

Remarkable, to say the least. What about Mesopotamia? In *Prehistoric Europe*, Philip Van Doren Stern wrestles explicitly with the evolution/revolution paradox and observes the sudden jump to the first level of civilization in the first hydraulic world of Mesopotamia as it emerged from its mysterious roots of it in the era of the so-called Ubaid and before:

Something happened in Sumer during the fifth millennium B.C., when all the rest of the world was still so primitive that the Sumerians had to make their own way. The initial stages proceeded slowly for a thousand years or more, and then, during the five centuries between 3300 and 2800 B.C., culture accelerated so rapidly that in this brief time villages became cities and cities grew into city-states...Roux[Georges Roux, *Ancient Iraq*, London. 1964,] merely says of this extraordinarily rapid cultural development in Sumer that 'a close examination reveals no drastic changes in social organization, no real break in architectural or in religious traditions. We are confronted here, not with sudden revolution, but with the final term of an evolution which had started in Mesopotamia itself several centuries before.' Perhaps. But perhaps he is applying our modern time scale to an age when centuries were equivalent to our decades. For a village to become a city in a few hundred years when there had never been a city anywhere before, is, to put it mildly, something more than ordinary evolution.¹⁷

Again, remarkable. And this statement suggests we can keep on going backward to find a still earlier case, but for the moment we have discovered something very simple, and a resolution, to some extent, of the riddle of the Axial Age, it is but one in a series. There is one last piece to our puzzle, the rise of the modern. Having moved backwards toward the beginning of civilization, we can move forward from the Axial period.

The sudden waning of the Axial effect, as we have noted, is dramatic. By -200 the Axial phenomenon is clearly over, and the onset of empire seems like a rush into a vacuum, to replace a brief period of republican experiments. The onset of the Hellenistic world of empire is almost a return to the world whence the Greek experiment hopes to escape. In the case of Greece the period of spectacular achievements is over as the Hellenistic, soon yielding to the Roman world ushers in the age of great empires. It is interesting to consider the cognate relation of the Greeks and the Romans, and to consider that the early appearance of Rome and its republic is really a part of the Greek phenomenon. As we study the Greeks we note the way in which their common culture was a function of language and custom, and that this was in turn a medium binding a set of city states and their colonies across the Mediterranean, including the southern part of Italy. Was not Rome, in a sense, a child of that nexus of all things Greek, as the diffusion of ideas and the vague sense of a new age animated those in the immediate field of Hellenic influence?

Thus, the emergence of Republican Rome is really still another branch of our far-flung Axial Age, and the appearance of the Roman Republic is the cousin to the surge of

republican experiments in the age of Greek political innovations, and the uniquely prophetic creation of the world's first democracy in Greece. There is something significant in the brevity of the Athenian experiment, and the endurance of the Roman. The Athenians will leave a hope for the future, not to be realized until millennia later, in the rise of the modern world. The Romans will carry the issue in its sturdy republican form until the onset of its imperial phases precipitates finally the breakdown of its phase in Axial swaddling clothes and the age of the Caesars begins, enduring all the way into the medieval period.

There is something odd about our use of the term 'middle ages'. We spontaneously consider that the era after the fall of Rome is the middle of something. In fact, it is in the middle between the Axial Age, as a boundary point, with its associated Roman continuation, and the rise of the modern world millennia later. This 'medieval period' suffers a charge against its reputation in our minds, then, one frequently protested by various parties to its defense, in the way we see it as in some fashion not up to the standard of either its Axial beginning point or its modern recurrence. Whether this downplaying of the medieval interval is fair or not, the fact remains that our very terminology reflects a larger pattern of history, and on a scale that goes far toward explaining why a pattern of overall coherence is hard for us to detect. For until the rise of modern archaeology the beginnings of our traditions seemed to be those visible in the Axial period. The intimations of unknown earlier acts of the play are seen in the unexplained appearance in Biblical history of the Egyptians, or Assyrians, lurking in the background as remnants of some unknown world thought to be passing away.

This effect of relative beginning in what we have dubbed the 'Axial Age' seems then to suggest a complete unit, of 'punctuation' and the 'equilibrium' that follows in its middle period, until what is apparently another punctuation occurs, and this we call the rise of the modern world. We are getting suspicious. If the Axial Age is a kind of new beginning inside a larger history, its uniqueness would seem to have been the result of our lack of knowledge of earlier civilizations. But this lack of knowledge about the earlier stages of civilization is no longer the case: the rise of archaeology has shown us the antecedents for the mysterious Assyrians and Egyptians who appear in the Biblical text. And as we proceed backwards we are left to wonder if some antecedent 'Axial' period is not visible in the historical image crystallizing in archaeological fixer. We already know the answer, if indeed we are aware of any of the findings of modern archaeology, which show us the so-called rise of civilization at the end of the fourth millennium in strangely synchronous emergence of Egyptian and Sumerian civilizations. Strange to say, we can even produce a rough interval between these moments, of just over two millennia.

The dynamism of the Axial period, its seminal creativity, seems to fret an entire an entire cycle of civilizations, and is unmatched by anything until the rise of the modern world. What is remarkable is the loss of so many of the innovations of the Axial period, a notable example being the birth of science, and its slow passing away with time, such that by time of the medieval period, in the Christian West, its birth among the Greeks is almost a forgotten memory. Its partial survival in the world of Islam is like an ember fire carried across time.

And then suddenly in the sixteenth century we see once again, almost like a timed renewal, what is in many ways a recursion of many of the innovations of the Axial period, with some important differences. The parallel transformations of the Protestant Reformation and the Scientific Revolution, Copernicus and Luther, stand at the threshold of the modern transformation leading to the rough point, around 1800, when a transition to a new era seems complete, and a new age begins, at the threshold of globalization. The phenomenon of the rise of modernity is the object of many theories and controversies, but the basic observations of the phenomenon resemble the exclamations we find with the Axial Age.

There is a mysterious seminal generation springing from the period ca. 1500, indicated by the onset of the Reformation. Over and over our sense of historical modernism draws us to this point of the so-called 'early modern', and into a controversy or equivocation over its significance as one of the great turning points of history. Relative to world history, progress explodes in the sixteenth century, despite the puzzle over the Renaissance. The abrupt start after 1500 is constantly suggested and then challenged or retracted because its proponents cannot account for it, or sort out the fact that a discontinuity might interrupt prior continuity.

This sudden change in direction is reflected in the puzzled observations of a host of historians. J. M. Roberts in his *History of the World* opens by noting, "After 1500 or so, there are many signs that a new age of world history is beginning...". William MacNeill, in his *The Rise of the West*, calls the career of Western civilization since 1500 a vast explosion. Geoffrey Barraclough, in *Turning Points in World History*, notes the remark of Paul Valery that Europe is a 'peninsula of Asia', a western appendix of the Eurasian land mass, and asks, "How was it that this western appendix came to be in a position to exercise this power, this domination over the greater part of the world?" He cites the factors of technological and scientific proficiency, the revolution in transport and communications, that 'caused' this brief hegemony, but in a manner typical of historians stumbling over the eonic effect is driven to note, "So much, I think, is obvious; but it tells us very little".¹⁸

Marshall Hodgson, in *The Venture of Islam*, speaks of the Western Transmutation, 1600 to 1800, and sees the connection with the earlier period, generated from Sumer, but his analysis focuses on the history of technology, and fast-forwards to exclude the Reformation.

What happened can be compared with the first advent several thousand years BC of that combination, among the dominant elements of certain societies, of urban living, literacy, and generally complex social and cultural organization, which we call civilization.¹⁹

Jacques Barzun in *From Dawn to Decadence* asks, "Granted for the sake of argument that 'our culture' may be ending, why the slice of 500 years [from 1500 to the present]? What makes it a unity? The starting date 1500 follows usage: textbooks from time immemorial have called it the beginning of the Modern Era." There is no implication of decline or decadence after the interval of transition, since a new era has come into being. The conclusion of the eonic sequence should be great new beginning.²⁰

This sudden take-off (relative to world history) has always been intractable for students of the question, and driven historical sociology into a frenzy of Renaissance resurrections, dialectical Big Bumps, Marxist social stages, Weberian econo-religious explanations, or the 'European Miracle of the historian E. L. Jones.'²¹

As noted, the periodization question of the 'rise of modern' has many casualties in the realm of theories. Three sets of failed theories deal with these eras in isolation, those of the rise of the modern, the birth of civilization, and, to the extent they exist at all, efforts to explain the Axial period, along with the whole spectrum of interpretations of the classical civilizations, to say nothing of explaining the history indicated in the Old Testament. Without exception these theories have all failed. Suddenly we realize they are really all asking a similar set of questions about an invariant puzzle. The question of the 'modern' remains baffling until we see it in its greater context. Then the remarkable resemblance of the rise of the modern to the Axial interval, and especially Greek Archaic appears.

We are closing in on a pattern of universal history, at once simple, and mysterious, and clearly showing us the principle of coherence we were seeking in our perception of world history. And we are close to the resolution of the riddle of modernity, and to a perspective on the way it might suddenly show chaotification. We seem to be, not in the stages of the postmodern, but in the early stages of a great new era of world history, after passing through the transitional period of its onset. And as we explore this larger framework we can attempt to redefine the modern in a fashion more conducive to the needs of our future, beyond the domination of economic fundamentalism, or the imposition of false views of evolution on the outcome of something larger than Social Darwinist paranoia and environmental degradation. We begin to see the clue to better resolution than the return to traditionalism.

Democratic Revolutions One of the most mysterious aspects of our new perspective is the double birth of democracy, in classical Greece and the modern transition. This exact correlation is one of the most remarkable discoveries of careful periodization, and leaves us to wonder what it means.

As we examine this 'ratchet effect', the pattern confuses us because it does not follow the course of a single civilization, but jumps between civilizations as it proceeds. The question of the rise of the modern world also shows the displacement of change beyond the frontiers of the old Roman Empire into those parts of Europe that were only marginally a part of the ancient Roman system. We observe the Reformation, and see a religious phenomenon, but we might look beyond religion to see the opening of a new field of culture free from and at the exterior to the system of antiquity. In fact, we begin to sense another instance of the frontier phenomenon that we noted in the Greek Axial Age. This is in many ways the signature of this age of renewal, as it expands beyond the framework of antiquity, first to Northern Europe, thence to the Americas, and beyond. We must begin to wonder if the phenomenon we are trying to understand is not a globalization process more than a phenomenon of civilizations.

Our sense of modernity has been confounded by a false Eurocentrism, but we can begin to see beyond that. The constant references to 'Western Civilization', or the 'West', or the Judaeo-Christian heritage, in a series of Eurocentric terms, blinds us to the reality, which is that the rise of the modern is not a European phenomenon, as such, and finds its

field of realization almost sooner in its exterior than in its homeland. The obvious picture left by history here is the temporal correlation of the spread of European, we should rather say, Eurasian, civilization to the Americas. It is hardly accidental that the North American colonies beginning in the seventeenth century already show the seeds sown by the English Civil War that will grow later in the classic harbinger of a new era dawning, the American Revolution.

There is obvious something larger than Europe then in the modern transformation and the result is the birth as much of a new global civilization as the passage of a cultural particularity called the European. The same interval of sudden change, followed by the creation of an oikoumene in the diffusion from a source, is visible in the modern world as it was in the Axial Age of Greeks. And a comparison of the two leaves us with a set of unanswered questions about the nature of historical change, and the more general issue of slow or fast evolution. We seem to see, or think we see, the slow evolution of modernity from a medieval world. But it resembles very closely the Greek Axial interval, and there we were left hanging with such explanations. There wasn't anything at all slow about the Greek Miracle. In a few centuries it emerged from nothing, flowered in spectacular fashion, and was done. The sense of a resemblance with the modern transformation begins to suggest a new and different kind of explanation for the rise of the world we have inherited from the early moderns.

1.3 A Riddle Resolved: The Eonic Effect

Our snapshot of world history has uncovered almost without trying the presence of a non-random pattern of universal history by simple inspection. This pattern of self-organization can give us an empirical basis for considering the questions of human evolution. Instead of speculative theories like Darwinism we can discover a sense of universal history, thence evolution, purely empirically. To sure, 'facts' are seen from a particular perspective, but this doesn't alter the basic finding.

Our suspicion is confirmed that high-speed change can occur on the scale of just a few centuries, witness the Axial Age. And this effect shows us that evolution is hiding behind history in the form of a series of intervals of rapid emergence. World history yields its secret to simple periodization and shows from the invention of writing a clear developmental sequence, with a question mark about its probable source in the period of the Neolithic, the natural starting point for the rise of civilization. The great clue of the Axial Age suddenly provided the gestalt of a larger system at work. The Israelites were right, there is a process of greater evolutionary dynamism that frets the universal history of man.

The Eonic Effect: the hidden structure in world history We can call that sequence of three transitions and the epochs in between them the 'eonic effect', as a sequence of three epochs, and note the way that this pattern suggests 'evolution' at work, 'evolution of some kind'. It is at first illogical, it seems, to confound evolution and history. But with a little reflection we will see, first, that the two must be logically connected, and, second, that the data we are

discovering directly confirms that logic. This evolutionary sequence is a robust empirical foundation for understanding world history, in the context of evolution.

The relationship of evolution to history must resolve a paradox. The passage between the two could not take place instantaneously. It might show a series of transitional intervals that are evolutionary from one perspective and historical from another. But that is just what we are seeing: a series of 'axial intervals' or transitions that express a kind of evolutionary advance, and the epochs in between them that seem to express the historical carrying out or fulfillment of those transitions. What is remarkable is that we see this in historical times, and in a fashion documented by the rise of the technology of writing. It is futile to say that evolution must be purely genetic, since we can see that the 'evolution' of civilization is something more.

We have the first glimpse into the nature of human evolution: it is a larger process than the purely genetic development of the human organism. And we can see its last stages in the emergence of civilization. There are many more things to consider here as we proceed, but we have the basic insight into how we can revise our views of the meaning of evolution.

2. THE EVOLUTION CONTROVERSY

2.1 The Legacy of Darwinism

At a time when theories of evolution are under renewed controversy, discussion is hampered by the remoteness of the phenomenon of evolution, and the use of indirect inference to speculate about deep time. In the face of much criticism from religious Creationists, now accompanied by the Intelligent Design movement, adherents of Darwinism forever defend a flawed theory that has been challenged from its first appearance. The objections of the first reviewers of Darwin's book, indeed even of T. H. Huxley, the original champion of the theory, were never quite answered in the tide of paradigm change that swept modern culture. The perennial issue is natural selection as the mechanism of evolution. The assumption that evolution occurs, and must occur, at random is the crux of the dispute, one unreasonably confused by the claims of religion versus science.²²

The rise of molecular biology shows a complexity of structure that cannot easily survive statistical challenges to claims of random emergence. The new genetics and the emergence of developmental biology have exposed the limits of Darwin's original theory, in the remarkable findings of complex biochemical systems and evo-devo. Therefore the critics, whatever the public pronouncements of Darwinists, have essentially won the debate, and retabed the views of many of Darwin's predecessors at the birth of embryology in the generation before *Origin*. We might proceed on that basis, beyond the distracting cultural politics of evolutionary theories, which now sees the resurfacing of

²²Chapter 2

[?] Ernst Mayr, *One Long Argument: Charles Darwin and the Genesis of Modern Evolutionary Thought* (Cambridge: Harvard University Press, 1991), F. Hoyle & N. Wickramasinghe, *Evolution From Space* (London: Dent, 1981), Robert Reid, *Evolutionary Theory, The Unfinished Synthesis* (New York: Cornell, 1985), Robert Wesson, *Beyond Natural Selection* (Cambridge: MIT, 1991), Michael Denton, *Evolution: A Theory in Crisis* (New York: Adler & Adler, 1985), William Dembski, *No Free Lunch* (New York: Rowman & Littlefield, 2002), Lee Spetner, *Not By Chance* (New York: Judaica Press, 1998), Robert Behe, *Darwin's Black Box* (New York: Free Press, 1996), Stuart Kauffman, *At Home in the Universe* (New York: Oxford University Press, 1995), Johnjoe McFadden, *Quantum Evolution* (New York: Norton, 2002).

A useful critical history of Darwinism can be found in Soren Lovtrup, *Darwinism: Refutation of a Myth* (New York: Croom Helm, 1987). Lovtrup notes, "I believe that one day the Darwinian myth will be ranked the greatest deceit in the history of science. When this happens many people will pose the question: How did this ever happen?" Soren Lovtrup, *Darwinism: Refutation of a Myth*, p. 422.

the design theology of the generation of Paley. Nothing in the methodology of science requires us to accept the claims of natural selection as established.

The Developmental Perspective Although the findings of so-called ‘evo-devo’ have already been grafted onto the mythology of natural selection, they raise the question of developmental interpretations of evolution, thence of natural teleology. As we examine world history in light of the eonic effect a developmental sequence unconnected with genetics emerges with a demonstration of evolutionary directionality visible as macroevolution over five millennia. The representation of teleology as intermittent directionality suddenly gives meaning to the idea of ‘punctuated equilibrium’. World history has its own ‘evo-devo’, with no connection to genetics.

The new developmental perspective, although essentially genetic, strengthens once again our suspicion of processes that go beyond the selectionist account. The problem is one of observation. Evolution at close range is very difficult to observe. Darwinism applies a universal generalization to unseen events and claims in advance of demonstration that natural selection is the mechanism, frequently on the basis of no observations at all. As if Newton’s second law were taken forth from physics, Darwinism assumes no differential transformations at short intervals are to be found in the immense interstices of time they take for granted. Was this a theory or the absence of one? ²³

The Limits of Observation Claims for natural selection are all too conveniently pressed into service to cover over the absence of close-range empirical data, and drive out considerations of real evolution, which might be difficult to observe. This certainly holds true for human evolution, whatever the case for earlier eras of evolution. If we discover high-speed macro processes in history that can produce totalized cultural transformations at the level of centuries and less, witness the Axial Age, the Darwinian focus on selectionism is up in the air at once. The true record of real evolution may have been lost altogether. The observational standard for the Axial Age, a sub-pattern of the eonic effect, is that of centuries or less.

Secular thought is stuck in theoretical quicksand, harried between archaic religious teleologies, or the argument by design, and misapplied models of physical reductionism. Issues of philosophic history, the ideological tangle of nineteenth century evolutionism, and the struggle for scientific objectivity as value neutrality, move to becloud even further all hopes of resolving the ambiguity of evolutionary theories. The difficulty lies in the confusion over conceptions of physical or natural law, applied to the biological domain, in the search for universally valid generalizations. The entire realm of social theory from historiography to politics and sociology is poorly informed by the scientific literature, and is caught up in a biased discourse filled with subtle confusion, if not outright disinformation.

The presentation of the ‘scientific’ case on evolution is consistently rigged to show what it does not and cannot show, and then applied aggressively as a standard to the reductionist destruction of views the current regime of science wishes to decree out of existence. Darwin’s theory is taken as established far in advance of the evidence offered, and yet one increasingly suspects it is wildly off the mark as to the descent of man. With remarkable overconfidence, the theory of natural selection is claimed as the talisman of

universal explanation, to resolve all the mysteries of metaphysics. What is strange is the tenacity of easily challenged assumptions, and that only fundamentalist religious groups seem aware of the issues or able to challenge them.

These groups are now joined by an immense proliferation of New Age movements, correctly suspicious that an entire dimension of man has been amputated from consideration by a technocratic redefinition. Darwinists have too long enjoyed the misleading luxury of debating fundamentalism, which throws everything into confusion. Reductionist radicalism seems bent on the elimination of the entire evolutionary psychology of man known for millennia. In fact, still another set of fallacies is emerging under the category of 'spiritual evolution', with highly metaphysical mythologies promoted in the propaganda for guruism. But such traditions remind us the issues are wrongly posed between theists and scientific reductionists. And 'evolutionary naturalism' has another history there, which doesn't fit into the 'secular-sacred' rubric emerging from the collision of science with monotheism.

The basic issue is that no one is under a truly scientific obligation, to take Darwin's theory of natural selection as established, or grounds for the blanket revision of all views of man and culture. Back to square one: an operational hypothesis. Most importantly, this is not the same as denying the 'fact' of evolution. But what are the facts pertaining to the descent of man? We have a very weak empirical record here. Darwin's oversimplification succeeded as a bestseller, but a host of critics realized almost at once a problem with the basic claims. And we now have the Darwin book market where the calculation of dissent on sales causes amusingly undisguised Darwin prostration. This drives out clear exposition of the facts. New findings are disguised behind Darwin eulogies. Contradictory issues are finessed in double talk.

Nearly upstaged by Alfred Wallace, Darwin rushed into print, breaking the long delay in making his views public, all too obviously obsessed, despite his clear doubts, with the need to seize his last chance for priority, and none too sure his theory really held up. Publicity now, doubts later, is the unconscious tactic of the author. Fudging doubts is evident in the later editions of the text. The fact of evolution was already an established claim, one needed that theory, credo-specific and general issue for the troops, to consolidate one's name, 'my theory'. Forever after we are beholden to this bizarre moment, and its displacement of Wallace. And Wallace, to the permanent embarrassment of the iconic founder, had the intelligence and honesty to see the limits of selectionist explanation applied to the descent of man.²⁴

The Neo-Darwinian Synthesis is the second round of these tactics. By the end of the nineteenth century Darwinism was almost in eclipse, until the rise of the Mendelism, followed by the new mathematical population genetics. The models used here are of interest in their own right, but hardly constitute a foundational theory. The appearance of scientific rigor in population genetics tends to confuse the issue all over again in the claims for these useful but limited models the educated public tends to take on faith, reserving judgment to experts. This added complexity, based on random variation and genetic drift, is the new cover for the old universal claims. Sometimes random variation is paired with non-random natural selection to produce directionality, but this is misleading, and not the same as non-random evolution. We are to suppose without proof

that this theory explains human consciousness, language, and morality, and much else. The theory is so heavily promoted we forget how implausible its extensions are.²⁵

In the realm of physics the use of mathematics is a triumph, but in the realm of biology it might be under suspicion at once for a failure to model a qualitative aspect. Bogus models have long since been critiqued in mathematical economics, but Neo-Darwinian theory seems exempt. A population of organisms over time is an immensely complex system, one that can defy intuition. The observation of such a stream is very difficult. To claim that the evolution of such an entity is fully explained by random variation and natural selection without a closely tracked dataset is simply gross extrapolation, leaving one puzzled by the violation of correct procedure in such a simplistic reductionism. Such a theory is of the same order of difficulty as a science of history where these population streams are clearly visible. Here the encounter with historical fact enforces a reality check, and demonstrates at once systems of far greater complexity than anything dreamed of by current science. Is this a foundational science, like Newton's physics? Is natural selection a 'force', or the lack of one, in a foundational theory?

We should note that the realm of population genetics is not of the same character as basic physics. And here manipulations of the formalism of theory are no guarantee of correct foundations. No amount of technical knowledge can easily resolve the ambiguity because it requires a gestalt change with respect to reductionist thinking and a new basic methodology, with an understanding different from that found in the calculations of numerical models. The acumen of many of the most intelligent technical experts has been crippled by wrong education. And the fringes of knowledge do not easily produce the ombudsmen required to sort through the fallacies of expert delusion.

In general, scientists tend to assume that the spectacular successes of mathematical physics (and the heroic episodes of the Galileo in the drama of secularization) will be repeated in all fields. Yet this expectation has not been born out by the facts, which record a very poor showing for science in the realm of the psychological and the social sciences. Science has not achieved any of its theoretical objectives in any of the human sciences. The rote Darwinization of all domains results over and over in a species of shoddy pseudo-science. In fact, this confusion is nothing new, and we already see the reaction at the end of the eighteenth century. The attempts to define the interaction of the human and natural sciences has a rich tradition, one now almost forgotten in the short memory of resurgent positivistic science. Over and over Darwinism is given as the justification to invade the social sciences, and yet the claims are a promissory note based on a demonstrably inadequate theory.

The stubborn persistence of the Darwin debate is therefore no mystery, and is not the result of Creationist conspiracy. The rise of Darwinism has produced a false view of man, we see the long-predicted limits of the modern scientific worldview. It is easy, in the case of Darwinism, to see this if we explore the limits of theory, for example, in the realm of ethics or aesthetics. Beyond that lies the immense realm of 'potential man' clearly recorded in traditions such as those of the classic Buddhist sutras. Hardly a single reference to such discourse occurs, or is allowed, in scientific literature, a clear sign of institutional agenda. Adaptationist scenarios of the Darwinian type must endure a reality check here, yet the illusion induced by the all-explanatory theory is so ingrained none see

the discordance as even odd. The claim by narrowly specialized scientists to a methodology that can pass judgment on all questions, sight unseen, in a hierarchy of credentialed expertise has become a strategy of social domination enforcing a worldview that most are forced to disregard in private and assent to in public.

In a nutshell, there is, as yet, no methodologically sound basis for a theory of evolution. That's a surprising statement, but the point will become obvious as we look at the gray area between history and evolution. We should recall the reservations of Kant, as to the hope 'that one day there would arise a second Newton who would make intelligible the production of a single blade of grass in accordance with the laws of nature the mutual relations of which were not arranged by some intention'. Darwin's theory, at least, does not resolve such doubt.²⁶

The Metaphysics of Evolution The philosophy of Kant offers a useful benchmark for the examination of evolutionary theories as these impinge on the intractable issues of metaphysics. Questions, he warns, of god, soul or self, and free will are destined to exhibit antinomies that will haunt any universal generalization. We have the Darwin debate in a nutshell, and can see at once that Darwinian natural selection, used as the universal talisman of metaphysical reduction, presumes judgment on unobserved totalities, and is troubled on each of these questions. Questions of divinity founder in the design debate, of soul in the basic definition of self and organism, and free will in the attempts to reduce moral action to the mechanization of adaptationism. Current biology lacks so much as a basic definition of the organism.

A clue to the problem lies in the failure to produce a science of history, where the facts are visible, even as Darwinists claim a science of evolution, where the facts are not visible. And at what point do we divide history from evolution? This situation is altogether odd, and we left suspicious Darwinism is failing a photo finish test. Not a single hard result has ever been achieved for a science of history. That should make us suspicious of Darwinian claims at the onset. We indulge in far too much idle talk about evolutionary theory in the abstract. These discussions are impoverished, but brilliant sounding speculations about something we never observe. It's time to take a long, slow motion look at the one good data set that we have, world history. We will soon be cured of Darwinian fantasies. The scale of evolution is tremendous. Even the record of world history, five thousand years over the whole surface of a planet, is nothing compared to deep time. That is a reality check. We see at once the fallacy of throwing generalizations at such a complex system. It is primitive behavior.

Is There a Science of History? The question of a science of history generates a contradiction that the Darwinian framework never addresses. The question is at the core of a Kantian critique of metaphysics and demands a way to reconcile the so-called antinomy of freedom and causality.

Looking at history we can easily show where Darwinian theory is going wrong. The relationship of history and evolution creates a paradox, and placing the two in conjunction allows us to infer something about earlier evolution. The quest for a science of history is now beginning to overflow from Darwinian confusion as a reductionist tactic for the social sciences in the claims of sociobiologists, ambitious to dismiss all other forms of discourse. It seems like a welcome mistake, a foolhardy gesture we can applaud!

Just at that point we do have facts, facts that can stop Darwinist thinking in its tracks, and in the process discipline the current confusions.

2.1.1 Debates and Darwin Trials

The Darwin debate has assumed a new form in the so-called Intelligent Design movement, which has resurrected the world of Paley, and the obsessive dialectic of theists and atheists heats up once again. Associated with, but preceding the Intelligent Design movement is critique of Darwinism, *Darwin on Trial*, by the lawyer Philip Johnson, in an effort, influenced by Michael Denton's *Evolution: A Theory In Crisis*, to look closely at the difficulties with Darwin's theory, without the confusions of the design argument yet infiltrating the discussion. We seem almost back in the world of Mivart, one of the first religious critics of Darwin. Reviews of Darwinism by lawyers seem a new genre, beginning with Norman Macbeth's *Darwin Retried*. Johnson's arguments are cogent, and reflect the right of any group confronted with implied non-existence in the name of modernism to hire itself a good lawyer. The problem with lawyers is that you need two of them, one for each side. We cannot forget the political context of the debate, in the midst of the American political polarization between liberal and conservative factions.

Johnson also launches a campaign against scientific naturalism. In some sense, he is right. The much-heralded 'naturalistic explanation' remains almost an impostor, if its definition cannot state the limits of nature. This issue is almost irresolvable given the shifting foundations of physics, in the complexities of this 'nature', the gaps in our knowledge, and the tenacity of claims of the sacred against the secular. Between Spinoza, Kant, Hume, and Hegel, naturalistic explanation endured a shock treatment from which it has never recovered. But the 'spiritual' wasn't the winner either. At one and the same time, a critical methodological naturalism remains a useful, almost inevitable, starting point, and this has consistently born fruit in the empirical discoveries of the facts of evolution. But as with a wistfully noted Gödelian short-circuit in the consistency/completeness of logical systems, this naturalism seems incomplete, and destined to inconsistency, requiring the evolution of its own definition by the extensions of its axioms confronted with empirical discoveries, perhaps of freedom facts. We can see that we must confront the prospect of methodological naturalism surviving nervous breakdown in the face of an inconsistent axiom for a science of freedom.

Johnson engages the lists for a near campaign against modernism itself, with Darwin placed beside Nietzsche, Marx, and Freud as the triad of culprits for the evils of secularism. Fundamentalism deserves to join this list. The themes of postmodernist fashion are now the grounds for a comeback of the sacred against the domination of the secular. But the dilemma is false, and the postmodern strategy quixotic. This strategy is based on an incorrect perception of what constitutes 'modernism', which certainly includes the Protestant Reformation. So evidently Johnson is referring to the abrogation of the treaty of Westphalia. This postmodern strategy shared by conservatives, traditionalists, New Age groups, and leftist vanguards is completely self-contradictory, and silly, a clear sign of historical disorientation created by general propaganda versions

of history. This issue is often confused by Darwinian secularists wishing to define the modern in an exclusionary sense using Darwinian theory, as a reductionist triumph of the Enlightenment narrowly defined. There is no inherent equation between ‘modernism’ and Darwinism, or even the viewpoint of science with the Enlightenment. If anything, the theory of Darwin represents a mere episode of scientism deviating from the far richer starting point of evolutionary thinking in the generation before Darwin.²⁷

The emergence of design argumentation, almost as a conservative religious cult and interest group lobby, has introduced an immense confusion into the Darwin debate, which is not about design argument, naturalism or theology, but about the limits of natural selection theory. The *argument by design* has a long history, and this is not the same as the issue of ‘design’ as such. It is not hard to see that ‘something like design’ is at work in genetic structures. Historical amnesia reigns. We might, for example, review the early debates here, and consider a Kantian perspective or the classic critiques of the argument by design. The Intelligent Design group has not demonstrated the argument by design. These tactics can be very destructive. We cannot examine design under the aegis of particular religious groups with ambitious social strategies. Such questions require strict religious neutrality. But that is unlikely here, making discussion pointless. In any case the design interpretation thrives only because Darwin’s theory is very extreme in its claims for natural selection.

G-design vs. N-design Design arguments tend to confuse two meanings of the term ‘design’. It is incontestable that many biochemical structures show design, in the complexity of their almost programmatic functionality. We might call G-design the action of a known ‘designer’, viz. a supernatural agent (god?), with the term N-design to refer to the bare functional aspect of complex biological structures. We can infer N-design, but this does not resolve the question of its evolution. It is hard to explicate N-design by arguments using natural selection. It does not follow that we can infer G-design.

Natural Teleology The design argument is ambiguous and is really a theological version of teleological thinking. In the pursuit of N-design the factor of teleology might arise as a challenge to reductionism, but this teleological aspect can better be seen as a discovery of methodological naturalism.

This ‘design’ in quotation marks falls between two stools, scientific and religious, and can hardly be taken as a proof of divinity. It is, at least, an aspect of nature, one that monotheistic traditions seem unable to confront. Such thinking is meaningless if we know so little about nature. Only the false claim that Darwin’s theory of natural selection resolved the issue of design could have started such a confused discourse on both sides. Let us set this booby-trapped terminology aside, having acknowledged the cogency of the critique, without succumbing to theological legerdemain.

Secular Postdarwinism The religion/science divide has confused the debate over evolution, which isn’t conflict of the spiritual and the material but a confusion as to the nature evolutionary dynamics and the limits of natural selection.

There is a far broader, essentially secular, critique of Darwinism already latent in the legacy of the Enlightenment. The overall period of Enlightenment was not the source

of Darwinism, although it did resurrect the ancient idea of evolution from its long dormancy. Diderot at the dawn of modern biology is already concerned over embryological issues, now resurfacing in the age of complex genetics. For some reason this seminal era was able to maintain a strange clarity. Darwin's theory is a poor rendition of the initial discovery of the fact of evolution. And one of the real achievements of the earlier period was to distinguish the human from the natural sciences. The emergence of secular modernism produced its own cultural software to mediate the long foreseen problems with the scientific worldview, but Darwinism has crippled our ability to use it.²⁸

2.1.2 Evolution and Ethics

It is altogether apt that the metaphor of a trial should appear in the Darwin debate, as if an injured party wished to take action in a court of judgment. This theory was and is dangerous, and any evidence of its limits should clearly be labeled on the package. It is ironic therefore that this theory is now increasingly pressed into service to account for ethics. Here is the Achilles heel of scientific thought. We are given to assume that scientific methods can account for all aspects of reality, and that a kind of bootstrap reductionism can start at the most fundamental and proceed to explain the most complex.

Why are we to grant the assumption? Newton did not grant it. Absent a demonstration, this betrays the ambition of science to control, more than to explain. Apparently Laplace whispering in the ear of Napoleon is the beginning of this campaign. The attempts to push Darwin's theory to the limit to account for the evolution of morality suggest the failure of this assumption. The result is the paradox of value-free science confronted with the domain of values. The obsession with dealing with all aspects of reality as a branch of physics is one of the strangest outcomes of the Scientific Revolution.

This is in fact an old issue, and the secular philosophical verdict of an earlier period is that science is *intrinsically* limited here. We should note that the philosopher Kant, already from the generation after Newton, was about the business of correcting this reductionist confusion, witness the clear distinction in Kant of theoretical and practical reason as a way to mediate causal phenomena and intentional action. He is considered purely a philosophic outsider to science, but that is misleading. His deliberations on freedom and causality strike to the essence of what is creating the confusion over evolution.

The world of Kant reminds us of the immensity of early modern discourse in this area, and what many saw as the decline from this peak in the onset of positivistic sciences. He certainly demonstrated the great complexity of the question and the limits of rational endeavor in this regard. Modern scientific education systematically misleads students here, and we are left with technical experts trained in a scientific religion, and a facile contempt for the Two Cultures dilemma.

The Triumph of Positivism Histories of scientism too often confuse the rise of scientific culture with the later emergence of so-called scientism at the end of the nineteenth century. The two are not the same. As we move to explore the

modern transition we will see that the era of the early modern is a balanced set of opposites, while the later scientism is a misleading over-simplification.

Ethical Reductionism One of the prime confusions of the positivistic sciences is the attempt to physicalize ethics under the rubric of causal explanation. As Kant carefully noted, ethical discourse is by definition about the freedom of an ethical agent. The attempt by Darwinists to eliminate this complexity has produced a good part of the intractable Darwin debate.

Selectionist accounts of ethics violate the first requirement of producing an ethical agent to make ethical choices. We have no clear picture of the evolution of such an agent, leastwise by natural selection. Darwinists seem satisfied to account for ethics on an *ad hoc* basis, e.g. showing how natural selection could produce altruism. This agent must choose, yet is granted no choice, in what must be, on scientific grounds, the blind mechanization of ethical action. The problem here is that the level of software and hardware is scrambled. The most obvious possibility is that altruism is simply counterevidence to theory.

The philosopher Daniel Dennett speaks of ‘Darwin’s dangerous idea’, almost in a Nietzschean boast, with a rebuke to our cowardice in failing to meet the challenge of realism in ‘hard men’. It would seem a dangerous idea deserves a second look, there to see Darwin’s dangerous goof, and the misapplication of theory to social complexity. Since Darwinism shows clear correlation with militaristic and genocidal history, deferring to experts is not an excuse if we can see that expertise has not proven sufficient or that it is itself influenced by political or institutional ideology, the ethics of competitive economies. At rare moments, such as the induction of capitalist economies in formerly communist societies, the truth comes out (not that it is concealed at other times), and we hear the language of ‘shock treatment’ and ‘greed programming’, as a system of non-altruistic ‘ethics’ is wished for on economic grounds. Thus theories of ethics are the politician’s wild card, theory now caught up in Machiavellian *raison d’état*. The Darwinian backdrop is altogether useful here.²⁹

Freedom Evolves? In another work, Dennett exposes a critical weakness in selectionist Darwinism: anything like ‘free will’ must explained in terms of the rubric of natural selection and adaptationism, a highly implausible claim, given no evidence. As we examine the eonic effect, we will detect a counterexample, a macro component to the emergence of freedom.³⁰

The confusion of foundational science as legitimation, ideology, and the basis of ethics neutralized in economic environments, was prefigured in the figure of Malthus, one source of the confused thinking of both Darwin and Wallace. The Malthus debate was an early cousin of the Darwin debate, in the ‘better they starve’ version. A recent philosophic critique of Darwinism by the philosopher David Stove, in *Darwinian Fairytales*, skewers the mechanization of ethics. The author targets the confusion generated by Darwinism in the sociobiological attempt to derive altruism from adaptationist scenarios. Stove points out the most obvious fact:

If Darwin’s theory of evolution were true, there would be in every species a constant and ruthless competition to survive: a competition in which on a few in

any generation can be winners. But it is perfectly obvious that human life is not like that, however it may be with other species.³¹

Nothing in archaeology, the search for fossils, or DNA, is required to see this, or able to contradict this. We have no scientific proof that massive population catastrophes lead to evolutionary advance in the crucial questions under consideration. History shows any number of semi-Malthusian episodes, but its advances spring from a different source.

We are left to wonder at this obsession with altruism on the part of theorists falling head over heels to justify economic selfishness. Not a difficult riddle. We know this game when we see it. ‘Good for the economy’, the prime suspect when smart people play dumb. It is stuck in their craw, and some fancy mathematics to the rescue seems the best way to keep the masses confused in the process of de-ethicization of market behaviors.

2.1.3 The Metaphysics of Evolution

There is nothing mysterious about the Darwin debate or the limitations of Darwinian theory: value-free science must eliminate questions of the value domain. But is this legitimate for the question of evolution? Related to this is the attempt to produce purely causal explanations of ethical behavior and its evolution. The positivist methodology of scientific reductionism, by declaring the rigid separation of facts and values, leaves us to wonder if nature itself truly respects this division in all its processes, especially those of evolutionary emergence.

Is a science of evolution possible? This provocative question should stand as a warning that the question of evolution probably won’t reduce to the category of science in the usual sense. We should support the project of empirical research, as science, in the exploration of the facts of evolution in deep time, but mindful that the limits of observation and the intersection with the domain of values demands an extended definition of science (such as, indeed, was pioneered by the philosopher Kant).³²

Sometimes the naturalistic fallacy is cited here. But how do we know that evolution doesn’t process values amidst facts, this in a naturalistic fashion? Reductionist science has, ironically, made itself blind to the high end of evolution. In general, a theory of ethical behavior must explicate the consciousness of an ethical agent, and produce a model of choice-based behavior. But theories of evolution cannot yet account for consciousness. To make ethical consciousness an epiphenomenon of natural selection, and to propose that it arises as an adaptation in the game of survival beggars the nature of the phenomenon itself. What’s more, this approach creates a de facto standard of ethics based on the evolutionary ‘value’ of pure selfishness.

The Axial Age and Values As we examine the historical dynamic behind the phenomenon of the Axial Age we see the explicit transformation of values in a complete and balanced spectrum of opposites. Religion, philosophy, science emerge together in a mysterious seeding process that occurs very rapidly, and

over independent cultural regions. Remarkably, this seems to show a balanced spectrum of values.

Further, a suspicious resemblance to economic ideology arises at this point in the Darwinian theory game. Even as you reduce ethics you produce one in disguise, and the implicit ethical character of ‘survival of the fittest’ and ‘competitive struggles’ instantly creates a substitute ethics. This fails to account for the facts of the case, which shows that man, at least, is impelled to react against his own (supposed) evolution, in the Darwinian sense. Why is altruism such a problem for Darwinism? Is it any more metaphysical to posit the existence of a selfish beast?

Thus, one of the reasons for the confusion of the Darwin debate is that the right way to do science might be the wrong way to do evolution. To be sure, there are few ways that are better as a preliminary to a more sophisticated science needed to match the phenomena under enquiry. But the strategy of explanation needs to be something better than the elimination of the problem by making it logically consistent with natural selection. That this should precipitate conflict with religion is hardly surprising, and even if we champion a secular stance toward religion, it is hard to avoid the feeling that the research program of evolutionary biology on this question is a failure step one in the midst of the great success of its expansion of our knowledge. And part of the problem is the confusion of ‘theories’ with ‘protocols of action’.

Theory and Action: The Oedipus paradox Later we will examine the so-called Oedipus Paradox and more generally the confusion between theories and motives of action. Theories are, or should be, timeless generalizations about a set of data, but in practice theories have an all too temporal birth point. In the case of natural selection this resulted in the confusion between a theory about organisms in the past, and the social Darwinist impulse to carry out the implications of natural selection as a motive to evolve, a quite egregious fallacy.

How we should act is not given to us by a theory. With physical theories such as that of gravity no confusion can arise, since we have no ability to manipulate the law of nature here. But with evolution theories an agent is the executor of the so-called ‘law’, thus the attempt to posit universal laws produces an immediate contradiction, suggesting we are looking in the wrong direction. A theory proposes a causal explanation of action, but that by definition is not a protocol of action. Action requires choice, and we could choose to act against the theory, raising questions about its claims for causality. We are stuck trying to explain the freedom to act. We could eliminate that freedom in the name of science, but then we would be stuck with a typical situation where we would ‘preach the theory’ to something who choose to defy it. That freedom to act is an obstinate given.

There is actually no mystery here: the ‘subject’(object) of evolution is complex, and has a different character from that of a point mass in physics. We must reckon with the sense of meaning, consciousness, and deliberation that are, by definition, subject to contra-causal forms of explanation. The issue must be the ‘evolution of the freedom’ to choose between different courses of action. This would seem to apply to the case of man, or else the later stages of primate evolution, and there the point remains that mechanized explanations of ethics are not ethics. So, is ethical behavior an illusion, as strict positivism must claim? These are actually issues carefully addressed earlier in the

Enlightenment, before Darwin, with such figures as Kant standing out by their careful consideration of the implications of the rise of Newtonian physics.

The Darwin debate revolves around the claims and definitions of naturalism. The project of science is the discipline of methodological naturalism. We can certainly embrace naturalism, but its definition cannot prejudge the issue of what nature itself shows to be the case. We are stuck with the obstinate Cartesian legacy of dualism, leaving our naturalistic assumptions schizophrenic. Religious critics then proceed to the opposite confusion of spiritualizing the leftovers at the limits of reductionism. The glaring lack of any account of the evolution of consciousness ought to have made Darwinian certainties close to preposterous, but it is assumed in advance that some scenario of adaptation can account for this.

Even as Darwinism challenges the legacy of metaphysics, its claims for evolution are forced to impinge on this realm with tacit assumptions that belong to the same genre. The problem is, first, the complexity of the organism, and its intangible mysteries such as the nature of the 'will', if such exist, in the human evolutionary development of ethical behavior. If we invoke science we should recall its history, and the moment of the scientific revolution in the seventeenth century. Descartes not only founds the science of analytic geometry, he creates his famous dualism of body and consciousness. This dualism is forever rejected, but never transcended, although the appearance of Spinoza produces a new perspective on the question that will be the undercurrent of a classic Enlightenment debate. Newton, beside his great achievements in physics, nonetheless exempts the human will from his dynamics. In the wake of Rousseau, it is the figure of Kant, beside Hume, who, embracing the system of Newton, formalized a more refined version of this dualism, in a classic gesture arising during the so-called crisis of the Enlightenment. And it is significant that Kant stands at the dawn of the rise of evolutionary biology, with a set of critiques that can mediate the contradictions of causality, freedom, and teleology, especially in the analytical study of organisms. The onset of the positivistic period completely bypasses this important stage in the development of the modern social and biological sciences.

It is not surprising, and yet remarkable, therefore that the work of the philosopher Kant is too little considered in the dialectical collisions of science and religion, since his system of philosophy addressed wholesale the problematic that pervades not only the philosophies of rationalist theology, but of the empiricist tradition as well. In fact, positivism is a form of collapsed Kantianism and it is a pity that scientific methodology, mostly through reductionist downshifting, has lost his analysis of the boundaries of science.

Visions of a Ghostseer In essence the question is simple. The need for a 'science of metaphysics' is the first step to a 'science of history and/or evolution'. But it is just this requirement that proves the stumbling block. In a classic work, *Visions of a Ghostseer*, and then in his great critiques, Kant isolated the three great issues of the metaphysical tradition destined to get into trouble on the way to a 'science of metaphysics': that of divinity, followed by those of soul and free will. To these we should add the question of teleology, and note the way Kant considered teleology within the bounds of methodological naturalism, albeit ambiguously. The questions of divinity, soul,

and free will demand proofs of existence, and Kant exposed the way that the road to these three proofs is beset with contradictions. They are metaphysical because they stand beyond the empirical.

The important issue here is that while we can easily agree, for example, that a 'soul' question (there are a multiplicity of such) is metaphysical, we might forget that its antithesis, the negation of the existence of soul, is equally metaphysical. The very term 'existence' is unclear in this case. The possibility that definable 'soul' has a reality but is beyond the possibility of knowledge would prove a severe check to a theory of the organism, and, unfortunately, that is just where Darwinian theory is going wrong. We can easily predict, then, that a theory such as Darwin's will become ambiguous on these three issues, even as it has banished the fourth. There can be no mystery to the Darwin debate. Each of these questions enters into the ambiguity of evolutionary theory. We see Darwinists attempting to claim that free will rises in the context, once again, of natural selection, and adaptation, a very peculiar approach, one with no evidentiary basis. We should demand the strictest evidence of this, and we rapidly discover just how difficult demonstration would prove there. We need a much broader approach. Discussions of 'soul' have played out and suffer the confusions of their abused terms. The indirect deductions of Kant can help by suggesting, for example, the relationship of space and time perceptions to deeper categories of experience.

We notice immediately that the conflict of science and religion, notably Darwinians and fundamentalists, impinges on the first issue of Kant, divinity, soon followed by the second, the 'soul' quagmire, the third creating a dilemma even in the context of secular culture where 'free will' is an essential foundational belief for the performance of cultural interaction. The monotheistic religions have shown an obsessive reluctance to yield ground on the issue of divinity in history, hence evolution. The Eastern religions have not yielded an inch on the question of 'soul' (although Buddhism gives the misleading appearance of rejecting the idea of 'soul'), would grant the problematic shown by Kant, yet demonstrate methods of enquiry into issues of self. And the core concepts of modernity, its definitional liberalisms, are equally problematical in relation to the causal monism of the defining scientism of the modern era.

The principle of freedom shows ironically the way in which secular thought is entangled in metaphysical ambiguity as much as the religionist, and this idea creates a more subtle version of the drama of theists and atheists. For the will to freedom soon shades into the hopeless quagmire of the 'will of god'.

Kant's thinking enforces a severe discipline of the limits of our knowledge on these questions, and, this being the case, we can see that while the affirmation of a thesis on divinity is taken as metaphysical, its negation is destined to suffer a similar fate. We can see at once that, if Kant is right, then the theory of natural selection, the spearhead of much secular thought in a post-religious mode, is forced into a task that it cannot fulfill.

Legitimation Scientists, especially Darwinists, often proclaim their dethronement of human illusions. In part this springs from the defining episode of Galileo confronting religious tradition. The genre of 'dethronement' rhetoric was invented by Freud who, wishing to promote a weak theory, placed himself last in the list of great liberators, from Copernicus onward, dispensing shocks to mankind's vanity. In general, we are constantly informed of the shock to our pride implied in Darwin's heroic breakthrough. This was a

clever tactic, but what is the real status of the modern scientific view of man? It is undoubtedly true that we must confront our illusions, not least in the realm of scientific theory. But it is too seldom grasped, and comes as the worst shock of all, that Darwinism was as much the beginning of complete muddle in all fields, and that the principle of natural selection as universal explanation is a specimen of nineteenth century scientism fit for some dethronement.

None of this should even be surprising. A student of classical metaphysics, and, more importantly, of its limits, knows in advance where this theory will go wrong, and even an amateur can launch a metaphysical search and destroy on the foundations of Darwinism. One, two, three the antinomies of divinity, soul, and free will skewer pretenders in this field, and right on schedule, with stubborn pretense, Darwinists founder in these quagmires, claiming to have resolved all of them, and that this is scientific! And it is not only the monotheist who is puzzled here. The theory, implicitly metaphysical, posits conclusions in advance, on the basis of virtually nothing in the way of a definition of an 'organism'.

The crux of the problem is the effort to promote a new foundationalism for a secular agenda. A recent biographer of the philosopher Hegel notes:

Many in Germany quickly understood that Kant's denial of knowledge of things as they were in-themselves had potentially explosive consequences. First of all, it implied that there could be no theoretical knowledge of God, since God was precisely the kind of metaphysical entity about which Kant said we could in the literal sense know nothing. But in Germany, since the authority of the myriad German princes was almost always bound up with their being the heads of the churches in their respective *Länder*, Kant's demonstration that we could not know about these supernatural things was taken to suggest that we also could not know whether the authority of the princes was in fact legitimate.³³

This passage tells us virtually everything about the Darwin debate, for it is cousin, in an inverted fashion, to the effort to establish 'right', in a slightly different context. What is ironic is that insistence on the theory of natural selection resembles this legitimation strategy of the 'princes' to establish a basis for social authority. Kant was especially honest, and he did not speak as an atheist. But that was not good enough for the princes. They wished their authority to be established on a rigid basis with proofs of divinity. In the same way, with Darwinists, it is not enough to grant the fact of evolution. The claims for natural selection both make that secure and allow a further extension of their subject to derive a whole world view based in science. It is interesting that only two parties have the social power to indulge in the debate. Where spiritual authority is on the wane, the authority of scientific law, bogus scientific law, comes to the fore. Armed with the claims for natural selection, and enough shouting down the opposition, the keys to the kingdom are had. Needless to say, the religious critics of Darwinism are not exempt from a similar charge.

2.1.4 Is There A Science Of History?

The attempt to posit a science of history suffers a severe complication in the dilemma of freedom and causality, with a series of confusions not dissimilar to what we see with the question of the evolution of ethics. But as we proceed we will discover nature's ingenious and, in the end, obvious solution to the contradiction, one visible in some of the simplest situations of ordinary life.

A Science of History? The question of a science of history provokes a contradiction as an antinomy of causality and freedom: in the stance of science, there *must* be a science of history, but in the consideration of freedom there *cannot* be a science of history. This variant of a classic Kantian antinomy is resolved in a dialectic that 'somehow' unites both thesis and antithesis, and bursts asunder the limits of space-time in the context of a discovered analog to 'transcendental idealism', the classic companion to Newtonianism. If we connect this to our question, when did evolution stop and history begin? we can precipitate the same antinomy for earlier 'evolution'. The Darwinian framework is inadequate for this situation. As we will see there *can* be a science of history: this requires an evolutionary basis, and a mediation of causality and freedom together, a strange requirement, one most surprisingly satisfied, and very exactly, by the data of the eonic effect. We must connect history and evolution in a new way, and this can be found if we pursue a 'science of freedom', in the resolution of the paradox of determinism. We can bring evolution into history by asking still another paradoxical question, Has man become '*homo sapiens*' yet, by 'evolving freedom' (according to various definitions of freedom)? If man is 'not yet free' the 'evolving freedom' must show a macro aspect, otherwise, as his freedom evolves, man's self-evolution will become a micro process, exiting from evolution in our Great Transition. In fact, as we discover the eonic effect we see that nature provides us with the elegant and simple solution to these enigmas of the descent of humans. We will adopt a rubric of 'self-consciousness' as the intermediate transitional category, compatibalist with respect to causality and freedom.

A Science of Freedom? The idea of a 'science of freedom' emerged in the wake of the Kantian critique of metaphysics. We can easily establish that, while such a science is not easily attainable, the idea itself is at least coherent, and can be approached empirically. As an example consider the relationship of a computer with a GUI and a user. The tandem system, computer/user, is a relationship of the user's options and the computer's (deterministic) program. We must analyze a combined system in which the field of the user's options and its relationship to a larger system must be studied together. The eonic model discovers such a system in historical/evolutionary terms.

The debate over free will always enters to both fulfill and yet distract this kind of discussion. In order to proceed we need to detour through the discourse of the metaphysics of freedom. But in practical terms we don't have to assume anything about the abstraction 'free will', and can make do with a simple distinction of the action of a system and the free activity related to it. There can be mechanisms that apply to a field of choices. Freedom itself might be evolving and be 'unfree' at the starting gate. Free will might have a surrogate in the fluctuations of human 'self-consciousness'. The paradox is

resolved by considering degrees of freedom, or self-consciousness. The question of causality and freedom is very complex, but there is a simple way to proceed by looking at the question of choice, as a given from our experience. Choice is real, whether or not we ascribe that to 'free will' or not. There is also a kind of dynamics of this duality of a 'system acting', causally or not, and an agent given choices in that system. Examples are numerous.

Computer/User GUI's As an example, we might consider the situations in which free choice appears, without getting distracted by the question of free will. One example might be the distinction of two types of computer programs. One is the deterministic variety that proceeds from start to finish in a preprogrammed fashion. Another might be the situation created by GUI program where a user interacts with a computer. First the computer acts, then the user responds, and so on. We need not make any claims about free will or determinism to see that this second situation is as natural as any other. And whatever we do, we cannot explain away the existence or possibility of this situation. The context of ethics is similar. We must account for the situations in which ethical agents bifurcate the potential of unrealized events by the very nature of their considered choices.

System Action, Free Action Armed with this hint, which shows us that, contrary to usual thinking, there are any number of situations where the action of a system and the action of an individual inside that system constitute a net unified 'system' of a new kind. This new kind of system is, in principle, what will allow us to proceed, however difficult the details, in principle toward a science of history.

We will explore this new kind of hybrid system in constructing a new perspective on history. The point is that if we embrace the contradiction in a science of history, instead of evading it, we arrive a potential system of a new type. Remarkably, the eonic effect will show us just such a system. A little reflection will suggest that we are already familiar with this kind of situation, and that we deal with the distinction of a system and our options inside that system all the time! Consider an ocean liner and the passengers voyaging on board. Note that the dynamic of the ship is one thing, that of the passengers another. The two together form a new hybrid system of a new and intriguing kind, where causality and freedom are mutually related. The causal motions of the ship contrast with the relative free action of the passengers on that ship.

2.2 Beyond Natural Selection

The most confusing aspect of the study of evolution is the nature of the first step, natural selection. The debate over evolution tends to degenerate into a conflict of science and religion, deflecting our attention from the basic problem with Darwin's theory: the limits of selectionist explanation with 'Just So Stories', or adaptationist scenarios. It is

very convenient for Darwinists to confront Creationist critics who tend to reject the fact of evolution. This deflects attention from the real problem. In the final analysis the proposition of natural selection would seem implausible. The original criticisms of the first generation of Darwin critics in many ways still stand. T. H. Huxley himself, ironically, warned Darwin on the eve of publication of the problem with natural selection. The intractable character of the debate is no mystery and arises from the violation of the limits of observation, Karl Popper famous ‘metaphysical research program’.³⁴

In general some process of self-organization is at work beyond the limits of selectionist oversimplifications. In the words of S. Kauffman in his *At Home in the Universe*,

The existence of spontaneous order is a stunning challenge to our settled ideas in biology since Darwin. Most biologists have believed for over a century that selection is the sole source of order in biology, that selection is the tinkerer that crafts the forms. But if the forms selection chooses among were generated by laws of complexity, then selection has always had a handmaiden. It is not, after all, the sole source of order, and organisms are not just tinkered-together contraptions, but expressions of deeper laws. If all this is true, what a revision of the Darwinian worldview will lie before us! Not we the accidental, but we the expected!³⁵

In general, severe, almost certainly fatal, mathematical challenges have always stood in the way of selectionist assumptions. In a now classic text, *Evolution From Space*, Hoyle and Wickramasinghe give one version of this objection.

Darwinian evolution is most unlikely to get even one polypeptide right, let alone the thousands on which living cells depend for their survival. This situation is well known to geneticists and yet nobody seems prepared to blow the whistle on the theory.³⁶

This viewpoint has been ‘refuted’ so many times that we forget genetic research has essentially confirmed it with the discovery of new developmental structures and processes. The full random run is in fact ‘compressed’ by the existence of some other process of development. In general, we must be wary of statistical reasoning applied to evolution. Even the suspicion of a directional process will throw any calculations here out of kilter. The amount of sophistry attempting to counter Hoyle, strewn over the Internet, is remarkable. Current thinking has quietly shifted to claims for the emergence of some ‘evolutionary toolkit’. Now it is claimed *this* arises by chance alone.

The literature critiquing natural selection is considerable, and we will assume some familiarity with such. A number of classic studies beggar the idea that all critics are religiously motivated. Beside Soren Lovtrup’s *Darwinism: Refutation of a Myth*, we have Robert Reid’s *Evolutionary Theory, The Unfinished Synthesis*, where the author notes, “I thought my failure to understand selection theory fully was the result of the specialization of the subject beyond my simple comprehension. Confident that every aspect of natural selection was for the best, I little knew that it had long been criticized for just that Panglossian felicity”. In *Beyond Natural Selection*, Robert Wesson gives a naturalist’s second opinion of the gritty details that mount up and cast a shadow on the Neo-

Darwinian Synthesis, noting, “Natural selection is credited with seemingly miraculous feats because we want an answer and have no other. There probably cannot be another general answer. Biologists, it seems, must do without a comprehensive theory of evolution.” Wesson summons up an impressive list of oddities that current theories simply disregard. Simple things, like the absence of selective advantage in dreaming, the failure of sexual selection in practice to feedforward intelligence, the six-leggedness of insects, a host of discrepancies. “Many very simple facts, such as that all the millions of species of insects, and no species of non-insects have six legs, might well might well be considered to disprove natural selection as a generalization.”³⁷

Again, as S. Kauffman notes in *At Home in the Universe*, “Since Darwin, we turn to a single, singular force, Natural Selection, which we might well capitalize as though it were the new deity. Random variation, selection-sifting. Without it, we reason, there would be nothing but incoherent disorder. I shall argue in this book that this idea is wrong. For, as we shall see, the emerging sciences of complexity begin to suggest that the order is not all accidental, that vast veins of spontaneous order lie at hand. Laws of complexity spontaneously generate much of the order of the natural world. It is only then that selection comes into play, further molding and refining.”³⁸

We are still without a theory of evolution, in part because we have never observed its mechanics in action, confused by the superficial surface of evolution, selection-sifting.

Historical Counter-evidence Debates over natural selection are mostly repetitive propaganda exchanges. The debate revolves around a set of abstractions. But a picture is worth a thousand words. It can help to examine a rich data set such as that of the eonic effect in order to see how misleading the claims for natural selection can be. We soon discover that natural selection is often counter-evolutionary, and can lead to degradation of evolutionary forms. A close look at world history shows that the fittest survivors are a problem historical evolution is required to solve.

The Axial Age/Eonic Effect World history seen at close range suggests something entirely different at work than natural selection. The competition of cultures and empires rarely leads to advance, which comes from a different source. The competition in history that we see too often degrades the outcome. Compare Axial Age Greece and Imperial Rome. The later is a clear winner of competition. The former shows a state of higher realization that declines very quickly as it enters a stage of empire.

2.2.1 The Limits of Observation

The debate over natural selection has gone on too long. Darwinists should have long since confessed the metaphysical speculation and methodological abuse of right science latent in Darwin’s theory. We need to be finished with the matter by demanding proper proof. It is an issue of science, not religion. Where did Darwin go wrong? Darwin’s theory is a provocative generalization applied to immense vistas of time that are unobserved. Those unobserved intervals in deep time can fool us badly. We can exit the

chronic debate by simply demanding proper evidence. The demand for evidence of the fact of evolution is far less stringent than that for natural selection. Demonstration that the latter is the key to all forms of higher complex structure has never been demonstrated scientifically. The task is exceedingly difficult, for starters. The difficulty may preempt easy hopes for a theory of evolution. One way to see the problem with claims for natural selection is to look at history, and we will proceed to an examination of non-random evolution in the dynamics of historical emergence.

The Hurricane Argument Consider a hurricane, a very brief event by comparison, as a global ‘system evolution’ on the surface of a planet. We know a hurricane when we see one, but its dynamics, mechanism, and full progression require incremental ‘closing’ on degrees of evidence and observation, a task not fully accomplished until the advent of satellites able to map global coordinates. In the same way we know evolution when we see it, roughly speaking, given the fossil evidence, but its dynamics, mechanism and full progression require incremental ‘closing’ on degrees of evidence and observation, a task not fully accomplished. Note the analogy suggests global positioning satellites over the entire planet over millions of years, to observe drifting species and their changes. Suppose an observer in outer space only had loosely sampled data on pre-Neolithic man, and post-twentieth century man, and then conjectured that some mutation caused this dramatic change.

This analogy shows at once where Darwinism departs from scientific practice. Historians routinely assume they must close on the facts in such an analysis, yet Darwinists wish to claim exemption. We have no fully observed datasets in Darwinian deep time. It is an insidious trap.

In all the noise of the Darwin debate, this judgment is final, and it is important therefore to grasp that no one is under any evidentiary *obligation* to take Darwinian *selectionism* as established scientifically, surprising as some may find that. We put it that way because we can’t refute Darwinists in their provocative claims that routinely ignore the basic objection. The question is very simple: were there any witnesses to the facts claimed? No. We are done. If we find evidence of ‘evolution’ in history, Darwinian claims are void as counterevidence.

Wallace and Darwin in wild or jungle scenes We should note that Darwin and Wallace observed ‘evolution’ as they worked in scenes of teeming jungle life or natural environments in the wild. That can be misleading because the (micro-) evolutionary processes visible (and which seem to explain speciation, especially in special cases such as insect populations) to the naked eye neglects the larger dimension stretching over tens of millennia which alone might throw light on ‘how (macro-) evolution happens’. In any case, this selectionist frenzy visible in nature fails at many points, such as the evolution of man, to provide a satisfying set of answers.

2.2.2 Random Evolution: Climbing Mount Improbable?

One of the most confused claims made by Darwinists concerns the randomness of evolution by natural selection. It is obvious that Darwin's theory is about evolution by accident, but since the improbability of this begins to demand some account we are given a revision in the works of Richard Dawkins where it is said that while mutation is random, natural selection is non-random. This odd way of restating Darwinian assumptions about chance is a suspiciously convenient change in the original meaning of the terms used, and seems little more than a rhetorical finesse designed to throw critics off guard. As Dawkins notes in *Climbing Mount Improbable*, "It is grindingly, creakingly, crashingly obvious that if Darwinism were really a theory of chance, it couldn't work. You don't need to be a mathematician or physicist to that an eye or a haemoglobin molecule would take from here to infinity to self-assemble by sheer higgledy-piggledy luck." But it is quite as obvious that Darwin's theory is one of chance, so we are done.³⁹

Non-random Evolution We should consider that 'non-random evolution' means, although not exclusively and open to further definition, and requiring an exemplar instance, a driving process, associated with a force or determinate principle of sufficient reason, operating, perhaps like a feedback or other device, externally, and possibly acting to transcend continuity in space and time (geographically or in discontinuous succession). Redefinition as an internal or immanent process is also possible, but invokes something unknown and unintuitive. References to 'macroevolution' often invoke a variant of this thinking.

The Eonic Effect gives us a stunning example of non-random evolution in a series of beats or waves stretching over many millennia.

Dawkins proposes that the problem is resolved by the accumulation of small steps, then bets his argument on a completely incorrect analogy to computer programming. Again, as Hoyle observes, chance wouldn't even get a single polypeptide straight, and nothing in genetic programming has ever solved this problem. Beyond the hype, it would cause a feeding frenzy in the stock market if any computer program was found to do what is claimed. It would revolutionize industry. We would certainly know that this was the case! Instead we see a sheepishly heuristic wishfulfilment at work in the Darwinian mythological fantasy world.

The simple fact is that Darwinism really is a theory about chance! Dawkins proposes to embrace the theory's fatal flaw by changing the terms of discussion. The term 'random' has changed its meaning. The problem is that while natural selection might be non-random in the sense of its equivalence to the process of adaptation, it is still random in the sense that there are no macroevolutionary or directional processes over and above the incidents of random mutation and, yes, random, directionless, natural selection. Detecting a teleological process behind evolution would immediately force us to reconsider the whole question. The problem is that teleology is an abstraction. We need to observe, or attempt to detect, the representation of teleology in nature. But the very examples claimed, incremental small changes, might show a directional representation of teleology.

2.2.3 Punctuated Equilibrium

The Darwin controversy frequently breaks down into a debate over continuous or discontinuous evolution. Proponents of discontinuous evolution tend to be their own worst enemies, and we will tend to avoid the terms ‘continuous/discontinuous’ except as *façon de parler*. The action of a feedback device is discontinuous, but not grounds for supernatural explanation. The foundation for all claims about evolution lies in the fossil record. But the question of the fossil record is not so simple. One of the most persistent criticisms of Darwin has always been that of the so-called ‘gaps’ in this record. There can be no doubt that the record is incomplete, and that something suspicious lurks in the data Darwinists give for the theory of natural selection. Over and over we see the phenomenon of rapid emergence followed by relative stasis. The record of human evolution itself is ambiguous here. The fossil record isn’t really homogenous, in the sense that random evolution should not show sudden changes in direction. Nonetheless considerable progress has been made here by paleontologists. And many of these supposed gaps have been filled, or, if not filled, given some inkling of a transitional something (e.g. dinosaurs with feathers, or the basilosaurus), so at least to a some degree the record is filling out, although this does not prove anything about the claims for natural selection.⁴⁰

Here critics of Darwin have too often fallen into confusion themselves, because the whole idea of a ‘gap’ in the record suffers from misdefinition, if not incoherence. Fatal theological temptations induce hallucination here in many otherwise sincere minds aware of the problems of the fossil accounts. Although it is certainly true that the fossil record is very sparse, too sparse to maintain Darwinian certainties, it is not likely that one will find ‘gaps’ in the record. Some form of macromutation (i.e. a sudden change in developmental genes), for example, might well produce what looks like a gap. What is a gap? It is highly likely that there is a continuous sequence of organisms showing an unbroken lineage of bodily forms. That is not the same as saying that natural selection alone is at work. But these critics have a point, and a refinement of the ‘gaps’ argument is easy to provide, hence the challenge to Darwin’s theory remains in some form. Taken over all, without claiming gaps in the record, we should suspect that something is speeding up the process of evolution beyond the rate entailed by natural selection.

Indeed, conventional Darwinians such as S. J. Gould upgraded this argument with the various claims for so-called ‘punctuated equilibrium’, which amounts to seeing that emergence is often very sudden, followed by a period of stasis where the rate of change is small, or nonexistent. Granting that such data is hard to interpret, the basic issue simply won’t go away. These theories suffered from the inability to disassociate themselves from the fallacies of natural selection, as they attempted to have their cake and eat it too, by proposing various ‘levels of selection’. But real evolution is altogether likely to be something different. And it might well ‘punctuate’, this being followed by some sort of ‘equilibrium’. The issue is bound up in distinctions of microevolution and so-called macroevolution, or speciation. The existence of microevolutionary processes is not in doubt, but the elusive factor of macroevolution remains unclear.

Those who propose this issue of ‘gaps’ in the record, then, are onto something, but need to consider that the fossil record is always going to be continuous in some sense. This does not preempt the possibility, not of ‘gaps’, but of some other evolutionary process that creates a real discontinuity in some definable sense *on top* of that continuity. Think in terms of acceleration, as artificial as physics logic might be applied to evolution. Acceleration is not a ‘gaps’ argument, and its discontinuous action is not in contradiction with continuous motion. To propose discontinuity as antithetical to continuity is logical in the abstract, but in this case leads to the hopeless quagmire of miraculous interventions of one kind or another in the creationist vein. We cannot say in advance what that kind of process it would be that generates this sense of discontinuity, but its existence is something that we must suspect based on the evidence that we have. The discovery of complex genetic components such as the developmental genes suggests one way of resolving the seeming paradox. But that is not enough.

Remarkably, the perfect example of the discontinuity factor, and its elusive basis, lies in the attempt to resolve the mystery of the descent of man. There the (not very adequate) evidence of the so-called Great Explosion stands out as a question about the basic Darwinian claims. Something very sudden occurred in the emergence of man, or so it seems from the evidence. The descent of man is beset with the issue of continuity/discontinuity dead center in its dataset.

Consider again the analogy of acceleration, and beyond that the definition of science in the case of biology. On the one hand, biologists wish to make evolutionary theory compatible with physics, and yet to do so they must fail to do what physicists do: build a science around a type of ‘force’. This question was very clear in the eighteenth century, but the result was the emergence of vitalism, which was not up to the job of explanation. It is this search for the missing process that Darwinists find unacceptable, because there are no candidates for this in the thinking of reductionist science.

Mystery Force or Process X Part of the problem with Darwinian theory is that we are unable to detect the real ‘force’ of evolution, all we see being the processes of natural selection. Science gives us the fundamental forces, then demands that everything be reduced to this. This may be the source of the problem, for ‘natural selection’ is taken as the ‘force that isn’t a force’ that does evolution, a role it cannot play. This unknown factor requires a new scale of observational detail. As we move to examine history, with its relatively rich dataset, we should be on the look-out for this ‘mystery force’. The term ‘force’ might turn out to be the wrong one, but by a principle of sufficient reason a ‘something that does evolution’ is what we are after.

Formalism of Evolutionary ‘Force’ The context of punctuated equilibrium gives us an opportunity to write out the correct formal apparatus of evolutionary dynamics, which is absent in the collapsed oversimplification of Darwin, but which is present in Lamarck (despite the infelicities of his work, and his incorrect theory of adaptation). This may or may not have anything to do with ‘punctuated equilibrium’ as defined by S. J. Gould. But the idea is clear from the dictionary senses of the words: a force, process, or ‘punctuation’ on one level

acts discontinuously or intermittently or via short action impetus on another continuous level of steady state temporal streaming. Note the *a priori* resemblance to the distinction of force and equilibrium (or even Newton's first and second laws). These two levels are appropriately referred to as macroevolution (generally taken to produce speciation) and microevolution (which is the regime of natural selection). This basic set of concepts is actually quite general, and we will show how it applies to historical situations quite divergent from those of the evolution of organisms! But this is a transformed situation, and the powerful formalism, which is really a generalized metaphor of Newton's second law, of macro and micro allows us to consider the dynamics of evolutionary directionality.

System Action, Free Action We have already broached the issue of science of history and we will later try to adopt our formalism to the 'evolution of freedom', applying the macro to the eonic effect and the micro to the emergence of historical freedom (from the passivity of causal evolution).

There is something peculiar about this one-dimensional limitation in the Darwin scheme where macro and micro are collapsed together, in the sense that any science is going to have a 'force' or process argument, indeed the 'vera causa' often referred to by Huxley, and this force is going to show itself in terms of its own action, archetypically 'acceleration', and this action will seemingly be short acting (in some ambiguity between 'machine' and 'engine', perhaps). Such language is heuristic and must be set aside as at best metaphor once we have real data to examine, but the point is that Darwinists constantly remind us of the right way to do science, even as they propose a science with no substance to it. This example of the missing 'force' uses the language of physics, but the basic issue must remain. Various candidates from population genetics are sometimes metaphorically pressed into service here, but the void remains.

Continuity and Discontinuity The evolution debate constantly unravels in a confusion over continuity and discontinuity. This is due to the imprecision of terms and/or the desire to fulfill a 'god of the gaps' argument, or sneak attack. Physics, which could be attacked on similar grounds, has escaped this fate, in part because the absurdity of a 'god in the gaps' argument is clear. But the 'discontinuity' of an accelerated motion is real and yet at no point a contradiction to basic physical continuity.

Of course, we have already criticized the physicalism that created reductionist thinking, and there is no reason why biological evolution should conform to a force argument. But there is likely to be an analogue, in a principle of sufficient reason, to a force argument, and here natural selection seems instead to be the analogue to Newton's First Law. The dynamic factor is entirely absent. This is the oddity of Darwinism. The surrogate substitute of natural selection for a true 'explanation' of what drives evolution leaves it with a strange void at its core. The point is that Darwinism is quite anomalous as a 'science' in the sense that this process that actually 'does evolution' is missing, and the strong suspicion is always there that natural selection, however real in the survival struggles of organisms, is simply the microevolution we see in the absence of 'real

evolution'. Darwinists become adamant here, or change the subject, but the sword of Damocles has always stood over Darwin's claims for this reason. It is like confusing Newton's first and second laws. We begin to suspect that the regime of natural selection too often perpetuates continuity, and is really the opposite of 'evolution'! The geneticist Theodosius Dobzhansky remarked, "Nothing in biology makes sense except in the light of evolution." There is a corollary to this, "Evolution makes little sense in the light of natural selection."

Theories of the evidence The Darwin debate constantly scrambles the issues of the 'fact' of evolution and the 'theory'. There is a complication here, which is that we can distinguish a 'theory of the evidence' from a 'theory to explain that evidence', should that theory of the evidence graduate to stable data. Darwinism has yet to produce a proper theory of the evidence, that is, it has not actually observed in full 'how evolution happens'. And this itself might require a theory, e.g. that 'evolution' shows a macro pattern. This subtle difference constantly confuses all discussion. In economics, for example, a theory of evidence would be, as a theory, that economies show cyclical behavior. A second theory to explain the first, i.e. explaining cyclical behavior, is quite another task. Note that without a detailed record we would be likely to think in the abstract about economic systems. This example shows the dilemma of Darwinian theory. We have no detailed record of the way evolution actually happened, and tend deal only in abstractions based on Malthusian or other misleading examples. This is clearly the trap into which Darwin and Wallace fell, because they were struck by the teeming behavior of jungle populations with its clear profusion of speciation processes. They thought the full evolution of forms was explained by its surface aspect, the competitive struggle in biogeographical regions.

Lamarck's two-factor theory We are starting to see the need for two levels of explanation in the discussion of evolution. It is significant, and forgotten, that Lamarck, his more well known theory of adaptation apart, proposed a double aspect to evolution, progress and deviation. Rightly or wrongly, the idea of evolutionary progress is rejected now, but the more basic point about two levels to evolution remains on the table. We are left wondering how the more 'scientific' Darwinism took off with a one-dimensional oversimplification. Because pure random evolution is implausible, at least to some, one tends naturally to find two levels to evolution. If we try to eliminate one level, we always end in difficulty. The problem is the extreme difficulty of observing the higher level, and the confusion over ideologies of evolutionary progress applied to one level. But it is interesting that with a one-level theory Darwinists end up bickering over levels of selection, punctuated equilibria, and are forced to confront stasis and rapid change in alternation with no means to stuff both in the same box. Don't confuse this with Lamarck's idiosyncratic and controversial views on adaptation.⁴¹

Economic vs. cultural evolution Later we will see the distinction of eonic sequence and econostream in our eonic model. We see the cultural evolution of modern economic thought, visible quite before its climactic Adam Smith, bound up in general 'idea innovation' and distinct from the evolution of economies, ancient or modern. We will see that the cultural innovations and economic transformations follow different logics, even as they braid together.

Self-organization A cousin ideology of theory, with the most obvious agenda, is the claim for ‘spontaneous social order’ as a legitimation of conservative agendas: cultural evolution occurs in the same fashion as market optimization. Examining the eonic pattern we can see that the long-range drift of history wouldn’t self-organize anything whatever, but go into decline and empire, or worse.

Many systems theorists are well aware of the limits of Darwin’s theory and have attempted various theories of ‘self-organization’, which are not without interest as speculation, to move past Darwinian selectionism. No such theory for cultural evolution exists, whatsoever. Sometimes these theories are in fact variants of Darwinian thinking, or based on assumptions of ‘spontaneous’ order, e.g. from a figure such as Hayek, in other cases genuinely post-Darwinian constructs based on variants or extensions to thermodynamical arguments. As we will see these do not work for history, where idea-innovation is not always random, or spontaneous, and where the ‘self-organization strategy with or without a theory’ of a free agent (‘let’s get organized’) is distinct from that claimed for some speculative mechanized process of rising order or complexity. Looking at the eonic data, or more simply the Axial Age, we see the *ens explicandum* is more than rising order, it is the clustering of individual innovators that is significant.⁴²

2.2.4 Natural Selection and The Oedipus Paradox

Science in its current form claims an objectivity of social theory that is illusory. Theories are clumsy instruments in the social sciences. We are so conditioned to the triumphs of physics, and the claims for its extension into all fields that we fail to realize what a muddle the whole thing is. A theory as potentially violent as Darwin’s should demand care in its handling. A theory is taken, in the manner of physics, as a set of universal generalizations, physical laws, and, by and large, these are true *throughout space and at all times*, including the future of the observer, who makes the generalization. In the transition to evolutionary ‘science’ in the period of Darwin, this mindset passed into a series of tacit assumptions about the application of science to other fields, including the biological and social sciences. Darwin’s theory of natural selection was highly desirable because it seemed to cast biological evolution in terms of a ‘law’ universally valid throughout space and at all times, including that of the observer, here, of evolution. But is such an extension valid? T. H. Huxley was one of the first to get suspicious here. Why is it that we feel compelled, he thought, to contradict the ‘law of evolution’ in practice?

We confront one of the paradoxes of evolutionary theory, one in which the observer is himself immersed in evolution, where he is constructing theories that might cause his own behavior to change in the present. This paradox is relatively unimportant with respect to the vistas of deep time, but assumes greater and greater importance as ‘evolution’, albeit transforming into history by our definition, closes on the present. This results in the ‘non-linear’ self-interaction of agent and theory in the present. Consider the difference in your behavior if you believe, or disbelieve, in Darwin’s theory. Popper also indicated one aspect of this in what he called the Oedipus paradox:

The idea that a prediction may have influence upon the predicted event is a very old one. Oedipus, in the legend, killed his father whom he had never seen before; and this was the direct result of the prophecy, which had caused his father to abandon him. This is why I suggest the name ‘Oedipus effect’ for the influence of the prediction upon the predicted event.⁴³

Our beliefs about natural selection contain a subtle prediction about what will happen if we ‘act out the theory’. We can see from the eonic effect that no higher culture will be the result! Quite the contrary. If the rules of the game were survival of the fittest the long term trend toward empire would go unchecked, and democracy and equalization, connected with freedom induction, would be superfluous.

If we assume that natural selection is ‘how things are’, the source of all higher complexity, we put a premium on its ‘mechanism’, e.g. competition, and the ‘acting out’ of selectionist presumption as a curiously inverted ethic. We should be wary that something is missing in our understanding! Clearly the *generalization* about selection must be false, somewhere. We can see this if we consider this paradox: if survival of the fittest produces altruism, then won’t more competition produce greater altruism? Shouldn’t we disregard ethics and altruistic action long enough to produce more ethically altruistic men? This contradiction takes many forms, and strongly suggests, independently of the evidence (which isn’t provided in any case) that natural selection is a false generalization, and that a ‘boundary present’ issue must be taken into consideration in theories of evolution, as opposed to theories of physics.

Physical laws are statements about carefully defined massive objects. Evolutionary generalizations are about organisms, and the character of these entities is never systematically defined, or observed, and their character changes over time. The generalization by natural selection, apparently, stretches from the beginning of life, to the emergence of man, and therefore to man’s present, and, evidently his future, since, by definition, that is the nature of a ‘law’.

Let us note the flood of fallacies that emerge here. All of these organisms show a distinct increase in their degrees of freedom (which may mean no more than the evolution of locomotion) with time, and with man this seems to cross a threshold where an ‘active will’ (which need not be ‘free will’) can select a set of options, no doubt still within the grip of physical law, that will alter or simply create the future. The extraordinary question arises here: what if he adopts a ‘theory about natural selection’ as the basis of his action?! Or even the option to negate this theory! Note the contradiction. A ‘law’ should operate at all times without choice from an observer. But man, having evolved a higher degree of freedom, could choose to consciously mimic what he thought the ‘law’ of natural selection, taking this as grounds for the abandonment of other factors in his decision, including ethical restraints. Since natural selection naturally suggests competition and conflict, he puts a premium on such conflict, with, to make matters worse, a spurious teleological expectation about the ‘future value’ of such conflict, as opposed to ethical restraint.

What has gone wrong here? Clearly in a passive organism without an active will, an ‘evolutionary law’ might apply, but in an organism with an active will, and mind, the idea of the theory becomes a thinkable idea that can influence action, and this will turn

into a possibly confused bogus form of mental software: I should act according to ‘law’. The obvious answer is that ‘evolutionary laws’ don’t exist in the sense of ‘physical laws’! We need a new kind of ‘theory’ for evolution, one that can define its domain of application, the type of organism it refers to, specify the temporal coordinates of the observer and creator of a theory, and be so specified that it *will apply only to the observer’s past*, and never his present or future, since he always has option to ‘do otherwise’, contradict, or falsify that ‘law’. For this and many other reasons, we must suspect that Darwin’s generalization is simply false, a subtle fallacy of reductionism misapplied.

Some new kind of evolution has appeared long ago to produce mind, an active will, and, indeed, science itself. Man has, all along, passed through an ‘evolutionary process’ of some other kind that ‘evolves’ his potential to act, and act ethically. It is hard to see how natural selection could ever foot the bill here. And any generalization must take into account the ‘turning point’ after which future of prediction by ‘law’ is voided. Theories with temporal domains, and referring only to the past of the theorist/observer are not contradictory, and we will attempt to produce one for the so-called eonic effect, and its distinct species of ‘evolution’. We must produce a theory about the ‘evolution of freedom’.

We will use the term ‘Oedipus Paradox’ for this phenomenon of theories. This ‘Oedipus Paradox’, a term from Karl Popper, is a sign of an improperly constructed theory, and will be discussed further in Chapter Four. It arises from the failure to define the boundary of history (the chronicle of the ‘will to act’), and evolution (the emergence of passive organisms). In some embarrassment we wake up to the way in which the visible surface of ‘jungle life’ and the spectacle of natural selection has hoodwinked us into a false generalization about evolution.

As we discover the eonic effect, we will see this problem resolved by creating a new kind of historical model that unites in tandem the definitions of ‘evolution and history’, the one emerging from the other. ‘Evolution’ is always seen looking backwards, and never applies directly to the free potential of the present, and the agent acting out history. In the interaction of these two we see the direct appearance of ethical evolution/behavior, induced and ‘free’, or on the way to being free, its evolution and self-evolution (i.e. history) connected yet separate. It’s pretty obvious, with this new model, an ethical override arrives to induce a ‘should’ about murder and botched theories with their inducements of mayhem.

The Oedipus Paradox: Emergence Of Social Darwinism As we examine the implications of the Oedipus paradox, and consider the ethics involved in the assertion of evolutionary, and indeed, ethical theories, we see the way Social Darwinism arises as a consequence of ill-conceived theories. The option to ‘act according to the law of evolution’, survival of the fittest, natural selection (death of the competitor) informs the agent, who proceeds to violent means, sure in his rejection of ethics of the grounding in science of biological law. Unscrupulous warmongers are handed a gift of legitimation by Darwin’s shortsighted theory. To inject the theory of natural selection into the culture of his time without any specification of the domains of its application was the source of the hopeless confusion that arose in Darwin’s wake, leading to the entanglements of Social

Darwinism. Herbert Spencer is partly to blame here, but he never proposed the *facts* of social competition as a universal explanation for evolution.

Consider, then, the non-linear self-interaction of theory and history, a possibility current science never examines, assuming an objective observer, able to formulate laws, although he is actually time-bound, with an ambiguous present. How will a theory taken as true by induced belief alter present behavior in the agent of theory? Apply that to the idea of conflict for survival. Notice the difference between what is observed in the past among unconscious organisms and what is taken as a theory about that, in the present, given the conscious subjectivity of the observer. Here theory is suddenly an historical variable. The record speaks for itself here. The *belief* in natural selection tends toward a *de facto* revision of ethical assumptions. Its promotion can become a Machiavellian strategy.

The metaphor of a trial, hence a crime, is ironically appropriate for a subject as ridden with dangerous potential for criminal suggestion as Darwin's theory, with its legacy of Social Darwinism, from which Darwin himself is forever being exempted, even as the subtitle of his book gives the game away, and all blame is foisted on Spencer. Lest that be gainsaid, the innuendo in that subtitle is clear. Atrocious potential contradictions lurk in all improperly defined historical theories.

With dangerous theories the result of the Oedipus paradox can be a calamity. The assumption, without verification, that survival of the fittest, hence conflict, leads to biological innovations, then applied to social evolution, induces 'theory realization' in the expectation of a future good. We should define the 'coefficient of murder' in units of 'casualties per paradigm shift' as the measure of the downfield consequences as mayhem in the action of those who 'thought the theory correct' in its paradigm span, and took the theory into their own hands as scientific law voiding considerations of ethics. Darwinism has a very high coefficient here in the emergence of Social Darwinism.

Theories of evolution are historically embedded, observations looking backward toward the past, and scramble the time domain of the theory's application, as they assume a universal generalization that overflows into the present and future. Thus ill-conceived they might induce 'acting out the theory' as a paradoxical 'should'. We could then study the historical course of the theory and measure its casualty rate.

The point is that we should always take theories provisionally, if this self-interaction of theory and agent is based on speculative interpretations of the never closely observed evolutionary record. The confusion arises, no doubt, from the analogue of economic behavior.

Darwin on trial. Let the virtual theory trial proceed on a philosophical basis. Given its record Darwinism is certainly on trial, and we need not gush with scientific enthusiasm confronted with the real legacy of the potential 'repeat offender'. Since Darwinists are often more ethical than the violent religionists supposed the upholders of the sacred, we may be forced to dismiss the case on the grounds of 'theoretical idiocy'. We can proceed with Darwingate, what they knew and when they knew it, to sort the dupes from the hypocrites, and many texts here are transparently deceptive, especially once we see how peer review and the Darwin book market influence veracity. So the record speaks for itself. And the supine accessories in the social sciences bludgeoned into

bad jargon by the ‘Two Cultures’ debate won’t get off lightly either. Given the legacy of eugenics and the Holocaust, we must be at all points vigilant promotion of this theory means what its adherents say it means, which means ‘genocide’ in the pursuit of population tampering in some conspiracy of evolution. The legacy of eugenics warns us these are not idle speculations. Darwin’s theory is an accident waiting to happen.

Notes

2.3 Visions of A Ghostseer

The labyrinth of modern thought is a difficult one in which the unforgiving complexities of parallel dialectical movement, seen in the divergence of idealism and materialism, can leave understanding stranded in the restricted movement of divorced specializations, and paradigms. Issues of ‘materialism’ and ‘idealism’ can vitiate thought, and deserve to be relegated temporarily to the sidelines, so that a practical study can get underway. We can construct our model of the eonic effect on the basis of limited foundations without deciding on key metaphysical issues. The philosophy of materialism is very ancient, for example the Indian *Samkhya*, and its modern reductionist form can confuse us, and often ceases to serve contemporary thought where the ideas of physical force fields, computer software, infinitesimals, and of information, move to bridge, better replace, the ancient distinctions of material and spiritual. Methodological naturalism, as current in the conduct of science, often muddles the question of ‘naturalism’ in its stances toward mind, consciousness and values, sometimes making them seem ‘spiritual’ unless subjected to reductionist revisionism. It is important to consider the often neglected potential of so-called ‘transcendental idealism’, in its Kantian version. Neither transcendental, nor quite an idealism, it is the perfect complement to Newton. This crude but effective kludge is, at the least, the perfect way to state our problem, whatever its solution.

Whatever the case, the stance of science is appropriate, and a rough and ready ‘materialistic phenomenology’ can be our starting point. But let’s declare the ‘material/spiritual’ distinction bad terminology. The ‘mind’ is not a ‘spiritual’ entity, but it doesn’t follow we can reduce it to simple mechanics. We can make no assumptions about the limits of naturalism, the nature of consciousness or self, based on reductionist preconceptions or extensions of physics. To make natural selection the *de facto* principle of demarcation was and is a recipe for confusion. One problem is that Western thought is stuck in Cartesianism. And this becomes worse as the attempt is made to transcend this dualism via reductionist materialism. However harebrained, Cartesianism is not worse! Kant’s transcendental idealism and the hybrid dual system of *Samkhya* are two ways to examine, and bypass, the frequently sterile ‘idealism versus materialism’ dialectic.

Extending the religion-science debate, we can consider various New Age perspectives inherited from antiquity and resurfacing in modern times. We can examine later the materialism, or generalized naturalism, of the classic *Samkhya* with its freedom

from Cartesian duality. This non-theistic tradition, predating the rise of monotheism, shows how 'spirituality' can be cast without the material/spiritual terminology that is the source of chronic confusions and exploitations. Such literature, as it is translated into such terms, often ceases to make sense.

But the best guide here is the philosopher Kant, given also those he tacitly debates, such as Spinoza. The Cartesian self is seen as a metaphysical totality veiled from our self-representations. Agree or not, Kant is unmatched as a mediator of religious and scientific metaphysics, although he is still too theistic for our Darwinian atheist obsessive, and his system is complex, and often charged with inconsistencies. Kant, at least, does not suppress the issues in one-sided claims. His thinking bursts asunder his own rational theology lurking in the background. In an age where science education systematically avoids philosophy, it is strangely forgotten that Kant, issues of his idealism apart, with Newton at his fingertips, pronounced skeptical judgment over assumptions, material or otherwise, arbitrarily made about the 'Big Three', divinity, soul, and free will. We might consider them semantic quagmires one, two, and three, Q1, 2, 3. Kant came close to showing the subtle mechanization of this triad of concepts whose mastery will prove the true foundation for some future theory of evolution. His early essay, *Visions of a Ghostseer*, with its critique of mysticism, prefigured this classic treatment of metaphysics later addressed in his famous *Critique of Pure Reason*. The *Preface* to that Critique opens with the famous statement,

Human reason has the peculiar fate in one species of its cognitions that it is burdened with questions that it cannot dismiss, since they are given to it as problems by the nature of reason itself, but which it also cannot answer, since they transcend every capacity of human reason.⁴⁴

The Darwin debate can be taken as fully in the grip of this peculiar fate. This passage has suffered a strange fate itself. It was a challenge to metaphysics. Yet now science denounces Kant as metaphysical even as it makes the mistake indicated in Kant's *Preface*. Reductionist evolution based on natural selection is as metaphysical as it gets. If Kant is seen to be wrong somewhere, we default back to this paragraph, with no science of metaphysics, and hence no science of evolution, physics generally managing to fend for itself.

The problem arises because Kant proceeded to a seemingly inconsistent viewpoint in his also famous Second Critique, dealing with ethics. Sometimes Kant is accused of being a foundationalist, and pragmatist or Nietzschean diatribes attempt to dismantle Kantian deductions or systematics. Neo-pragmatist denunciations of Kantian dualism are a current fashion, although this began with figures such as Hegel. But analytic philosophy is thrown off-track by Darwin. A seminal text here is Dewey's book on Darwinism and philosophy. If we reject natural selection it is back to square one. We might have to proceed here without foundational deductions. And then such strictures apply to science as well.

There could be nothing more outrageous than accusing Kant of foundationalism, only to make Darwin's theory of natural selection the single and sole foundation for universal and cosmic conclusions. The world of modern physics has led to another, perhaps in the future a better, version of all this, despite the massive denials of most physicists. One might conjecture that Kantian distinctions of the noumenal and

phenomenal are early anticipations of current physical dilemmas. It is not true that realist Quantum Mechanics, for example, renders these issues obsolete. Current physics sails straight into these waters both at the quantum level, and in the issues of relativity and the speed of light. Science has a way to proceed here, but it is never used.⁴⁵

One approach to this confusion is to bypass the methodology of the first Critique and simply look at the real starting point, the antinomies explored in the section on Dialectic. In Kant's first Critique, the section of the Dialectic addresses the Ideas of Reason, and the antinomies that arise in the context of the metaphysics of divinity, soul, and free will. Kant's double-edged critique of 'rationalism' and 'empiricism' finds the Darwinists disguised metaphysicians. Despite the fury of the Darwin debate, it is not Q1 (unless they adopt a reverse argument by design to claim disproof of the existence of divinity) but Q2 that is the nemesis of Darwinism. They have failed to consider the boundaries of the 'self'. We would like very much to avoid the quagmire of 'soul' discussions. But we cannot, and we cannot claim selectionist theories provide proof for us here. This is a question of epistemology. There may be other approaches to the issues that don't adopt the standards of knowledge discourse. But even a polite view of much 'soul discourse' shows that while soul beliefs may be justified the discourse of such is hopelessly confused. It is significant that even Buddhists speak of reaching 'Enlightenment', yet no discourse of such has truly resolved the question of self in closed form. We should take Kant's warnings about divinity, soul, and free will to heart without presumptions, and be wary of any fixed assumptions in these three areas, even at the price of a fuzzy or incomplete theory.

In terms of the first Critique, Kant is a transcendental idealist, and empirical realist. This terminology tends to throw people off-track, and is in many ways unfortunate. The usage of the term 'transcendental' is not the same as 'transcendent'. Although endlessly criticized now, and despite problems, this approach has never been bettered. It is one of the most classic treatments of the 'spiritual/material' quagmire shared by religionists and reductionists both. It is not our intent to promote Kantianism, but it is good to aware of this classic discourse. Darwinism simply proceeds into this swamp and sinks. Despite its evasions, science cannot make a place for the formal idea of freedom, and enters an infinite loop of causal theory. Kant is taboo, and endless research is devoted to methodologies making the same mistakes. Darwinian claims for the evolution of ethics are displaced into deep time, and inferred without evidence, a novel metaphysical finesse. Kant thus remains a player here. Sorry, but it's cash at the point of sale. It's no use saying Darwin solved this problem if the proof is deferred to the next paradigm shift or the expectation of some future discovery of fossil bones.

At the price of a two-domain theory, Kant's approach is unmatched for its treatment of the idea of freedom, becoming problematical for some in his stance on 'practical reason': to which domain belongs 'will', if any? It is useful to displace discourse to the idea of freedom, bypassing the theological deadlock of Q1. It is really Hegel who is the idealist, and who, in collating Q1 and Q3 attempted to counter Kant's two-domain theory with a Spinozistic metaphysical fugue. Schopenhauer tries to restore a streamlined Kantian two-domain theory. The value, or flaw, of the Kantian approach is its self-limitation: the two-domain theory produces the noumenal and phenomenal distinction, careful to deal only with what it knows.

Many will attempt to recast this as the spiritual/material divide, and many dissenting critiques exist of this in current analytic philosophy, or the philosopher Nietzsche, but it remains a benchmark, against which we can measure most other theories. The issue of dualism and its debates distract attention. Like the tip of an iceberg, we see a dualism, supposedly, of the visible tip and the invisible part. There is a dualism, yes, between tip and whole, or, no, there is no dualism, only one iceberg. Although our approach diverges from this formulation, being about history, and certainly doesn't intend to be fooled by the rational theology that Kant almost too fairly withdraws into a systematic skepticism next to the demand for autonomy, that theology of reason should be a caution to the fanaticism of monotheists entangled in the legitimation strategies of theistic mythologies of domination. Since it would be a five-minute exercise to unscrew the Kantian formulation from its sockets and recast it in the fashion of someone like Schopenhauer, we might simply pause in respect for a potential contribution to the crisis of religion that never survived its birth in the press of propagandas.

Darwinism, we can see already, because of its concealed metaphysical ambition, and claims for 'universal science', is thrashing about miserably in Q1, 2, 3, claiming that natural selection resolves them. And nothing can relieve this confusion with the theory in its current form. Its claims about divinity (if any) are challenged by monotheists, its claims about 'self' by yogis (among others), and its claims about 'freedom' (if any) resolve, as we will see, to a particular ideology of social action. Actually, Darwinists are not so unreasonable as near Kantians, and take intelligent stances here in many cases, and it is only the misuse of selectionist theory that is a problem.

The problem is the implied resolution of Q2, using natural selection. The floodgates of scientism open and we have ethics derived from population genetics, next to implied 'proof' of the *non-existence* of soul. This is pure metaphysics in disguise. The point is that the implied negative affirmations on these issues are often taken as established, when they can be no more than disguised metaphysical assumptions. To construct a science of history we would need a science of metaphysics. But we do not have decision procedures on our three key questions. If Kant's science of metaphysics fails, these issues will stand unresolved. The point is that natural selection is not a decision procedure on these issues. The reason is that we have not properly correlated the emergence of self with actual data of natural selection. The clear projection of a metaphysical thesis onto an unseen totality triggers the Kantian alarm bell.

Notice then that Darwinists tend to make fixed assumptions on all three of our questions, small wonder the tenacity of the Darwin debate. Darwinism is really a ship that has taken three direct hits, but always stays afloat due to the artificial respiration of sophistry or assumptions about what science will discover in the future, based on assumptions about what reductionism or natural selection ought to be able to explain, if science is to explain everything. We will construct an 'evolution of freedom' argument to try and trap the Darwinist in a discrepancy, if not contradiction, over freedom and necessity.

In summary, we should note that the questions of metaphysics forever haunt any form of macrohistorical reasoning, and this applies to the descent of man, and we need to stay clear of the 'dialectic of illusion', by using sage concepts that do not precipitate

contradictions. In fact, we will embrace one such contradiction explicitly, that of freedom and necessity, and use the two ideas in tandem in a generalized empirical model.

Schopenhauer and Death In the wake of Kant the philosopher Schopenhauer produced a brilliant, streamlined version of transcendental idealism. We might cite a passage from Dale Jacquette's *The Philosophy of Schopenhauer*, remarkable for revealing the latent potential of 'transcendental idealism'.

Schopenhauer's philosophy often gives the impression of having been composed expressly for the purpose of reconciling the phenomenal will to the inevitability of death. All the apparatus of his main treatise, the fundamental distinction between the world as Will and representation, the concept of thing-in-itself as beyond the *principium individuationis*, and fourfold root of the principle of sufficient reason, can be understood as contributing to a moral, metaphysical and mystical religious recognition that death is nothing real and hence nothing to fear. If Schopenhauer is correct, he proves that death is not an event, and hence altogether unreal. Death is not an event in the world as representation, but is rather an endpoint or limit of the world as representation, and in particular in the first-person formulation as my representation. The world as representation begins and ends with the consciousness of the individual representing subject. At the moment of death, all representation comes to an immediate abrupt end, after which there remains only thing-in-itself. An individual's death is not something that occurs in or as any part of the world as representation. Nor can death possibly be in or a part of the world as thing-in-itself or Will. There are no events or individuated occurrences, nothing happening in space or time, for thing-in-itself, and in particular there is no progressive transition from life to death or from consciousness to unconsciousness. If with Schopenhauer we assume that there exists only the world as representation and as thing-in-itself interpreted as Will, then there is no place on either side of the great divide for death, no possibility for the existence or reality of death.⁴⁶

The connection between science, transcendental idealism, and the issues of the nature of the organism stand out in an especial clarity in this passage, which shows the key to an evolutionary psychology that reconciles the hopeless confusions of degenerated mysticism in the context of a philosophy tailored to the context of science.

2.3.1 Wallace's Second Opinion

One of the strangest aspects of the emergence of Darwinism is the sudden appearance of Alfred Wallace on the scene, triggering the publication of Darwin's *Origin*. A closer look leaves us with the suspicion that Wallace's letters suddenly cured Darwin of his 'evolution' writer's block, and ignited the cribbed notes of his *Origin*. The long delay in Darwin's work here has always been something of a mystery, as if he remained unsure of the basis of his claims. This story of the rigged priority upon receipt of the famous Ternate letter leaves an ambiguity at the threshold of Darwinism. Any evaluation of Darwin and his theory should consider the motives of personal ambition at

the onset. And any testimony to evolution should consider Wallace's 'second opinion' on the subject of evolution, for he quite intelligently saw the problems arising with the question of human evolution.⁴⁷

Wallace is notorious for his later interest in spiritualism, in the tide of interest in the question, that is also evident in the work of Henry James. The attempts to proceed scientifically in this area seem ludicrous to us now, and yet the question will not die in so far as Darwinian thinking cannot produce a viable definition of the organism, certainly not of man. Is the organismic totality a purely space-time entity? Even such a simple question eludes easy answer. It founders at the limits of metaphysics.⁴⁸

Just So (Ghost) Stories It is ironic that the onset of one of the greatest critiques of metaphysics began with Kant's *Visions of A Ghostseer*, sounding the caution that questions divinity, soul, and free will would prove intractable to scientific analysis. Darwinism gets itself in trouble on all three of these classic issues. We might smile at Wallace the table-rapper, but sound science can provide no proof against the reality of ghosts, a dismal circumstance. At least we can be sure that if such exist, Darwinism is falsified on the spot, the difficulty of ghostly forms adapting to their environment by natural selection being evident.

Wallace is an important, but neglected, figure in the emergence of evolutionary theory, and his views, whatever our perspective, are not refuted by anything in the spurious abuse of Darwin's theory of natural selection. Let us note, then, that one of the co-discoverers of selectionist theory later dissented on the question, as far as the descent of man is concerned. Wallace (who started as a super-selectionist) saw something that becomes obvious in light of the eonic effect, that is, the appearance not of adaptive traits, but of potential that emerges through *self-realization* (making the term 'evolution' ambiguous). His classic observation was that

...in creating the human brain, evolution has wildly overshot the mark. An instrument has been developed in advance of the needs of its possessor...Natural selection could only have endowed the savage with a brain a little superior to that of the ape, whereas he possesses one very little inferior to that of the average member of our learned societies....⁴⁹

This sentiment springs to life once we see the way Wallace's dilemma reflects on history. We are confronted with questions about the meaning of evolution, if history shows yogis exploring consciousness in traditions as old as the emergence of civilization. It is entirely possible man came into being as he is in times unseen in the Paleolithic, and that what we sense as 'evolution' is another process entirely, a kind of self-realization of potential. It is still evolution in our sense.

The Buddha Phenomenon That close observation of historical facts might uncover some surprising indications of what is left out of Darwinism can be seen in the history of Indian religion. That Wallace was righter than he knew is obvious to any student of world religion. Man in his ordinary state is unaware of the potential of his 'self-consciousness', let alone able to produce a theory of its evolution.

The Shiva seal History shows the extreme antiquity of explorations of self-consciousness in the discovery of the famous cylinder seal possibly showing a meditating yogi from the period ca. -2000. That what we find in later Buddhism

should be discovered much earlier was to be expected, and makes us suspect still earlier forms of such explorations stretching backwards into the Neolithic.⁵⁰

A simple question haunts the Darwinian account. At what point do we first see the Buddha phenomenon and what evolutionary process can account for it?

Four States Our spontaneous usage of the term ‘self-consciousness’ fits easily into the classic sutra maps of the ‘four states of consciousness’, sleep, consciousness, self-consciousness, and an unnamed ‘fourth’ (turiya), variously referred to as ‘enlightenment’ (a much abused term). The organism, conceived as a temporal entity subject to recurrent manifestations or lives in time, is subject to ‘historical termination’ in the fourth state.

One problem is Wallace’s intent to introduce some spiritual explanation into a naturalistic context. There are better approaches to this than Cartesianism, from Spinoza, to Kant, to the Indian *Samkhya*. Another is the claimed ‘exceptionalism’ implied by applying his objection to man only. That, again, is not the point. If chimpanzees show elements of mind then the argument could be easily backdated, no doubt, to restate the point. We should be glad that Darwinism shows us a sense of kinship with earlier primates. Man is, is not, exceptional. These are dialectical issues that tend to seesaw as we discover new evidence. But in the final analysis we should not be deprived by current efforts to find the unity of organisms from possibly claiming man crosses, or is crossing, a definite threshold into a new evolutionary stage.

The tougher question revolves around the demarcation of the spiritual. Since the crux seen in the Shiva seal is the mastery of the power of attention, we can dispense with the material/spiritual distinction. It is worth noting that one of the most ancient of the strains of the yogis in question was even more ‘materialistic’ than current science, finding this ‘higher potential’ of man to be an issue of ‘material consciousness’ in an evolutionary psychology not quite like the current version. We will examine a later redaction of this called ‘*Samkhya*’ whose demarcation, itself still dualistic, is ‘material top to bottom’, including consciousness as ‘spirit’, and something beyond consciousness.

One problem here is that a great deal of current New Age thinking is now using the term ‘evolution’ to refer to the realization by an individual of his potential, by various methods, whatever their status, but many of them descendants of those of our figure in the Shiva seal. The use of this terminology is misleading, although if spontaneous usage gains a footing, it is a *fait accompli*. We should at least be careful to note that this is not ‘evolution’ in the historical sense we will explore, and that this is clearly operating at a different level than even the creation of religions, for we can see the Axial dependency and transformations of Indian religion in historical times, on a far greater scale than such exemplars as Buddhism, or Hinduism, which become temporal streams with their own character. Beware of gurus attempting to coopt the idea of evolution with claims that some spiritual development under their control represents ‘evolution’. This is not historical evolution in our sense. Nonetheless, Jainism and early Buddhism give us one way to see a purely ‘evolutionary psychology’ emerging prior to the immense cultural politics, mixed with monotheism, that came later.

2.3.2 Theism/Atheism: The 'God' Debates

The confusion of Darwin debate springs in part the attempt to use the evolutionary question as a battleground for beliefs in theism or atheism. Our brief discussion of Kant warns us of the intractable character of such debate, and the futility of this strategy on both sides. This polarization has become explicit in the crystallization of the so-called Intelligent Design movement next to the so-called New Atheists attempting, it seems, to make fundamentalist Darwinism a metaphysical foundationalism. In general, the context of the obsessive Western theism/atheism dialectic makes real evolutionary discourse almost impossible. The world has been held hostage to this closed debate long enough.

Richard Dawkins in his *The God Delusion*, along with Daniel Dennett in *Breaking the Spell*, have produced the symmetrical antithesis to the exploitation of the design argument in what comes close to claims for the legitimation of atheism in the assumptions of Darwinian natural selection. We can suggest that this is a mood, more than a philosophy, as the derailed freight-train of mechanized religion proceeds with dead momentum past all the implications of Enlightenment critique, threatening the attempted cultural renewal of modernity. But Darwinism is a poor candidate for meeting this trend. Religionists should take note of the inexorable dialectical reaction to stale theologisms in the ferocity of 'New Age' passages beyond the religions of antiquity, and the Axial Age. These 'New Atheists' are fighting the suffocation of stale theologisms.⁵¹

In fairness to Darwinian thinking, it must be said that it was crippled at the start by the social context of secularization and traditionalism, and the inability of human thought to find plausible understandings of complexity in fields rendered over dogmatically to the transcendental. A secular view of man and history was actually developing more cogently prior to Darwin, whose theory handed resurgent fundamentalists an obvious way to challenge the scientific worldview.

Modern thought, even if secular, tends to assume that, in the ambiguity of the term 'design', the non-random is evidence of a 'designer', in the concealed anthropomorphism of divinized projections of the 'human will'. But there can be no such assumption of anything, for the term 'will' is another creature betwixt the one and the two. The sense of design is ancient, and one whose context, and primordial beauty, has been lost, because its impulse is that of wonder and its real form that of a question, now turned into a hidden assumption, that the nouns of divinity are already defined. In fact they swiftly became historical dogmas bound in dangerous social or political contexts, and mean desperately different things to different people using rival nouns, all assumed to share a common denominator. The question is, if there is evidence of natural or historical design, what does it mean? The Israelites were remarkable for seeing the evidence for Big History in their 'little history', a sense of design. We must move to recast their insights as 'eonic data', bound up in the 'general sequence' effect of 'eonic evolution'.

The real issue is not so much divinity but ‘will’, the intangible issue of agency, both human—or other. This term leads to its own confusions and is perhaps even more problematical than ‘design’, but its consideration can be more illuminating. Having cited Kant, we may note that the cousin philosopher Schopenhauer was an ‘intellectually fulfilled atheist’, to use the phrase of Richard Dawkins, who saw what would amount to clear ‘design’ as will in historical and evolutionary terms. Schopenhauer’s views are idiosyncratic and crypto-metaphysical in their own way, with a view of ‘will’ we won’t use (nor any others), but his streamlined Kantianism gives an implicit idea of evolution that is non-theistic. Coming a generation after Kant, newly cognizant of the emerging thinking on evolution in such a figure as Lamarck, he seems to have sensed at once the arising dilemma, despite the problems with his unhistorical viewpoint.⁵²

We should note that the term ‘will’ is acutely ambiguous. Man is confronted with the inability to observe his own ‘self’, yet the idea of will is part of his nature. To formulate a theory of natural selection for this latent aspect of man requires explaining how something latent that does not normally interact with the environment can arise at all. But the point here is simply that we can proceed, not on the basis of what we think we know, but on the basis of what we do not. May we suspect that theories of evolution default on the mysteries of the noumenal and attempt the unknowable as phenomenal illusion? We must, yet cannot, extrapolate, or even define, an element of ‘will’. It is possibly the case that complete theories of evolution are not possible for the human mind, the successes of physics being a special case. The problem is that man is a tadpole on a shore, still evolving as a passive organism to a creature worthy of the title *homo sapiens sapiens*. Thus, it would seem, there is as yet no such species as ‘man’.

The terms ‘God, soul, mind, life, will, design, providence, consciousness, sacred, spiritual, transcendence’ prowl like semantic wild beasts near any discussion of history. The term ‘secular’ might soon join them. If you detect historical directionality the bingo button of ‘providence’ is pushed, and discourse effectively terminated. But terms of divinity especially create a great confusion in the study of history and evolution, because they are never defined, and are close matches by verbal association for a spectrum of unconscious archetypes and doctrines enjoined as a duty to believe, mixed with rituals of prayer whose assumptions are legitimated by histories known to be bogus. The term ‘god’ is a dangerous instrument, the more so as it is given the license of the ‘sacred’. Its exploitation is rife. If we specify a noun of divinity, we must demand the same constructivist demonstration as that asked of any other historical generalization. This stance is itself traditional, pointing to the quest for ‘real god’ beyond ‘god talk’, or the search for the ninety-ninth name of ‘god’.

The abuse of the terms of divinity by monotheists is so slovenly that their use becomes impossible, full stop, and we must simply terminate the use of a term like ‘god’ for our discussion. Human culture is essentially deprived of the honest use of such terms as ‘god’. We should be wary of any negation of such an incoherent discourse as ‘atheism’. Spiritual empires claim exclusive rights over the usage of such terms, and manipulate credulity for purposes of social domination.

We cannot arbitrarily exclude arguments by design, but we can demand new terminology, and precise definitions. We will make this our one inviolable rule. Thus, it is almost impossible to use the term ‘god’ without prejudice in relation to differing

religions and *our* study will completely disallow it in any (theoretical) context. This is not an atheistic stance since the discussion is mostly meaningless, and it does allow fresh terms and definitions. Our position here is neither theistic, atheistic, or agnostic. These terms buttonhole all discussion.

In general, the demonstration of periodized patterns in the data emerging from the development of historical knowledge presumes the access and vivid presentation of accurate, up-to-date, non-mythological, information in a large number of fields, a difficult requirement requiring new ways to organize historical knowledge and awareness. The terms of discussion must be ‘historical cash’, facts. On these terms the immense complexities of Biblical Criticism block our easy understanding of the historicity of the whole of the Old and New Testaments, and are a warning that no inference of cosmological design can be transferred to an historical one. And yet, ironically the era of the Prophets is of great interest in terms of our historical structure, and takes on new life in its naturalistic eonic context. We will see that this era fits better into quite a different sort of eonic design! But the first difficulty here is once again, what are the facts?⁵³

If we suspect a macrohistorical aspect to cultural evolution, then we suspect at once the perceptions of religion confused with perceptions of evolution by primitive men. This fact goes a long way toward explaining the religious conflicts surrounding evolutionary thinking. The first principles of religion were, perhaps, the tenets of the jungle theologian, as a response to auditory input in the silence of a great forest, ‘If it moves, it’s alive, whether creature, wind or spirit’. The rest follows from the differentiations of ‘winds’ and ‘spirits’, abutting in the reductions of science, as the mass and the force, beside the philosopher, with his first Idea. The forest philosopher, the wild man of India, is the bridge of this past and future, alert in the jungle of thought to No Idea.

Confusions of Nietzsche One of the pitfalls of twentieth century thought is the confusing influence of Nietzsche. With Lange’s *History of Materialism* and in a play on the noumenal in Schopenhauer, Nietzsche proceeds to a Kantian decadence in an externalization of the will that is a poor continuation of a basic breakthrough. We can see already that Nietzsche’s views on history are wildly off the mark. If there is no direction to history, that is one thing. If we find there is, Nietzsche is plainly wrong, and might simply be a reactionary, the onset of the Rightist Terror, quite terrifying indeed, wherein he is a bit player, rapidly changing gears as his suspicions arise. Nietzsche is the first Darwin casualty, and strangely blind in his failure to see the place of equalization in world history. Nietzsche’s views are, of course, very complex, and it is also true he was a cogent critic of Darwinian natural selection. His challenge to Kantian foundationalism is ambiguous, and he triggers an immense subsequent confusion.

There is ample place in our account for the descant of this philosopher, but we should note his late appearance in a counter-revolutionary dialectic. But Nietzsche is so mesmerizing that we fail to see he is simply misleading on some very basic points. Is this the naïve myth of Romantic genius who will penetrate the ultimate? Why should we replace the Kantian thing-in-itself with the spurious ‘will to power’? It’s a bad deal, and quite vulgar. Perhaps the ‘will to power’ is an exoteric booby trap for his fans among the last men.

What a pity a man of such talents could not have registered eonic data and not gone off in a wrong direction. Nietzsche seems to suffer the strange vanity of thinking our downtrodden Mass Man, the bourgeois atomic individual, heretofore *sans-culottes*, should lament the aristocratic derelicts of the Hyperborean age, or the *arrivistes* of capital accumulation. Are these really expected to be our cosmic esthetes? As to the latter, Marxists should feel pity at this degraded homo-morph, as a ‘working class type’, plying his investments unwittingly for the common good.

To oppose the trend toward equality seems like a Darwinian secret vice, and is contradicted by the clear *evolutionary* significance of equalization and integration as *evolutionary* trends. Dinequality, by and large, is simply ‘counter-evolutionary’, although we see the full dynamic in the dilemma of local transformation of the global whole in the part. To indict the hayseeds of the Neolithic Revolution flooding into industrial societies is a pointless gesture. In a few generations they are transformed.

In any case, the fiction that aristocratic societies have some monopoly on the noble and the artistic is contradicted by the facts, among them the appearance of the very greatest art among the discoverers of the idea of freedom, the Classical Greeks, just as democracy was struggling to be born, in concert with the all-too-brief appearance of the genre of Greek tragedy. The sudden waning of tragedy, cogently spotted by Nietzsche, has another better explanation in the eonic effect. This era of the greatest art is associated with an historical transition in the center of our eonic pattern and contrasts directly with the later derivative Roman literature in the breakdown of the Republic. This Rightist nonsense was always surprising from a man like Nietzsche. Modern democratic society, even so-called, has outperformed every aristocratic society that ever existed. It is the latter that are the deadweight of history, not the energized masses of modernism.⁵⁴

2.3.3 Critique of Evolutionary Economy

Darwinism is often charged with ideology. Our design critics of Darwin are well-placed conservatives with a sudden silence on the queer cohabitation of theory and economic thinking. We should wonder if their interest is in evolution at all if their culture wars are so closely associated with market ideology. If you can get away with calling Darwinism science, then you have a solid basis (it seems) for defining ‘human nature’ and legitimating class divisions. But where was the classic left in all of this? One reason the Darwin debate endures lies in the tendency of progressive, liberal, or leftist thinkers to embrace scientism to promote secularism, thus making them Darwinians, where they might have exposed Darwinism. The debates of these groups with the promoters of sociobiology always exempt the basic theory of Darwin from their criticism. It is altogether appropriate to embrace the facts of evolution, but the problem lies in the failure to see that it is natural selection that is the core of the ideology. Marx, to his credit, spotted the problem at a glance, as a matter of first impressions, but ended caught up in the tide of Marxist confusion here.

For Darwin the Whig to be reissuing a one-factor version of the original two-factor theory of Lamarck the Radical (see note below) should alert a Martian in outer

space ideology is at play. Sure enough, a close look shows the confusions of revolution and evolution in the generation of young Darwin. The legacy of Marx and Engels as critics of ideology is clear, but the critique of social ideology turned instead into an embrace of Darwin. The botched materialism of Marx and Engels became a defining obsession in the critique of Hegel, who, ironically, uses an early and altogether clever version of something like the Intelligent Design tactics in a different context.⁵⁵

As to ideology, we have already noted the way Darwin's theory delivers a constant unconscious suggestion that selection in the past, theoretically established, must surely endorse, so unconscious thinking often goes, the same cunning behavior in the present in a confusion of domains of theory. If natural selection produced bigger brains in the past, then competition is at a premium, and a second helping of theory for future bigger brains is a new silly 'should', and not bad for the economy also. Since the best defense is a good offense, let's strike first, to the greater glory of evolution.

In practice, Darwinists forever confuse evolution with economic analogs and then seem, by a twist on historical materialism, to see economic explanation thus Darwinized as fundamental, and made into a universal history. This can hardly be called science. There is a further irony here, in the concealed use of a 'design' argument. An economy, apart from anything else, is a field rich in 'designers', economic agents. Since Darwinism is so often compared to economics, shall we assume as a tool of explanation all the designs of economic agents? As with the proofs of the circle-squarer, we are assuming that which is to be proven.

We are so used to the conventional picture of Darwinian explanation that, even when pointed out, it doesn't sink in that Darwinism is simply an economic ideology in disguise. In fact, the tenacity of Darwin's theory is such that this is often pointed out without anyone realizing that it is an indication the theory is wrong. The attempt is made to critique Social Darwinism, leaving the core theory alone. Consider how little we actually observe about things that evolve in deep time. The attempts to produce a theory are unwittingly revealing of the worldview of those attempting this, casting about for some analog to get their bearings.

S. J. Gould in the recent *The Structure of Evolutionary Theory* states the unwitting confusion with especial clarity, "I would advance the even stronger claim that the theory of natural selection is, in essence, Adam Smith's economics transferred to nature". Is Gould, a stalwart critic of ideology, disagreeing with this, or is he, in fact, stating his own agreement with this, as a stalwart defender of Darwin? The point is clear in the echoes of Smith, but how do we know this is the process that produced 'evolution' as a whole, the descent of man? Was anyone there? This contradictory behavior in the supposed critics of ideology is a curious inversion of the process of legitimation, and has proven more effective in keeping Darwin safe than anything from conservatives.

As the author himself points out in a passage worth reading for its dogmatic assertions and self-enforced stiff upper lip about nature's amorality in pursuit of its self-optimizing 'hecatomb' (more dethronement rhetoric), the factor of laws and regulation is built into the evolution of complex economies, which only arise in their modern form under very special conditions, and which are set up by the deliberate tactics of 'free market' policy makers. To take this artificial example as an exemplar of nature is a gross confusion, the more especially if it is taken as a refutation of Paley. Free markets are

enforced, and quite carefully designed, usually to favor a select few! Nor does the mechanics of markets constitute a set of ‘laws of nature’ taken as grounds for the abrogation of ethical interactions. We should consider the moralist Adam Smith near the ‘initial conditions’ of a particular *type* of economy. Where did we get this designer from? And the suspicion this is ideological ulterior motive as theory drove the left to attempt a change of rules!⁵⁶

This breakthrough in modern economy was a cultural as much as an economic ‘evolution’, and quite apart from anything else, needed help from Adam Smith, the Scottish Enlightenment, and much else. The economic agents needed a philosophy to design and direct their action. What about the evolution of such philosophy itself? Did all this also happen at random? This is one of the most difficult of questions and requires a complete change in our methods. In fact, the answer is no! Unfortunately, Marxist thinking on base and superstructure confused the issue here. Certainly in the case of Darwinism we see this concordance. The superstructure of Darwin’s theory in the social context of new rising means of production, the base, is clearly an ideological reflection. But is it generally true? Consider carefully the nonrandom distribution of social thought emerging in world history, and the fallacy of standard sociological thinking will come as a shock. It shows an evolution of quite another kind. Culture and economy are not evolving in the same way. That should falsify Darwinian economics at once.

Economies are subsets of social wholes, and we have no grounds for assuming that the cultures that include these ‘self-optimize’ via the same economic or other factors. Quite the contrary, the evidence points against it. Unlimited social competition can produce mayhem and degrade culture. And these ‘designed’ market economies have often failed to function properly, produce a constant dialectic over the methods of tinkering redesign, what to say of revolutionary action. The absurdity of this kind of muddle is chronic. What real grounds do we have to apply this to earlier evolution in a grossly speculative conclusion that nature left ‘unregulated’ will produce the man we find in history? Who is the ‘Unregulator’, heretofore our grand Designer?

Again, one might note that questions about *economy* and questions about the *evolution of economy* might be quite different if that evolution shows different ‘economies’ created by the ‘initial conditions’ of policy makers. Free market economies are constructs from a universe of economies. The rules change as the agents change their demands on economic function. Economies could evolve from one type to another by one law, and evolve as themselves by another, in between transitions to different types. At what period of history is the analog ‘economy’ referred to, there being quite a list of such, pressed into Darwinian service? And what caused the sudden crystallization of the modern style economy near the close of the eighteenth century? Was this chance ‘evolution’? And what then of the clear factor of design, ‘designed *laissez-faire*’?

As one author notes, “Classical political economy presents an imposing façade. For more than two centuries, its professed adherents have been grinding out texts to demonstrate how a market generates forces that provide the most efficient method for organizing production. The concept of primitive accumulation—that is, the process of depriving people of their means of producing for themselves—seems far removed from the literature of classical political economy.” Are we to suppose that Darwin mistakenly borrowed an ideological cover story, yet succeeded in producing a science? The author

also cites the often-quoted comment of a Francis Horner, a Captain of Industry if there ever was one, from 1803, declining to review a reissue of Smith's text,

I should be reluctant to expose S's errors before his work had operated its full effect. We owe much at present to the superstitious worship of S's name; and we must not impair that feeling, till the victory is more complete....[U]ntil we can give a correct and precise theory of the origin of wealth, his popular and plausible and loose hypothesis is as good for the vulgar as any others.⁵⁷

I think we should do well to suspect the equally complete cynicism in some quarters in the social promotion of Darwin's theory. Perhaps we have cut and paste 'S.'s errors' for D's. Is the whole game a hack? How utterly convenient. Economic agents with legitimate selfishness in theory are blessed as the breaking front of evolution and the champions of economy both.

This theoretical stupidity is a rife in a field where its adherents show strong resistance to insight because they consider all this brilliant science. It is odd that the left was unable to debrief this confusion, in a spectacle of guard dogs that didn't bark. Marx's initial skepticism was entirely on target, yet the radical left was soon taken in. We end with the Darwinized left of the Marxist Bourgeoisie, enforcers of last resort of the capitalist-Darwinist dynamical fantasy. None of this gainsays the possibility that Smithian economic arrangements might constitute an efficient tactic of economic management. Subjective impressions suggest this is the case. But it still leaves the question of ethical interaction in a field now routinely justifying its operations with innuendoes about survival of the fittest as scientific law.

2.3.4 The Evolution of Evolution

Much of the controversy over evolution predates the work of Darwin and it was Darwin's achievement to create an almost packaged formulation of gestating ideas of evolution, one that the public was prepared to accept. In many ways, the real founder of evolutionary science was Lamarck whose more cogently intelligible, but still inchoate perspective never survived the radical associations of evolution in the wake of the French Revolution. Accounts of the history of biology tend to put the central focus on Darwin, even to the point of suggesting indirectly that the idea of evolution was his achievement. But in fact all of the main ideas, even that of natural selection, preceded Darwin, and the real source of the new biology was in the period of the Enlightenment at the end of the eighteenth century, a period replete with a host of innovations in all fields. As we shall see there is an irony to this fact, and we will discover a different side to the idea of evolution in the development of evolutionism itself.⁵⁸

In fact, the birth of conceptions of evolution was a rebirth and we see the emergence of the first inchoate forms of evolutionary thought in the ancient Greeks at the time of the birth of philosophy itself among the Pre-Socratics.

An Eonic Observation The idea of evolution shows, not a birth, but a rebirth in the period of the Enlightenment. Appearing among the Greeks and Indians during the Axial period, it suffered eclipse, as did science itself, in the medieval

period. We will soon discover that the idea of evolution itself undergoes a distinct process of its own evolution, and this is not Darwinian, in correlation with the eonic effect.⁵⁹

There is something almost mysterious in the creative career of the Enlightenment, especially in the last half of the eighteenth century. The period, which should include the Romantic reaction, and much else, creates a sort of great divide in which a whole new culture comes into being. We see the Industrial Revolution, and the birth of modern capitalism, the triumph of liberalism in the era of the French and American Revolutions, a cascade of technical innovations, and the crystallization of the secular society struggling to be born since the equally seminal period of the Protestant Reformation. We have a tendency to produce univalent descriptions of this rich and many-sided period of bursting change. But its multifaceted character shows something far more complex, a constellation of dialectical contradictions. The Romantic movement tends to be filtered out of our sense of the historical inevitability of the Enlightenment breakthroughs, narrowly defined in terms of a reductionist program. We often fail to see the real cultural evolution of conflicting oppositions. And in this context we find the strange phenomenon and timing of the classic era of German philosophy beginning with the figure of Kant. The legacy of the so-called Teleomechanists and *Naturphilosophen* is categorically rejected by modern biologists, but the result is equally problematical, the collapse into scientism. As we proceed to examine the question of non-random evolution we will find that this period is itself one key to the overall periodization of world history in terms of its historical evolution! We encounter the irony in the *non-random evolution of evolutionism*.

Kant and Teleology As biological science in the Newtonian legacy emerges in the era of positivism the denaturing of teleological components in the organism induces instant failure for the proposed science, leaving Darwinists stranded with no definition of an ‘organism’. This situation was virtually prophesied by Kant whose work suggests an ‘antinomy of teleological judgment’. There *cannot*, yet there *must* be, a teleological aspect to organisms, indeed to evolution. Mastering these contraries remains a task unaccomplished by biological ‘science’. The data of the eonic effect, proceeding empirically, gives us an actual example: a intermittent oscillator that expresses directionality, i.e. a hybrid of mechanical and teleological components, both and neither.⁶⁰

It is significant that the idea of evolution appeared in concert with the era of the French and Industrial Revolutions. After the groundwork of figures such as Linnaeus and Buffon we find the foundations of evolutionary thought in Lamarck and Erasmus Darwin, the ancestor of Charles Darwin, first formulating explicitly the idea of transmutation or development. To see the inherent ideological character lurking in the idea of evolution, we can look at the birth of the idea under the specter of Jacobinism in the wake of the generation of revolution. The conservatizing Darwin all too obviously fixed the idea of ‘slow evolution’ from its association with ‘revolution’, in the match with emergent ideologies of classical liberalism, managing to pass this off as ‘science’.⁶¹

Significantly the work of Erasmus Darwin was braided with notions of progressive social change and his participation in the work of the famous Lunar Society at the dawn of industrial production hardly seems accidental in retrospect. The impact of the idea of progress was built into the take-off of new forms of social production. Herbert Spencer continued this vein of thinking, and the confusion over social and biological evolution began to make its appearance, and this inability to keep the two straight has persisted to this day. The question is insidious for it persists even as Darwinists try to correct it, or offer disclaimers that they are exempt from these fallacies. But it is the clumsiness of the application of the idea of evolution that is at fault, and Darwin is by no means exempt.⁶²

Evolutionary Progress The idea of evolution was justly born under the star of the idea of progress, itself an expression of the modern transition, in the Battle of the Ancients and Moderns. While the ideological abuse of this concept of progress appears to be corrected by Darwin's neutral foundation in random evolution, the result leaves the idea of evolution stranded in one-sided reductionism. In fact, any true theory of evolution must give expression to some dynamic of evolutionary progression. The disappearance of macroevolution, a concept still present in Lamarck, into microevolution is the tale of Darwinism gone awry in the dialectical overshoot and undershoot of opposite mistakes. Evolutionary progress, or bare 'progression', in deep time is notoriously invisible and undetectable, and yet appears at once in historical intervals as soon as we subject the data to careful periodization, and a division into different levels. We should note the entanglement of ideologies in the phases of eonic history: the idea of progress is born in the modern transition, then suffers reversal, as we will see, in the postmodern period, in exact concert with the 'eonic stages' of macro-action and micro-action!⁶³

And then suddenly the period of reaction set in created by the turmoil of the revolutionary generation. It is interesting to consider Erasmus Darwin and Adam Smith in this regard. They share the brief moment of the birth of classic liberal thought, before the tide of revolution completely recast the terms of discourse. A new progressive philosophy of economics enjoyed a brief period of radical notoriety, followed almost within a decade by its ideological rendition as a more conservative liberal ideology. We hardly think of Adam Smith as a radical thinker! We need not agree with the views of Karl Marx to see that by the year 1848 the idea of what constituted radical thinking had undergone a change indeed, and that his depiction of the triumph of a new type of economic civilization, with its attendant ideologies.

The period of the Restoration indirectly conditioned the confusions over evolution, and the association of the idea with revolution made the idea highly controversial, even politicized. The dilemma over slow and fast evolution arises here. The very idea of progress or revolution was subject to concerted attacks by the forces of reaction, and this seems almost to have delayed the acceptance of evolutionary thought for a full generation. In fact, it was in many ways Lamarck who first formulated a theory of evolution, and yet by the end of his life he was almost a forgotten figure. In the

background the new biology of the embryologists, such as Von Baer and Geoffrey St. Hilaire, was creating the foundation for a new conception of evolutionary development.

Then came the famous *Vestiges of Creation* by Robert Chambers whose immensely popular but anonymous bestseller paved the way for the work of Darwin twenty years later. In this context we have a better sense of how Darwin managed to succeed where these earlier figures had failed, and the conservatizing of evolution was one of the keys to his success. We can thus see that Darwin's theory was successful as an unconscious reaction to this political background, and the attempt to fix the idea in association with a triumph of liberalism in its classical version made for an easy passage at the right time. This association of the issues with ideology and the development of modern politics would seem to be irrelevant to the question of science. And yet it can help us to uncover the chronic confusion of cultural and biological evolution that has always been a notable feature of Darwinian thinking.⁶⁴

The explosive generation of industrialization, emergent liberalism, and revolution is the hidden context of Darwin's theory. Darwin's social position and genealogy, scion of the family of Wedgewoods so prominent at the birth of the industrial revolution in England, colors his thinking, and his strategy proved to be brilliant in the way he packaged his theory and timed its publication. In fact, the curious phenomenon of the delay in the presentation of a theory that was essentially tabled in the 1840's has many different aspects. It was sudden appearance of the famous Ternate letter of Alfred Wallace that forced the issue and drove Darwin to make public the nexus of ideas that he had long kept private, even from many of his friends and colleagues.

But the idea of evolution was in the air, always with the built-in ambiguity between social and biological development. One of the transparent influences on Darwin's thinking can be seen in the work of Herbert Spencer whose views on cultural evolution produced the classic phrase 'survival of the fittest', beginning the career of 'traveling concepts' between evolutionary and cultural categories of development. The crystallizing classical liberalism was a natural companion of Darwinian theory, and the still more vexacious Social Darwinism arising in the wake of Darwin's work springs from this incestuous constellation of mismatched conceptual themes claiming the title of evolution. The work of Herbert Spencer, now a very dated figure, is often made to take the blame for the Social Darwinist implications of evolutionary ideology, but these deflections of the essence of the problem away from Darwin tend to make us fail to see the ideological core of Darwin's theory.⁶⁵

The point should be clear from the direct influence of Malthus on Darwin's formulation of his theory. Malthus was the founder of the science of demography, but he was also a highly contentious conservative figure, one of the most blatant in his propensity to use theory for social legitimation. The polarized and acrimonious debate over Malthus' work went on for an entire generation, and in many ways prefigured the more complex and subtle Darwin debate, still colored with underground strains of class struggle, revolution, and the reform bill. It is easy to lose sight of a simple fact: the mechanism adopted by Darwin under the influence of Malthusian thinking is open to

severe challenge on its own terms. The struggle of populations, and the incidence of natural disasters or sudden population fluctuations, is seldom seen as a very weak candidate for an evolutionary theory. It constitutes one of the first examples of the tendency to conceal the crisis of observation that stalks all claims of evolution. The scale and duration of deep time are an unknown. It is therefore a temptation for a theorist to cast about for what he can observe as a clue to what he cannot. But it is very doubtful if what we mean by evolution is really caused by anything like a Malthusian scenario. Certainly the factor of natural selection is a given, but there is no inherent reason to assume that this generates the emergence of complex forms that we see in the fossil record.⁶⁶

The Triumph of Positivism The nineteenth century produced an immense proliferation of the methods of scientific reductionism in the biological and social sciences, as the onset of positivism led the way to a monolithic consolidation of scientific viewpoints. A symbolic influence is seen in the figure of Comte, and his somewhat idiosyncratic Positivism, which influenced Darwin at the early stage of his career. One of the problems here is that Comte's work exhibited its own metaphysical tendency, and the historicist philosophy of history in which the Age of Positivism was to succeed those of theology and metaphysics induced a sense of an irreversible progression of thought, with the methodology of science in the starring role.⁶⁷

It is significant that the formulation of Darwinism and the so-called Age of Positivism followed directly in the wake of the collapse of the great era of German philosophy. The end of the reign of Hegelianism, which began with Kant, was very sudden and the history of the 1840's shows us the drama of Feuerbach and Marx challenging the legacy of idealism and championing the need for sciences of society. This period produced a clear delineation of the human and natural sciences, with a challenge to the reductionist implications of the expanding scientific revolution. A kind of amnesia has overtaken science in the stubborn regression, fueled by spectacular, but misleading, technological wonders, to reductionist obsessions dressed up in scientific methodological jargon. It is nonetheless true that Darwinism thrived on this sense of the epochal transition of modernity attempting to establish the foundations of a new age of secularism. This is not an unreasonable view, once its tacit assumptions are brought out. The problem is Darwin's selectionist metaphysics, which cannot sustain the task of defining secularism. A strong case can be made for the 'new age of science', but this is not something fixed or defined by a passing phase of evolutionary theory.

The earlier context of the idea of evolution in the generation before Darwin shows a broader spectrum of views gestating on the threshold of a science of biology. The focus on positivism makes us forget the immense era of philosophical flowering in the German Enlightenment, whose conclusion in the generation of Marx and Feuerbach foretells the downshifting character of the next generation of scientific methodologies. The moment of the birth of the idea of evolution produced a rich field of thinkers. Kant and the teleomechanists, Erasmus Darwin, Lamarck, the school of Hegelian *Naturphilosophie*, Schopenhauer, the embryologists, these and other figures are grappling with the implications of the new evolutionary perspective, and the question remains whether Darwin's theory did not diminish this complex field of his predecessors. The dialectic of

materialists and idealists, mediated between such figures as Kant and the renewed Spinozism of the Hegelians, produced a universe of thought more solid than the watered down collision of naturalism and spiritualism characteristic of the current Darwin debate.

2.3.5 The Science of Freedom

From Newton to the period of Kant we see a full cycle of a dialectic that resulted in the distinction of human and natural sciences. This period seems lost to us and we live in the secondary downfield arising in the emergence of scientism as a universal discourse. The Science Wars, and the Two Cultures debate, are really echoes of this period near the climax of the Enlightenment when a deeper dimension to rationality was explored against the backdrop of the Romantic movement, and much else. The point for us will be in something like Kant's distinction of theoretical and practical reason. Whatever we think of his formulation something like it is always present, as a challenge to the reductionist monism ambitious to mechanize all explanation. This distinction is not hard to find in current science. That said, the original formulation of the eonic model consisted of studying systems theory, quantum formalism, artificial life and computer concepts, with Newtonian mechanics in the background. The transition to Kantian ideas and the philosophy of history is a subsequent stage. To complete the project of science would require a science of freedom.

We should acknowledge a certain irony in the use of this phrase. This 'science' is, of course, the great storm-tossed vessel of Romantic *Naturphilosophie*, visible in the metaphysical continuations to Kant seen in a figure such as Hegel, with his classic thematic of an 'evolution of freedom', 'evolution' a term he did not use. We might think this vessel was lost at sea, and the collapse of Hegelianism in the period of Comte signals the onset of a positivistic era that swings to an opposite extreme, a reduced methodological naturalism deaf to its inherent dilemma. We might be counseled to bypass Hegelian mysteries, but take with us a preposterous question. If one were so Hegelian as to rewrite foundations armed with Spinoza, then does not the grand opera of Idealism constitute a form of methodological naturalism? Like the smile of the Cheshire Cat this joker in the deck lurks in the reshuffled tarot of modern science, if that be a transient episode of scientism, with its recurrent, muffled cries of 'Back to Kant', maybe even Newton, the real one.

Modern science is an attempt to derive the unity of nature in the context of fundamental laws, working upward in a kind of 'bootstrap' that is itself reminiscent of the evolutionary. This attitude is as essential as it is misleading. Bootstrap is an historical 'subhistory' interacting with general history. We are left with a haunting question. Does physics really apply to reality, to human reality? Reductionism is an essential part of our own argument. And yet we are left to wonder. Look at the desert of theory left behind by the whole initiative of science in the cultural realm.

From Newton to Quantum Mechanics, theoretical bootstrap proceeds on the majestic subtleties of the differential equation, and then, at the threshold of life, squawks like a radio moving between stations. Are we really sure reductionism can do evolution?

In general, the means of explanation is both evolving inside a larger system and being used to explain that system. Should culture adapt to each paradigm change or wait until the end times of theory to draw its conclusions? One trap is that a teleological system might evolve anti-teleological sciences teleologically and then find the result wrongly applied to the whole. The deficit between the latest upgrade to the definition of reductionism, and out of date explanations, is already a force to be reckoned with in the consideration of any kind of theory at all. Social science is out of sync with the evolution of physics, and ended up negating the surer insights of our transitional figures, and their careful groundwork for the human sciences, to coexist with the natural sciences.

It is important to remember the history of this reductionism in physics, where, for example, the phenomena of electro-magnetism were 'reduced' only after they were first discovered as independent empirical realities. Therefore, our first search is in the field of phenomena. Further, each 'small' step sees a tailor-made addition of mathematical methods, with an exotic change of character in the fundamentals as the mathematics of Quantum Mechanics is discovered, at a deeper level of 'reduction', voiding the previous set. The issue of reduction is then quite unclear, and does not preempt the nature of phenomena very 'distant' from these sources. Finally, one should wonder if the new world of mathematical logic discovered by Kurt Gödel, with its issues of consistency and incompleteness do not impinge directly on the issues of evolution as it 'stretches' to encompass the vast domain of separate things. We can detect the failure of bootstrap in the sudden decompression as substandard mathematical foundations in population genetics (despite the great interest in this subject). The plug-in 'force' argument is absent, and *ad hoc* substitution of randomness is all we see. Sight unseen we suspect the failure to observe deep time is misleading theory.

Although the attitude of modern 'bootstrap reductionism' in the best sense of seeking the unity of nature on the bedrock of physical laws should be our starting point, or at least a reference point, in practice, issues of evolution are doomed to be empirical mapmaking before they can aspire to being theoretical derivations of first principles. It is often assumed that the application of the causal determinism implied by the use of differential equations in such fields as population genetics or the macro-economic model are 'scientific' whilst all other approaches are subjective. The truth is probably very far, if not the reverse, from this. In a nutshell, we will discover that science can as yet claim no generally viable theory of evolution. The confusion over history and the descent of man is but one gray area where the assumptions of reductionism produce pseudo-evolutionary theory.

It is the distinction of facts and values that returns to haunt all theories of evolution, as does the so-called 'naturalistic fallacy', whereby the 'is' and the 'ought' are to endure mutual quarantine. The charge of metaphysics is laid against the claims of all violators of these protocols. But then no theory is possible, for the elimination of values may fail to account for the phenomena observed, here the association of religious evolution and periodicity, and the parallel exploration of a spectrum of values.

Systems, Selves, Self-organizations The category beyond Darwin needed has been found, self-organization. But the actual use of this category never seems to succeed. The resemblance of the eonic data, our turning points, to patterns considered in theories of self-organizing systems is too close (and yet too hopelessly fuzzy) to reject and one is

drawn into an immediate inspection of their content. We cannot adapt current theories of 'self-organization' to the eonic effect in any rigorous fashion, and yet at the same time this category, taken if necessary as a mere metaphor, is the only one open to us. There is also a pronounced tendency to confuse or collate these theories of self-organization with the 'self-organization' of economic systems. That is not at all our usage. Culture does not self-organize in the fashion of economic systems.

Indeed it is at the point of seeing the limits here that we can retreat and devise a new type of model, but as a form of bare periodization. It is possible, in a pinch, to produce a block diagram of a refrigerator or an automobile without understanding the foundations of mechanism. In the same way we can devise an 'eonic model' to see 'how history works' in the sense of what it does, at a high level.

Computer Mice The realm of computer science shows us the most obvious example of something like our coming distinction of mixture histories, 'system' and 'free action'. Thus science is already tackling this question in its hybrid systems of computer mechanics, and the code for a computer mouse is most provocative in this sense.

Something like the functionality of a computer mouse must be involved in any genuine statement of historical law in the sense that one system idles while another acts, and must match coordinates, on the computer screen, with events to receive input 'geographically'. It is interesting that the programming tactic for a computer mouse is a 'do...while', or 'wait until input' statement that does not execute except in relation to free activity. The computer mouse is clearly evident in the macroeconomic study of the economic cycle, as data from 'just before' is recycled into 'free action' modification of a system in motion. This system of agent and machine is worthy of reflection, because it contains the seeds of a new approach to science.

There is a symbolic significance to this humble situation. Two circumstances, the physical and the human, are given at the start of a session of interaction, without the derivation of one from the other. In the same way, human psychology is an historical given. We cannot safely derive it in advance from a theory of evolution on the basis of selectionist theory. In general, we wish to derive consciousness from some prior system in a scheme of absolute reduction. But is that possible? We are better off taking two independent realities, as given, at the beginning of our discussion. In the process we look at the history of man's attempt at self-understanding, and that includes the 'present of theory'.

System Action/Free Action This is but one of many examples where we deal with tandem systems uniting the operation of that system, and a field of options in the context of that system. Such a system may or may not be deterministic, at a higher level, but the point is that within the system context, optionality is a given. This 'freedom' factor requires us to examine the field of realized choice against the backdrop of the system operation. As we examine the eonic effect, this kind of analysis is our best strategy of explanation.

The Newton Riddle We should note that modern scientists would not find Newton, strictly speaking, one of their number, given his interest in the argument by design, and his realization of the limits of his subject. As one historian of eighteenth

century biology notes, the foundational Newton at the threshold of modern physics exempted the human will from the laws of momentum, and found divinity implicit as the sensorium of space as a necessary adjunct to cosmic function.⁶⁸

And it was the philosopher Kant, among others, who moved to bring a theory of stellar evolution into this void where the argument by design was, as in the era of Darwin, still entangled in the deliberations of the new science. A similar resolution of the question of human will has never been successful. We should note at least that the real Newton is almost a foreigner in the era of successful scientific worldviews, and concerned himself with the full spectrum of questions from the theological to the occult and alchemical later discarded as irrational in the coming worldview.

The *scientist* Kant is forgotten, and the philosopher Kant (next to Rousseau) is little appreciated for his effort to ‘model’ the aspects of the ‘will’ that Newton found intractable. Newton at least knew his business and grasped the nature of the limits of his subject. The complexity of the Kantian response is thus seldom seen in its clear echoes of mechanical explanation in the context of the rising physics. We should note the fact that Newton is almost out of character as a founder of his own subject, while we will rapidly discover that he makes better sense as the hero of our own enquiry. Thus we may proceed, since the scientist has so little use for this inspirational figure seen as better suited to our own. Thus the main chance must a foundation in science, thence to proceed, if we may, to a science of freedom.

3. DESCENT OF MAN REVISITED

3.1 Climbing Mt. Improbable: The Eonic Effect

Looking backward, world history shows the unexpected evidence of a non-random pattern, one that we should naturally call 'evolution'. We simply assume the flow of world history follows random logic, conditioned as we are by Darwinism. Yet the rapid growth of archaeological knowledge since the nineteenth century is moving to falsify this assumption and has greatly expanded our views of the emergence of civilization and, significantly, crossed a threshold of five thousand years, the bare minimum interval, we are about to see, for grasping the logic of historical evolution. Such a non-random process is the clue to something going on at a deeper level. The pattern itself suggests a developmental sequence of self-organization at work, something that is 'climbing Mt. Improbable'. Indeed, we should call this 'evolution'. This 'evolution', on reflection, must be connected in some fashion to earlier stages of human evolution. A non-random pattern on this scale shows us something missing in Darwinian thinking and falls into the category of 'evolution', 'evolution of some kind', with a question, What is the meaning of evolution?

We can easily prove the point by simply laying out a careful timeline. World history since the invention of writing shows an exact systematics, often down to the decade, an unnerving warning about earlier periods with less data. If we examine this pattern of developmental emergence and connect its timeline with man's earlier evolution, we realize that they must be connected. We are suddenly suspicious that a process like what we see in world history is present, but invisible in the earlier phases of human evolution. We begin to suspect that we need a 'centuries-level standard', evidence at very close range to detect what is really driving evolution.

Paleolithic Current evidence distinguishes anatomically and behaviorally 'modern' man, the first appearing ca. 200,000 years ago, the second in the period after -100,000, with the remarkable threshold, often called the Great Explosion, somewhere between -100,000 to -50,000, associated we are to suppose with various 'Out of Africa' scenarios. Darwinists are determined to ignore this phenomenon, but the evidence makes no sense as slow evolution.

Was there a 'Great Explosion'? The evidence points to a sudden crossing of a threshold. Once we see our historical pattern in action this sudden passage begins to make sense, because we can see that something more than natural selection is operating in a relatively short period of time, possibly in intervals of five to ten thousand years. We see, in any case, that world history is an instance of a 'great explosion', the rapid

emergence of civilization over ten millennia. We strongly suspect this 'evolution of civilization' is related to the earlier evolution of man.

At the very least in the debates over fast and slow evolution, we seem forced to conclude that many of the behavioral characteristics of a new species appear quickly. Both slow and fast evolution are occurring overlaid, please note. But these periods of rapid emergence are completely beyond the range of our emerging historical standard, the 'centuries level', and we can only wait for further research to confirm or falsify this emerging but fuzzy picture of the suspiciously sudden appearance of *homo sapiens*. The obvious resemblance of the phenomenon of the so-called Great Explosion to the eonic effect leaves an immediate question mark for Darwinian claims, or plaintive hopes, that some lucky mutation suddenly appears to accompany the seeming *fait accompli* of a hominid so accomplished in language, art, religion, and the elements of 'technical ingenuity' that will transform the nature of cultural evolution. As we study the eonic effect, we will begin to see what we are probably missing. We suddenly realize we have a demonstration of how the earlier rapid evolution might have occurred!

The Neolithic A relatively static period ensues until, in the interstices of the various Ice Age rhythms, human cultural evolution begins to take off with the discovery of agriculture. Man emerges from the Paleolithic and by sometime around -8000 we see the Neolithic underway. Our non-random process probably begins, or restarts here, but even this early Neolithic still fails our 'centuries level' test. This is the true beginning of 'civilization', in the progression, village, town, city, and we arrive at the emergence of complex states, often called the 'rise of civilization'. It is probably in this era, incidentally, that we are to find the birth of 'religion' in the later sense of what we see as the 'world religions'. Five thousand years separate the onset of the Neolithic and the rise of higher civilization. We are drawn to a distinction between the 'discovery of agriculture', a technological advance, one that may or may not have happened independently several times, and the crystallizing cultural formations that transform Paleolithic man as he enters into an entirely new stage of social evolution. And this is related to the fact that the prime focus of the Neolithic lies in the Fertile Crescent of the Middle East. In fact, the remarkable technological complexity of irrigation societies that we see in the coming world of the Sumerians is already an advanced descendant of these earlier advances.

A Non-random Pattern Now we come to the remarkable pattern that we will call the eonic effect, visible since the invention of writing: three periods in a row of rapid transition, equally spaced, inside the slower current of world history, relatively static by comparison. We can see world civilization divide into three epochs driven at the start by rapid advance. Three complex transitions ca. 2400 years apart fret the whole of world history. This pattern is a complete giveaway: it shows an exact developmental sequence of a special kind in a series of selected regions that demonstrate

‘transitions’ to a new stage of civilization. These areas then advance the whole by diffusion.

Mystery ‘Force X’ We commented before on the necessity to consider the ‘force of evolution’, in any sense, and our pattern betrays such a ‘force’ (we may not use that word) very directly. Careful accounting of time-periods shows us almost by definition the mysterious ‘evolutionary driver’ operating behind the scenes, visible in the clear sequence of sudden surges of advance. It is probable we are missing the earlier stages of this in the Neolithic.

Rise of higher civilization Suddenly around the end of the third millennium we see what is conventionally called the ‘rise of (higher) civilization’ in the dramatic, and synchronous emergence of the Sumerian and Egyptian complexes. Note the confusing way that two mainlines appear in parallel, a phenomenon we will see frequently, especially in the next so-called Axial Age. These two civilizations cross a threshold into a stage of higher social complexity, indicated by the scale of their social and political formation. They will prove the dynamic sources for millennia in the oikoumenes or diffusion fields that they generate. We had thought that this was an *ad hoc* advance based on contingent factors as described in the various unsuccessful theories attempting to explain the phenomenon (e.g. Toynbean ‘challenge and response’). But in fact we detect an element of timing in a process that has a mysterious ‘scheduling’ or cyclical period, the clue to some kind of developmental sequence in the large. Notable among a host of innovations is the invention of writing, the beginning of the historical record, and here we detect the beginnings of our non-random pattern. Three times in a row we will see this phenomenon of three or so centuries of sudden advance, the achievement of a plateau that is never matched by its immediate successors which are relatively static or even moving into ‘medieval’ decline. Nothing in this gainsays prior slow development. Slow and fast evolution are both the case, overlaid. But the sudden jump to a new social formation has always been a puzzle, and we will see that to our surprise the timing is non-random. Here is where we find the resolution of the Axial paradox. The Axial Age is simply the next in our series of such sudden jumps, transitions, or turning points. But it adds a new twist: sudden development is a series of parallel transitions across Eurasia (a close look shows a similar effect in the previous case, Sumer and Egypt).

Transition 1 We are really talking about the emergence of complex forms of the State. This occurs in the centuries before and around -3000, and we have the invention of writing, and the sudden onset of two classic advanced civilizations, Dynastic Egypt and the world of Sumer. Two (relative) starts in parallel. This period is conventionally described as the ‘rise of civilization’, although the slow transition, village, town, city that defines the Neolithic is all too obviously an earlier stage of gestating ‘civilization’. But a new threshold of human social complexity clearly comes into existence very rapidly at the end of the third millennium BCE. This could be seen as ‘state formation’. This initial burst of advances rapidly becomes fixed in place until the next phase. Nothing can quite

match the creative phase of early Sumerian city-states, and the large oikoumenes generated show the drift into empire formation that characterizes the coming centuries. The world of Egypt produces its theocratic state and then remains almost frozen in place for two millennia. This transitional period generates an immense diffusion field across Eurasia, and we can clock the rise of complex states almost in proportion to distance and time in the wake of this phase: the Indic and Chinese systems are underway within a millennium. This period is still a bit murky, just on the threshold of our centuries-level test. We can see that slow and fast evolution are reconciled in practice. Both are true. And we realize why we are unclear how to refer to the 'rise of civilization'. It has been rising since the Neolithic. We are referring to the sudden transition that takes place in our eonic series. This point becomes clearer as we examine the next phase, the Axial Age.

Transition 2 The next rapid burst is the so-called Axial Age, from around -900 to -400, the period from -900 to -600 being the real generative period. Around a center of gravity ca. -600 we have the beginnings of our classical traditions, the world of the Greeks, the core Old Testament and its Prophets, the world of Buddha and Confucius. We see independent sourcing areas suddenly undergoing transformation in synchronous timing. From this period springs the constellation of great traditions that lay the foundations not only for 'western' civilization, but the civilizations of India, China. The Axial Age can be confusing because of its wide dispersion of effects from Rome to China. But this is because we think in terms of 'civilizations' while our pattern respects and acts only in relation to short intervals of action, and their subsequent diffusion fields. The areas that respond in Axial phenomenon already lie in the wake of the diffusion field from the first transition.

The phenomenon of the Axial Age is so spectacular and occurs at such high speed, within ca. three centuries, that our confidence in earlier theories about human or other evolution plummets. The Axial Age shows a series of independently parallel emerging zones of advance.

The diversity of the Axial Age is remarkable and we see not only the birth of two world religions, but of the world's first democracy, and the first Scientific Revolution in Greece. We cannot ascribe this phenomenon to slow evolution. There are no sociological antecedents that can explain this phenomenon, the more so as it is independently emerging in unconnected regions simultaneously.

Note that the Israelites had a sense of this phenomenon, but localized to their own cultural world. The confusion of emergent theism and historical transformation has made it difficult for us to discuss the question of the Axial Age, since it is (not surprisingly) confused with an 'age of Revelation'. We should note that the Israelites were reluctant to speak of divinity, preferring abstractions such as IHVH. We must confront the fact that a sense of design arises in relation to the phenomenon of the Axial Age. But on reflection and

close examination we begin to see that the sense of design yields to the sense of a complex system at work, one of evolutionary potential.

This period reaches a plateau, as innovation becomes less intense, and in fact many of the innovations die out as this period wanes rapidly and we enter period of the Occidental Roman Empire and its long decline, followed by what we call the Middle Ages.

We could almost guess the next step in the series. The only period that resembles the Axial transition is the sudden rise of the modern.

Transition 3 It is the realization that modernity is connected to all this that is the surprising fitting together of the last piece of the puzzle of world history. Thus, once again quite suddenly we see the remarkable rise, with uncanny timing, of the modern world, a great take-off about 1500. This is not the same as the so-called Renaissance, nor is it slow evolution from the Middle Ages (which is present in any case). In three centuries starting in the sixteenth century the world system is transformed and reaches a new level of civilization and cultural organization. It seems as if many of the processes of the Axial period suddenly revive and echo in the modern transition: another rise of science, another democratic revolution. All at once we realize that the progression from the Axial period into a protracted medievalism, followed by the sudden rise of the modern world, is no accident. It is part of the precise timing of our mysterious pattern. We have become hopelessly confused by the question of Eurocentrism and so-called 'Western Civilization' in discussions of the modern world. But as we study the eonic effect as a whole we will discover its various properties, among them a kind of 'frontier effect', whereby each of our transitions moves to the exterior frontier of its prior diffusion. The confusions of Eurocentrism are a distraction. We see that our pattern exploits a transition region for its renewal, and always from the fringes of its previous action, the obvious explanation for the Euro-centered transition area. The emergence of modernity at the fringes of Eurasia is thus a side effect of the overall pattern. The period from 1500 to 1800 is the crucial transitional interval, a claim that clarifies at one stroke the confusions of historical dynamics mixed with modern/postmodern distractions. We should note that each of our transitions occurs in a staging area, whence its effect spreads by diffusion in a process of globalization. The Euro-centered staging area of modernity is thus explained by its place in our eonic series, along with the remarkable insight that historical evolution is occurring on two levels, in a global process that acts on the whole via a series of local parts.

This mysterious drumbeat hides an unsuspected dynamism and answers directly to the enigma of the evolution of human civil existence in a series of discrete periods. We have used the term 'punctuation' for a reason: the phenomenon gives us an almost perfect representation of 'punctuated equilibrium', and shows us a genuine instance of some form of 'macroevolution', if we can understand the relationship of history and evolution. In fact, 'punctuated disequilibrium' might also describe the phenomenon, since the effect is to rouse a steady state into a dynamic one. This usage of the term 'punctuated equilibrium' has little to do with prior definitions, so we could take the term as if coined

from scratch. It shows what a real ‘punctuated equilibrium’ process is like in an actual instance seen at close range.

A closer look, in the arduous inquiries at deeper zoom levels, reveals the need to revise assumptions of historical continuity with a balanced conception of discontinuity. These discontinuities are unmistakable and are especially clear in the period ca. -900 to -600 of the extraordinary synchronous emergence of the classical traditions. Suddenly, in China, India, the Middle East and Greece, the forms of culture undergo a cultural acceleration in a synchronous parallelism that is quite mysterious. Everything seems done in a flash. The world of Classical Greece flowers, and, like an apparition, the moment is gone. Israel sees its age of the Prophets, the Exile, and the emergence of a new religious matrix. In India and China, we find the same, in a period that produces the seminal foundations for a whole era. For centuries to come men look back at this era. The monuments of the earlier age of Egypt and Mesopotamia fall into oblivion and disappear in sand. The discontinuity is not a gap, far from it, it is a clustering of innovations, a packed field of sudden creative advances over a brief interval of history.

A Strategy of Globalization Our pattern can be confusing at first, but on reflection makes complete sense: it moves in parallel and redundant failsafe streams, which become multiple in the Axial Age, to embrace diversity, then the process contracts at the end in the modern transition, obviously because imminent globalization requires a single focus. This pattern shows a clear strategic element.

This synchronism began to be observed in the nineteenth century, but has failed to become well known, for the nature of its dynamic is difficult to pinpoint, and it controversially forces us to revise our views of the Great Religions. This reluctance to see the Axial effects is not surprising, since we are talking about fields of free activity that show structure over a period of centuries, a seeming contradiction. But the evidence can't be denied. This synchronism implies the *discontinuous temporal phase* is the crucial determinant, independently of any continuous runway leading to the sudden flowerings of individual areas. Causal continuity is clearly violated. It is hard to reconstruct, let alone visualize, the correct sequence of emergence. We see the peaks stand out, great religious founders, art, philosophers, new political forms, then a distinct fall-off. But the overall picture is clear. Its implications indicate that cultural evolution is, so to speak, hyper-cultural in a generalized system of evolutionary emergence, an extraordinary fact, and the one great clue to evolution in action.

The modern transition: a model It is useful to consider the modern example, which is fully visible in detail, as a model for the earlier transitions. We see that a statistical region of three centuries expresses an intermittent action that ratchets to a new level of culture. This three-centuries interval has a conclusion, or ‘divide’ point, clearly visible in the modern case. This modern example can help us to understand what is happening in the previous cases.

It has often been noticed, as in this instance, that the record of human history shows a strange patchwork of fast advances, and slower periods that are relatively static. This fact alone should alert us to the existence of historical dynamism. Our use of the

term 'medieval' is quite revealing in this regard. We call the period from the fall of the Roman Empire until modern times a 'middle age'. This 'middleness' is a clue to how we in fact take our own history, not quite sure why, although we can see that the source of this earlier world lies in the onset of the classical age, many centuries before. This era rose to a height that was never matched until after 1500. The same relationship is now visible in the era prior to this, at the birth of complex civilization. The obvious suggestion is that discrete and continuous processes are blended in the context of a macrohistorical system, if we can define it. We will use the term 'mideonic' to refer to the intervals in full between our turning points.

The rise of civilization from the Neolithic takes place quickly around the end of the fourth millennium, in Egypt and Sumer. This is followed by the long eras that characterize these distinct forms of culture, more or less set in their pattern. Then, in the centuries just before -600 we find civilization on the move again, this time, as noted, in a broad field of rapid parallel advance. Another period of take-off this time in widely separated areas, suddenly transforms the whole basis of civilization. Then finally the rise of the modern shows its hand as the next descendant in this suddenly obvious series. But the spottiness of the pattern is not at first amenable to any simple explanation, in part because we have no prior grounds of explanation at all.

The worlds of Archaic Greece, the Hebrew Prophets, the Upanishadic era of India, and the centuries before Confucius in China suddenly emerge simultaneously. From this we can infer the presence of a larger system doing cross-sections, one on a scale greater than its manifestations as individual civilizations. It is hard to imagine how this could be until suddenly we notice the coordination of this system over millennia. It defies all odds of being random, and finds its oddities from the inherent nature of large-scale culture evolving on the surface of a planet.

We are confronted with a strange pattern, obviously incomplete, and no doubt sourcing in the Neolithic or before, whose real symptoms are clearest at the sources of our traditions. Thus, if we consider this classical era in detail, it becomes evident that it represents a phase in a greater sequence. The birth of civilization, and the rise of the modern world, for three centuries after the Reformation, show the same absolute high-speed emergentist structure in phase, and are clearly related in an overall dynamic of such transitional phases. These three periods, and only these, show this 'order of magnitude' explosion, although the genesis of Islam comes close. This does *not* include the period after 1800, or license any ideological conclusion some might derive from our purely theoretical argument. Beside this parallelism, then, the long sequence of civilization begins to reveal as a whole this overall hyper-cultural generative structure. Thus we can see, in addition, the inner coherence of all of these periods as a unified system whose realizations we call 'civilizations'.

In summary, world history since the invention of writing suddenly stands in contradiction to all basic assumptions about random evolution. This pattern can be seen from two aspects:

1. The first is of the so-called Axial Age, the enigmatic synchronous emergence of cultural innovations and advances across Eurasia in the period of the Classical Greeks and early Romans, the Prophets of Israel, the era of the Upanishads and

Buddhism in India, and Confucius in China. This data shows us that an ‘evolutionary something’ stands behind the emergence of complex forms of culture, is global in scale, and operates over an interval of several centuries to redirect the course of civilization.

2. The second, related to the first, is of a drumbeat sequence of punctuations or transitions proceeding down a mainline of the diversity of civilizations. Looking at the Axial phenomenon we are forced to consider that it is part of a larger pattern, and is a step in a sequence. Moving backwards and forwards we suddenly discover the full pattern. These punctuation points are, remarkably, equally spaced, with an interval of about 2400 years, evidence of a cyclical phenomenon. We thus have three turning points or transitions several centuries in length which we can call ‘turning points or transitions 1, 2, 3’, or **TP1, TP2, TP3**.

Transition 1 The birth of the state, appearance of writing, onset of Dynastic Egypt, and Sumer, first higher civilizations,...

Transition 2 The Axial Age, from China to Greece/Rome. Onset of two or more world religions in India and Israel, multiple sources of philosophy, birth of science, Greek democracy,...

Transition 3 Rise of modernity, onset of Reformation, secularism, English, French, American Revolutions, Enlightenment, another scientific revolution, another birth of democracy, Industrial Revolution,...

Suddenly, we have a clear holistic interpretation of world history in the form of a non-random pattern behind us in the chronicle of known history. It is non-random in the way it demonstrates an intermittent clustering of creative action over long periods beyond the scope of individual will. It is a pattern that explicitly defies the logic of chance, as it generates a sense of coherence. We can even see ‘system return’ processes, like feedback, attempting to restore direction or elements that have died out.

That’s it. With nothing more than a short outline of world history we have stumbled into the detection of a non-random pattern, one that is the essence of simplicity, and yet at the same time showing evidence of a very deep and profound kind of complex system operating as a unity over thousands of years. We need a generalized kind of systems analysis to deal with this and can proceed to create a new kind of model that will help us to see what is going on. But the point is clear that as our data for world history crosses a five thousand year mark the larger dynamic behind it suddenly stands out. The main task is to follow this pattern with an outline of world history.

The rest of this chapter will deal some ideas for an ‘eonic model’, and the connection between history and evolution. In addition we will try to bring together an evolutionary framework and a Kantian theme of the philosophy of history. But it is possible to simply proceed to our outline of world history in Chapter Four, leaving the rest of this chapter as reference.

3.1.1 An Evolution Formalism and The Eonic Model

This phenomenon which we have called the eonic effect gives us an entirely new insight on the question of evolution. It presents us with a complete evolutionary sequence in all its complexity and refuses us a theory unless we can explain all its aspects. Further, as we begin to discover, the dynamic itself is hidden from view behind its manifestations. All we can do is to track 'evolution' (or, in this case, what we will call the 'eonic evolution' of civilization) over the range for which we have data. The result is illuminating and will transform our understanding. Compared to the complexity of this pattern the claims for natural selection as a driver of evolution seems naïve and delusive. We can see that world history is operating on an entirely different principle.

The eonic effect shows a clear pattern of developmental sequencing, and we can also call it the eonic sequence, as evidence of the ratchet or 'eonic' evolution of civilization. The justification of the term 'evolution', qualified by the term 'eonic', is direct: first, any form of development attracts the term (some writers, to be sure, distinguish development and evolution, perhaps influenced by Darwinism), and, second, the uninterrupted sequence from the earliest dawn of man to the rise of civilization is all of a piece, and we cannot ascribe random evolution to the emergence of man if we find a process of non-random evolution at its latest stage. We have already derived the connection by asking our paradoxical question, when did evolution stop, and history begin? We can see that there must be a Transition between the two, and that this, very logically, would break down into a series of transitions alternating with regular history. Such thinking would seem very strange did we not see exactly that in the record. The term 'eonic' can be taken to mean 'discrete', or 'stepping', as opposed to 'continuous', in long-term units of time. 'Eonic evolution' might also be called 'ratchet evolution'. This dynamic is non-genetic and acts directly on the self-consciousness of individuals.⁶⁹

We can explore a simple model of the eonic effect, which we can summarize here. But we must remain empirical, and our model is merely a set of descriptive terms that can help us to understand what we are seeing. We construct a basic evolution formalism, something quite absent in Darwinism, because it looks at evolution on only one level. As we examine the eonic effect, we can see that it only makes sense if we consider its action on two levels. This kind of thinking was clearly touched on by the idea of 'punctuated equilibrium', but the idea became confused with Darwinian thinking. Consider the implications of this fascinating terminology: we see one level of a continuous stream of life evolving by one process and another level that intermittently punctuates this. The first is microevolution and the second macroevolution. Normally we cannot distinguish the two because we don't have the right data. But with the eonic effect that data is

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[?] As a contraction of a term 'aeonic', its usage is taken from the Greek word '*aionios*'. The term 'eonic' is also a play on the term 'eon', and in addition the electronic term 'eonic', often referring to systems of digital signal processors with their discrete sampling of continuous processes.

unmistakable and gives us an experience of what ‘evolution’ really is, beyond the purely genetic, or natural selection.

The Evolution Formalism: An Eonic Model Our model is not a theory of evolution, but a simple outline or empirical periodization of world history based on the pattern of transitions and the ‘medieval’ periods in between evolution seen in an empirical sequence. That’s it. But the correlation of the data to this simple scheme is very strong, and we know we are onto something, but what? Our distinction of System Action and Free Action comes to the rescue: our evolution formalism suggests that the sequence of transitions can be seen as ‘macro’ evolution while the human free action that emerges in its wake is ‘history’, or the record of free activity. This approach is unavoidable: we can see that the ‘eonic sequence’ changes its action at different stages, making generalizations perilous. ‘Evolution’ is itself evolving, as it were.

We need to bring in our idea of System Action and Free Action to connect the the processes or levels: thus, we see the transition from evolution to history, in the form of a series of transitions, and these transitions show the driving ‘force’ of evolution (system action) and at the same time are realized as emerging history given as the expression by free action of system action. Thus history, as free action, is emerging from evolution, as system action. We will connect this idea to the thinking of Kant by looking at the relationship of system action and free action in terms of causality and freedom, and to how our data resolves this seeming contradiction, allowing us in principle to look at a science of history as the ‘evolution of freedom’. It is not necessary to worry too much about this model: it is enough to follow the basic outline of world history given by the eonic effect itself. That simple world history will start in the next chapter. Here is a short list of ideas connected to our data:

The Eonic Effect Against expectation, world history shows a non-random pattern: we see a macrohistorical ‘evolution’ or ‘rolling out’, in the ‘macro’ variety, associated with the emergence of civilization in a long frequency or directionality, suggesting long-range feedback or system return, morphing in direct and focalized fast transitions the large-scale event-space of cultural entities.

Self-organization One of the persistent themes of critics of Darwinism has been to posit self-organization as a process standing beyond the dynamics of natural selection. This is often connected to thermodynamical issues of the emergence of order. The eonic effect is a spectacular instance of self-organization, speaking descriptively. But it is far beyond the realm of thermodynamics, its action visible in the total spectrum of culture. And yet the effect is clearly an ‘increase in order’. The dynamics of this, however, shows a strong element of directionality, and this teleological component is something larger than the self-organizing process of molecules.

The Mystery Force—found! We have indicated that some hidden intangible factor lies behind the apparent stream of historical or evolutionary sequences. In world history we can detect such a ‘force’ factor. The language of ‘forces’ will

have to graduate to something different. We are simply using the term to refer to some principle of sufficient reason. But the point is clear: we find a massively complex evolutionary driver behind our eonic sequencing. In fact, we see clear signs of a field effect with this 'force'.

Evolution? What is the meaning of evolution and how can we use the term for an historical process? In fact, nothing in our account requires the term at all, but as we examine the scale and significance of the eonic effect we realize that our emerging perspective on historical dynamics must collide with other attempts to define it (for human emergence), especially the Darwinian. We will construct a simple model to recalibrate the usage of the term 'evolution' (carefully qualified) so that it can coexist with the idea of history. We do this by defining '(eonic) evolution' as macroevolution, and history as microevolution, the chronicle of historical action. The questions of freedom and causality must be carefully defined, resulting in a formal 'evolution of freedom' concept as a framework, or model for the eonic effect. In the final analysis no one has a monopoly on the use of the term 'evolution', and our usage is correct because that's the way we define it, in distinction to the also clearly present genetic evolution, which we will clearly see is insufficient to account for the facts.

Universal Histories Our evolutionary model will connect with the classic themes of 'universal history', and we will explore the paradoxes that arise in any attempt at a science of history in the thinking of the philosopher Kant, with his 'idea for a universal history'. In fact, we will discover two, or multiple, universal histories, one corresponding to the macro-action visible in the eonic sequence, and the others consisting of the diversity of 'cultural histories' that make up the spectrum of world civilizations. We will also call this the 'stream and sequence' effect, the streams of culture intersecting with the eonic sequence.

Punctuated Equilibrium This eonic data is virtually the defining instance of what should be called 'punctuated equilibrium'. But we will use this beautiful terminology only in passing, due to the confusion with Darwinian usage. We can see that we have, however, found the real thing, and it has nothing to do with natural selection theories. This form of 'evolution in history' requires carefully detailed description, and is not genetic evolution.

An Evolution Formalism We are done: we have demonstrated a non-random pattern in world history. The rest of the book will simply expand on this bare perception of the eonic effect. In the process we can slightly extend our basic demonstration by creating a simple formalism to mirror this data. Looking at the modern 'punctuation' we see a kind of transition, three centuries in length, closed by a divide effect. We can think in terms of a simple model of three-century transitions in a matrix of periodization. To this situation we can apply our evolution formalism, of macro and micro, in what we will call an 'evolution' of freedom, connecting our data to an insight of Kant. Using this framework we can deduce a number of hidden properties of the eonic pattern. The result is an empirical map of the 'eonic, or ratchet, evolution' of civilization. We will soon discover/suspect we are seeing on one half of sequence stretching backward into the Neolithic. We will connect this framework to an 'idea for a universal

history' that can examine the nature of freedom in relation to a dynamical causality.

System Action, Free Action The key to this framework is to distinguish system action and the free activity that makes it up, a situation we have discussed already. Thus our model, reflecting a process of macroevolution, will distinguish the macro-action of our eonic system and the free activity or micro-action inside it.

The Old Testament Riddle A good example of this distinction lies in the Old Testament, an account of a people living through the Axial interval. Their detection of this struck them as theistic intervention in history. In terms of the eonic model, this expression is the micro-action. The macro-action is the dynamic of the Axial, or eonic, period behind this, clearly detected in the discontinuity of the core Old Testament history (the three centuries leading up to the Exile). All at once we have a magnificent new perspective on the Old Testament as an account, remarkably, of 'eonic evolution'!

The Modern Transition!? To say that the rise of modernity is connected to a dynamic sequence solves at once one of the riddles of world history, but creates a theoretical difficulty, if we apply a question of historical dynamics to our present. We have already noted the way the so-called Oedipus Paradox haunts Darwinism, generating Social Darwinism (the misapplication of a theory of evolution to the observer's present). Our new type of 'eonic model' will show us an ingenious way around this difficulty, and our emerging distinction of macro-action and micro-action will allow us to bring 'evolution' into our present in a proper manner. More specifically we must define the 'modern transition' and clearly distinguish this dynamic of generation from modernity itself, with its ideological content. This new perspective on modernity as combined macro-action and micro-action will help us unlock the mysterious riddle of the 'modern'.

Hopscotch and a Frontier Effect One reason we adopt the idea of transitions is that our eonic sequence transcends the question of 'evolving civilizations', and produces transformations of several civilizations in tandem in time-slices of action. Thus the 'civilization' ceases to be the useful unit of analysis. In fact, as we go along we will see that our system can do lateral hopscotch or synchronous steps (as in the Axial Age), and jump to new regions. We will later see a 'frontier effect', the way our eonic sequence always jumps to restart in a new location at the frontier of its prior advancing front.

Finally, we need to consider the contradictions (we already have in fact) of freedom and causality: our model is set up to look at the way in which this contradiction is bridged and a discussion is possible on two points of view: causality and free will. In practice this takes the form of an intermediate state we will call 'self-consciousness' which is a variable state that can express degrees of freedom. This might seem confusing, and can be set into the background. But in general, we have in reserve a way to resolve

the issue of a ‘science of history’, by looking at the way in which causality and freedom are reconciled in historical evolution.

Self-consciousness In the eonic effect we see an evolutionary process that is non-genetic and that acts *directly on the self-consciousness* of individuals. It might be better to say that it ‘emerges through’ the self-consciousness of individuals. This distinction of self-consciousness and consciousness is unusual, and yet has many classic antecedents, and will help us to distinguish degrees of consciousness, or creativity. Self-consciousness, for our purposes, is simply consciousness in a state of transformation. This situation, we should note, creates the dilemma that downfield observers, immersed in one and the same system, may be unable to match the self-consciousness detected in the phases of macroaction.

Eonic Observers For this reason we will introduce the idea of an *eonic observer* of the eonic effect, and we must study the observers as much as the effect itself. The redactors of the Old Testament were eonic observers, influenced by the emergent factors they wished to describe. A modern eonic observer is influenced by the modern transition. These observers may not be able to rise to the self-consciousness of those innovators inside the sequence.

This pattern gives itself away in the Axial phase, like the tip of an iceberg, but is at first so elusive that we barely see it, but we sense it, and it suddenly comes alive as we clock its strange timing, and adopt systematic periodization. It is made difficult by the need to examine relative changes, i.e. incremental change in a stream of prior continuity. And we must acquire the knack to distinguish the action of a system and the free activity that is mixed with it, like the difference between the motion of an ocean liner and the relative free action of the passengers in that context.

Two categories of motion are superimposed. This is what blinds us to historical dynamics. This pattern explains at a glance many of the contradictions we live with and that characterize our sense of history. The implication is of a process that can act globally, generate rapid change in whole cultures in short bursts, and proceed across millennia in coordinated fashion. Careful accounting of time periods shows this global system at work.

The key to its understanding is to see that its effect is short-acting, or intermittent in series of punctuated transitions. This intermittency is seen in many categories. A remarkable instance, itself a clue, is the Greek Archaic period, and as one example of the on-off enigma, that of emergentist ‘democracy’, leapfrogging history, as if in a jumpstart process. This seems to hint at a deeper process. World history seems to be operating on two levels. This is the effect of an evolutionary driver alternating in peaks of intensity. We call this the ‘eonic’ or intermittent, frequency look-alike effect, and it is still an incomplete perception, yet one whose significance is obvious even in fragments, in the same way that a few pieces of a puzzle can cohere without any knowledge of the whole. The problem is that it doesn’t follow standard causal logic in its action. What we see is the ‘causality’ of Big History, so to speak. We see a strange intersection of cultural stream and a larger sequence. This shows us the need to look, not at whole cultural histories, but time-slices, or *relative* transformations of culture. The idea is so strange we would not consider it unless the facts demanded it. But once we realize this is how real

evolution would have to be and that nature acts that way, the solution to the puzzle is swift.

We have already always noticed isolated aspects of this eonic effect, often disguised as myth, or the generic periodizations we routinely apply to history without noticing they are clues to a larger pattern. We do not see the eonic effect, and yet we are always unconsciously 'noting' its presence. This must be so if we are immersed in the very evolution we are discovering. We had to have sensed it all along. The moment we use the term 'modern', the 'middle ages', the 'birth of our traditions, or the 'age of revelation', we are speaking disguised eonic language, i.e. the language of periodization, of intervals or epochs. Now for the first time we see the pattern as a whole, and the reason for our perceptions is clear.

Man's history has always confronted him with an anomaly in the peculiar periodization of its dramatic incidents, in the sense that its sequence shows an unmistakable character of *relative*, rather than absolute, beginnings. If we watch the beginning of the second act of a play, arriving late at the last part of the first, the appearance of transition and relative onset conditions our perspective, as a given of incomplete information. This is not unlike our perception of world history filtered through the great traditions, but before the discovery of early Sumer and Egypt. The Old Testament is really describing such a relative beginning, *in medias res*. It is describing intermittency, a new era coming into existence, against the backdrop of Mesopotamian and Egyptian civilizations, which simply enter the tale as givens with unspecified origins. The Old Testament makes a point of dramatizing the relationship and disentanglement from these apparently sourceless worlds that were simply there as a new era comes into existence. Our traditions have this character of relative onset and seem to source in the middle of world history, with a hazy preamble, in the centuries clustered around the great era of the Classical Greeks, itself synchronous with the period at the core of the Old Testament.

We are thus left with the sense that this era of great beginnings is an entr'acte, and that we are in a tale of changing scenes. And this is a clue to modernity, this 'new age' effect at work, once again. And this phenomenon in antiquity is not confined to the West, for we see it in the Oriental civilizations as well, as they seem to echo the same rhythm. Chinese history is variously the legacy of the Shang emperors, or the richer world suddenly coming to life around the era of Confucius. The world of the Buddha and Mahavir visibly both start, and yet continue from, and against, their own antiquity. Here in splendid simplicity is a clue to the whole question of historical evolution. We see the action of a system in evolutionary parallelism operating in a discrete series of relative beginnings. Such a system smacks of a frequency interpretation, and shows a hypercomplex system at work, complete with its own built-in evolutionary clock.

This sudden double discovery of structure, moving backwards to the dawn of civilization, and moving in parallel through the intricacies of the great burst of advance stretching across Eurasia in the proximate period of the Archaic Greeks, and Hebrew prophets, presents us with a moment like that in the solution of a puzzle laid out at random when an entire sector is resolved in isolation from a still greater whole. This is not the total solution to the puzzle. Coherence is clearly inferable from one fragment of a

puzzle as the pieces show an overall meaning. The great clue bestowed in the silence of millennia debriefs our myths of revelation with its clear demonstration of their meaning in a macro-historical functionality. But our tactics of study must be forensic, and not metaphysical.

Although the eonic pattern is a short sequence (like three beats from a whole symphony) and fails any inductive test for universal generalization or an adequate theory, it gives us a telling glimpse of a purely abstract 'evolution in action' and suggests indirectly how emergent sequencing and integration might have occurred in the descent of man. We live *in the first generations* of human history with records of any kind stretching across the five thousand year minimum we will find necessary to establish the minimum three beats of historical rhythm in a 2400 year intermittent sequence. After this interval since the invention of writing we seem finally able to document an evolutionary sequence.

And suddenly we are suspicious of current evolutionary accounts of the descent of man, and the so-called Great Explosion in the Paleolithic. This pattern shows the one thing Darwinists must dread most, overlay evolution in high-speed differential transformations, in concentrated regions, acting over a short range, mere centuries. Our ignorance of deep time will allow no such simple generalization as the Darwinian theory if we have even the slightest suspicion, here the strongest evidence, of such fast-acting processes. The stock of Darwinism plummets at once, and should be put on hold until we can zoom in on the incidents claimed *in absentia* as evidence of the theory.

3.2 History and Evolution: A Paradox

We have discovered a pattern of universal history, and almost without trying, as a sequence of three transitions or 'axial' intervals. In the process we have seen a discrepancy with what the standard views of evolution are telling us. Darwinism posits random evolution, but here we see a dramatically non-random process emerge. We see a coherent sequence of developmental transitions, among them the so-called Axial Age. It is hard to avoid the use of the term 'evolution' for this. Something on this scale confronts us with a paradox and must collide with our accounts of evolution, human evolution at least. What is the relationship between our history and evolution? We are left to wonder if it is not world history itself that will show us the clue to evolution. Ordinary accounts of evolution, by distracting attention to times unseen, have confused us completely, ignoring times seen, history itself. The crucial issue here is the Darwinian claim of random evolution. A careful look at world history shows us a non-random pattern of the most direct kind. What are we to conclude?

Discovery of this pattern has only recently become possible, as the record of history has filled out, showing us the source of civilization for the first time. Standard accounts of evolution along the lines of Darwinism have insisted that such patterns don't exist, they don't want to find such a non-random pattern, anywhere. But clearly they do exist, and the data for seeing such a pattern has reached critical mass only in our own times, and can be highlighted by simple inspection using careful periodization.

Darwinists claim that evolution is random, and that this applies to history also. The facts of world history suggest otherwise. We discover, since the invention of writing, a rich patterning, a definite derandomized structure. So Darwinized thinking is wrong about history. That's that. This data is a warning that the whole project of Darwinian theory fails with history. More, the meaning of 'evolution' is wrongly taken by Darwinists, as purely genetic. We can see that a much broader definition is necessary.

Darwinism is said to claim that evolution is non-progressive and without purpose. This is one of the most defended assertions of Darwinists. Our data throws such assertions under a cloud, notwithstanding the dangers here of ideology. Darwin made life easy for the critic. Granting that the idea of progress has many dimensions, we can nonetheless detect 'evolutionary progress, or progression' like clockwork in world history. Darwin's theory of natural selection makes a *very* extreme and ambitious claim, a kind of universal generalization about evolution and about 'reality', as seen in its assumption that no purposive evolution can be found anywhere. That makes it an easy target. We don't even have to produce a substitute theory. We can simply show that there exists at least one non-random non-genetic evolutionary sequence showing directionality related to purpose somewhere in the universe, in this case in visible history, and Darwin's stock plummets.

Evolutionary theory is beset with the difficulty that large-scale directionality, perhaps as evidence of teleology, is hard to observe. It is easy to pretend it doesn't exist. Even in history the question is not intuitive. Scientists are adamant on this point, because any such evidence shows that current scientific thought is incomplete, somewhere. And yet we must suspect that teleology is a factor. The pattern of the eonic effect can be of great help as the only real evidence, however tenuous, that humanity has at close range of such 'evolution in action' in this sense. We will however restrict ourselves to empirically demonstrable directionality.

It seems paradoxical at first to bring evolutionary thinking into history, and yet this recalibration of our thinking, and terminology, can help in resolving the concealed contradiction latent in current Darwinian forms of theory. The point can be easily grasped by asking at what point evolution stopped, for history to begin? That this could not happen at a single instant, that the question generates a paradox, is almost a deduction in the abstract, after the fact, of the eonic effect itself. The human chronicle is one of free activity. And there is no easy separation of this chronicle from that of ancient man, the emerging species *homo sapiens* of the Paleolithic. This chronicle of free activity is one of the evolution of freedom, in some very general sense, as we observe in the large the transition from hominid passivity to the relatively active self-consciousness, if not free will, in the becoming of man as man. We then ask, What causes this emergence of freedom? The eonic effect shows us that, in the last phase of this transition, there is a distinct macroevolutionary process at work. Hard to detect, yet clearly visible if we have sufficient data, and use careful periodization.

Falsifying Darwinism Once we see that history and evolution are braided together and that the descent of man is 'all of a piece', we can use the data of history to assess the earlier stages of human evolution. Armed with the eonic effect we see at once that something is missing in standard accounts. In the

process we can see that natural selection is not what is driving historical macroevolution.

Our conclusion then is that if the human chronicle is one, and if a macroevolutionary process, non-random evolution, exists in one part of this partially observed sequence, then our prior assumptions about the earlier unobserved intervals of deep time are as good as falsified. We see the discrepancy in the Darwinian speculative assumptions, and as well the fact that the contrary evidence was always already there in the intimations of the so-called Great Explosion. Thus we can proceed by legitimate reasoning to use the record of history to falsify the Darwinian claims about the descent of man.

Thus, history and evolution are like two overlapping processes, the one the chronicle of man's emergent free activity, the other the greater process of an evolutionary driver behind this emergence. The two stand in a reciprocal relationship, one clearly visible, still, in history itself. Indeed, we must ask if man's evolution is, in fact, complete. His evolution and his emergent freedom are braided together, and the question remains as to the 'end of evolution' and the completion of man's epic self-evolution. The speciation of man as *homo sapiens* is thus still underway, preempting easy definitions of its significance and meaning.

We must ask what we mean by a science of history. There is no such science, and yet we will find a way to proceed by looking at the 'evolution of freedom', as a formal category. We should wonder why the standard criticisms of a science of history are not applied to a theory of human evolution. Why are historical theories metaphysics and Darwinism hard science? The first have a wealth of data, the second very little. Where then is the division? Darwinists would like to claim there is none, and apply Darwin's theory to history. But we can easily show that to be the wrong approach. Natural selection applied to history creates a disastrous misunderstanding. Any such theory of evolution that leads up to human history needs a close look, since there is likely to be a contradiction lurking there. We soon discover the classic limit of conventional scientific method in the philosophy of history, and embrace a broader 'idea for a universal history', to invoke a classic essay of the philosopher Kant, using the idea of a qualitative systems model adapted to the antinomy of causality and freedom.

Freedom evolves? The evolution of freedom One of the striking features of Darwinian thinking lies in the rote application of selectionist and adaptational thinking to all circumstances and situations, the series of 'Just So Stories' that purport, without direct observation, to explain complex features of organisms seen in nature. With human evolution this becomes an increasingly strained activity, amounting to little more than the fiat of methodological naturalism. A good example is the inevitable conclusion, as in Dennett's *Freedom Evolves*, that free will evolves by natural selection, as an adaptation! Not a shred of evidence is offered for this incoherent deduction from speculative selectionism. As we close in on the eonic effect we can actually produce a counter-example, the so-called discrete freedom sequence, showing a macroevolutionary component to the emergence of freedom, in the process defining human evolution in terms of the idea of freedom taken together with causality as a chord of two opposites.

3.2.1 Huxley's Contradiction and Evolution #1 and #2

We have stumbled on the subtle problem with Darwinian thinking, and the possible answer: something is producing large-scale historical change, and this isn't natural selection. Further, one of the most unfortunate consequences of Darwinism lies in its unwitting generation of Social Darwinism. Often blamed on Spencer, this ideological confusion of Darwin's theory lies squarely in the theory itself, with its emphasis on natural selection. Here the effects of Darwin's theory here were ideological, and misleading, if not disastrous. It is not adequate to point out that Darwin was himself at pains to distance himself from the misinterpretation of his own theory, in the confusion with the views of such thinkers as Herbert Spencer who is blamed for everything. Like software with a glitch, the consequences were immediate. Here 'theory' confronts its own effect of the theory itself on history, after it enters this history. For the first unconscious suggestion, in this case, is that unlimited social competition in the immediate present will improve genetic structure in the far future, a gross misunderstanding of a theory taken to be true at all times.⁷⁰

Huxley's Evolution # 2 It is T. H. Huxley himself who spotted the flaw in the theory of natural selection in his work, *Evolution and Ethics*, and in the process unwittingly exposed a paradox in the theory he had so long defended. His perception was that there must be something else beside the 'law of evolution', survival of the fittest, at work, for man was condemned to oppose its effects in practice, on ethical grounds. Whence, if we accept this dualism, comes this evolution # 2? Here the data of the eonic effect shows us at once two levels of evolutionary action. The eonic effect shows us evolution #2.⁷¹

This 'survival of the fittest' aspect is, in any case, demonstrably false of man's social experience, as the mechanism of cultural evolution. Thus extreme competition is met by the response of social law in the evolution of civilization, if not economy. And the place of Adam Smith here is entirely complex and misleading, this philosopher being a de facto source of a new ethics, even as his work is polarized between an economic and moral dimension. Survival of the fittest business firm is simply another process, as is the tonic of Olympiad sports competition. The issue of evolutionary causality in the study of the evolution of civilization has been so confused by assumptions of material causative motive, as in the imputation of economic determinism, that the real evolution of social cooperation seems to have been forgotten. In general, theories of evolution must themselves interact with the near future of all free action, in a confusion of external observer, and temporal participant, 'acting out theory'. Amoebas had never read Darwin, but after the publication of his book cultural evolution underwent clear changes. We see the danger of factoring the fact-value distinction out of the statement of evolutionary 'laws'. The record of civilization shows something very different and reveals clear evidence of centuries of 'idle time', dark Assyrian centuries, between interrupts as the 'winners' of social competition gain control.

The rise of technological civilization has created a new confusion, theories applied to human action. But we can see their limitations, especially in the realm of ethics. And none of them explain the emergence of an ethical agent. In the final analysis, theories of evolution must invoke, not this or that principle of ethical behavior, but the full potential of all of them.

3.2.2 Deconstructing Flat History

We have rediscovered something postmodernists dislike, the so-called metanarrative. The so-called ‘incredulity toward metanarratives’ should be replaced with an ‘incredulity toward infranarratives’. The critique is based on a rejection of teleology and ideology combined. But there is no avoiding the issue of macrohistory, it exists whatever our views, as we can now see. We can easily accept a critique of grandiose histories, and yet we can’t avoid the fact that random evolution fails, as far as world history is concerned. It is remarkable that the eonic effect as data answers to a critique of teleology, and reconciles its contradictions with a ingenious resolution: our eonic sequence is directional, and reflects, but does not correspond to its own ‘teleology’, if any. Teleological thinking is a dangerous subject: it refers to a future we have not yet reached! But we can, looking backward, see that ancient history shows, unexpectedly, a form of directionality. The intersection with our own free options about the future makes the conventional idea of teleology false. It was not our purpose to propose teleological thinking. Directionality, however, is clear as we look backward.

Note that a postmodern critique could just as well be about ‘deconstructing flat history’, and the ideology associated with the idea of random evolution, usually a conflict theory of some kind. To say that history has no direction, and that the future is determined by economic and/or evolutionary survival of the fittest, or some variant, is the typical theoretical outcome of seeing only flat history.

We need to be wary of teleology, and a way to distinguish ‘teleologies’ as historical productions of men, and ‘real’ teleology, which is beyond history, as a property of an inferred system in which we are immersed. Directionality, at least, is visible as we move to connect the rise of the modern to a greater system. That is empirical and makes no statement about the future. Note that teleological philosophies are attacked by postmodernists, and rightly so, because they tend to be constructs emerging inside history. And they are unsuitable as ‘meta’ descriptions because they degenerate into ideology. Note how the emergence of teleological history in the Old Testament split into rival versions, claiming the future.

Thus postmodern thought quite understandably tries to deconstruct macrohistory and its metanarratives. The problem is that the direction set by a transition is not the same as the direction set by the overall pattern of turning points. Our ‘metanarrative’ is fairly simple, in any case: a three act play, three scene changes, with the middle mostly dumb show and noise. No ending is given, and the ‘plot’ is quite hard to describe. The Axial spectrum sets five massive ‘directionalities’, and the world religions set two opposing demeanors, historical and anti-historical, as with Buddhism and Augustinian and/or

Islamic teleology. The Christian tries to take over the directionality set by the Roman Empire. With extraordinary and unexpected redirection, the small strain of the Ionian Enlightenment is reselected in modern times. The same dilemma arises all over again.

The direction set by the rise of the modern is multivalent, history-bound and has no claim on the far future that we know of. Although, and this is significant, the game starts all over again, with the various new ‘teleologies’ of the future of modernism, Hegel’s being one, and the Marxist response to Hegel being another. It is not safe to predict anything in this pattern. And in any case, a new point arises as we begin to assess all of this in a new present of world history, as ‘eonic determination’ switches into ‘free action’. Perhaps for good. It is hard to see how this sequence could continue once we become aware of it. We might be at the end of the ‘eonic sequence’. At any rate, be humble about teleological questions. The great religions are not humble here, and are adventurism pure and simple, schemes of global ecumenization turned into empires of domination with teleological scripts.

Thus the very significant critique of metanarratives works both ways. The implied teleology in Darwinist non-teleology, random flat history, is even worse than an explicit metanarrative. It says, with tacit innuendo, that the future belongs to the forces of conflict, and that after great violence the fittest will claim the future. Ethics is superfluous, vestigial religiosity. That is dangerous, and it is not so, as proven by the facts looking toward the past. The Israelites appeared in our second turning point, survived the fittest of them all, the Assyrians, and outlasted them, with no ability to fight back. Many other cases could be found.

We can easily bypass the problems of metanarratives if we restrict ourselves to statements about the past, and do not extend our model into the future, in the sense of causal prediction. In the process, our model then generates a strange sort of ‘macro-dramatic’ history, if not ‘metanarrative’, but the narrative stops in the present, where we act by our own choices, not according to some pattern. The question is simple. We see the modern is part of a pattern of three such turning points, and that this series sets a direction with respect to the past (directionality), but not necessarily the far future (teleology).

3.2.3 Conflict Theories: Incredulity Toward ‘Infranarratives’

The companion to flat history is a conflict theory claiming to explain it. A little thought might suggest why: if all you see is a flat history of conflict then it seems logical to deduce that it is conflict that carries the day, and hence the future. But, actually, a closer look shows that this thinking is false.

In any case, once we deconstruct flat history, a strange new situation arises: the standard type of historical explanation, often a conflict theory, goes bankrupt, and a sense of the meaning of history takes form. It is obvious from the eonic effect, despite its enigma, that innovations spring from something else than conflict! A good example of a conflict theory is Darwinian evolution. Most of all the competition for the local future via

conflict ceases to hold sway. Our eonic system shows something unexpected: it seems to leapfrog g into a future course correction. Modern social thought, in the dread legacy of reductionism, is littered with conflict theories, Darwin's the most obvious, the results of staring at 'flat history' and asking how the big changes could ever occur. Somehow randomness has to hire 'conflict' as the generative scheme. Then a wistful glance at Adam Smith occurs, and 'hard-headed realists' are finished with 'ethical nonsense' as pseudo-theory gets down to the serious business of Progress through Selfish Mayhem.

Incredulity Toward 'Infranarratives' Despite the cogency of postmodern critiques, incredulity toward metanarratives, it is the 'infranarrative' that is really at fault in the legitimation ideologies under examination. The 'flat history' desert drives the agent in his thirst for conflict, and some theory to justify that. Economic competition, natural selection, Hegelian dialectic and 'negation', class struggle, even Kant's 'asocial sociability' emerge as the leading contenders.

The place of conflict in history is historically given. Its generalization to a 'conflict theory' is something else. Until you can deconstruct flat history, conflict tends to haunt you in your search for a mechanism of history, the key to your Big Theory. All you see is conflict, therefore conflict must, somehow, be the key. It doesn't follow. Marx almost escaped from the trap, was just at the point of exposing the whole game, but we should note that Hegel, a student of Smith, mixed 'cunning of reason' with 'dialectic', a conflict theory (!), and Marx, although rightly suspicious of the Adam Smith effect taken as ideology, drifted into the Hegelian trap (negation of the negation as grounds for revolutionary conflict, hence class struggle), and was followed by Engels who bit on the Darwin hook, despite Marx's sniffing suspicions. Marx saw at once the connection to economic ideology, but somehow the later Marxism became more Darwinian than the Darwinists, with violent conflict and even class struggle mixed up with evolutionary innuendoes. It's a sorry history, and even the great Kant nearly falls into the trap. But he was just on the verge and suspected rightly something different. We will take up his suggestion in the next section, and try to rescue his viewpoint from this trap.

This is not some idealistic rejection of the place of conflict in history. A good case can be made that martial conflict becomes so vexatious for rival parties that the very process of conflict leads to initiatives of peace. The place of conflict in history requires its own analysis, as does the history of warfare. Our objection is the generalization of this as a principle to explain everything else, as a theory of evolution.

Conflict theory, then, with a dash of Malthus, is suddenly hallucinated as the only candidate relevant to real science. The reason is that it is close at hand, like the teeming fields of competing life visible to the biologist, who cannot reckon the 'hurricane argument' over long time periods, for the elusive signs of directional evolution. Thus the conflict visible in the small rises to flush out motives of all other sorts. One would have thought someone would consider that a selfish motive is as (philosophically) 'idealist' as an altruistic one. Adam Smith seems to stand alone, however, as an honest commentator about economies, where competition is indeed a clear factor that requires careful treatment. But economic competition is not the driver of cultural advance, and Smith never said it was. Will the real Adam Smith stand up? The source of all these conflict theories was talking about something else. Note, in any case, that economic competition

is conducted under a system of laws, supposedly, and immediately gets into trouble in a global field where those laws are not always specified, the beginning and end of the woes of ‘imperialism’, as global competition. So the evolution of laws can never be omitted from considerations of evolutionary economy.

Armed with a snapshot of the eonic effect, we can see at a glance that there is something completely wrong with selectionist theories, these being a special case of conflict theories. It is suddenly easy to see the problem: the Assyrians are a good case of the fittest. After two millennia of competition, these were the top dogs, so to speak. Then in the Axial interval new bypass sequences appear from nowhere and outstrip this deadlock. In general, the biggest empire is the fittest survivor. Now look at the eonic sequence that we have already outlined in our short history of the world, starting with the early Sumerians, who resemble the Greeks with their thriving small-scale city-states. Note what it shows: three turning points, and two mideonic eras in between them. Note closely, zooming in, that the mideonic periods show the fate of competitive ‘free action’, and the way this induces decline, with a strong trend toward empire consolidation. Even religion falls into the trend.

Note then how the system is dependent on its transitions to upgrade its act, ‘evolve’, often in a safe frontier area, and that this generates the pattern of non-random evolution. Thus it is important to challenge the dominant view here for we can see that it will slowly but surely degrade the tone of modernism and provoke the dilemma of mideonic drift.

3.3 An Unexpected Challenge to Darwinism

The eonic effect is something we can see all at once, and at many levels. Like a fractal, we zoom in on separate areas, and then zoom out to see the whole. We will construct an outline of world history to help us visualize this pattern. If we highlight the data with some simple periodization what we are seeing will stand out. But in one way we are done—a non-random pattern is indicated. We are confronted with a classic question about the meaning of evolution. Clearly it is something more than genetic.

We can pause here, anticipate our conclusions, and consider in a nutshell this still fuzzy perception of the eonic effect, before zooming in on its details. It goes immediately into an evolutionary category, ‘evolution of some kind’, and ‘macroevolution’ to boot. And this just doesn’t square with Darwinian thinking, nor can we say that Darwinian evolution led up to this ‘other evolution’, for reasons we will explore. We cannot be making Darwinian claims on the descent of man, sight unseen, given such data for visible world history. Darwin’s theory of natural selection fails a photo finish test. The horse that starts the race has to match the horse that finishes. The reason is the sheer scale of the effect. And the way it violates, or ignores, purely genetic evolution. There isn’t some ‘god gene’ generating ‘religion’, but a stupendous macro factor that, among other things, generates whole religions in its wake. We tend to get stuck on the reductionist

oversimplification of Darwinian evolution because we can't imagine any other way for 'evolution' to occur. Yet our pattern gives us grounds for what at first might seem one of the least plausible: incremental advances in block regions in a sort of stepping stone process. Our thinking has been too conservative. Armed with some real evidence, we must change our sights completely.

Thus, if we look closely at this data, especially in the core Axial period, we see that this 'evolution of some kind' is global in its action, acting selectively on different regions. Its effects are local, and yet match a pattern in a global sequence. It seems to switch on and off and induce change on schedule over distributed regions. It can change its focus and hopscotch between regions, and leapfrog across centuries. It can act simultaneously on all variables in a total culture, and remorph whole regions by seeding clusters of innovations. It acts on parallel cultures, and parallel components of culture, simultaneously, and directly on creative consciousness and is involved in the generation and transformation of religions. But we cannot really say this process 'acts', for it is clearly mechanical in one way. It does nothing, yet suddenly everything is done. Its effects as circumstantial evidence show its hand. Rapid advances and flowerings of philosophy, religion and science are correlated with its action.

Objectivity is difficult. The observer is sequentially dependent on its action since his protocols of discourse, and scientific methodologies, show clear interaction with the pattern. This non-random pattern shows a dynamic acting at long range, signs of evolutionary progress, and ethical action built into this dynamic, as an abstract 'should' (i.e. the system 'should' induce change on cue, the minimum 'should' of a feedback device), and an embedded rationality, as it were, that is beyond easy description. And yet, paradoxically, we cannot safely violate any principle of historical homogeneity, nor claim that these periods in question are *inherently* any different from any other period, and everything we see there ought to be something, more or less, than is present to us in our time. That seems to make the question incomprehensible. But the paradox is resolved if we think in terms of creativity, or more generally, what we have called self-consciousness. Then it is clear that while creative action is potential at all times, the eonic effect shows it to have clustered evolutionary patterns. That's a very remarkable fact, but it doesn't violate the principle of homogeneity. Here traditional accounts are misleading, for the factor of self-consciousness often hides behind theistic visionary experience.

In the best-documented case of the Greeks in their Archaic and Classical periods we see the rapid remorphing of an entire culture in a brief time-slice, with the seeding of a complex literature, political experiments resulting in the birth of democracy, and a crescendo of art. This process operates in the large, yet manifests itself in the creative action of widely separated individuals. It transcends the specifics of individual cultures and civilizations, and we must carefully distinguish the action of a system from the action of individuals. Finally, we can see that the Old Testament arises in this context, and contains implicit observations of the eonic effect.

We spot a mysterious system at work and it operates in parallel and (intermittent) sequence, therefore directionality and thence teleology become relevant. We cannot assess teleological issues if we are immersed still in the system in question. But we can, looking backwards, assess changes of direction. This effect is clearly staging a kind of globalization. The three clusters or turning points in a sequence also show geographical

patterning that follows a basic rule we will discover. They are like transitions driving this evolution, with massive innovations at the key times and places.

These 'fast interrupt' phases are about three centuries in length, the so-called Axial Age being two things, a generative and first flowering period. The pattern is associated with several new religions, and the emergence of democracy is directly correlated in two steps of the sequence, dying out after its first appearance. This will provide a clue to a hidden theme of freedom and necessity. This sequence generates great art *en passant*. The period of the emergence of the Old Testament as a literature, almost parallel to that of the *Iliad*, is directly correlated to the middle phase. It operates beyond the individual civilization and performs a kind of phasing intersection on a given 'civilization'. Civilizations in the right time and place tend to have a temporary edge. But the full effect is clearly global and doesn't pertain absolutely to the area of transmission. Including the modern phase creates problems with ideology, making caution necessary. We are inside this system still, but after its last manifestation. We tend to be blinded to the full scope of what we see, and what we conclude can easily lead to wrong results based on the imbalance created. This system does not follow some 'economic evolution of history'. It is much deeper. Economic history is one isolated aspect of the picture.

Overall it is clearly strategic, seems to start at a Eurasian center of gravity in the Middle East, and generates globalization, each area of transition seeding a field of diffusion. It never acts twice in the same area, reappearing each time in an adjacent prepared region. This 'evolution' is therefore able to somehow scan whole regions, or respond to parameters concealed to us, remember its tracks, and leapfrog to new starting zones. It never determines a whole, and leaves its trace in human activity, which executes all action as theme and variations. It acts through creative incidents and individuals. Its action is entirely different from 'natural selection' or survival of the fittest. Instead, if anything, we see a 'natural' selection of the less dominant and almost helpless innovators in fast development regions followed by a trend toward equalization and integration. It shows direct correlation to intensity of creative advance. Note this is not the evolution of creativity. Men at all periods are potentially creative. But the periods in our pattern show an especially strong relative intensity.

The only name for what we are seeing is 'evolution' in the dictionary sense, a process of 'rolling out' in a developmental fashion. Nothing in it contradicts the facts of variation, genetic drift, or genetic mutation, save that these ought reasonably to be taken as a side issue. We will not speculate as to whether processes that can morph whole cultures could also treat genes as information switches. But this is an immediate reality check on Darwin's theory. Many of the processes claimed for genetic evolution are strongly correlated with a detectable dynamic suddenly appearing from the time of writing. This is non-random evolution because we see 'system return' on definite 'event regions', an extraordinary fact. We are left with several possibilities: this 'evolution' is an entirely new process, it was present all along, or else switches on at critical stages of development. It is clearly 'macroevolutionary' in some sense, and transcends or overlays genetic evolution.

More intuitively, instead of random evolution we see three waves of focalized advance in selected regions that feed the whole via diffusion, an obvious way to evolve

something, plain vanilla evolution, but this Darwinian selectionism is not. Darwin's theory, in fact, was always a non-standard 'exotic' theory, a free lunch claim. The whole evolves through the part, and shows clear directionality, and correlated system response over millennia. The problem is that while we can describe it that way, we can't 'see' the mechanism, so to speak, nor account for the sudden jump in complexity that attends each step in our eonic series as new and complex 'information' flows into the system from nowhere. Whatever we call it, and the issue of what to call it is secondary (we can also dispense with or qualify the term 'evolution', e.g. 'eonic or stepping evolution'), we have some hard data here, observed at close range, relative to Paleolithic, which Darwinists have *not* observed at this close range.

Clearly, applying Darwinian thinking in this situation could lead to disastrous counter-evolutionary effects. Look closely at the middle periods, such as the falloff in the post-Axial. The 'fittest' do indeed survive better, and the trend toward decline and empire takes hold. A period of great innovation comes to an end. And many of those innovations do not make it. The Ionian Enlightenment is buried, democracy barely gets off the launch pad, emergent science fades away. We suspect our 'system' has to prompt these innovations, and then restore them after they fail a 'fitness test'. We must take the result as is, historically given and buffered from whatever other evolution in deep time our speculative theories propose with limited evidence. Since this 'evolution' in history shows clear directional aspects, and is able to change direction, we might suppose it has changed direction from processes said to have occurred earlier in the descent of man. We can see that the Darwinist is going to lose history, *hence also the Paleolithic descent of man*. For we will see that 'history' in this sense must overlap with earlier phases of the descent of man.

The regime of natural selection as theory makes no sense, never did make any sense. Now we suspect what the real evolution must have been like. Culture, we should note looking at the eonic effect, doesn't arrive through and can degenerate under the pure regime of natural selection, whether of individuals, cultures, empires. Advance and innovation require an end run driver to bypass the sandbanked victors of the survival regime. But there is still the consideration that Darwinists might claim that their account produced the lead up to history via natural selection. We can move to protect our subject by showing that they probably lose this lead up also, by looking at the so-called Great Explosion. From there we can move to the study of history on its own terms, without the red herring of Darwinism lurking in the background to confuse thinking.

Darwinism, by claiming purely random evolution, always left the relation of causality and chance ambiguous. Confronted with the eonic effect, we see precisely that extra process, 'cause', or 'force', subject to its inexorable confusions, present to 'drive' evolution, it being granted that such language is purely formal, subject to revised language, and that this system is something highly complex. As remarkable as that is, it is nonetheless precisely what we might have expected, and warns us that our easy assumptions about higher complexity arising by chance were off the mark.

1. Evolutionary Directionality We are thrust all at once by the intermittent character of this pattern into the perception of historical directionality, hence possibly teleology of some kind, contrary to the usual assumptions. Although a scientific red light should go on at this point, there is nothing to forbid this. The facts must speak for

themselves. The reason for this renewed perception is that successive turning points show a developmental sequence, often picking up where they left off millennia before. Current evolutionary thinking rejects all teleological thinking, and we will proceed gingerly here, and for our own reasons limit our argument to directionality with an extended hypothesis about teleology, but we can see indirect evidence of teleology in the intermittent stepping process. The problem is that directionality can be empirically demonstrated for the past, while teleology comes with a very high price tag and claims on the future. A drunkard can take three steps toward Kilarney, and that's proof of directionality, but he could fall in a ditch on the fourth step, and never make it, a future unknown. It should be clear from inspection that world history shows 'purposive' directionality but the stepping progressions seen in the eonic effect show the way retrograde motion throws us off the scent, to say nothing of the metaphysical propagandas of the great religions whose effect is to distort perception.

Nothing in this approach therefore preempts a counter-claim of causal explanation of a new and different kind, some 'causality' of Big History. Another problem is that we can only speak of the 'aggregate cultural evidence' of very large turning points, making teleological statements very generalized at best. And the system requires special treatment in the observer's present. Further, if some 'teleology' of organismic development is considered, then one might consider the 'evolution of freedom' in any sense. Then the direction set by the system is ambiguous. If 'freedom' develops, the system should stop acting, short of a 'telos'. It cannot determine the future then. So which is it? Given many such considerations, teleology is tabled to discussion by directional empiricism, but not allowed in the basic model.

Total history is wildly chaotic, and the selection and amplification of substreams against the whole is obviously needed to prevent long-term inertia. Suddenly we discover it, for example in the rapid fall off of the Hellenistic after the Greek miracle. What happened? A whole advance seems to fade out. The difference between directionality and teleology can also be seen from the sheer variety of the Axial cousins. No single 'telos' could be ascribed to this system, although we might conceive of a more abstract common denominator. But we can barely describe what we are seeing. Stating some teleological end state collides with our present. However, directionality, *changes* of direction, can be described.

Our prime objective is to demonstrate a non-random pattern. But we are entering dangerous terrain beyond that basic objective where the issue of teleology appears to challenge standard thinking at its foundations. We need a way to preempt ideological misuse of the conclusion. Ideology arises because it is a highly desirable state of affairs to say your current activities are endorsed by a teleological plan.

The pattern itself provides the answer. Its intermittent character proceeds by incremental action, often changing direction. What occurs inside the pattern, and in the in-between periods could be two different things. Again, to repeat, we will in fact only claim empirical 'directionality', a more limited claim. There is essentially no way to either settle on a causal science of history or a teleological interpretation that is not riddled with metaphysical assumptions. That is not true of empirically mapped directionality. Please note that we are dealing with high-level cultural (and biological)

historical evolution. The problem therefore is that teleological ideology is itself a product of the sequence in question. And these severally might contradict each other. That complicates analysis. Noone can claim history with an ideology of 'telos'. We must proceed by another avenue, and with some caution. We will limit ourselves to historical description of directional intermittency visible looking backwards, with a special treatment of the present (since it is outside the intermittent phase).

We should note, in any case, the evidence of the Axial Age, the exploration of different directionalities, simultaneously, like subroutines in a master sequence. That, and the scale of the pattern, should induce severe caution against premature teleological speculations. This issue is especially acute in the last phase of our sequence, where questions of Eurocentrism, and much else, complicate the analysis. In fact, we can proceed with a safe strategy on such questions. But the subroutine problem returns to haunt the directionality (apparently) set by the modern differential phase.

Note: Natural teleology We need to be clear that teleology can be an aspect of nature (a point once again made clear, we should note, in the Critiques of Kant). The current polarization of reductionist versus some 'spiritual' brand of explanation misses this significant insight. Science has naively yielded the ground of its potentially better domain of discourse, and that's not surprising. But it should also be considered that gains in understanding are marginal here, giving the opportunity for the religionist to claim all ground not rendered over to scientific explanation. This is a problem in monotheistic cultures, and doesn't finally concern us. We should also note that there is a teleological aspect to physical mechanics, with its action principles. It is simply not the case that teleology has been banished from modern science.⁷²

2. Evolution and Ethics—At close range We already have enough data to reconsider the basic weakness of Darwin's theory with its inability to account for the evolution of ethical behavior. The current models of population genetics with their claims about group and kin selection are forced into a corner at the limits of purely genetic explanation and the attempts to account for altruism. But if we look at the Axial Age data we can see that evolution in our emerging sense shows two religions appearing almost out of nowhere, one theistic, one atheistic, almost—we see relative transforms in each case. This process is far beyond anything Darwinists can conceive, and we end up flabbergasted by the sheer scale of this spectacle in our backyard. This does not mean we have solved the question of the 'evolution of morality', that has long since been, in some fashion, a human reality. The religious manifestations of human culture emerge, proliferate and decay, and in the Axial interval we see a remarkable spectrum of situations 'toning up' a chaotic religious diversity. The evolution of religion and that of behavioral morality are not exactly the same, and yet the two must overlap. And in any case our still incomplete picture already gives us a reality check: the issue has a macroevolutionary component. But the point is that religion is not an adaptation to environmental conditions, but an independent process mixed with general evolution in the large. We are confused by the output of the system, i.e. a particular religion associated with our pattern (as opposed to religion in general), and the system itself, which does something 'wholesale'.

We should be careful here: our eonic data shows a very late stage of development and does not exhibit the earliest stages of 'ethical consciousness in evolution'. We see the

icing on the cake, not the earliest stage. But we can see that something far larger than random genetic evolution is at work.

In one way the category 'religion' is (possibly) redundant, since it is really a function of the development of consciousness (often with an overlap with the category of 'state evolution', i.e. law codes for transcultural regions). We see that ancient men perceived what we call 'evolution' as a religious phenomenon. But then, in that case, the master clue is at hand to sorting out our elemental confusions. We are confused by our inability to distinguish the process as it emerges historically *as a human creation* (micro-action) in an eonic context (macro-action) and the deeper dynamic of the process itself which stands beyond the particulars of the individual religions, here Buddhism and the proto-Judaic corpus. Even a cursory glance at the full spectrum seen in the Axial period provokes a conundrum. For we find more than just religion. And if we zoom in on the Indian case we see a whole field of religious experimentation preceding the later outcome. Part of the problem here is that, despite the advances of science, we are still very close to this period, and tend to be caught up in the misleading historical accounts. We have no concepts to handle this kind of sudden phasing, nor any ability to put our theoretical present in correct perspective. Thus we fail to grasp what we are seeing at the gestation of these two religions in the Axial period. But we must suspect just how far off the mark Darwin's style of thinking really is. We can see from the Axial period the phenomenon of 'distributed evolution', sourcing in one cultural stream, then proceeding towards a more general environment, crystallizing as a 'religion', complete with self-generating 'ethical codes' confected on the spot from the input stream culture's mythological corpus. We are in the minor leagues of theory still, confronted with operations on this scale.

3.3.1 The Great Explosion

Man's emergence from the Paleolithic is both his entrance into history and his attempt to discover the meaning of that transition. The search for the significance of history and the resolution of its enigma is the most existential commitment of man and his most ancient of legacies, the question of Gilgamesh himself. The quest for some pattern in the surface incoherence of historical events takes form with the birth of civilization and the invention of writing, and inspires the traditions of sacred history, reborn in the secular philosophy of history, then challenged and recast by the idea of evolution.

The discovery of evolution is the gateway to its greater significance, the great clue, yet in revealing the unknown the idea of evolution is still confronted by the mystery of the known, man in history. The idea of evolution seems destined to fulfill the ancient hope in its new form by its revolutionary transformation of our perspectives of deep time. Indeed it is a precondition and foundation for any enquiry into man's origins. And yet this ambition to claim man's view of his nature by the very invocation of universal evolution at first merely compounds the enigma and demands the answer of one and the same

riddle, as universal history, that has always accompanied the chronicle of kingdoms, states, and empires.

Even as evolution yields one part of the riddle of history, it is history, ironically, that yields us a further clue to evolution, and to the unobserved drama of man's transition from the lost world of his evolutionary infancy. As we observe the eonic effect, we begin to see, or detect, an 'evolutionary' process in the 'rolling out' of emergent civilization. This effect is too massive, and too high-level to coexist with what is currently claimed as explanation, even if we grant the possibility of confusing cultural and biological evolution. In many ways, history is a crucial test for any theory of the descent of man, the only record at close range, at the level of centuries that man has of the evolution of anything. The reason lies in a subtle contradiction in our thinking concerning the relationship of history to evolution, with particular regard to our freedom and ideas of that. The eonic effect highlights a discrepancy. Although man at the beginning of history has a clear dimension of 'freedom', this is limited, and the overall development of civilization shows a clear 'helper' evolution. Can we suppose that much earlier men succeeded without this?

Current thinking on the subject of evolution derives, of course, from Darwin's *Origin of Species* with its theory of natural selection, and this has become the source of many controversies. The basic Darwinian viewpoint was always open to severe challenge on this issue of natural selection. The problem is that the mechanism of natural selection is pushed to extremes as a total explanation, unwittingly provoking a disguised metaphysics. In general, theories of evolution suffer the inherent limitation of insufficient evidence, and generalize inferentially about great eras in the past that are not the result of direct observation, our hurricane argument. This lack of evidence makes theory subject to unconscious derivation from prior assumptions about what constitutes naturalistic explanation. And these tacitly foreclose the range of mechanism discoverable.

One such assumption is that no rapid acceleration of change can occur in the intervals in the fossil record. Here the controversies over mechanism become acute, in the difficulty of resolving the great unknown, deep time, to a fine grain. What constitutes naturalistic explanation cannot be specified in advance, for we might expect to discover new extensions that were unforeseen in the basic assumptions. Let us note that the processes seen in the eonic effect are easily seen to be present at earlier stages of evolution. We are to assume natural selection is the key, but it doesn't take much to find evidence resembling what we see in history. We can use the evidence for a 'Great Explosion' to provoke a stalemate with Darwinists.

The Great Explosion Evolutionary theorists have longed puzzled over the sudden advance complete by ca. 50000 (?) years ago at the point man seems to have crossed a threshold to become the recognizably human cultural being that he is in terms of language and culture. This is often pegged as high-level cultural evolution, with or without a mutation claim, visible in language, art, and technical achievement. At one and the same time this data is matched with claims for an earlier breakthrough for the 'anatomically modern man', e.g. ca. – 150000 (?). The speculative misuse of such data understandably creates caution in (otherwise incautious) Darwinists, and clarifying the relation of slow to sudden evolution requires far more data that we have at present. But these two

factors together suggest a quite tantalizing case of something like our *relative* transformations, which reconcile the chronic debate over slow versus sudden change. None of these claims has any data at the level of centuries, while we can see now that that is likely to be crucial. Our eonic pattern is probably double the size of its visible five thousand year range. This is a huge segment of history, but virtually nothing in the scale of deep time.

Our method shows us the dangers of speculation *without data at the level of centuries* for minimum five thousand year intervals. We are not going to speculate here, but since Darwin did speculate and thought natural selection (the issue of sexual selection apart) is the key, we can equally well wonder if earlier evolution resembled the eonic effect.

The eonic pattern shows the ability to focalize rapid evolutionary change in isolated geographical regions, and to stage distributed evolution from that source. Further this 'evolution of some kind' is primed to 'evolve' all the factors of culture comprehensively. This seeding process can, within several centuries, ratchet flagship populations to a new stage of culture on the spot. The nudging eras of fast change are followed up several millennia later with successor periods.

We should note the compressed timeframe for some very big advances. We can simply consider the data of the eonic effect beside this spontaneous claim for a 'Great Explosion', as a rival challenge seeking falsification, and can demand that Darwinists not assume therefore what they have not proven when their own data suggests something different.

Anyone who considers current literature suspects fudged timing here, quite apart from the near total absence of decent data. It is almost impossible to conclude anything from skeletal or genetic remains. In fifty thousand years since the putative Great Explosion man's evolution by genetic drift is considerable, but in no sense fundamental. A mere doubling of this time period gets us back to the dawn of anatomically modern man. It is hard to assess these intervals, but one thing is sure, Darwinian thinking doesn't add up. Everything in the data suggests we are missing a highly compressed period of rapid transformation, this not being contrary to slow change in the intervals in between. It is impossible to argue with Darwinian true believers. But let us at least not be browbeaten into their dogmatic thinking.

3.3.2 Measures of Evidence Density

Darwinists are operating with an improper standard of evidence density. The span of Darwin's theory is immense, billions of years, but with immense gaps. And the evidence is mostly fossilized remains of anatomical structure, no closely tracked data for the historical background of behavior or culture. That's fine for the fact of evolution, but inconclusive as to mechanism. The correct measure must be some doubly parametric ratio, length of overall interval *and* fine-grained detail at shorter intervals. Five thousand

years of world history at high evidence density but short length is surely a rival player to millions of years at low evidence density, as far as the descent of man is concerned. *The point is that all claims here will now need some evidence at the level of centuries* to compete with our developing eonic evidence, evidence at the level of millennia turning into centuries. Of course, evolution could be accelerating, or changing its character, raising an objection to this approach, over the full range of evolution. But as the asteroid catastrophe related to the extinction of dinosaurs suggests, relatively short term events can never be counted out at any stage. Darwin's claims don't have a single dataset at the level of centuries to describe any part of the evolution of man. Zeroing in on ten thousand year intervals as in the Great Explosion is still not good enough. There may be high-speed changes at the level of centuries. The eonic effect shows high data density over a short interval of five thousand years and is thus fully rival to the Darwinian presumptions about long intervals, as far as the descent of man is concerned.

3.3.3 A Photo Finish Test

We can restate this as a photo finish argument, falsifying Darwinism. The problem is that 'history' and 'evolution' overlap, so our account is moving towards a photo finish contradiction. We are beginning to see something totally different from what Darwinists propose. Nor is it likely that earlier human emergence could be something completely different from this. The eonic effect shows us direct examples of the evolution of social units, religions, cultural entities, at a high level, in a non-genetic macroevolution. The core nature of man and his culture springs from the very period Darwinists assume for their account. Are we to suppose without proof this was purely genetic? The brief photo finish of human evolution since the beginning of civilization is thus beginning to suggest a surprising set of facts.

Darwinism fails a reality check, given the eonic effect, and thus flunks a photo finish test. If someone says the racehorse is one color, and the photo finish shows another, the original claim comes under suspicion. If the claim is made that cultural and biological evolution are distinct, we can construct (below) an evolution of freedom argument demanding an overlap of some unified homogenous evolution. Over and over people have suspected something is missing in Darwin's theory. We sense immediately that we have found it, and in our own history. The search for a 'something' that might 'cause evolution' against the random suddenly becomes visible in our own history, seen in the very pattern of human activity taken over the long term. We see conclusive evidence of a global aspect to evolution.

Call for a 'Time out' on Darwinism Therefore the selectionist claims for Darwin on the descent of man should be withdrawn, effective immediately, and put on hold until we can branch via falsifications. Checkmate for claims of proof. Stalemate for claims of theory. No selectionist account of adaptation has properly accounted for the rapid emergence of early man. We have insufficient data to resolve this issue, but the facts of world history must make us suspicious of how this transition happened, and a bit skeptical of the claims for some

important or uniquely significant mutation. Such claims, in any case, have never been properly verified, even as the theory is promoted as already achieved.⁷³

3.4 From Fisher's Lament to Kant's Challenge

We have seen the basic pattern of the eonic effect. Now we need to construct an outline of world history to highlight in more detail the dynamic we have found, and to connect with the issue of causality and freedom, in a model of the evolution of freedom. And this we will find anticipated in the works of Kant. We might first consider Fisher's lament, about the randomness of world history. We have found that our data falsifies this claim of randomness. We can look beyond Fisher's lament to a classic essay by Kant, one with a subtle contradiction: on the one hand it posits a theory of social conflict, an ancestor to Darwinian thinking, and on the other proposes an 'idea for the evolution of freedom', and asks historians of the future to help him find it.

If we enquire into 'what runs history', into the possibility of any pattern, structure or law, we are left to examine the rush of statistics and wonder if it is sufficient to account for the chronicles of kings and commoners, the flowering of civilizations, and the evolution of religious forms. We are entering the forbidden zone, large-scale historical patterns, and have to deal with a considerable dialectic. Thus, the historian H. A. L. Fisher, in one of the most quoted statements of modern historiography insists that there is no meaningful structure to be found in the randomness of historical process:

Men wiser and more learned than I have discerned in history a plot, a rhythm, a predetermined pattern. These harmonies are concealed from me. I can see only one emergency following upon another as wave follows upon wave, only one great fact with respect to which, since it is unique, there can be no generalizations; only one safe rule for the historian: that he should recognize in the development of human destinies the play of the contingent and the unforeseen.⁷⁴

Increased perspective in the rising tide of historical data forces us to consider the counter-evidence to Fisher's Lament. Undoubtedly the influence of Darwinism is at work in Fisher's despairing rejection of any 'idea of a universal history'. The exclamations from the 'iron cage' of scientism in the wake of the seeming triumph of universal causal science seem to conclude the matter. But the triumph would seem premature, and the reign of Darwinian assumptions short-lived. History remains to be discovered. We live in a unique period of history, one in which the record of archaeology has begun to speak. Foreshortened perspectives of the historical have proven misleading.

Even as Fisher wrote, the record of civilization was crossing a minimum threshold of five thousand years to show a pattern of the type Fisher could not find emerging in fixer. We find an answer to the issue of historical rhythm, answers, but what was the question? Confusion over the nature of historiography and historical theory makes the idea of a science of history or interpretation in terms of 'historical laws' uncertain.⁷⁵

Fisher's lament, with a tragic flourish, was perhaps a pessimistic or proto-postmodernist reaction to the horrors of the First World War, and the shock this created in the hopes of so many in automatic progress. His evocative statement was made in the wake of nineteenth century ideas of unlimited progress, and earlier ideas of universal history and is an indirect expression of the view that there is no discoverable historical pattern or direction. Beside it lie the many attempts to challenge the great philosophies of history that arose in the Enlightenment passing into the phase of German Idealism, then followed by efforts to approach its study scientifically, or the reaction to philosophies of history in the various forms of historicism, beginning with Herder. The current postmodern critique, the 'incredulity' toward metanarratives, joins the list of the skeptical judgments.

Fisher's lament bundles together four, or more, quite separate concepts, that of rhythm, plot, pattern, and predetermination that do not necessarily stand or fall together. That historical patterned emergence can also be a series of chaotic 'emergencies', such as the French Revolution, is still another crisscross of meaning. A rhythm need have no plot, and a dramatic improvisation might show little or no predetermination, and yet operate under the constraint of a conditioned future.

The hold of Fisher's lament on many quotation-mongers and historical handwringers, as the magic sword to slay the dragon of macrohistory, is also a testimony to the difficulties of the project of Universal History, and its cousin, the attempt to find laws of history. Although the trend of current historical thinking, in the afterglow of the 'positive challenges' of positivism, is against the perception of meaningful historical structure, the plain fact is that the rise of the philosophy of history is a foundational moment for secularism and the understanding of modernity. If anything the rise Darwinian scientism is regressive.

The clue to the whole question lies in a simple question and a paradox that it creates: Is there a science of history? This forces the simplest dilemma: if there is such a science, there can be no freedom. We might seek the resolution by asking if there is some 'causality' of freedom that should accompany its appearance. If so we must find some evidence of its evolution. The study of history theoretically has proven intractable but world history must somewhere show at least some hint of resolving this field of contradictions. In fact, as we examine world history once again with this in mind, we suddenly discover that theoretical derivation matches the empirical record. This question was the object of Karl Popper's strictures on what he called 'historicism', and Isaiah Berlin's discourse on 'historical inevitability'. But the original version of this thinking appears in the philosopher Kant, who proposes it as the gateway to the philosophy of history.

One of the deepest currents of modern thought, beside the rise of theories of evolution, lies in the heritage of the philosophy of history, whose existence is justified by default in the failure to find a 'science of history'. No use complaining that science has replaced philosophy or that Darwin explains everything. Our simple model with its eonic mainline and discrete freedom sequence stages a lightweight transition through this terrain. Strictly speaking our model based on a stream and sequence contrast, but then in this chapter has annexed the ideas of 'causality and freedom' as an adjunct, which requires explanation in the imperfect match. It is also empirical and can't be used for

complex secondary deductions, but we can manage a few hunches with our historical black box, and the embedded freedom sequence tweaks the issues very directly.

We have found a solution to the paradox of causal determinism and the emergence of freedom in history: we see a macro oscillator shifting gears in its dialectic of 'degrees of freedom'. Beautiful. Our analysis blends in with a classic theme of the philosophy of history seen in the Dialectic of the *Critique of Pure Reason*, with its discussion of the various antinomies of reason, the so-called Third Antinomy being the key to our historical logic.

This legacy of philosophic history, like a stream flowing into a greater current, yet with deep roots in antiquity, casts an ambiguous glance at the sacred lore from which it is spawned, yet accompanies the secular music as a leitmotiv of modernism, despite an ambiguous status on the boundary of metaphysics. Challenged in the mood of science, yet still unchallenged by any science of history, it endures in parallel to the claims against philosophy made by the tide of empirical research. Rising in tandem with all things modern and the pandemonium of a new era of world history, its antiquated reputation is belied by its persistent echo in the mind of the historian, and its eternal smile as the masthead to all ideas of evolution.

The onset of positivism is itself graced with the metaphysical historicism of epochs codified in the philosopher of history, Comte. But if Comte is just such a philosopher of history and all his epigones are shipwrecked trying to do a science of history in the age of Positivism, we should backtrack to the source of the stream to see where we went wrong. Scientists tend to be unconscious Comtean historicists, and assume the epochal scientific revolution will overtake history. The future is unknown, but if that means that unrestricted Newtonianism as total causal explanation will suffice, failure is likely, as we can see already. The Darwin debate shows the train wreck coming. The work of Kant produced a means to mediate this problem, without derailing into anti-science. It is no accident our 'system-agent' two-level discourse has a family resemblance to the Kantian rubric.

As we move to examine theories of evolution we find the philosophy of history's seemingly outdated, almost archaic, charm resurfacing as a renewed challenge, and an obstacle to their completion. If a theory of evolution moves to enlarge its domain to include the whole, then it is forced to reckon with the self-reference of the thinker pondering his own evolution. No other grounds are required for the persistence of this mode. The idea of evolution is a feckless giant, and we should propose, in a gesture more than humor, a comeback of philosophical history, a nimble rascal, to leap and ride piggyback, wishing to direct traffic, to the consternation of proponents of post-philosophical science. Indeed, we should notice at once that the philosophy of history is itself a part of our universal evolution, as is the idea of evolution, that is, the evolution of the idea of evolution.

Displaced in the rise of the positive sciences by the idea of evolution, the philosophy of history becomes one of its first passengers. For the philosophy of history is the history of philosophy, and this shows the signature of its own (eonic) evolution. We can offer no real differentiation, then, of the two subjects, or any decisive means of

marking the transition between boundaries of rival disciplines. If Darwinism is free of metaphysics, then let it be science. But we have seen that it fails three times, in the classic antinomies given from Kantian Dialectic.

The philosophy of history is born, reborn, at the dawn of modernity as a fellow traveler, becoming visible as early as the sixteenth century and finds its classic realization in the writings of the philosopher Immanuel Kant, in his essay *Idea For A Universal History from a Cosmopolitan Point of View*:

Whatever concept one may hold, from a metaphysical point of view, concerning the freedom of the will, certainly its appearances, which are human actions, like every other natural event, are determined by universal laws. However obscure their causes, history, which is concerned with narrating these appearances, permits us to hope that if we attend to the play of freedom of the human will in the large, we may be able to discern a regular movement in it, and that what seems complex and chaotic in the single individual may be seen from the standpoint of the human race as a whole to be a steady and progressive though slow evolution of its original endowment.⁷⁶

This hope is confirmed by the pattern we can exhibit, and we can easily claim the eonic effect a resolution of Kant's Challenge, in the process exposing a difficulty in Kant's own analysis. We could derive the eonic effect from this paragraph. The inherent contradiction in this paragraph does indeed generate its own historical dynamic. And the eonic effect answers at once to the question asked. Kant's essay is constructed around a classic ambiguity on the one hand it seems to propose a solution to his own question in terms of the idea of 'asocial sociability', and at the same time throw the question into the future, for an historian with greater perspective to discover an aim of nature in the chaos of historical happenstance. Beside this projection into the future of this wish to discover 'nature's secret plan', Kant also relates the issue to the idea of progress toward a 'perfect civil constitution'. Kant's essay seems almost perfectly tuned to the eonic effect, without realizing it, for our discovery of 'historical evolution', as we will see, throws light directly on both of these issues, exhibiting the reality of 'nature's secret plan' behind the emergence of civilization and more specifically the directionality in the development of civil government. As we proceed we will see the remarkable way that the eonic sequence demonstrates a law of progress, and of the concealed teleology behind the evolution of culture in world history. And the particular pattern of political development inside this progression will exhibit the way in which emergent democracy is bound up in the eonic effect itself.

As we examine world history the data emerges clearly to resolve Kant's Challenge in unexpected fashion. We have the framework to proceed with an outline of history as the 'evolution of freedom', starting in the next chapter. The great irony here is that we will see Kant caught up most beguilingly in the very turning point that constitutes one aspect of his problem's solution. The answer needs just a bit more time and perspective. It is a beautiful prophecy and proof of the power of his system of critiques.

Kant's essay, as a 'minor' work, is actually one of the most influential of modern history, for it enters on cat's paws into the whole struggle of modern philosophy of history and ideology. It seems to foretell the next two critiques, and is a deceptive work in the sense of giving consideration to what Kant calls 'asocial sociability', but is really

pursuing a different issue, in the process asking a question. Many have answers to questions of history, Kant, with a curious brilliance, had the presence of mind to but ask, and leave some answer to the future, for he must have sensed that he was given inadequate data. The essay arises just after the first critique, and yet seems to foretell the next two.

Asocial Sociability Kant's thinking is ambiguous, and this contradiction is perfectly apt for perspective on history. On the one hand he proposes an answer to his implicit question, or challenge. And yet on the other he throws the question into the future. His 'solution' is the idea of asocial sociability, which is conveniently one of the root ideas of social conflict that, next to Adam Smith's economism, moves to influence Darwinism. The irony here is that as we answer Kant's Challenge we resolve the root idea of conflict histories that beset the denizens of flat history. Kant's instincts are sound, he senses his solution requires a larger framework of data to be resolved. He is right.

The unsuspected significance of this work shows us something very elegant about our understanding of history, if we can manage the dangers of historical directionality, and its teleological implications, which we can successfully evade with our 'discrete-continuous' model. Kant created a critical system, yet was so curiously wry as to propose not a *Critique of Historical Reason*, the curious lot of his successor Dilthey (Karl Popper's *The Poverty of Historicism* being one attempt at this book), but an *Idea for a Universal History*. We shall have to hope the first book, still unwritten, appears in the attempt at the second.⁷⁷

Our treatment of Kant's Challenge will emerge over the course of the text, but at the same time let us note that we have already resolved the question, in essence, almost without trying. We can say that the eonic pattern satisfies, to a fuzzy first approximation of the Universal Historian, a different but related question to that which Kant posed, as we see in broadest scope that the solution is within the range of the cyclical driver of an evolutionary emergentism. Note Kant's wording. It is very similar to our distinction of historical determination and free action, macro and micro.

Within two centuries the necessary data is emerging for the first time to resolve Kant's Challenge in unexpected fashion. Further, our brief look at modernity, the evolution of democracy, in terms of the eonic sequence, shows us something spectacular. We should not that, strangely, we have found the first paragraph of Kant's essay entirely to the point, the consideration of 'asocial sociability' somewhat beside the point.

Kant's Essay and Conflict Theories Kant's essay is beguilingly useful because it is really a debate with itself: it proposes a conflict theory in classic form, asocial sociability, then also proposes an abstract resolution of that with a question about a teleological resolution of conflict theories. Kant is asking the future for the data to transcend his conflict theory and, remarkably, the eonic effect provides just that. We will confine our use of Kant to the first paragraph of his essay.

Nature's Secret Plan Kant's famous essay also challenges us to uncover 'nature's secret plan', and the eonic effect powerfully shows that plan in action.

This language is suggestive of design thinking, and we should be wary of the sense of ‘agency’ that we ascribe to ‘nature’. However, in practice the point is clear, and we can suddenly catch a glimpse of what can only be called a hidden design to historical evolution.

Progress Toward a Civil Constitution Another aspect of Kant’s Challenge is to document the ‘progress toward a civil constitution’, and the eonic effect powerfully shows a strong correlation with just this, and we have just suggested that democracy itself is bound up in the eonic sequence, as it seems to generate the first beginnings of democracy in both the Axial Age and in modernity (which makes us suspicious that the earliest stage of civilization shows an earlier phase of its emergence).

This idea flows into the vacuum of archaeological data, data now showing us that Kant’s original idea is the right one. The great irony here is that we see Kant caught up most beguilingly in the very turning point that constitutes one aspect of his problem’s solution. The answer needs just a bit more time and perspective. It is a beautiful prophecy and proof of the power of his system of critiques.

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We can easily resolve the question of directionality, but not fully that of teleology. Directionality, seen in the evidence of past times, expresses the phenomenal representation of some inferred teleological process, whose outcome, or telos, however, is beyond observation, and in any case a timeless unknown with its foot in the future. Of

this we can know nothing as our eonic system is seen, looking backwards, to have proceeded toward the present in the recursive approximations we see in the eonic sequence. And we isolated one theme of that progression as an ‘evolution of freedom’, as an empirical study, without committing ourselves to any generalization beyond our present. Our approach is indirect, and the reason is the danger of premature teleological metaphysics, which ends in limbo if we give it an answer without an ending, which requires some statement about the future and/or the eonic sequence. But that very caution is implied by Kant’s essay.

A Noumenal Mystery Our eonic model almost automatically produces a structure isomorphic to Kant’s distinction of noumenon and phenomenon, and it does so deftly using different concepts and without any of the complications that haunt the original. Isomorphic, but in a different context, large-scale history. Since this was serendipitous, and unasked for, we are left to wonder what this means. The problem is that history is all of a piece, phenomenon, including our eonic sequence. And yet this sequence stages the hard evidence of the ‘uncaused freedom emergence factor’ inside a temporal oscillation. The long lost mediating factor between the phenomenon and the noumenon suddenly appears, where least expected, in history itself. We must suspect that the ‘teleological’ aspect is beyond the limits of our representations, noumenal, as all that we see is phenomenon, directionality, a stupendous oscillation in the degrees of freedom of the system execution.

That the dynamic behind eonic evolution should stand veiled in the noumenal is a severe caution against the reification of our empirical framework into ‘theory’. Our answer therefore will be about directionality as evidence of possible teleology. Directionality means that successive transitions show ‘connected sequence’, still far short of declaring teleology, since we are not at the end of time, or out of time. It is a reasonable operational assumption to conclude nature shows teleological processes as long we don’t presume to project this thinking on the unknown, and reckon the ‘snafu of present action’ seen in the Oedipus Paradox. With this caveat, we should accept our own version of Kant’s challenge. Our study is of a phenomenon we will call the *eonic effect*, a *temporal subset*, due to the nature of the evidence, or lack of it, of a pattern of *universal* history.

The pattern of the eonic effect is not a philosophic solution to a problem, but an archaeological finding, partial in the sense that a shard of some lost whole is discovered empirically. Our pattern for all intents and purposes answers the quest initiated by Kant, seen in the subtle wording of his remarkable formulation, *itself correlated with the pattern*, that we should *attend to the play of freedom of the human will in the large, to discern a regular movement in it*.

3.4.1 A Certain Strangeness: Beyond Space And Time?

Our pattern of data has suddenly shown its resemblance to something remarkable and classic, so-called ‘transcendental idealism’, a scheme tailor-made to rescue Newtonian confusions, but considered now to be an outmoded form of thought. Almost against our will our model forces this on us, due to the two levels it generates in its analysis, and the stunning match to the discrete freedom sequence. Remarkably we have an ‘off the shelf’ philosophic software for just this situation, the critical system of Kant. In the next chapter we will tie together all the loose threads of our discussion with a look at Kant’s essay on history. We can complete our model in the next chapter by showing how the eonic effect demonstrates the resolution of Kant’s Challenge.

Our data has, at first, a strangeness to it in the way it treats discontinuity, jumps between periods and regions, and operates on fuzzy intervals. In fact, it is a consequence of the data we are confronted with, no way around it, and is not indulgence in the fantastic. Examine the data of the Axial Age, for example. Fantastic or not, the data speaks for itself. There is no ‘flat history’ solution to the strange properties we discover there. One reason we are about to discover for this initial sense of oddity is that we may be detecting a system operating behind the scenes, and perhaps one that is beyond the matrix of space and time. Although we can’t establish this formally, we should launch a preemptive strike against the suddenly metaphysical speculations that will arise here, and that will provoke some metaphysical spree on the subject of history and eternity. The latter concept has no scientific foundation, and is speculative, period. That doesn’t mean it is wrong, only metaphysical. Transcendental idealism is the only way to both embrace and yet discipline this kind of ‘ran off the meter’ once we attempt to include anti-causal thinking in our model.

However controversial that might be, and no such assumption is required to proceed (the assertion generates its own serious complications, and possible contradictions), we should persist in our new approach on the grounds, by Ockham’s razor, that it simply makes sense of the otherwise chaotic data, at a stroke, done. Without explaining anything, save why it can’t so explain. However, in the final analysis, our method and its justification are based on simple periodization and the construction of time lines. No more. If what that uncovers is strange, then so be it. We found explicitly good reasons to explore intermittent and hopscotch patterns, on the grounds that there are few post-Darwinian non-random patterns of evolution, but the eonic effect, remarkably, shows strong evidence of one of them. We allowed ourselves no statement about ghost forces or ‘forces of history’, save the detection of Mystery Force X. We simply construct a matrix of dates, and observe the sudden coherence of the result so taken. No objection can be raised against such an approach. It violates no canons of ‘right science’ and indulges only in the simplest elements and constructs. Like a tangent to curve the slight artificiality of the model can simply be taken into account as approximation. Thus the way we have set up our model is deliberate and we should proceed without apology since we can see that a dynamics of world history always eludes us if we try to impose a wrong approach. All of a sudden a recognizable situation emerges for anyone familiar with the philosophy of history. It’s like walking down the street and finding a hundred dollar bill.

We should have expected this all along from the moment we isolated an ‘evolution of freedom’ from our data. This evolutionary concept we must make our own for a scientific age, despite its innuendoes and controversies, and all it means is that we

have to find empirical evidence for some ‘evolution’ at a bare minimum level of ‘self-consciousness’ of human freedom, volition, or autonomy, in any sense, short of the metaphysical, and avoiding free will questions. It applies to history, and must therefore apply to the Paleolithic.

We found this very easily in our data. The eonic sequence is itself a play on the degrees of freedom involved in discussing the evolution of civilization, and we reduced that to the simple question, and dilemma, Does Man make himself? We see the top-level answer very easily if we adopt our model. It is almost better left vague, since our more specific business is simply to map out the stages of emergent culture in world history.

Sometimes this kind of construct is challenged by postmodernists as a ‘metanarrative of freedom’. We looked at that criticism, but the fact of the matter is that the very denial of the existence of such things seems to put ideas in our head. Once you say there is no large-scale process in world history the existence of one becomes obvious. So we end up ‘deconstructing flat history’, there to find a metanarrative indeed.

As a further exploration of these issues we are going to veer briefly in the direction of the philosophy of history as a redundant approach to our data, for those who wish to pursue that angle. With this in mind this chapter will conclude with a section on Kant’s Challenge where the issues of freedom in history are given their most classic, if somewhat abstruse form. In reality, the problems of historical methodology were long ago challenged, if not resolved, by the hints given in a figure such as Kant. However, ironically, Kant injected a different solution to the problem into his thinking, and this we can critique on the way to a better Kantian interpretation than Kant himself could provide. The reason is that Kant is clearly inside our pattern, and still unable to fully observe it, although he came close. ‘Transcendental idealism’, a wretchedly named terminological label whose real meaning for us would be a ‘two domain model that can handle freedom and causality’ in some suitable fashion, is the key to many mysteries in the emergence of scientism.

We should point out that current science is itself a disguised cousin of all of this. If we look at the boundary of the speed of light, and the relationships of dynamics and measurement in Quantum Mechanics, or the light barrier in Relativity, we discover that physicists have long since entered this terrain, despite desperate denials, and recast the Kantian two domain approach for their own subject. To say that something transcends space and time sounds mystical until you realize that Einstein’s theory of relativity makes such a claim implicitly. We are not going to pursue physics speculations but we have seen enough to realize that our data is suggesting something quite extraordinary, and so far from indulging in wild speculation we have stepped backwards into something remarkably.

Notes

3.5 A New Model of History: Eonic Evolution

The historical emerges from the unknown, the primeval scenes of evolution, and the emergence of the hominid creature with a runaway brain from the Paleolithic, the 'primordial minus infinity' from which man arrives to commence the arts of agriculture, and the creation of civilization. This tale must be one of relative beginnings and pass on from the still clouded threshold moment when modern man passed, or by-passed, the Neanderthal in an explosion of cultural and artistic creativity. But as we look back at the lost world of man's cultural existence in the later Paleolithic, we must wonder if the historical, then still so far in the future, was not prefigured in that passage. We have seen the wisp of evidence for a Great Explosion. Does the explosion of creativity that suddenly appears with the beginning of earliest man show any relation to what we see later? Is the historical the evolutionary? That is, how is the historical related to its greater source, the descent of Man? This is one of the most difficult questions, for it evokes at once the search for historical causality, the mechanisms of evolution, both genetic and cultural, in the context of physical laws and in the headwind of all 'arguments by design', teleological philosophies, and the nature of purpose in relation to both organism and its environment.

The discovery of the eonic effect as a concealed process of macroevolution operating in world history has forced us to examine the meaning of the term 'evolution'. We adopt our own usage of the term but with an open-ended suggestion of an overlap with earlier phases of the descent of man. Perhaps the details of the account are lost forever. Yet the eonic effect warns us that high-speed changes may have occurred, and these are no longer visible. We need a model that can adapt to relative beginnings. Otherwise we may suffer the plight of Darwinism, whose source myth based on insufficient evidence is being applied to the study of history, where we do have evidence, an absurd situation.

The point is that our data suggests the way we can do without the account of absolute beginnings that vitiates theory with a false consistency. This sense of the relative beginning of history is essential because we must take man as we find him. Our argument throws severe doubt on current accounts of the descent of man, because we see that many of the cultural aspects of man ascribed to adaptation are the result of a different form of evolution altogether, one visible in history. In the final analysis, we cannot indulge in the speculations of Darwinists. We weren't there. But what we can say is that world history is not evolving in this fashion. It is a preposterous situation where speculation about what we can't observe is applied to what we can see, after we have put blinders on. We can do without the account of absolute beginnings because the result will be a model that is an empirical map, a theory of the evidence, not a full theory of evolution. We cannot produce the latter until we resolve the facts. An intermittent model allows a component chain of relative phases of evolution.

Further, we suspect that those who apply this theory to history have an agenda. They may wish to induce competition, survival of the fittest, with an excuse for this. Witness the subtitle of Darwin's *Origin*. This was the age, for example, of the extermination of the American Indian. If you wish someone's land, a theory like Darwin's is a useful excuse to flout morality. Thus we must examine the motives of theory, for theories are emergent processes in real evolutionary time. Their status as 'objective' is open to question. A close look at the eonic effect can be used as a test of 'competition', historically. This might be too harsh, Darwinists merely confused, but this is what they themselves have declared. It is convenient to have 'scientific' grounds to relieve conscience, justify conflict. We can however extend our view of history to see that meaningful development follows a different course. The onset of civilization after the Neolithic, taken as one relative beginning, shows its own dynamic. And this is not a struggle for dominance of 'favored races'. We don't have to inject the red herring of some speculative theory about unobserved eras into this history. World history is moving toward an integrated community of man, not some divisive struggle between winners and losers in the game of survival.

Wallace pointed unwittingly to the basic flaw in Darwinism, man has a complex potential, difficult to realize, how could this be the result of adaptation? Man is confronted with the demand to understand himself, his latent potential, and consciousness. In simplest terms, we need the evolution of an agent, not of an ethical robot with altruistic genes. It is hard to see how adaptation could account for the man behind the man. Without this there is no definition even of what organism it is that has evolved at all. Whatever the case, Darwinism offers us no such account. Committed to absolute beginnings, a full and total account, it must plug the gaps with a universal generalization, a claim on a law of evolution. Natural selection is perfect for that. It is devastating to consider that Darwinism has missed the main issue altogether. It seems an insoluble puzzle. Where did Darwin go wrong?

A first problem is the nature of the observer himself. Since the time-scale of evolution surpasses the lifespan of a human observer, the question arises as to what is meant by the concept 'observing evolution'. Historians can never deceive themselves that guesswork can be applied to gaps in history. The facts, and all the facts are needed. We have produced our hurricane argument, and must remember that the temporal and spatial scope of evolutionary process is tremendous, and that we never see and cannot easily visualize evolution, and are prone to misconceptions. If we apply the term 'evolution' to world history we see at once the difficulty of correct observation with respect to five thousand years of civilization, let alone theoretical generalization. And even there we detect an evolutionary macro process entangled at the highest level of culture. Thus warns us that you *must* close in on the facts at close range, and that is still beyond our ability. We must have eyes to see.

A strange question lurks in Darwinian theory: is there a difference between evolution and history, and if so on what date did the transition occur? Clearly there would not be a 'date' for this, but some sort of incremental transition. We can make the distinction formal by allowing history to emerge from evolution. The eonic effect foots the bill here. This means that history is really appearing in the Paleolithic, a not

unreasonable usage, which we will take informally as a significant comment on our standard usage, noting also that history is sometimes also defined as starting with the invention of writing, the first period of the eonic effect (!). We can also speak of the 'eonic evolution of civilization', to qualify our use of the term 'evolution'.

From Evolution to History We can make the evidence of the type seen in the eonic effect explicit grounds for defining *both the unity of and a distinction between* evolution and history. We could call history the record of free activity rising in the wake of the passive evolution of volition. At what point has relative free action emerged for man to create culture as a free agent? This definition includes the possibility that this has not yet occurred.

The 'Eonic Evolution' of Civilization We can call the evidence of our three turning points the 'eonic' or intermittent evolution of civilization, as some form of 'macroevolution' turning into history. Then we can keep rough track of the two levels of history we detect in the eonic effect. This will create a puzzle of two distinct forms of action, one inside the eonic pattern, one outside. We will say that system action shows 'eonic determination', or macro-action, while behavior outside of it is simply 'free action', or 'micro-action'.

The Great Transition Armed with these distinctions we can call the passage from evolution to history The Great Transition, with a possible echo (or not) of The Great Explosion. However, we are immersed in this transition, and may or may not have reached the end of its clearly intermittent action, seen as a series of individual *transitions*.

This connection is a variant of our photo finish argument, and it has a significant twist, which is that many fail to find any science of history, while the science of evolution is taken as a given. We should be suspicious that our eonic data is precisely the type of sequence, complete with intermittent transitions, required to fill the discontinuity between history and evolution.

Laws of History and Popper on Historicism Even as we respond to the challenge of Darwinism, we must confront the legacy of historical theory, as we embark on a path often labeled 'historicism'. This thinking was prefigured by the Kantian analysis, but it is useful to see how this consideration was reborn in the wake of Kant's philosophy of history. The perception of the eonic effect, in the evidence of what we have called the *eonic evolution of civilization*, seen in the strange hints of periodic motion in its emergence, must by its nature propose to reopen the issues, well-known to students of historiography, of macrohistorical structure and sequence, 'laws of history', in the debate that has attended the rise of modern historical research, beginning in the early nineteenth century.

This research has tended to skirt these very issues as intractably difficult, or undecidable, in the first priority of accurate historical fact-finding. Indeed, a healthy skepticism is generally brought by the specialist narrative historian to the legacy of Universal History as it emerges in the movement, for example, of German Idealism, and to attempts to find laws, forces, or regularities of the kind studied in the more fundamental branches of science. In the latter category must be placed the Darwinian theory of evolution, and in the middle, the Marxist theory of historical materialism, this a

significant inversion of an idealist program. To these can be added the eclectic world of the macroeconomic model, seldom explicitly offered as a model of historical evolution, but very much so taken in practice in the various ‘economic interpretations of history’.

Related to this, one of the most interesting challenges to the attempt to find historical ‘laws’ is the work of Isaiah Berlin in his *Historical Inevitability*. The basic difficulty raised by this and other critiques is the factor of spontaneous human action, whether or not we ascribe to this as an element of will, in the difficulties of all theories of will. Thus, Karl Popper’s well-known critique of historicism is one perspective that cuts to the root of the problem of both historical and evolutionary theories:

I mean by ‘historicism’ an approach to the social sciences which assumes that historical prediction is their principal aim, and which assumes that this aim is attainable by discovering the ‘rhythms’ or the ‘patterns’, the ‘laws’ or the ‘trends’ that underlie the evolution of history.

This term has a complex and confusing history but we will take Popper’s version to start. This important critique (directed at Marxist predictive ‘laws’) does not apply to our eonic effect, for the simple reason that our evidence is empirical, and gives us the answer, without telling us what the question was. We see pattern, rhythm, but these are not laws, and we make no predictions from the observation. But this was our problem, not nature’s. We can retreat from causal explanation to pure periodization, and correlated causal association.⁷⁸

It would seem that the case against laws of history, laws of evolution strangely exempted, is so overwhelming that we should abandon their consideration. But the ironic result of seeing the eonic effect is precisely this, to find strong, conclusive, evidence of historical regularity that courts rather than preempts the issues of freedom. Our three turning points suddenly start to make sense, for they show us nothing but free activity, and yet this is demonstrably different in the crucial eonic intervals, witness the Axial Age. More, we see the idea of freedom born in this very context of historical determination, e.g. emergent democracy shows historical conditioning. This provokes the classic contradiction in the question, what causes freedom? We will explore in the next section the simple solution we see in action, which is to find some middle ground between ‘freedom and necessity’ in the factor of self-consciousness.

Thus, we can adapt our thinking to the eonic effect, by taking the contrast of consciousness and self-consciousness as surrogates for determinism and free will. And then freedom can be an evolutionary *idea* carried as a virtual potential realized at points of ‘relative freedom’ or self-consciousness. Indeed, note the paradox that arises here, which is that ‘freedom’ in history, and ‘the generation of freedom’ cease to be the same thing. We must realize our own potential, and activate that. Note that the emergence of philosophical ideas of freedom itself shows correlation to our non-random pattern.

A Freedom Paradox Consider as scratchpad heuristic thinking the contradiction (there are any number of variants), speaking *very* loosely: either man is free to self-evolve or else he is not so free and is ‘evolved’ by a larger process toward that freedom, at which point there should be a transition to a post-evolutionary era where ‘evolution’ is switched off and freedom takes effect. Note the dilemma. If he is too ‘evolved’ by that

larger process, that self-evolution can never begin or exercise itself, yet if that 'self-evolution' is total he might never advance, remaining at the level of his starting point, and never reach freedom (which we didn't define, the definition might itself be evolving). One resolution of the paradox might be to consider that some form of 'evolution of one kind' must initiate an evolutionary sequence toward freedom as un-interfered with 'sort of freedom', and *yet operate intermittently* in a series of on again off again bursts of 'evolving' between which self-evolution can occur. It is like the extra wheels on a child's bike. The temporary constraint on 'freedom to ride' is necessary as a stage toward riding solo. We have just found a way to derive the eonic effect with its distinct alternation of degrees of freedom. Thus an evolution of freedom might well break down into a series of alternating intervals of degrees of freedom, induced or not induced. Such situations occur all the time in real life, e.g. the 'third wheel' on a child's bike.

Popper and Historicism We must consider the rejection of the entire domain of macrohistory in Popper, who amplifies Fisher's Lament, in his attack on 'historicist' beliefs in *The Poverty of Historicism*, where he criticizes grand clichés of historic Destiny and the 'dramatic' view of history, the idea that history has a plot or significant structure. Unfortunately, the term 'historicism' has changed its meaning here. Not only Kant's Idea, but Herder's other Idea, arises in a genuine dialectic at the eonic synchronous moment of German philosophy. The different historicism of Herder, the complex world of nineteenth century German cultural philosophy, the phantom Book never written, *The Critique of Historical Reason* of Dilthey, as the emphasis on the unique, and Popper's critique of his definition of historicism, as the historical generalization of physical law, show the complex legacy of this perspective, as the term seems to shift into its opposite. The eonic effect beautifully synchronizes the contrary meanings of the term 'historicism', for we can see therein a way in which the 'lawful' and 'determinate' can be taken in a sense that does not contradict the unique, the particular, or the potential individuality of the historical agent.⁷⁹

Causality, Freedom and Self-consciousness We noted the critique of theories of history using Popper's idea of historicism. But we have found empirically that there is such a thing as macro-history, and our data shows us how to reconcile the contradiction of freedom and causality. The resolution of the paradox of historicism is empirically given by the eonic data, and lies before us in something like the electronic 'on-off' switch, to match our intermittent or 'eonic' data. That's crude thinking, but sufficient for large-scale periodization analysis. We have a mixed situation, free agent, and (causal) mechanism. Choice and mechanism operate in tandem. We see our mysterious drumbeat switches on over a brief time scale of centuries relative to millennia in non-contingent evolutionary event-regions. Instead of an on-off switch we see something like 'switched on' periods with relative degrees of freedom in the appearance of less conditioned periods able to innovate rapidly. How to proceed with such a strange set of facts? But there is a simple explanation here: change can occur in the agent's self-consciousness, in the middle ground between determinism and freedom. Look at the eonic effect. Higher degrees of freedom show both deterministic and free influence overlaid. We call that 'creative action', in most cases. Note that creativity creates a sense of freedom, but isn't controlled by its agent. Thus, confusing the question is the fact that 'free agency' and 'freedom' are not the same necessarily. 'Choice' is an observational given, however we

explain it. We need not decide about free will to recount the history of ‘choices’, branches of potential outcomes becoming realized. We have the clue to proceed.

Further, as we will see as this logic unfolds, the ‘causal agency’ is trying to ‘cause freedom’. The eonic effect is itself like an ‘evolution of freedom’. This crosses the tripwire into a classic ‘contradiction’ as our subject transforms into something else, that something being somewhere in the vicinity of the philosophy of history. We will see that the eonic effect straddles the twin domains of the deterministic and the emergence of man as a ‘free agent’ with potential freedom. The problem of historicism disappears if we renounce causal laws and predictions of the future, and look only toward patterns of creative action, in the past, taking care to define the transition from this past to the open present. We don’t need a proof of man’s free will, or some scheme of historical laws, and will complete our eonic model without deciding these issues. But we do need a model that shows some kind of ‘determination’ in our pattern, and yet switches off in the present, for the evolution of freedom must have a free future. Such seemingly bizarre properties are in fact everyday occurrences, and will form the basis of a model. That’s very strange, and only an example will help, make it transparent. The eonic effect is such an example.

The issue of self-consciousness can be grounded in nothing more complex than the power of attention, contrasted with states of consciousness that are more mechanized. We don’t need to commit on any psychological theory to consider it this way, although collating creativity and self-consciousness is an oversimplification. No theory of evolution has ever properly accounted for the emergence of the power of attention (which clearly antedates man’s emergence). But we must assume, as an example of our issue of relative beginnings, the man we find, a creature with a complex power of attention, which he can control to some extent. The point is that there is nothing mystical in the issue of self-consciousness.

The Evolution Of Freedom Our distinction of System Action and Free Action conceals an idea of the ‘evolution of freedom’, and we need to explore this new perspective on systems and individuals in tandem. This is an empirical approach, passing through the thicket of ideas of freedom. Our objective, here, is to throw the idea of freedom into deep time, asking for close tracking, then produce closely tracked data in historical time, in the fashion of our photo finish strategy.

One way to see the problem with Darwinism is to consider the ‘evolution of freedom’, as the empirical study of the evolution of volition, free activity, consciousness and more general ideas of (possibly political) freedom. We have seen the Kantian perspective on ‘free will’, and make no claims here, one way or the other. But the ‘freedom grab bag’ as a seminal archetype is more general than free will. We can be free to make choices, on some level of freedom. Choices leave historical traces as ‘one thing instead of another’, whatever the source of that choice. Since the existence of ‘free will’ is not claimed in these assumptions, we can even look at the *evolution of the idea of freedom*, an idea that can be entertained without a realizable freedom. Note this point: a new potential as self-consciousness could arise as evolution of some kind, armed with the idea of freedom, as a motive to action. This suggests we are still inside such a process, even as we use the idea of freedom, although it is difficult to define it.

We can see that the idea of freedom enters the eonic pattern as the very lack of 'freedom' to create civilization without a macro helper. We also see the double emergence of democracy as a significant riddle of the data. Thus, since we have some spectacular evidence of the 'evolution of freedom' as a macroevolutionary process in the eonic effect (to be developed as the distinction of system and free action, and the discrete freedom sequence), we can challenge Darwinists on this score. The interest of this approach is that the idea of freedom must overlap between evolution in the Paleolithic and the emergence of civilization taken as evolution.

Note the contradiction arising as we speak of freedom, its evolution presumes its relative absence. How much more true that must have been at earlier stages of his emergence, as a cultural hominid. We can draw no direct conclusions, but the clear appearance of a macro factor in history severely challenges claims of random emergence. Darwinists say this happened at random. We could just as well claim it happened in a long-range sequence of relative advances that sourced in one area and diffused thence to a greater species environment. We naturally begin to wonder if this sequence would terminate at some point, its job done. We certainly see increasing degrees of freedom in history. Look at the difficulties of history, and consider the helplessness of unorganized tribal systems.

We need more than theories about the Paleolithic, we need histories. We can use this to demand from evolutionists finer grained data, or withdraw their claims, based on an idea of evolving freedom. Darwinists are claiming that a genetic mutation or mutations arose that left man 'free enough' to create civilization (however any such genetics that might accompany greater evolution would be of first interest). But we can show that this assumption is false. Note that our basic pattern shows us already the macro factor in the 'evolution of freedom', in a sense to be made clear.

We could also think in terms of 'volition', perhaps, instead of 'freedom' as 'free will'. How did 'volition' evolve, and at what point, if any, did it evolve into freedom, if any? Is there a macro factor involved in the evolution of volition and/or freedom? If so, where's the empirical proof? This language is fuzzy, but makes approximate sense, and really asks us to define, and find evidence for, what we mean by evolution in terms of a whole man, as a self, or agent. This agent must choose between courses of action. All this amounts to is a request for more data on earlier behavioral stages, and their degree of freedom, which to our view needed some extra vitamins each step of the way. And we are required to specify the evolutionary psychology 'claimed to have evolved'. It is simply an assumption to say that a 'utilitarian' account constitutes the bedrock of theory. In fact, man seems to downshift into low gear, and switches between different evolutionary psychologies. He has the problem, altogether appropriate in any account of evolution, of bringing 'self-consciousness' to the mechanization of consciousness.

Two questions lurk here, and we will not be dogmatic. One is the genetic issue of man's 'human software' and how it evolved and how it works. Far be it from us to refuse some lucky mutation, if someone can fix its historical coordinates. But we must be sure we know what that software is, and can't restrict its description in order to make natural selection work. The lurking nemesis of such thinking is the possibility of a macro factor associated with 'freedom' that operates beyond the genetic level. All at once we have unexpected data for it. Subtract the eonic effect from world history and you lose the birth

of civilization, all the great religions, the Greek Miracle, etc... Flat history in long sluggish eternities of no advance.

In general, as one historian of evolution has put it, echoing Wallace, “Here at last volition has taken its place in the world of nature.”⁸⁰

Man Makes Himself The basic issue is very simple, and should be taken empirically by looking at world history with one simple (theoretical) question, Does man make himself? Thus we can restate the whole issue in intuitive form, using the title of a book by Gordon Childe, *Man Makes Himself*. To say that ‘man makes himself’ implies that ‘freedom to do so has already evolved’. But questioning that was one of our starting points, and we can see already from superficial inspection of our turning points that emergent civilization has a hidden driver, and that otherwise it tends to sandbank, slow to a crawl, medievalize, drift from initial states of high advance, degenerate into empire, lose its initial advances. Man enslaves man, while we will see that our discrete freedom sequence (the double emergence of democracy) comes to the rescue twice in a row, and also includes the emergent ‘abolitionism’ by correlation in its ‘eonic effects’.

Notice that science and democracy are born in ancient Greece, then die out until our next turning point. The Roman Republic goes from bad to worse as *libertas* becomes *imperium*, and then everything seems to collapse in a Dark Age. There is even a tendency to think decline a form of advance. So the issue is complicated, and we see that while man is the only candidate to self-create his own freedom, make himself, and civilization, there is a helper-driver visible by looking backwards at the globally interconnected way in which advance seems to alternate intermittently. This is a limit on the idea of freedom, and we must be wary not to ‘alienate’ ourselves in a system of determinism in the name of evolving freedom. The answer is simple. Such a system must terminate, and leave man on his own, evolution must become history. That point must come as we begin to observe it, ready or not. And our model will automatically take care of that, in the short term. It switches off in the recent past, as theory goes out the window and is replaced by free action, free or not.

Upon reflection, we realize that ‘evolution’ on the surface of a planet is not something simple, and that the eonic effect shows one of ways this can happen, one of the simplest and most plausible, however extraordinary. Darwinists just snap their fingers, things just happen. We see that a driver is needed, and a very delicate one that does not overdetermine or underdetermine what emerges. And at some point, like a jump-start process applied to car, that determination process has to yield to a completed or ‘free’ process, i.e. the cars starting, of our evolution turning into history. The gist of it is that the whole can efficiently evolve through the parts, which show intervals of ‘system action’ or eonic determination.

One way to distinguish history and evolution might lie just here, by considering the transition from passive to active organism, from behavior to free (ambient or locomotive) action, in the ambiguity of the term ‘free’. Perhaps if man is free then

evolution ends and history begins, if this is our choice of definition. Or, if he is not free, his evolution continues, and the term 'history' is so far another term for this process.

3.5.1 A Gaian Matrix: Detecting A Global System

We are confronted by the strange fact that world history, behind its appearance of randomness, shows in fact the operation of some kind of global dynamic 'system', one whose properties both resemble and part ways with those of standard dynamical systems. The result seems suddenly to make sense, but can be confusing because we don't quite see the 'how it works' aspect properly. This 'system' is of planetary, or Gaian proportions, and seems to spawn Civilization almost like a hothouse plant.

We can thus use the idea of a 'system', taken in a neutral sense. In the end, however, all we need is a careful periodization outline of world history: we need to visualize an empirical pattern. This pattern gives itself away by the simple mechanism it demonstrates, that of a set of transitions. We see, first, the strong resemblance to the idea of punctuated equilibrium.

A Frequency Pattern Our system seems to follow a frequency pattern based on 2400 year intervals which are marked by discrete transitions three centuries in length in an eonic sequence overlaid on a stream universal history:

TP1: Transition 1: -3300 to -3000, *relative rise* of civilization

TP2: Transition 2: -900 to -600, *relative* 'Axial' interval

TP3: Transition 3: 1500 to 1800, *relative rise* of the modern

We see these transitions or statistical regions as *relative transforms* packed with *eonic emergents*. Note that this third transition switches off in our recent past. And our current action may or may not express the aggregate directionality shown, which is highly complex in any case, comprising multiple parallel streams. Thus the teleology, if any, inferable from the continuation of TP3, may be quite different from that of the overall sequence. We have said that TP3 is a major turning point. We didn't say that what happened in its wake was, or was not, a bungled continuation. We must define our relationship in the present to this set of observations about the past, and invent, not a postmodern, but 'post-eonic', 'strategy of historical freedom'. Our eonic system is a 'macroevolution', but our present behavior must be a 'microevolution'. Scrambling these two modes is the bane of Darwinism with its nasty Oedipus Paradox.

We have a core pattern, the eonic effect, and a frequency hypothesis. It is important to get a sense of the way we are dealing with relative transformations. Looking at the eonic effect, especially the Axial interval, we see what we can call 'eonic emergents', the data that stands out as improbable, and these often look like absolute innovations, but which, on closer examination, often turn out to be amplified *relative transformations*, spurts of growth, incremental remorphing.

The sunlamp analogue If we turn on a sunlamp in a garden, we see, not the absolute growth of plants from seeds (although that may occur too), but the relative accelerated growth of those plants. The causal domain is contextual and

may show two levels. The sunlamp has nothing to do with the ‘causal stream’ of plant growth processes. In the same way history in and outside of the eonic effect is autonomous and proceeds by its own logic. The eonic effect is built in, yet a distinct process.

Unexpectedly we have connected the two ideas of evolution and history, and we can proceed to build this relationship into our model. We have stumbled on a truly global process operating beyond the scale of individual civilizations, and the result is a remarkable realization of an almost Gaian theme of planetary evolution. We need to clarify the way that ‘evolution’ and ‘history’ are connected. The answer to that question is very simple and elegant.

An Evolutionary Driver We can call this a drumbeat or discrete-continuous model because we see a discrete series of drumbeat punctuations or transitions overlaid on a continuous pattern of world history. That gives expression to a sense of something ‘driving evolution’. In our attempt to consider a science of history, using our model, we see how such a science becomes contradictory. We have already wistfully summoned up the idea of a ‘science of freedom’, that has to be our line of attack, at this point. Even such a simple model is quite powerful, and will uncover some hidden properties behind our data.

The data of the eonic effect has an elegant simplicity that matches this type of system model, in its stepping progressions: our punctuations become transitions, three centuries in length (a guesstimate), that switch on an off, in the alternation of a system action and then free activity, or what we have called ‘macro-action’ (instead of causality) and ‘micro-action’ (free activity, which may or may not show ‘free will’). As an example, among dozens, of a ‘discrete-continuous’ process (our original example was that of a computer and its user), a thermostat interrupts a continuous time stream with a discrete series of discontinuous actions. Note that thermostats are not supernatural devices because they exhibit ‘discontinuity’. A more subtle example, if we listen to a concert, we hear the continuous music. But if we listen carefully we will detect a discrete tempo (counting numbers are ‘discrete’), or beat. That’s nice, the absolute minimum example, where the dynamic has been replaced with esthetic productions, leaving only tempo as a mechanical process. So with our ‘eonic’ effect, our drumbeat suggests a tempo. This tempo is a clue to some hidden order, quite invisible in the sequence. This order may be unknowable, but it must show its hand if it has any relation to our world at all. Thus we detect its signature. Tempo is the only property left to analysis after everything else disappears into hypercomplexity. Standard theories won’t work because theories are output of the system.

You can bypass the abstractions of the model and simply follow the general periodization which will spring to life without these abstractions.

The model is designed to never get in the way of the data of history. But, whatever its limits, the model will help clarify the causality problem involved in any attempt at a science of history, and this approach is an order of magnitude superior to the confusions of flat history.

We can see already the dilemma of thinking in terms of ‘civilizations’, as the fundamental unit of analysis (to use a phrase of Toynbee). Our unit of analysis will be the transition itself. An immense amount of wasted effort goes into thinking about civilizations, when the basic dynamics is visible in the transitional intervals. We have one basic unit: humanity, the surface of a globe, and differential time-slices of various streams to generate a global sequence moving toward an oikoumene. The confusion caused by the tribalism of ‘civilizations’ is the tale of a still primitive species.

The Unit of Analysis We should stop thinking of civilizations as the unit of analysis, and instead look at our transitions.

The Myth of the Continents World history tends to be divided into geographical regions as ‘civilizations’ or ‘East’ and ‘West’, or the ‘rise of the West’, ‘western civilization’. Up to a point nothing is wrong with such terms, until we find that nothing is right with them. We can instead take our field as the surface of a globe divided into sectors, where ‘eonic evolution’ steps between zones of relative transformation inside the civilizations. Beyond tribal obsession, there is no such thing as ‘western civilization’. It is a function of global evolution. It is misleading to divide the field into continents. There is one global mainline.⁸¹

Our transition shows a comprehensive character that no individual, so far, can match. We think in terms of the ‘rise of the West’, or of Western Civilization. But this, as noted, misses the point of what we see, the global interconnection of all three of our great turning points. We are starting to see, beyond the ‘civilization’, the issue of what Toynbee called the ‘unit of analysis’, and to something global, as already suggested in our idea of eonic evolution.

From Evolution to History: Deducing the eonic effect We have the key to a new way to unify the evolutionary and the historical. The issue of history and evolution is a confusing one, and it seems as if we are making a category error. In fact, not so. Quite the contrary we have the real clue to evolution. Consider the following question: when did evolution stop and history begin? This tricky question will trip up the Darwinian approach and leave it to collapse in a contradiction. The answer of course is that there couldn’t be an instantaneous switch. We can see that to set a specific date is contradictory. So we must specify a transition between evolution and history. What form would this hybrid take, passing from evolution to history? Either it is all evolution or all history?? Or maybe a series of mini-transitions with evolution dominant then history dominant. In alternation. Now look at the eonic effect: it speaks not just of evolution, but of history and evolution, the two braided together, with history emerging from evolution. And this eonic effect takes the form of a sequence of alternating periods, with evolution (in our sense) dominant during eras of transition, and co-related periods with history (in our sense) dominant. Thus we actually see in history the data matching the deduction about transitions, passing from evolution to history.

If we pursue the eonic effect and its model in detail we find a formal definition of ‘eonic evolution’ and ‘history as free action’ with the two braided together in a drumbeat alternation pattern. This is defined as an ‘evolution of freedom’ in a purely formal fashion. As ‘freedom evolves’ (in this sense) history comes into being. The enigma of the Axial Age, for example, yields at once to this kind of analysis. The question of a category

error is irrelevant, really. We assume evolution is solely genetic, and that biologists have the defining standard. But they don't. The term 'evolution' means 'rolling out', and 'eonic evolution' means the rolling out of civilization in the context of the eonic effect. We see that there is a 'macroevolution' involved with this. Note that we use the term 'evolution' in a host of contexts, economics, art, philosophy, any category. Do we forbid those too? Those usages are just as valid (and maybe as incoherent) as the Darwinian. Darwin never actually used the word, in his first edition.

The Formalism of Evolution: The Macro/micro distinction We have seen the striking resemblance of the data of the eonic effect to punctuated equilibrium. We will be wary of this idea, but use the formalism of evolution that we developed in the previous chapter. The point is that the alternation of some active processes of evolution with equilibrium in the middle is a very general idea that could apply in a host of situations. Since the term has already been defined in a different (and false) way by Darwinists, we will not directly use it, save to note that our historical dynamic shows an obvious pattern of 'punctuations' followed by equilibria! In fact the eonic effect gives us the correct framework for any true theory of evolution which will show operation on two levels, macro and micro. As noted already the phenomenon of punctuated equilibrium should really be about the macro component of some evolutionary process or 'force', balanced by its micro component. The problem is that it is hard to detect the macroevolutionary component to general evolution, but the eonic effect gives us a spectacular example: we see that we must track data at a finer grain.

Our model is a unification of the idea of evolution and history, in which the macro component will be the so-called 'eonic sequence' and the micro component history itself, with human individual action coming to the fore against the backdrop of evolutionary dynamics. This 'evolution of freedom' will be the historical chronicle itself.

Thus our transitions represent the macro aspect of evolution (in history) and the periods in between represent the micro aspect of the historical free activity of man. The periods of transitions are themselves historical, of course, but their evolutionary component is visible in the sudden spectrum of creativity and self-consciousness that advances civilization. The sequence of transitions, or eonic sequence, is embedded in history seamlessly and produces a directional component. The conclusion of the eonic sequence is probably taking place in our own era, as the modern transition produces an endpoint of 'eonic evolution', human freedom rising in its wake.

An elegant, if at first strange, formulation of the idea of evolution, adapted to the idea of 'evolution of freedom'.

3.5.2 Stream and Sequence, Transition and Oikoumene

We need a few more ideas that can help us in our descriptive portrait of historical evolution, that of stream and sequence, and of transitions and their oikoumenes. In addition we need to see that economic history is a separate history. We can introduce a

new and useful metaphor for the ‘eonic effect’, the stream and sequence relationship. We can use this as another way of describing our eonic series. Another related metaphor is a relay race: a series of runners stream in parallel, but the baton passes between different runners (streams). In the same way, we see a series of streams of culture, their long histories, but a set of short intervals promote a larger ‘sequence’.

Stream and Sequence Consider the dynamics of the Greek or Israelite Axial intervals (or any other for that matter). A stream history leads up to the Axial interval and shows transformation. This transformation generates a higher level step in a greater eonic sequence. This is the ‘stream and sequence’ effect. We now have two levels to our account, the evolution of the stream of cultures, and the evolution of the high level sequence. And this allows us to give expression to ideas of evolutionary directionality and progress at the higher level. Or perhaps progression would be a better word. However, the idea of an eonic sequence allows us to proceed without committing ourselves on generalizations about progress which always end up confronted with various contradictions.

Culture Streams We can think of the historical timeline or streaming of cultures as their continuous chronicle in time, e.g the Greek stream: the total history of Grecian culture from primordial Indo-European times to the present. The intersection of this stream with the eonic series in the Axial interval produces a distinctive burst of macro-history. We can consider any subset, superset, or other cultural variable in the same way, the science stream, the history of science, the poetry stream, the technostream (technological history), the econostream, the history of economic systems, etc,...

Economic Streams Note that economic history is distinct from the eonic sequence. Economic activity is continuous and globally omnipresent, while the sequence is intermittent. We are coming to see the problem with the ‘economic interpretation of history’: it is a dependent process. Note that the explosion of the Industrial Revolution occurs when an econostream intersects with the eonic sequence.

The Eonic Sequence Our non-random pattern is clear: we see a macrohistorical sequence associated with the emergence of civilization in a long frequency or directionality, analogous to (although not the same as) feedback, able to act on cultural streams in intervals of several centuries. We can reverse-engineer this data with a question, Does world history show evidence of any kind of sequence? The answer is yes, and we see very strong correlation with an intermittent sequence pattern that can only be called ‘evolution’. This sequence is intermittent and intersects with the various streams of culture it finds in its direct path. This sequence can show synchronous parallelism, and follows a frontier effect, as we will see, and works in a kind of leapfrog effect.

Our system generates two kinds of histories, the stream history, and the isolated ‘sequence’ intervals in those streams. Consider the idea of ‘Greek history’, a stream of historical culture. This proceeds throughout the course of world history, from the era of Indo-European differentiation to modern times. It is in some fashion ‘Greek’. But, for some reason, this stream shows a remarkable flowering in the period from -900 to -400.

There is no ‘causal antecedent’ or general explanation possible from simple examination of ‘Greek culture’. We are left baffled, until we see that this stream suddenly becomes a part of a larger, eonic, sequence. As the stream and sequence intersect we see the ‘Greek Axial interval’, one of our transitions.

Transition And Oikoumene We need one more idea to describe our eonic series, as we look at the complement to our transitions, the oikoumenes they create. And this leads us naturally into the question of the ‘mideonic periods’, where the center of gravity of history lies. We will attempt below to rewrite our eonic system as an ‘evolution of freedom’. But note that in a system ‘evolving freedom’ the system must finally switch off to allow freedom to develop outside the field of system action. We can see that the initial results in the mideonic periods are mixed at best.

How Evolve Civilization(s)? The eonic sequence shows an ingenious way to ‘evolve’ civilization(s). The whole is too large, work on a series of localized regions. These in turn generate a set of oikoumenes or diffusion fields. The Axial religions begin to spawn universal trans-cultural diffusion fields, armed with literatures able to apply across cultural boundaries, although as we can see, the Old Testament is a curiously sluggish mixture of particularized culture elements pressed into service for ecumenical purposes.

Related to the idea of a ‘transition’, is the mirror image, an oikoumene. The eonic effect is not about civilizations, but the way they are generated, or regenerated. As we studied our sequence we found a definite series of properties that unlock its riddle. The first, as we have seen, is that of sequence and its transitions, and then of parallelism. Another we will come to is the frontier effect. Finally we can consider what we can call ‘sequential dependency’, which is related to diffusion, and to the way the transitions create a high level of culture that tends to create ‘sequential dependency’ in its descendants creating oikoumenes. The question of these transitions can be restated in terms of transitions and oikoumenes, and the sequential dependency of the mideonic period. It is very difficult to transcend this factor of sequential dependency since any attempt to do so might backfire and degrade the eonic sequence from its peak potential. We should hardly wish to do so. We are sequentially dependent on the eonic history of science. We should therefore wish to do science, not react against our sequential dependency to its system generated momentum. In general, each of our transitions creates, if not a new civilization, then a field of diffusion, or oikoumene.

Transition and Oikoumene We can begin to see what our system is up to. Instead of evolving civilizations, we see a series of transitions like time-slices of particular civilizations generating new oikoumenes in their wake.

Fields of Diffusion Each stage of our sequence creates a plateau from which diffusion occurs. The cultures in these fields show a kind of sequential dependency. In many ways the breakthrough to higher civilization at **TP1** is unique, to the best of our knowledge, and all subsequent civilizations show a ‘sequential dependency’ due to diffusion from these sources. This does not

preempt other independent cultural evolution, but this is likely to be sluggish. This pertains to large-scale civilizational constructs, viz. the onset of State formations. It does not follow that smaller scale anticipations of the future as high culture did not exist very early in other places. But we never hear of them! Our eonic sequence is really about global integration, and pumped diffusion. Our system garlands many long lost cultural innovations. A good example is Buddhism. The 'Hindu stream' was an unknown until it regenerates as Buddhism in the Axial interval and then starts its course of globalization.

Another property is the acorn, or frontier, effect: our sequence never steps twice in the same place, but always in an adjacent area just at the fringes of its previous expansion. Notice the way that Egypt and the Mesopotamian fields don't enter the Axial Age list of areas of transition. A tiny corner of Canaan in between the two takes off and produces a new tradition of religious culture. The Greeks are just at the fringes of the core area of higher civilization. Another spectacular case of the frontier effect is the rise of modernity at the boundary of the Roman Empire. In each case the transitional eras generate oikoumenes, and at the next stage, just at the fringes, the sequence resumes its action. We think this a 'European' phenomenon, but that is misleading. We can see already that it is misleading to speak of 'Western Civilization'.

The Frontier Effect A key property of our eonic pattern is the 'acorn or frontier effect'. Note that something global is occurring starting in a series of local areas. But the sequence restarts in a new place each time, like an acorn, just at the frontier of its predecessor. The world of Canaan, spawning 'Israel', does not look like a frontier now, but in the era of the mythical Abraham it certainly was, and we even have a 'pioneer' story about his leaving the city of Ur in a prime diffusion source, the world of prior Sumer. Greece and Rome in the Axial period were definitely still frontier areas, relative to the by then ancient world of Egypt and Mesopotamia. Each of our transitions creates a hotspot, then expands to create a new civilization, better, oikoumene. Cultural acorns sprout in this field, and then at the next cycle one of them becomes a new transition. Note how our sequence is generating 'evolution in the large' via local hotspots, 'short term evolution in the small'. We must study the diffusion fields of our turning points.

This property makes complete sense. If we restart over too far away, the sequence can't continue. But if we are too close, the momentum of the earlier stage will overwhelm advance or make novelty abortive.

As we pursue our eonic riddle we see that its effects transcend the particulars of individual civilizations. We need to consider a new fundamental unit of analysis, beyond the idea of civilization, in a challenge to Toynbee and Spengler. We see that the key to the whole pattern is the way that our transitions create a series of oikoumenes, perhaps overlapping. Basically the perception of transitions is paired with the formations they generate: a series of cultural diffusion zones that spread out from the source. This reflects the reality better because it reflects what we always actually see, a series of cultural

layers superimposed, overlapping, or mixing elements from different sources. And a civilization is a territorial entity, perhaps well-defined thus, but the development overall of the whole system proceeds by the flow of information which is not so geographically bound. This point is essential, since the Axial Age, as with the case of the account of Israel, produces its effect with a series of geographical displacements, the result being a literary document, well able to travel beyond cultural boundaries. The same is true of Buddhism, which almost seems to extract the essence of Hinduism, and create a universal transcultural vehicle.

The Unit of Analysis We notice something strange. Development is occurring over a long interval, longer than the individual civilization. Thus, we have a problem with the use of the term ‘civilization’ in the first case, the ‘birth of civilization’. The eonic effect is transparent, and follows the contours of the mainline of development in the emergence of civilization, and at the same time demonstrates the relationships of all civilizations to each other. It is therefore at a higher level than the ‘evolution of civilization’ (whatever that is). Note the singular and plural usage of the term ‘civilization’. We might be better to speak of one World Civilization. World historians, such as Toynbee, tend to think in terms of civilizations as self-contained dynamic units, while anthropologists in terms of cultures evolving in linear fashion. Toynbee posits some very dubious structure for these civilizations. The cultures of the anthropologists are temporal streams proceeding more or less as static kaleidoscopes from the Paleolithic. The only points of evolution are precisely where they cross the eonic effect. We are not really looking at the evolution of civilizations, but of the stepping stone intervals when the eonic sequence finds a civilization in its mainline.

Econostream, Technostream,...And Eonic Sequence We need to begin to distinguish between technological, economic, and ‘eonic’ evolution. We can see by direct correlation that technological evolution proceeds in many cases outside the eonic sequence, and economies are universal or omnipresent factors of culture. The rise of the modern world is confusing because it is the climax of a long development, and mixes technological and economic breakthroughs in a more abstract cultural evolution that sets the framework. That is our eonic effect, and it transcends economic and technological histories. In the modern case, the three separate components suddenly come together in a tremendous climax, but they should be seen as separate processes. The point is that macro-history in our sense doesn’t control these other sequences. It influences them where they overlap, but, by and large, they are human sources. A man can create something, innovate with a new technology, but that can happen at any time. Technological discovery can happen anywhere, anytime. And economic behavior stretches over vast areas, and occurs at all times. But the eonic sequence is carefully concentrated in its effects. In fact it seems to act by a minimum principle. Suppose you had a limited amount of energy to interact with civilizations, and you wish to act on the whole set of them. How would you do that? The eonic effect shows, amazingly, one way

to do that. Pick a set of hotspots, act briefly, hope for good diffusion, and make sure the next time you interact that it is not in the same place, but not too far away to have to start over.

The Greek Axial, by comparison Separating these different components can be done by considering the comparison of the modern transition and the Greek Axial. The structure of the two transitions is roughly the same, yet in the first case we do not see the emergence of capitalism, the printing press, or the technological explosion of modern science.

The eonic sequence is different from the random activity of economies, it stands in relation to a larger pattern. Economies are large fields of economic free agents. Economic activity spreads over a large area, occurs continuously, has its own history. Its dynamic is different. All these things can overlap, interact, but essentially they are different processes. Note that ‘something like capitalism’ is almost present from the beginning of world history, since Paleolithic man starting trading in obsidian. But the intersection, overlap, of ‘econostream’ and ‘eonic sequence’ can sometimes produce a dramatic effect. The Industrial Revolution is a good example. The eonic sequence generates a new form of capitalism. But, from then on the result proceeds as econostream. This approach resolves, by the way, the severe confusions that caused Marxists to tie their heads in knots with incorrect theories. There is something broader than the evolution of economic systems.

In general, in our distinction of ‘eonic determination’ and ‘free action’, technical innovation is a function of the discoverer’s abilities, hence falls into our category, ‘free action’. It doesn’t really need that ‘extra’ from the eonic effect. In a similar way, economies spread out over large areas, indeed globally. These, therefore, also fall into the category ‘free action’. It may of course happen that econostream, technostream, and eonic sequence overlap briefly with spectacular results. A good example is the Industrial Revolution, and one reason we tend to take it as the generator of modernity, but that won’t work.

The truly foundational advances, especially the most elusive cultural ones, tend to be clustered, and, no doubt because they are energy intensive, intermittent. These, and consider for example the case of ancient Greece, tend to be non-randomly distributed, hence are something more than ‘free action’. We assign them to our (undefined, save by periodization and geographical focus) ‘eonic determination’. We cannot avoid this distinction if we see that the innate abilities of members of particular cultural streams are probably evenly distributed in every generation, while periods of great advance are non-random, indeed in a sequential pattern. We see at once why people are puzzled by the Gutenberg Revolution, and the Chinese inventions of gunpowder, printing, the compass. The field of technical innovation can occur at random, hence to the most technically savvy. The flow of these innovations into the eonic sequence supercharges that sequence, but doesn’t cause it. We will note later the strong resemblance of the Greek transition, so-called, to the rise of the modern. Note that the first had none of this technology, while the second surged even further with them.

There is more to history than economics then. Historical materialism, left or right, was a great idea, but it is misleading us. The reason is that while economic activity can obviously influence society, the superstructure, its action is dependent on the social

evolution of institutions to make it work at all. The modern world is often said to be a 'capitalist age', but that is not really the case, in the sense of a fixed stage of history, in the Marxist sequence. The rise of the modern, the transition, after all, was mercantilist. What we call capitalism suddenly crystallized near our 'divide'. The general change of culture was very open ended. So far from being the teleological outcome of economic stages of history, the new capitalism is an *ad hoc* outcome whose effects required and received immediate challenge from the left.

3.5.3 An (Eonic) Outline of History

As we look at the eonic effect in the greater context of world history, we discover its significance as the evolution of civilization in a fresh definition. We have a sudden perception of a system operating in a frequency pattern, which we can formulate as a hypothesis. This requires moving backwards toward the Neolithic to find the possible source of the dynamic we see. We can then put that hypothesis on the backburner and proceed with the core eonic effect as an empirical given, a superb way to outline world history, starting in the next chapter. We require no beliefs about this hypothesis to proceed in the use and understanding of the eonic effect, but we suspect that our pattern is a cyclical system sourcing in the Neolithic.

A Frequency Hypothesis Our perception of the eonic pattern suggests a system operating in a frequency pattern, strange as that might seem. Since we clearly as seeing only a fragment of a greater pattern we will simple formulate a hypothesis for future research. In the nonce, we can examine a sort of 'core eonic effect', the basic sequence since the period of Egypt, Sumer. We don't need the full pattern to proceed. Like a puzzle, isolated pieces falling together can show meaning. We should note that the earlier antecedent to the phase of Egypt/Sumer is already visible, but still too fuzzy to be conclusive. So we almost have a four beat sequence, greatly increasing the odds towards our hypothesis.⁸²

In a complex and ingenious pattern our eonic sequence, operating on the surface of a planet, stages globalization via a set of localized hotspots, shifting into high gear every 2400 years, leapfrogging its prior action in a frontier effect.

(Eonic) globalization It is important to distinguish our sense of globalization from the current 'economic globalization' that we see in our current modern context. Globalization in our sense is the *action of the eonic sequence*, as it generates a global set of transitional zones in cultural transformations at the highest level of culture (macro-action). Economic, or other, diffusionist globalization has a different, too often, savage character, and too often degenerates rapidly, becoming counterproductive implosive mayhem (micro-action).

In fact, the pattern of eonic data shows us unexpectedly how to proceed (up to a point) with the idea of a science of history/evolution, however we reconcile the two. They

fit together, and yet generate a contradiction. We are drawn into the classic dilemma obstructing a science of history, now suddenly with a solution shown by nature in the eonic effect. We see the solution, but can we understand it? We will soon discover the close connection between our enquiry and a classic theme of the philosophy of history, and this will give us an ‘idea for a universal history’, in a phrase of the philosopher Kant, whose essay on history suggests a framework to organize our thinking. This essay unwittingly asks a question, which we can call Kant’s Challenge, the answer to which we have stumbled on with our eonic data. We have the answer, but what was the question? We have discovered what Kant called ‘Nature’s Secret Plan’, translated into our systems analysis.

A distinction of System Action and Free Action gives us a way to deal with the basic antinomy of causality and freedom that bedevils any ‘science of history’ as this wistfully yields to the hope for a ‘science of freedom’.

System Action, Free Action: One side purpose of our model: to table the idea of a science of history, but to adjust to the contradiction in any such project. We have already introduced the distinction of ‘system action’ and ‘free action’, or macro-action and micro-action. But the only real option for our model is to construct an outline using periodization, a kind of animated Table of Contents. The outline is the model. The dynamic is unseen, all we see is the eonic sequence, and the oscillations of degrees of freedom in the rhythm of macro and micro-action. We can describe history around micro-action, evolution around macro-action. The intersection of the two produces the creative self-consciousness we see in the eonic pattern. It is important to consider that macro-action is always made up of micro-action.

The source of the enigma lies in the unmistakable violation of historical continuity our pattern shows in plain sight. There is no causal antecedent in the immediate pre-history of our transitions. We generate spontaneous questions like ‘What caused the Axial Age?’, or ‘What causes freedom?’, questions fated to limp off to a Kant clinic. And our problem is certainly reminiscent of Hume’s strictures on causal thinking. Like Captain Nemo and the Professor all we can do is put on goggles and stare into the reactor core, the freedom generator. This situation is a remarkable rendition of Kant’s Third Antinomy on the scale world history itself. Thus, before proceeding we need to be clear about historical theories, and as we lay out our eonic sequence we will discover still another beautiful version of our paradox: inside our eonic sequence we will discover what we can call *the discrete freedom sequence*, the eerie timing of the double appearance of democracy in the macro sequence.

As we look at the eonic effect in the greater context of world history, we discover its significance as the evolution of civilization in a fresh definition. We have a sudden perception of a system operating in a frequency pattern, which we can formulate as a hypothesis. We can then put that hypothesis on the backburner and proceed with the core eonic effect as an empirical given.

We can start to head backwards in search of the eonic effect: the eonic sequence. And inside that sequence we discover the ‘discrete freedom sequence’. What defines the ‘modern’? Science? Secularism? An economic society? Technology? The Protestant Reformation? The rise of the West? We should stand back to see the relation of

modernism to a greater historical whole. Then we can suggest *that it occurs as a function of time in a general sequence*. Indeed, also, of place. The riddle of the modern is easy to resolve, if we zoom out, and we need to move backwards toward antiquity to find the relations of eras among themselves. Then, we will see that world history falls naturally into three massive clusters, seen in three turning points, equally spaced, and echoing each other, with a very ingenious placement of successive eras. This is an empirical fact, to which we will try to bring some elements of theory.

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TP1 the ‘birth of civilization’,

TP2 the rise of the classical civilizations, the Axial period,

TP3 the onset of the modern world,

???

Thus, the solution to the riddle of modernity is to look at the larger scale. Then we see that we have no choice but to adopt this approach, or something like it. Large-scale historical transformations simply start out of nowhere. And then we notice the resemblance to the modern case. In fact, the rise of the modern is almost like a repeat of the Greek Axial period. In one way, this approach makes no sense. To introduce the idea of discontinuity seems to invoke an artificial device. But it will help us drop the fruitless quest for a causal theory of modernism, and simply look at blocks arranged in a pattern over millennia, the reason for our original perplexity becomes obvious.

From the Reformation to the Enlightenment the foundations are laid for a new era of world history. By the beginning of the nineteenth century the basic innovations are set. Then the three-cornered hat passed into the early versions of the business suit, as a threshold or divide was crossed in the generation after the French Revolution. We assume we are advancing from this period, but the reality is that it creates a plateau effect. In part this is the result of the rise of science, or so it seems. But a closer look shows a broader series of innovations.

Postmodern Illusions It is significant that our sense of the modern is faithfully reflected, if antagonistically, in the spontaneous sense of the postmodern. Note the term ‘modern’ is ‘eonic’, i.e. a reference to periodization, time. Our basic declared viewpoint is, or might be, that of the Enlightenment. But, all at once, this is under attack, and in general our perspective is not the same as, or need not be, ‘endorsing’ some Enlightenment viewpoint or ‘Project’ Instead, we are in the wake of one of these, forced into a dilemma of objectivity: are we postmodern critics of the Enlightenment or Enlightenment critics of postmodern deviation from historical directionality? We don’t have to decide. But after a while, with the right scale, we can see the most obvious significance of the Enlightenment period all over again, in stark simplicity, as a new era challenges antiquity.

Our modernism is a far broader result than the Enlightenment, and constitutes an overall integration of elements from religion, to science, to culture. It is not a very complicated problem. History fights back. The great Ionian Enlightenment didn’t make it,

and was buried for millennia. Perhaps some prefer a Spenglerian future. Sometimes the issue of the Holocaust is raised as a challenge to modernity, or the Enlightenment. While the question should haunt any perspective on history whatsoever, it is entirely odd to lay the blame for this at the doorstep of modernity. That postmodern Spenglerian future is there, close at hand, if you want that. We will soon see another example, the decline of antiquity in the wake of the Axial Age. Another turning point seems to have lost its impetus, and a second reverse turning, more like meandering, undid much of its effect. In fact the rise of the modern seems to pick up where a second turning point left off. What's going on? Look at the Greek Axial period. Then at the Hellenistic. Then at the postmodern phenomenon. Nothing says our turning points will prove lasting. Once they are done the direction deviates, perhaps. Is this happening again?

The whole period from the Reformation up to the nineteenth century creates a net effect that forces the issue of global renewal. That's the point. It doesn't matter what 'ism' we assign to it, by 1800 it is a *fait accompli*. The unity of advance in all fields is stunning, but we tend to see it incorrectly due to the exclusion of large-scale history. We see this as the rise of the West in some consideration of what we call 'Western Civilization'. But we are starting to see that the rise of the modern is connected to a greater whole and that we need a new 'fundamental unit of analysis' beyond the 'civilization', to use the phrase of Toynbee. The evolution of an autonomous civilization doesn't quite work as a concept if the real issue is one of timing and the diffusion of information. 'Modernity' is a concept of periods, of timing, not of civilizations.

A New Age of Democracy Let us track the history of democratic emergence in our system, to begin to notice something extraordinary: twice in a row, democracy shows correlated jump-start emergence in the eonic sequence, more, just at the point of the divide. We see the sudden appearance of a string of democratic revolutions at the end of the eighteenth century, just as our modern transition is concluding. We can see that this is no coincidence. Why might this be? All at once we suspect the reason, armed with a 'frequency deduction'. A system that 'generates freedom' can't overdetermine the result. It must be men who create their own freedom. Yet outside the eonic sequence democracy (before the modern period) is rare, non-existent, our eonic something needs to give it a boost. The point of the divide is exactly the right moment, when macro-action stops and micro-action takes over. The modern American democratic experiment follows this logic exactly, and we see a mysterious constellation of brilliant founders just at the divide, followed by a functioning democratic experiment settling into a steady state. Clearly democracy as micro-action is at risk as it sets sail into the uncharted waters of its mideonic period.

The perception of the rise of the modern is the mirror image of our intuitive perception of the Middle Ages. This medieval period is a phenomenon that we take for granted, and which stands in ironic relation to our ideas of progress (which remarkably go into postmodern decline promptly after the modern transition). Sometimes it is the 'Dark Ages', though not everywhere so dark.

A Middle Age It is significant that we spontaneously use the term 'middle age', as if we already understood the eonic effect. We are immersed in the cascade of modern things, yet clock this from an arbitrary starting point, the end of a

middle period. This is a good example of the way we already sense an ‘eonic effect’, in isolation, without realizing its significance. This chronicling begins in the sixteenth century. We should be confronted with the question, What is this ‘medieval’ period in the middle of?

The pieces of our puzzle fall into place quite easily once we have rightly posed our question of the rise of the modern in terms of its mirror image, a middle, if not a decline and fall. We see the rise of the modern, after a decline and fall, and the rise before this decline brings us to the age of the Roman Republic, and this to the world ca. -600, where a host of changes is rapidly transforming the world it finds. Even as we insert a place marker, to zoom in for close observation, we should wonder, why stop there, just under two and a half millennia separate two punctuations. We shall be curious in advance of the period, now finally an object of archaeological enquiry, taken by an equal interval to about -3000, our destination.

Decline and Fall: The Idea of Progress The rise of the modern is directly connected to our ideas of progress. All at once we can see that there is a dynamic behind this, but of a slightly different kind.

It would seem that progress had dried up at the fall of the Roman Empire, and come to a halt. The difficulties in the idea of progress are essential to explore, for its current form doesn’t quite match the evidence, if we had wished to extend it to an evolutionary context. Promptly its critics are in ascendant. But a facile critique of the idea of progress too often forgets its ultimate implication: the renunciation of the hard won victories of modern revolutions in pulling out of a kind of global slump. The idea of progress is attacked on evolutionary and religious grounds, but we will both embrace the idea and generalize it to a less ideological version, as *eonic progression*.

We are ready to move backwards again toward antiquity in search of the right perspective on the rise of the modern world. We have asked ‘middle of what?’ There can be only one answer, and we can move on, to examine the onset of our middle period. As we explore the world of the Classical Greeks we know that we are in the presence of another or our seminal eras, further, that as we zoom in on the phenomenon, it shows a strong resemblance with the rise of the modern world.

The Axial Age Our riddle is solved at once, then, by slightly extending the range of examination, to see that while there may be a local explanation for decline, there must be a global explanation for the rise. Our model won’t tell us why Rome declined, only that its (relative) genesis is in the great seminal era of cyclical upturn. We are at the point of seeing the one great clue to the emergence, as evolution, of civilization itself, in this strange phenomenon of synchronous acceleration. All across Eurasia, from Rome, to Greece, to the Near East, to India, and China, we see a sudden burst of cultural acceleration, with a center of gravity around -600, the time of the Exile in the case of Israel. We are back at our starting point, the mysterious drumbeat sounding across Eurasia in the period from ca. -900, and over by -400.

Beginning in the nineteenth century this perception of synchronous emergence in classical antiquity began to crystallize. The number of cultural processes that undergo

rapid transformation in this period is remarkable, and it is not until modern times that we see anything comparable. One problem is that the scale of the process is tremendous, the study of five time slices in parallel. The logistics defeats observation, like a blind man reading a Braille text of a movie script. We don't quite see the spectacular effect. Normal historiography specializes in the part, but this requires a greater whole. Thus specialized study tends to lose perspective on the echoing parallels reverberating across Eurasia as this drumbeat clocks multiple innovations appearing in the ongoing momentum of the target areas. The Old Testament unwittingly suggests the time-frame for this interval, from after around -900 to the proximate period around -600, if we distinguish carefully a kind seminal period from its first spectacular fruits in the rough two centuries after -600.

Thus, in the clearest case we see the world of the Greeks emerge from its so-called Dark Age, suddenly begin a quiet transformation in the Archaic, then flower in spectacular fashion after -600, significantly the period of Solon. The change in character of the phenomenon shows how it is quite suddenly on the wane after around -400, and within a few centuries men are looking backwards to this era as an historical enigma. The remarkable thing is that we see this synchronous phenomenon in a fashion that transcends the possibilities of cross diffusion, which are nonetheless considerable. The Israelites had heard of the *Iliad*, there is an influence, but we cannot explain the one from the other. We might thus include the emergence of Rome as an additional independently emergent center, yet we see it more clearly as a variant of the Greek city state expansion characteristic of the Greek Archaic, that is, in part a case of diffusion. But with Greece, Israel, India and China we have no basis to claim that one triggers the other. We get the suggestion of something occurring 'on schedule'.

All we can really do is to try and observe this phenomenon by setting out rough periodization boundaries. Later, on the analog of the modern we can partition our Axial phase as transition and divide, which is easy to spot. We will examine this 'differential boundary' below as being about -900 to -600. This puts a 'divide' near -600, after which we find a brief flowering followed by a rapid fall-off. It is almost eerie. Within a generation or two the character of the Greek era changes gears and a great flowering is over (this falloff and the divide are not the same). We had thought that coincidental, but it falls like ripe fruit into our periodization scheme. The factor of eonic determination is waning, and the high-octane fuel starts to be exhausted. The 'punctuation' is over and the eonic emergents head out under their own steam, if they survive at all. Greek democracy and tragedy don't survive.

A Birth of Democracy Let us continue to track the history of democratic emergence in our system, to note once again: twice in a row, democracy shows correlated jump-start emergence in the eonic sequence, more, just at the point of the divide. Twenty-four hundred years to the decade separate Solon and the modern divide! We see the sudden appearance of a string of democratic revolutions at the end of the eighteenth century, just as our modern transition is concluding. In the Axial period, we see the fragile Athenian experiment emerge from 'raw republicanism' in the sixth century. To repeat, we can see that this is no coincidence. Clearly democracy as micro-action is at risk as it sets sail into the uncharted waters of its mideonic period!

We can probably extend this backwards to our first transition, the system of Sumerian city-states, but the data is blurred, and it is probable that emergent civilization is too primitive for democracy to appear.

This is clever sort of sequence. Note what it seems to be trying to do, globalize, but with a minimum principle. Like a pinball machine, the right thwack (relative transform) at the right spot, a little dose of high octane every several millennia. A straight intermittent sequence might be too weak to encompass the whole. It can't overspecialize on one area, instead it seems to jump around. It needs to get as much done as possible at each brief step, perhaps with parallel experiments, to enrich the final whole. Actually there is no such 'it'. We can specify no active agent doing anything, and soon discover that man does everything but some periods seem to stand out in an overall pattern.

We notice that our sequence splits in a mysterious synchrony, showing a truly global system at work as our turning points perform a spectrum distribution into parallel streams, as seen already in the Axial Age. How this works we don't know, but the result is clear, and all of a sudden we see why the Axial Age puzzles us. Our sequence now looks like this, with eight hotspots:

The rise of civilization: Sumer, Egypt

The 'Axial' phase: Greece/Rome, Middle East (? Canaan), India, China

The rise of the modern: sector of Europe

Our eonic transitions are more complex than a simple sequence, they show parallel interactive emergence. That's an immediate caution against naïve teleological thinking. Our system is a sort of multiple multitasking monster, branching out in different streams. Now we have the clue to the 'Axial Age': it shows sequence and parallelism, a shotgun approach, perhaps to increase the odds of success, or the quantity of variety. This is dangerous, the system could lose direction, and globalization will induce collision, although at the Axial period distance is still sufficient for local experiments. But it is probably no accident the next step in the eonic sequence shows a univalent pivot area moving toward universal transcultural categories. It must soon reset direction after its Axial spreading fan phase. Religion and secularism will then be destined to collide as the separate streams converge on a unified track.

It is pretty hard to produce a theory of this pattern, until we see its minimum principle, and we really have two theories in one, an Axial Age and general sequence, connected by their defiance of spatial and temporal continuity. Our pattern looks like a fragment, and is not starting at the beginning, but in the middle, perhaps in the Neolithic. We see three surges in a mainline that is not bound to a particular civilization. But it is a strange mainline, because it can also produce parallel effects in its surges. It seems to start in two places, not one.

The Frontier Effect There is one more crucial property, the 'acorn or frontier effect'. Note that something global is occurring starting in a series of local areas. But the sequence restarts in a new place each time, just at the frontier of its predecessor. The world of Archaic Greece is a frontier relative to the center of gravity of civilization. The world of Canaan, spawning 'Israel', does not look

like a frontier now, but in the era of the mythical Abraham it certainly was, and we even have a ‘pioneer’ story about his leaving the city of Ur in a prime diffusion source, the world of prior Sumer.

This property makes complete sense. If we restart too far away, the sequence can’t continue. But if we are too close, the momentum of the earlier stage will overwhelm advance or make novelty abortive.

Again, A Middle Age: Detecting Sumer... We come once again to the same ambiguity with respect to the pre-Axial that we had with the definition of the modern age. The Axial period, like the rise of the modern, is a sudden upsurge in the flow of world history. The Old Testament gives testimony to existence of an immense age of prior civilization, and in fact stages its drama against the backdrop of the greater antiquity of Egypt and Mesopotamia. Buried in the Akkadian texts, like Latinate vestiges in modern languages, is the mysterious, and forgotten, Sumerian. Let us keep moving, using our long-range spotting tactics. We are at square one, with a sense of *déjà vu* after theories of the rise of the modern, a large discontinuity, and the search for causal explanation in the era just prior to that. What lies at the source of the Assyrians and Egyptians, so faithfully given a snapshot of their last phase by the upstart Israelites?

We suspect, as we head backwards again, the answer will be as before. We can almost guess what we might find. Is there anything resembling an explosive, fast advance period, of consistent novelties, albeit of relative beginnings in a time frame comparable, ca. 2400 years, to our previous case, yet earlier still?

It is thus clear that archaeology has found the so-far earliest phase of our eonic effect in the necessary, though minimum detail, and the result is so remarkable that we are almost stunned by the simplicity of the pattern.

The Birth of Civilization Thus, cities, state formation, and the civilizations with writing suddenly come together in the last centuries before -3000. Many archaeologists have remarked on the rapid emergence of higher civilization, and in fact the phenomenon of threshold crossing is obvious from the contrast of scales, before and after, especially in the case of Egypt. The use of the term ‘birth of civilization’ is conventional here, but requires caution. The beauty of our relative beginnings approach is that it emphasizes what we know by changing the label, yet forces us to consider the continuity behind the discontinuity. We must think the Neolithic should be included in this scheme, if we will once again move backwards. And, we note, we find Toynbee struggling with the inveterate causality problem that haunts our eonic effect. What caused the birth of civilization?

Going backward further, our data starts to become insufficient. The period of Egypt and Sumer, at their ‘beginnings’ near -3000, seem a bit primitive to us now, but constitutes what is probably the greatest transition in human history, the point at which the most basic fundamentals of man’s ‘civil condition’ came into existence over a substrate of previously achieved agricultural life. Substitute bullock carts, a great advance, for freight trains, and ingots of gold for high finance, and we have a massive

‘modernization’ period in the wake of Sumer. And it did so with remarkable speed, and yet in a fashion not contradicting slow evolution. And there is more than a family resemblance to the phase of ‘modernism’ we claim exclusively for the achievements of our own time, if we look at the same five hundred years of the Sumerian emergence, three hundred of rapid advance, and two of stabilizing crystallization after -3000, from its ‘Medieval’ sources in the religiously preoccupied world that came before of the Ubaid, and the Uruk.

Invisible Transitions? We are suspicious of the Neolithic, we are missing something. We can keep on going backwards...

Unfortunately, at this point, before the invention of writing, we run out of close-range data. We can see clearly, however, that we only have one half of our pattern. We now see the significance of what we call the birth of civilization, which is classifiable as one of our ‘relative transformations’ in what we suspect is a series going backward into the Neolithic. Look at the medieval period leading to the sudden rise of the modern. Now look at the antecedents to the sudden crossing of a threshold in Egypt and Sumer. The resemblance is exact.

Invisible Transitions Let us extrapolate backwards to create a ‘retro-diction’, and leave the issue open to future research. We do that by applying our model of ‘transitions, equally spaced’, to the whole period starting before the Neolithic, with an interval of about 2400 years. This generalization is not yet confirmed, but illustrates the meaning of the data we do have very well indeed. This extension will in fact keep our statements honest, because we might forget that our data is incomplete. We are dealing with a fragment. In a fuzzy way the fit is good, to say the least. We can almost spot two prior transition zones and interval.

Our model is highly artificial but works so unreasonably well in the range provided that we are hot on the scent of a more general pattern.

Transition 1 ?Mesolithic transitions

Transition 2 ?Proximate start of Neolithic ca. -8000

Transition 3 ?The Middle Neolithic interval ca. -5400

Transition 4: The birth of civilization, interval before -3000

Transition 5: The ‘Axial’ period, interval before -600

Transition 6: The early modern, interval before 1800

We are already suspicious of the period in the sixth millennium, and there is an already filling gap in our knowledge in the area to the north of Sumer in the Fertile Crescent. A highlands culture zone to the north of Sumer seems to flow outward into the Mesopotamian area, in a frontier effect, prior to the historical period. We nearly have a four beat sequence.

There is an obvious catch to this argument, which is that the rise of civilization might be simply a new phase of long term evolution, and that there is nothing much to find in the earlier period of man, save possibly at the period of the first appearance of

homo sapiens sapiens. That is, our later sequence could itself be an overall ‘interrupt’ of evolutionary acceleration. That, however, is doubtful, since the unseen stages and primordial beginnings are as much in need of the driving factor as the more advanced. In many ways the rationalization of culture as Civilization begins with farming, it is all of a piece. From hunter-gatherer is a big step, almost an ‘industrial revolution’. Since our model requires only regions and innovative individuals it would be more than able to handle generalizations prior to state formation. There is a uniformity to the entire era beginning with the Neolithic. We must find a region for which later Sumer was once the frontier. Consider by this reasoning the period ca 5700 to 5400 somewhere to the North of Sumer. We can almost see a transition here. We can calculate this might be a candidate for a transitional culture. But we can’t be sure because we don’t have enough data. First we need data, then maybe we can find the secondary data of *relative transforms* in the *exact* periodization, a tough requirement. Transition 3 in our list begins to look promising, as we will see in Chapter 4.

The Significance of Israel Now consider the history of Israel. This was a novel breakthrough area armed for the first time with the new technology of writing, and they actually recorded a phase period, and the onset of a new religion. This earlier era didn’t have writing, so we don’t know. And without that closely tracked data we default back to the ‘slow evolution’ mode of explanation, something the Judaic data would not let us do. Now proceed backwards still further into the Paleolithic. We are in the midst of full-blown ‘slow evolution’ theories, assuming that fast transitions do not occur. Yet by incremental steps backward we could suspect that religious and cultural transitions might be occurring in more primitive fashion at these earlier times.

We must forever be vigilant about jumping to conclusions about historical evolution. Proponents of flat history consider themselves ‘non-speculative’ but they may prove the worst offenders. As we complete our tour we can see that ‘flat history’ is a species of religious faith in a myth of continuity.

Apply this reasoning to the earlier speculations on the Great Explosion, and we see at once the dangers of assuming anything.

3.5.4 World Line of The Eonic Observer

Short of a science of history, we need someone to be a simple observer of the eonic effect. We can call him an ‘eonic observer’. He can definitely aspire to a science of history, and to be a Universal Observer, and yet that is the whole point, he is limited by the time and circumstance of historical immersion, and ideological participation. The first and most telling example of the eonic observer lies with the redactors of the Old Testament, who were unwittingly observing the Axial Age. Our observer can be immersed in history and still record ‘eonic data’. He should graduate to ever larger data sets and be collecting data over many millennia, at the end of which he starts to do theory. It would be nice to be outside of time, or in a rocket module in orbit, going into suspended animation during off periods. In fact, he is embedded in history, and going

through paradigm changes in each of our transitions, executing scripts in each revolution. That is all of us. Every time we use the term ‘modern’ we are observing the eonic effect, looking backward. We are all eonic observers. We use terms like ‘rise of the modern’, the ‘middle ages’, the ‘age of revelation’, and so on. For real science we should be objective observers, assessing data to be put in a time capsule until the end of the eonic sequence, if ever. The last eonic observers, if any, might have a hard time seeing how the data was filtered through the local paradigm of his previous incarnations.

Thus, we can make a formal idea out of the observer of the eonic effect. We can invoke the image of an ‘eonic observer’, with a serious or humorous image of a scientific type, jungle hat, library card, lab smock and clipboard, stop watch, rocket ship, anthropologist and time and motion man of civilization, with his atomic stopwatch designed for time measurements on the order of millennia. One more piece of equipment: a paper stamp labeled ‘Eonic Data’. Wishing to be a neutral observer, he finds himself temporally bound, and his theories prone to become scripts to create further history. We will see this type in several manifestations already embedded in history, and the section on ‘Axial Ages and Eonic Observers’ will show the birth our type. We need with some urgency to apply that paper stamp to the Old Testament, ‘Eonic Data’.

The point is also that the observer and his observed history cannot be separated in any attempt at a science of history. As we will see, the debate, for example, between the ancients and the moderns is at one and the same time observing, and yet also creating, the transition to the modern. This model will automatically reproduce this kind of property. This factor will clearly help us to sort out the Old Testament account of history, whose observations are of the eonic effect, not the action of a divinity. Our eonic observer is thus present, for example, among those who have noticed the ‘rise of the modern’, an eonic observation, and while his stance should be to put the data into a time-capsule, until the next or last ‘period transition in the sequence’, he is prone to interact with the dataset in the present to create the outcome of the last observer phase of the eonic effect. To do theory he must ‘pull rank’ on everyone, and this creates the problem that he tends to be inside the potential well of his most recent data, viz. here the modern.

Now note something remarkable. Look at the Old Testament. It is good example of a time capsule of eonic data by eonic observers casting their observations according to their local paradigm, which was itself going through eonic transformation up to the time of the redaction, which starts explicitly in the period of the Exile and thence onward. Thus emergent Judaic monotheism, as an eonic emergent, was the paradigm used to record the local perception of the eonic effect, at that cycle. Canaanite polytheism suddenly turned into monotheism (actually we look later at the ‘relative transform’ effect, and the influence of Zoroastrianism), and at the end of the transition the ‘eonic observers’ used the output of the transformation to record their data. Confusing, but we can extract the data as ‘eonic observations of a transition’. We would like to record our own eonic data as a superset of this data, plus much else, using the protocols of science. But note that we would tend to do the same thing again, use the paradigm outcome of the modern transition, i.e. a scientific language, to record that data. *Le plus ça change*.

So one task of the modern eonic observer is to reassess the place of the Old Testament in the records of eonic observers, quite a controversial task.

4. IDEA FOR A UNIVERSAL HISTORY

4.1 A Short History of the World

Our project to resolve Kant's Challenge, with an 'Idea for a Universal History', as a chronicle of freedom, gives us a framework for a short outline of world history, and this will answer to the confusions of a science of history. Such a history is really about man's self-consciousness moving between freedom and the causal streams in which he is immersed. The eonic effect generates something our postmodern fashion dislikes, a 'grand narrative', indeed, one of freedom, and we can pursue this genre now without apology, as we 'deconstruct flat history'. The ambiguity of Kant's essay, which seems to contradict itself, as a question about the future and also as a seeming conflict theory, is a fascinating twist to our discovery of evolution in history.

The eonic effect shows the elegant and simple solution to the paradox of evolution and history: they are braided together and appear Janus-faced, evolution as System Action, history as Free Action. 'Evolution' (which we qualify as 'eonic' evolution) is invisible to the naked eye, but suddenly becomes apparent as we look backwards at its action, as with the data of the Axial Age. Everything looked like 'free action', but with time and distance we see the (short-acting) interval of 'system action'. Increased distance from the 'modern transition' at the conclusion of our history allows us to see better the answer to Kant's question, and to uncover the evidence of 'nature's secret plan' in action. We should note that we have chosen an empirical foundation, the eonic effect, for our perspective. This is not a 'theory' but a way to organize our concepts and remove from our minds some of the confusions that might block our perception of the remarkable process of self-organization we see in world history.

It is time to proceed with a short world history, which has suddenly been found to show a remarkable overall coherence. If we can 'see' the eonic effect in its plain obviousness as a pattern over five millennia, the issues of evolution and history will become clear. We can succeed because we don't require metaphysical theories. Instead a pattern of empirical data, the eonic effect, contains its own resolution of the dynamics of both evolution and history, history as the emergence of freedom.

Idea For a Universal History We can examine our resolution of Kant's Challenge empirically as we examine the 'evolution of freedom' via a world history constructed around the eonic series, or sequence.

Nature's Secret Plan As we noted already, Kant's essay asks us to uncover 'nature's secret plan', and this will, remarkably, emerge from our outline.

The Birth of Democracy Our outline of history is built around an 'eonic sequence' and inside this we will discover the remarkable pattern of the birth of

democracy, which we will nickname the ‘discrete freedom sequence’, a spectacular confirmation of our procedure.

Progress Toward a Civil Constitution Another aspect of Kant’s Challenge is to document the ‘progress toward a civil constitution’, and the eonic effect powerfully shows a strong correlation with just this, and we have just suggested that democracy itself is bound up in the eonic sequence, as it seems to generate the first beginnings of democracy in both the Axial Age and in modernity (which makes us suspicious that the earliest stage of civilization shows an earlier phase of its emergence).

Big Histories, Universal Histories It is useful to put together the recent idea of Big History with that of the older idea of Universal History, to create a unity between the two. The confusions of a science of history have been resolved in a framework for what we call the ‘evolution of freedom’.

Free Will, Self-consciousness The degree of freedom of our action in history, presumes ‘free will’, but in practice we see the fluctuations of self-consciousness in the interplay of System Action, and Free Action. This hybrid is what reconciles causality and freedom. Evolution acts via self-consciousness. Man must step beyond the spell of evolution to create his own freedom in history. Self-consciousness becomes the vehicle of free will.

The evidence of historical directionality puts us in the macro history business whether we like it or not. Behind our narrative outline lies a powerful model of the formalism of evolution, macro and micro.

The Formalism of Evolution We can summarize our basic framework: we have a reciprocal relationship of evolution and history, macro and micro, System Action and Free Action, and this braided unity of the two is leading to the realization of freedom in history at the end of the eonic sequence. We see that human evolution was not completed in the Paleolithic, but continuing in the emergence of civilization. Evolution is intermittent, geographically focused, and evident from the relative transformations of culture that drive advance. The Axial Age is a series of such ‘evolutionary’ advance regions, and we see the massive cluster of innovations or ‘relative transformations’ that express the sudden progression of civilization. The advance regions become oikoumenes that advance the whole via diffusion.

We should be clear that our portrait of universal history is designed as an empirical outline, not as theory. We have designed our perspective as a factual history that shows us also the fact of evolution behind that history. We don’t need any theories: we can let the eonic data guide us to the answer. Our evolution formalism is a set of ideas true almost by definition, despite sounding strange, and we use them to describe history, and understand what we are seeing. On the other hand the eonic effect is a non-trivial non-random pattern in world history, and, whatever our interpretation, which can be debated, requires some explanation. We can’t really provide that, it would require the full pattern, and a super-complex theory! But we can, as if looking at an unknown mysterious machine, describe what it does, and make a few guesses about how it works. In the final analysis the eonic effect works beautifully as a ‘Table of Contents’ and forces a simple

coherence on our world history as it divides it into three epochs, initiated by mysterious transitions. Our Kantian perspective, please recall, warns us that the phenomenon we see is before the noumenon which is beyond observation.

The Eonic Effect: From theory to empiricism We have attempted to create an informal theoretical framework for our data, but in the end the eonic effect is a very simple pattern of data, and its value for us is as a purely empirical given, as a foundation for a ‘universal history’ that is non-speculative and which can free us of the reductionist confusions inflicted on history by improperly observed evolutionary claims and their misleading theories. As we proceed the eonic effect induces a coherent perspective on world history as a unified whole. You might say that while we have renounced theories we still have a *theory of the evidence* (e.g. that the evidence shows cyclical dynamics). True, perhaps, but we can retreat from that theory also and simply take evidence plain: the evidence we have shows a cyclical pattern, whatever that means.

Thus our objective is simply to look at world history as a whole, and then the subset, the eonic effect, inside it. The result is unnerveing, and quite telling. We can sense something larger at work. Our depiction could be flawed but the sense of greater systematics at work is overwhelming. We are a bit outclassed by this system, which seems to toss off religions, art forms, and—well, German Classical philosophy, in an eye blink.

Looking backwards at this simple eonic sequence we see a system of stunning elegance, but operating on a level of abstraction that is still beyond our powers of full comprehension. We can, however, adopt a tracking approximation using a grid system based on the perceptions of its three interconnected turning points. Such a strategy is our only option in such a multivalent system where our terms of analysis are themselves output of the system.

4.1.1 The Modern Turn: Looking Backward

What is our starting point? The Big Bang? Hominids parting ways from chimpanzees? The Great Explosion? The Neolithic? Our perspective is designed to allow us to start anywhere, without an absolute beginning. We suspect our eonic series starts with the Neolithic, but we begin to see the eonic effect only with the era of Egypt and Sumer, and our first transition, itself just on the threshold of analysis given our severe standard: centuries level data.

Track of the eonic observer As we begin an eonic outline, we need to produce the biography of the eonic observer, his global coordinates relative to the eonic effect, here ‘modernity’, probably in a secular perspective, his ideology, and place relative to the great eonic emergents inside of which he observes the past.

Theory and Ideology As we can see the eonic sequence produces ideological transformations that we, as eonic observers, begin to carry out. The dilemma of

System Action and Free Action reminds us of the potential loss of quality in that relationship.

Looking backward It is important to remember that we are outside the last transition of our sequence, looking backward. The action of our system shuts down and is replaced by our spontaneous free action, looking forward. This system shutdown point is clearly present in the early nineteenth century! Our model is fussy on this ‘quibble’ but protects us from teleological confusions, and the problems of the Oedipus Paradox, or Social Darwinist-style distortions. We suspect that directionality, seen looking backwards, is evidence of a teleological system. But this is a discrete-continuous system, We only get glimpses of the system *changing direction*, often several in tandem, not of teleology. The two-levels of our model distinguish therefore individual action, and directional action which is on a different scale.

It is important to see the elegant manner of our model: we only see dynamism looking backward, as the ‘eonic effect’ switches off in our recent past as System Action becomes Free Action.

We are ready to begin our stepping stone passage through our eonic sequence in a minimal outline, beginning with a look at the framework of Big History, a short history from the Big Bang, leading up to the the Neolithic.

4.2 Big Histories, Universal Histories

Our account proceeds from causal Big History to Universal History, the evolution of freedom, and we can set up the starting point of ‘Big History’ as a backdrop to our search for a ‘Universal History’. The idea of Big History, history since the Big Bang, is developed, for example, by David Christian in his *Maps Of Time*, and this is also appropriate for our tale. Ironically this absolute beginning may in fact turn out to be another relative start, since Big Bang theories may or may not establish absolute starting points, and in any case this forces on us the question of evolution in its most general cosmic context. The connection between the two, self-evident in the eonic effect, is indicated by Christian de Duve in his *Vital Dust*, where the emergence or evolution of the human will in relation to values becomes a challenge to purely reductionist views. Reductionist science simply disregards the demand for any account of this aspect of evolution.⁸³

The Goldilocks Enigma Paul Davies in *The Goldilock Enigma* asks, Why does the universe seem so well-suited to life? Is this not really the answer to its own question: the transition from Big History to Universal History is effected by this

⁸³ David Christian, *Maps Of Time: An Introduction to Big History* (Berkeley: University Of California Press, 2005), Brown, Cynthia Stokes, *Big History: From the Big Bang to the Present* (New York: The New Press, 2007). Christian de Duve, *Vital Dust: Life As A Cosmic Imperative* (New York: Basic Books, 1995)

‘fine-tuning’ emerging in the Big Bang itself. Physics itself, although physicists are reluctant to admit it, gives us a hint of the mechanism beyond natural selection. This insight has been confused by metaphysical design arguments. But the empirical basis for a consideration of evolutionary directionality, beyond random evolution, is there.⁸⁴

Because of its double aspect, the idea of Big History stages a dramatic, almost drastic contrast of scales, the unimaginable vistas of deep time, next to the evanescent moment of man’s emergence into Civilization, and our detectable ‘evolutionary moments’ at the level of centuries. We should peg our depiction of the latest with the earliest.

The perspective of Big History can be misleading, recall our discussion of ‘evidence density’: we need two standards of evidence: the long term, and the short term. Big History has thus two meanings. The first can encompass the extent of time since the Big Bang. The other, which we might call ‘macro-history’, shows us the fine-grain at the level of centuries or less. We have seen that evolutionary generalizations require both standards. We might not detect the existence of non-random evolution if we confine our perceptions to the large-scale. This second standard only arises with world history, the only source of data for ‘big history’ in the second sense.

4.2.1 In Search of the Big Bang

One of the great achievements of modern cosmology is the discovery of the Big Bang as a theoretical consequence of General Relativity and now as an empirically detectable process of expansion from a starting point approximately 13.7 billion years ago. Emerging as a consequence of Einstein’s relativity equations in the work of such figures as Lemaitre and Hubble who discovered an expanding universe, Big Bang cosmology found its instant dialectical opposite in the steady state theory of Hoyle, then finding its empirical confirmation in the discovery in 1965 of the primordial background radiation left over from the $t=0$, or rather the $t>0$ moment. The remarkable reconstruction of this emergentist sequence beginning with a primordial atom at trillions of degrees has led to the crystallization of a new ‘creation myth’, one with a mysterious, and quite Kantian crypto-metaphysical, raggedness precisely at its curtain rise.⁸⁵

In the first second from Planck time to the separation of the fundamental forces to the drama of cosmic inflation and the appearance of quarks and antiquarks the spectacular first sequence proceeds in the first minutes to the appearance of hydrogen and helium nuclei. The first three hundred thousand years show the beginning appearance of atoms and the new universe is on its way toward the formation of galactic then stellar formations. By the period of four billion years ago the beginnings of life will initiate the planetary scale of Earth evolution. The ambiguous first instant of the primordial atom is not like the sudden explosion of a bomb, but is a more complex process involving the unfolding of the spatial matrix itself. The early form of the Big Bang cosmology was

soon extended with the theory of inflation which demonstrated the rapid expansion of the universe, faster than the speed of light in a fantastic scenario of sudden origins completed within fractions of a second.

With the spectacular drama of creation complete, the world of galaxies and stellar evolution begins and our stage is soon set with the appearance of the sun, earth and planets 4.56 billions of years ago, followed by the emergence of life less than a billion years later. By 1.5 billion years ago, the first cells are emerging, and then we have the dramatic beginnings of life as we know it now with the first multicellular organisms, and the rapid proliferation of basic body types in the Cambrian era over half a billion years before the rise of man. As we ponder the question of evolution, any dogmatism as to its dynamics must confront the mystery of the origin of life, to say nothing of the Cambrian explosion. In any case the origin of life via the random assembly of the first DNA molecule is a proposition difficult to accept, and this difficulty will stalk us every step of the way until we reach our story of the rise of civilization.

10^{-43} seconds: the universe is smaller than the Planck length.

10^{-33} to 10^{-33} : onset of cosmic inflation

10^{-10} : separation of fundamental forces, quarks, anti-quarks

3 minutes: nuclei of hydrogen and helium

300,000 years: atoms form, and galaxy, then stellar, formation begins

5.6 billion years ago: Our sun appears from debris of a supernova explosion

3.9 to 1.8 billion years ago: emergence of life as bacteria

550 million years ago: The Cambrian era

55-60 million years ago: first primates

3-5 million years ago: Australopithecus, emergence of hominids

50, 000 years ago: homo sapiens

Despite the cogency of the Big Bang cosmology, there is something strange about this creation story, as a metaphysical murkiness lingers at the fuzzy edges of its account. The concept of a beginning in time betrays its lack of definition, as does its opposite. Indeed it is the interplay with its antithesis, the steady state, and its resemblance to a classic antinomy of Kant, 'there is no beginning in time', 'there is a beginning in time', that should warn us that everything about the theory is quite acceptable, $t > 0$, and nothing better than head-scratching before that. We seem to be philosophers before we are cosmologists, and in the footsteps of Alice in wonderland. We are forced to the implicit question, unanswered, that lurks behind the Kantian challenge to our sense of space-time as a representation, and no easy resolution of that mystery. Although we cannot use Kant to solve the problems of physics, we do know the symptoms of antinomial empiricism and are left to wonder at the characteristic dualism or dialectic that is clearly in some way a property of our instruments of thought.

Indeed, sure enough, in a recent new perspective, *Endless Universe, Beyond The Big Bang*, we have already the swinging of the pendulum in an attempt to proceed beyond the Big Bang by incorporating it in a scheme of larger, repeating, perhaps endless, cycles of cosmic evolution. The discovery of Dark Matter and Dark energy, and the attempted extension of the Standard Paradigm into the realm of string theory with its hyperdimensional implications has begun to suggest a new understanding beyond Big Bang cosmology of cyclical models of cosmic evolution. Each cycle begins with a Big Bang, but this is an event in time with a before and after, the exact same *a priori* form that we see in the eonic effect. We can only smile at this direct evidence of a Kantian antinomy in action.⁸⁶

4.2.2 From Life's Origin to The Dawn of Human Culture

The mystery of the origin of life, and the so far intractable character of the enigma, remains an invariant of discussions of evolution, and should caution us that without an understanding of the beginning, excessive confidence in the now standard explanation of evolution after its beginning, the Darwinian scenario of natural selection, is misplaced. Our eonic perspective suggests immediately what is wrong, as a red warning light goes on, but we cannot use it to solve a problem for which it wasn't designed.

A Noumenal/Phenomenal Mystery Our brief consideration of Kant's Challenge uncovered the way in which the dynamic of our 'eonic evolution' was not visible while the phenomenal aspect was visible as the eonic effect. We suspect immediately what is wrong with the origin of life debate, beset by the egregious claims of design theories. The dynamics of life emergence, whatever the biochemical details, may well have a noumenal aspect. That is very different from confusing the issue with supernaturalism.

There is something entirely odd about the beginning of life. It arises relatively quickly in the wake of planetary formation, in seeming defiance of probability. Within a relatively short period of time the passage to the RNA world, and then the DNA world of the cell is accomplished. In fact, the era of unicellular life is much longer, and the onset of the 'animal' in the era of multicellular life leaves us the clue, one we still do not understand, the sudden and rapid emergence in the Cambrian era of all the standard body plans that will fret the era of life to come.⁸⁷

4.5 billion years ago: formation of the Sun, planets, and earth

3.7-3.8 billion years ago: origin of life

1.5 billion years ago: appearance of eukaryotes, sexual reproduction

550 million years ago: Cambrian era, multicellular organisms

500 million years ago: vertebrates appear

250-150 million years ago: first dinosaurs, mammals, birds, flowering plants

55 million years ago: first apes

From the Cambrian to the era of Primates seems a short progression compared to the far longer period of one-celled organisms since the dawn of life. We seem to confront precisely the kind of pattern, expanded to a larger scale, that we have seen with the eonic effect, a basic directionality on two levels in the course of development. It is the collation of the two levels that confuses us. This is the great heresy of evolutionary progress, but we suspect the obvious, an evolutionary ratchet effect, and our perspective suggests 'stepping progression' would be a better word, in the sense of an effect reaching new successive plateaus where microevolution takes over. This approach preempts the fallacies of teleology by keeping the different levels of action distinct, although directionality in the final analysis is a brand of teleology, save only that we make no statements about a telos, instead looking at the relative motions of successive steps. S. J. Gould, always so critical of the idea of progress, suggested nonetheless the right framework, that of punctuated equilibrium. That idea, however, is not the same as that of natural selection, and should be taken in a generalized and minimal sense, as a descriptive patterning of evidence.

In fact this stepping progression is visible at all stages of evolution, from the first step of the origin of life, to the Cambrian, and the emergence of man. We should consider one further such stage, on a tentative basis:

The Origins of Mind Although the exercise of seeing the unity of man and nature, man the third chimpanzee, is one of the great insights of biology, one we should embrace, at one and the same time the suspicion arises that the stage of man crosses a threshold in the origins of mind as significant as the origin of life itself. The physical realm, the realm of life, and the realm of the cosmic, for lack of a better word, a realm that transcends life, yet mixes with it, stand together in a complex unity that we so far fail to understand. The stage of mind is a threshold to a stage that brings history to evolution.

Ethical Action The evolution of man is more than a question of 'mind'. It is also a question of 'will', and the ability to make choices in a contemplation of potential action. No account of a naturalistic ethics has ever produced an adequate depiction of this aspect of man, let alone of its evolution. In our formulation the distinction of consciousness and self-consciousness is one avenue toward reconciling the contradiction, and mediating the transition, whatever it was, to man as we know him, in principle capable of freely chosen acts, and liable as such in courts of judgment. This is always coexisting with the slovenly and disorganized fluctuations of self-consciousness between willful action and mechanical reaction that are so characteristic of man.⁸⁸

It is possible that the 'evolution' we see in the eonic effect is giving us a record of this transition. However, we should be wary of using the data of the eonic effect, to jump to conclusions about a problem it is not designed to solve, but we suffer a sense of *déjà vu*, and a frustrating realization that the standard accounts are probably backwards

because they don't take into account the interplay of two levels we see in the eonic sequence.

Surely the emergence of a basic 'evolutionary toolkit', the world of evo-devo, in the realization of the potential of developmental sequences, should be a hint that the basic regime of natural selection is at best a secondary process. And yet we are led to believe that this tool-kit arises by chance, when many of the generated sequences themselves were once incorrectly ascribed to random evolution. Clearly the complex interplay of the two is precisely the kind of macro/micro level action that we have begun to suspect for historical development.

We can make such statements now without the dialectical intractability between directionality and randomness that tends to overtake all discussion as it founders at the limits of reductionism in the antinomies of teleology. Scientists are rightly bunkered down in purely causal analysis, but as the Kantian perspective reminds us this reductionist regime will nonetheless prove insufficient. This is seen in the 'symptom' of teleological action, namely, the unsettling discovery at so many points of so-called 'fine-tuning'. As to teleology, the mode of its realization is unseen, but we can at least see that ratchet directionality is not incompatible with the facts, for we see the evidence is open to the same two-level analysis we have discovered. Such discussions are so distracted by theological sideshows of theists and atheists that the probably obvious cannot be considered, the cosmic imperative, in the phrase of Christian de Duve.

Scientific wariness at this is more than understandable, but the plain fact of the matter is that the development of life falls as well into a pattern of directional evolution overlaid on the random. Once we grasp the pattern of two levels at work, the typical confusions of Darwinian analysis are seen for what they are. We can see that there can be an intermediate set of alternatives, such as the alternating or on-off directionality we see in the eonic effect. We need to consider that, just as with history, the greater evolution of life is operating on different levels, as this produces both differentiation and the relatively random play of forms via the microevolutionary processes such as natural selection, and a larger direction setting process that always selects on strain of its multiple outcomes.

This perspective, taken with great caution as a range of hypotheses, without metaphysical extras, might help us to see that the evolution of primates into man is probably two kinds of evolution overlaid, a 'stream and sequence' effect, just as in world history. The branching outwards, the failed lineages, the plateaus of stasis, should not blind us to the way that, most improbably, a clear set of stages is visible in the record, leading to the final appearance of modern man.

The recent discovery of so-called *Ardipithecus* suggests the earliest stage before the emergence in parallel of man and chimpanzee. By five million years ago we see the separation of man from these ancestors of the chimpanzee, and in this strain of the bipedal ape visible in *Australopithecus* we see the beginnings of a series of relatively brisk steps up a ladder to the final crossing of a threshold to the first man-ape, *homo*, from *homo habilis*, thence to *homo erectus* 1.7 million years ago. With *homo erectus* we have first true 'man', a bipedal tool-making hominid who stages the first exodus from the

African continent into Eurasia, differentiating into the Neanderthal in Europe. No coherent theory has emerged along Darwinian lines to account for this.

5-7 million years ago: separation of chimpanzees and first hominids

4 million years ago: first australopithecines

2.4 million years ago: *homo habilis*

1.7-1.9 million years ago: *homo ergaster/homo erectus*, first exodus from Africa

300,000 years ago: ?Neanderthals branch off

200 to 100,000 years ago: anatomically modern man appears in Africa

100 to 50,000 years ago: appearance of behaviorally modern man, second exodus

A stream and sequence argument would fit this data handily. The ‘streams’ of continuous evolution producing several side branches from Australopithecus to Neanderthal cross a threshold in the period ca. 200,000 years ago, and then somewhere in the period from 100 to 50,000 years ago a ratchet transition occurs that produces the finishing touches on behaviourally modern man, who then proceeds to migrate across the whole planet. This action must produce a creature that can use language, has a characteristic human consciousness, and the ability to innovate and create art. To say this has resulted from Darwinian evolution is a speculative claim. We can see the clear resemblance to the kind of evolutionary macro process in disguise that we are familiar with already.

It is once again from Africa that we see the next stage of man, and the final crossing of the threshold to *homo sapiens*. Around two hundred thousand years ago, or less, the first anatomically modern man appears. It is important to consider the distinction that arises at this point between the anatomical threshold and the subsequent, and still mysterious, threshold of behaviorally modern man who does not appear until after fifty thousand years ago. That leaves the period from around a hundred thousand years ago for us to find the explanation for a remarkably sudden appearance of the species ‘man’ in the sense that we now see him. The various multiregional hypotheses have yielded to a basic ‘out of Africa’ scenario, in which the new species, dramatically ahead of his ancestor *homo erectus* emerges from Africa in small bands and proceeds within a very short period of time to what is the first of several great globalizations of man.

This new man, it would now seem, is quite distinct from the Neanderthal, with whom he seems not to have interbred. And within a relatively short period of time we see the rise to sole dominance of the ‘out of Africa’ man who has achieved the passage to all of the characteristics of the human species, from language, to art, to conceptual thought. We have already broached our speculative suggestion that in the eonic effect we can see how this development of behaviorally modern man can occur via a macroevolutionary sequence that is more than genetic and that can operate on entire populations as whole units.

We can draw no final conclusions on this point, save to feel a little more comfortable with the facts that we have, clearly outlined, for example, by Richard Klein and Blake Edgar in *The Dawn of Human Culture*, suggesting that as of fifty thousand years ago a ‘great leap forward’ had occurred. Klein notes the clear application of the

idea of punctuated equilibrium to the evolution of man and points to four such events in the descent of man:

1. 2.5 million years ago when flaked tools appeared
2. 1.7 million years, human versus ape-like body, more advanced tools
3. 600,000 years ago, the rapid expansion of the human brain
4. 50,000 years ago, the ‘great leap forward’, producing modern man

These stages roughly correspond to *homo habilis*, a somewhat questionable transitional figure, but one showing the first advance toward man the toolmaker in the so-called Oldowan phase, then *homo ergaster*, initiating the new phase of toolmaking the Achelean, and his immediate successor *homo erectus* who stages the first exodus ‘out of Africa’. Next, we have *homo heidelbergensis*, and the accelerating transition to *homo sapiens* as a body type in the period after 200,000.

This perspective on the last stage of human transition has been challenged by findings that show a more gradual emergence of the traits we now ascribe to man in the period from ca. 300,000 onward, but the two perspectives are not necessarily contradictory. In other words, still another continuity/discontinuity dilemma, grist for our mill. The stream and sequence metaphor is being confirmed here by the obvious pattern of double facts.

And the idea of the ‘Great Leap Forward’, or the ‘Big Bang’ of human evolution could have a slightly different meaning from the purely genetic evolution considered by biologists.

Out of Africa Klein and Edgar begin their account with the Twilight Cave. This cave in the East African Great Rift Valley shows artifacts of 40,000 years ago of advanced toolmaking, but more tellingly ostrich eggshell beads, whose symbolic significance is suggested by their persistence to contemporary !Kung who have maintained this technology as an exchange or reciprocity medium with neighboring tribes. This would constitute a token of the dawn of modern humans.

Our perspective on the eonic effect warns us that even with genetic innovations in place a larger transformation is required to effect the realization of the new potential. This is exactly what the facts suggest. And the question of language evolution simply will not go away. Our perception of the eonic effect should remind us that even at the most advanced level of human development a mysterious evolutionary macro process is detectable. How much more likely it is that this would be needed at the earliest stage of human emergence! And let us note that our statements here are not (necessarily) about genetic evolution. Jumpstarting an already present potential requires explicit action from a macro process.⁸⁹

Let us recall the clear evidence of the Axial Age, in which we can see rapid emergentist development across the whole spectrum of culture in relatively isolated regions, and this in short bursts on the level of centuries. Our feeling about what we see from the evidence of a ‘Great Leap Forward’ is that the religious, linguistic, artistic, and

other, evolutions of man occurred likewise in some kind of concentrated evolutionary sequence, relatively but not absolutely isolated geographically, undoubtedly in Africa, and then that a small contingent of this new man became the basis for a new globalization of the result.

The beginning of our tale, then, is appropriately the second of the 'Out of Africa' sagas, beginning somewhere between 80,000 to 50,000 years ago. Out of the blue, modern genetics has given us in the analysis of mtDNA and the Y chromosome a complete set of histories that can locate and map the migrations of early man out of his African home. There are a considerable number of variant hypotheses here, some considering a migration through Northern Egypt to the Levant, and beyond. But the genetic data now suggests a single exodus, and the likeliest candidate is the crossing of the Red Sea at its southern end, the so-called *Gate of Grief*, from Africa to Yemen in a period when that still relatively easy to cross, most probably island hopping with boats or rafts. The evidence suggests one unique migration, by a small number of people, perhaps only several hundred. The great migration then proceeded along the coastal highway of the Arabian coast all the way to India, and then all the way to Australia. There are a number of timelines for this great migration, depending on just when man reached Australia, but the basic scenario is clear from the genetic record.

This shows that the first migrants followed the 'beachcomber' route all the way to India and East Asia. Significantly, a branch of this migration headed north in the vicinity of Pakistan and finally reached Europe, often known as the peoples of the Aurignacian period. Our basic framework is set for the transition to human settlement, then agriculture and the forms of higher civilization in the period after the Last Glacial Maximum.

50, 000 years ago: the passage 'out of Africa' toward India, the beachcomber trail

46, 000 years ago: first evidence of modern man in Australia

45,000-35,000 years ago: exodus branches in India takes over Eurasia, and enters Europe

45,000-10,000 years ago: Upper Paleolithic, Aurignacian, Gravettian

10,000 years ago: onset of Neolithic

This period is the first great flowering of modern man, despite the challenge of climate in the worsening fluctuations of the Ice Age until the Last Glacial Maximum around 20,000 years ago. This period of man the hunter-gatherer shows the capacity for general innovation, art, proto-religion, and the full capacity for language. It also shows the devastating impact of man's advancing technology on the environmental balance of species, in the multiple extinctions of man animals confronted by the human diaspora.

There is something remarkably convenient, and mysterious, about all of this. Man is repeatedly 'evolved' in Africa, and small subsets of the result commence their global migrations. Although we see microevolutionary effects in the Eurasian sphere, for example the emergence of Neanderthal in the European Ice Age environment, we see no real large-scale effects, with true speciation occurring only in Africa. Say what you will, but this is quite suspicious.

The hothouse evolutions of man in the African Eden, accomplishing all the major transitions, set the stage for all the rest. We can at least see this as confirmation of the

basic spatio-temporal architecture of punctuated equilibria. We should consider the image arising spontaneously of a period in Africa, perhaps in some Ethiopian Eden, not far from the jumping off point, 'out of Africa', where man consolidated his linguistic evolution in a period not unlike that of our eonic series, in the emergence of his characteristic cultural forms, perhaps riding on the realized potential of music, song, and choral association. The man who will emerge is a story teller, a musician and singer, a creature whose emerging self-consciousness will leave him at the threshold of what he will hallucinate as the 'spirit world'. It is very difficult for us even as modern men to correctly evaluate this side of man, since we are that man, and subject to the same limitations of consciousness. The data of the eonic effect can give us at least a suggestion of how this could be.

And 'after Eden' there comes into existence a hominid who begins to destabilize the global environment that he begins to discover in his movement across Eurasia, and then into the Americas. For the first time, unlike *homo erectus*, who seems to remain in relative equilibrium with his outer world, man has the edge in his dealings with that world, and this increasing mastery shows a want of his own self-mastery as he begins the long cycles of species extermination across Europe, Asia, and the Americas. This upset equilibrium impinges, of course, into our own time, as the species character of man provokes a crisis of his future evolution.⁹⁰

4.3 Neolithic Beginnings

In the relativity of starting points the Neolithic stands as the most logical of beginnings. It almost seems as if the early transition to modern man and the Neolithic are connected as stages, with the rise of civilization becoming an incident in the further evolution of man.

The 'Out of Africa' scenario has set the stage, then, for one unified tale, and in a flourish we might as a *gedanken experiment* declare the camps and caves of the hunter-gatherer the first stage of 'civilization'. It could serve also as a reminder that modern man is essentially the same hominid in the trappings of the suit and tie as he was then.

We notice that from ca. -50,000 to the Neolithic we see that no major evolutionary-genetic changes occur in the period, save in the emergence of human races, and the ticking clock of random mutations. Man, as man, continues within the boundaries of speciation created by the first emergence of *homo sapiens*. However, this status as 'man' remains ambiguous, and the true potential of man is 'yet to be realized' at the moment in the early eleventh millennium when the Natufian culture in the Levant commences a new form of adaptation, for a hunter-gatherer, that of settlement, life in a community, and the beginnings of socio-political interaction.

The 'after the ice' saga of the human adventure in the wake of the Last Glacial Maximum begins ca. -20,000. As Steve Mithen notes in *After The Ice*, "Human history began in 50,000 BC...Little of significance happened until 20,000 BC...Then came an astonishing 15,000 years that saw the origin of farming, towns, and civilization. By 5000

BC there was very little for later history to do; all the groundwork for the modern world had been completed. History had simply to unfold until it reached the present day.” This sounds like another ‘Axial Age’ lurking in the data.⁹¹

From 50,000 years ago: dawn of human culture

20,000 to 15,000 years ago: the Last Glacial Maximum, transition to interglacial

15,000 to 12,500 years ago: Bølling-Allerød Interstadial, warming

12,500 years ago: Younger Dryas, 1300 years of renewed cold

11,500 years ago: onset of Holocene

15,000 to 11,500 years ago: The Natufians in Western Asia

The transition of early man to settled life was perhaps as big a revolution as that which initiated behaviourally modern man over fifty thousand years before. This process began in the wake of the Last Glacial Maximum in the onset of the Holocene era, the interglacial period in which we are still living today. In Western Asia we begin to see the Natufians emerge into the Neolithic through the stages of sedentism, the gathering of wild plants such as the einkorn and emmer wheats, the beginnings of intentional agriculture, the domestication of animals, and the appearance of the first villages, such as Jericho. The Natufian culture of sedentary hunter-gatherers in the Levant was part of a broader field of such cultures stretching to Anatolia and northern Iraq, and is the first instance of the global transition to agriculture. But it is also true that agriculture appears to have been discovered independently in multiple locations across Eurasia and the Americas.

It is important therefore to note that we have distinguished technological and economic development from the larger cultural process visible in our eonic transitions. There is a difference between a new stage of technology, and a new stage of culture. It is in the Fertile Crescent that we see the first passage to civilization, but this is something more than the implementation of a new stage of technology, the agricultural. The innovations of agricultural discovery are part of a larger cultural framework that comes into being around it. It is in the Western Asian sphere, appropriately a kind of ‘center’ point to the totality of Eurafria that the drama of emergent civilization and its ever expanding integration and globalization initiates.

It is interesting that Gordon Childe is the one who proposed the term ‘Neolithic Revolution’, with the term ‘revolution’ evoking all the overtones of the Marxist version of that. But the idea doesn’t quite work, and becomes ambiguous. Is the ‘revolution’ the emergence of a set of social systems with class divisions, or is it the effort to overcome this? In our more exact analysis this distinction can’t be neglected. Our eonic sequence has taken up and organized the idea around something more general, the idea of a transition. The question is then if the Neolithic emerges in a rapid transition. Our data is suggestive but not yet conclusive. If anything the reverse of a revolution is occurring at the beginning of social division emerges in the new stage of human existence. We should be wary of jumping to conclusions here, since very specific data is needed. In the final analysis the idea of ‘revolution’ refers to a revolt in the context of societies that come after state formation. But that moment is still far away in the Neolithic.

In most accounts, the entry to the Neolithic creates a new world of social division and hierarchy, in contrast to the egalitarian existence of the hunter-gatherer. This transition raises all the questions raised by the discourse on historical materialism of the Marxist ideology arising in the wake of modern capitalism. This theory is notable for its failure to properly analyze the dynamics of both history and economics even as it cogently exposed in descriptive fashion the relationship of social existence to the means of production. The theoretical speculations of Marx, mixed with the ideology and tactics of revolutionary futurism, ended by obscuring the essential simplicity, even obviousness of the thesis, possibly misnamed by the terminology Marx gave to it.

Historical Materialism There is something ill-fated in Marx's theory of history, and we have exposed a number of its problems. It shares the fallacy of that which it critiques, a purely economic interpretation of history. The theory of historical materialism suffered a kind of incoherence, and is clearly false in the form in which it was proposed, but in another sense it is impossible not to embrace some version of that insight as we recount the emergence of civilization, and we should take on board a generalized version of it. The emergence of class and exploitation roughly correlates with the passage from the stage of hunter-gatherer to a new proto-industrial stage of production, and the result leaves the question that haunts civilization: at what stage will civilization transcend this logic? The first answer is that the eonic sequence itself shows the recurrent trends toward equalization arise at each stage, to attempt a correction. This is especially clear in the Axial Age when religions of equality and the birth of democracy are notable in their appearance. But these trends toward equalization, so far, have not completed their evolutions. In any case, Marx confused the question of stages of economic systems, the dynamics of revolution, and our related but different concept of 'eonic transition' can be used to repair that confusion.

Evolution and Equalization The hidden ideology behind Darwinism suggests a form of class ideology in disguise. But as we examine the eonic effect we see that evolution in the macro sense and equalization will be directly correlated, a decisive challenge to the Darwinian thought system. In the emergence of the discrete freedom sequence, so-called, the point is obvious. The exact details of the Neolithic are lost to us, so we should be careful how we understand the emergence of social divisions at this point. The confusing double motion almost in the same generation of the modern Industrial Revolution showing the emergence of democracy and the class divisions of the new capitalist economics, equalization and disequalization almost simultaneously, should remind us of just how confusing the history can be if we lack the correct closely-tracked data. We should be wary of thinking we understand the Neolithic with the data we have so far.

The issue of the means and factors of production arise, not with the modern Industrial Revolution, but promptly at the point of the invention of agriculture in the Neolithic transition. There is a unity to these stages of technological economy. This point, recast without the controversial trappings of the modern left, is transparent and noticed by

almost all authors. We should note that Marx's confusion over the dynamics of materialist history vis a vis that of the revolution into freedom (the basic Kantian variant) represented an intuition that misread the phenomenon of modern revolution. We have seen the better way to approach this by uncovering the discrete freedom sequence, and by indicating, what our chronicle here should highlight again, the way in which *equalization* is strongly correlated with our eonic sequence. This is a most un-Darwinian process, yet it is clear from the record in the later stages of the emergence of civilization, which by the time of the rise of higher civilization shows the rise of social domination of the agricultural surplus by the political elites of the newly arising State.

Although the data for the Neolithic doesn't yet reach our standard of centuries-level data, it comes close, and the result is tantalizing. Looking at the core eonic effect we were led to the suspicion that we have only one half of our data, and a frequency hypothesis gives us the following speculative possibility, based on a quite reasonable assumption of monotone cycles:

Transition 1: ?????

Transition 2: ?? -8100 to -7800

Transition 3: ? -5700 to -5400

Transition 4: **-3300 to -3000**

We will certainly not try to impose this scheme on the data save to note that, in a manner still short of our standard of evidence, the centuries level, this rough scheme actually works (!), to our puzzled surprise, as it uncovers the obvious two steps (transitions 3 and 4) to higher civilization, although we cannot yet detect the data corresponding to the earlier transitions suspected. But the fit is quite good and tells us something at once about the rise of civilization, even as the issue of invisible transitions must haunt us. We dare not speculate about Neolithic dynamics given the data that we have. The existence of a 'transition 3' would at a stroke resolve many of the obscurities of the rise of 'higher civilization'. In any case, a strong suspicion arises that the sixth millennium is the real source of civilization, the spectacle of Sumer and Egypt at the end of the fourth millennium being an advanced stage, not unlike modernity itself.

We must remind ourselves that accounts of the Neolithic are likely to be misleading since on the basis of our later data we know that a series of transitions are crucial. How would you explain Christianity without knowing about the Israelite transition? These suspected invisible transitions would therefore be crucial to our understanding of the first phase of civilization. So we can use our frequency hypothesis, which is just that, an hypothesis, to organize our data around a question. This issue, of course, applies only to the dynamics of historical evolution. The cultural content of the emerging Neolithic is analyzable as is.

Thus a strange thing happens here. The presence of possible invisible transitions makes us skeptical of any theory of the emergence of the Neolithic lacking centuries-level data or less. We might completely misinterpret the dynamics.

Invisible Transitions? A caution Our framework might seem artificial or speculative applied to the Neolithic. In fact it is an hypothesis, and a strong warning that our analysis of historical dynamics can go wildly off the mark if we

fail to take into account the possibility of unobserved intervals, that we call ‘transitions’, that ratchet the system up to a new level. Clearly these are present in the Neolithic in at least two stages, but our data is insufficient. Our framework is not proven, but can be a useful deterrent as a floating question mark to the reverse dogmatism.

Origins of Religion We strongly suspect that the origin of (organized) religion as we see it in civilization lies in the Neolithic. But if the Axial Age is any guide, this would occur via a series of macro intervals analogous to those in our eonic sequence. Imagine if we had only the history of Christianity but no evidence for the Israelite transition. Our situation is like this for the Neolithic.

As suggested most obviously by our schema we see two rough stages to the Neolithic, after the Natufian, and these lead to the rise of civilization at the end of the third millennium. This process involves more than the discovery of technological innovations and comprises the overall cultural integrations that are so evident in the Axial Age. The question of agriculture is misleading in a sense, because all of the fundamental innovations of civilization are occurring at this stage in inchoate form, such as the onset of organized religion, and the social relations of villages generating politics.

It is not implied by this scheme that the Neolithic emerges in some teleological manner, although in some sense we have to suspect the factor of directionality visible in the later stages applies to the first step!

There is something artificial in the delineation of the ‘Neolithic’: we suspect that the real onset of civilization lies in the indicated period of two or so millennia prior to the rise of Dynastic Egypt and Sumer. But then why not redefine the term ‘civilization’ to include the phases of early human settlement? We should definitely advance a prediction that a series of eonic transitions of our type is hidden here (in the Middle East) behind the rapidly divergent diffusion of the Neolithic. It is in fact easy to spot how this sequence proceeds and our perception of the ‘frontier effect’ suggests each stage will show adjacency relations with the prior and next (although in such thin manifestations its logic would seem less inevitable), and this is just what we see as the series curls around the Fertile Crescent, from the Levant to Northern Mesopotamia to the field of Sumer.

?Transition 1: The so-called Natufian with its transitional cultures of proto-agricultural hunter gatherers. This goes back before the start of our schema.

Transition 2: The Neolithic Revolution is underway and we see the transition to village life.

Transition 3: The series moves to the northern Mesopotamian region, and we see the Hassuna/Halaaf cultures, along with the first prehistoric phase of Egypt. This era begins the lead up to the take-off in Sumer and Egypt in the next step. By this point agriculture has diffused almost globally, and yet the great advance will occur in the frontier zone to the south, the realm of Sumer.

The Neolithic is spreading globally by the end of this period, and we make no claim that this is the sole interesting zone of Neolithic development. And yet the great advance of the next stages clearly source in this early progression.

Çatal Hüyük We are hard-pressed to trace this remarkable florescence of the Neolithic to a transitional phase, yet we can see that this gem of mideonic culture amply shows the first grand phase of a 'high Neolithic', along with Jericho, complete with seminal religious formations, and organized 'civil existence', if not civilization. This culture, in the Anatolian zone, easily satisfies our 'frontier effect' requirement, and it is also interesting that this complex suddenly dies out close to the onset of Transition 3. Our system jumps toward a new diffusion field in Northern Mesopotamia.⁹²

The period we call Transition 3 ought to have been the real beginning of civilization, but it will be millennia before higher civilization emerges. In fact, this period we suspect contains the clue to the Great Religions that will follow the Axial Age. It is here that great temple complexes begin to emerge in the network of village Neolithic. It is significant that 'religion' in this sense predates the rise of civilization, leaving us to ponder the relativity in the meaning of the term. This period is reminiscent of the long Medieval period preceding modernity, readying populations for the jump to the advanced requirements of the modern system.

As James Mellaart notes, in a description that almost implicitly maps out this period and afterward:

At the end of the Early Chalcolithic period, then, let us say ca. 5000 BC, we find that throughout the greater part of the Near East all the requirements for the birth of civilization were present...Nevertheless, the expected birth of civilization did not take place. It was delayed for nearly another millennium and a half and when it did come it was not in the areas which had hitherto been most prominent, but in the dismally flat lands of S. Iraq and a little later in Egypt, areas which until then had been of little or no importance. Why was this so? ⁹³

Let us note how this follows the logic of our eonic model very closely, and the frontier effect is clearly at work. The first dramatic rise of civilization will be in Sumer at the end of the third millennium. But clearly there was a stage before. Our frontier effect suggests that some region round about the first visible transition zone, most probably Sumer rather than Egypt, will show an earlier transition. Not hard to find. Jump back 2400 years in a possible source area nearby. In fact we can almost see one further north from the Mesopotamian area, with clear indications of connections to the general Neolithic in the Fertile Crescent. Thus our account really begins in the prior era as this leads to the rise of Sumer, and its sidewinder, Egypt.

In *Ancient Iraq*, George Roux unwittingly gives us the right chronology behind this, starting in Northern Mesopotamia in the wake of the first Neolithic period, and ending in its Sumerian frontier adjacency zone.⁹⁴

The Hassuna period	ca. 5800-5500 BC
The Samarra period	ca. 5600-5000 BC
The Halaf period	ca. 5500-4500 BC
The Ubaid period	ca. 5000-3750 BC
The Uruk period	ca. 3750-3150 BC

The Jemdet Nasr period ca. 3150-2900 BC

We can see the dates fit so well we can hazard a guess. Clearly we are seeing two transitions separated by a mideonic interval.

The Modern Analog To understand this sequence of dates and double transitions and what it is telling us consider a later example: the rise of modernity really starts in the Axial Age: two transitions and a ‘medieval period’ bring about a major advance in civilization. In the same way, we suspect that transition 3 and 4 with a ‘mideonic’ period in between are working together to set the take-off point for higher civilization. We have one set of transitions, then 2400 hundred years later everything comes together and there is another transition, igniting an explosive new era we call modernity. But the Axial and the modern are really a larger sequence in one process. A similar effect is clearly visible in the relationship of the Hassuna/Halaf cultures and the rise of Sumer. We can see the long gestating ‘medievalism’ in the Ubaid, and then the final take-off around the Jemdet Nasr period. The rapid take-off of Sumer is exactly analogous to the rapid take-off of modernity after a gestating ‘mideonic’, or ‘medieval’ period. The theses of slow and fast evolution thus both apply, our stream and sequence unity of effect.

We are beginning to adopt a larger picture than that of the purely agricultural. For what we are seeing is the emergence of Civilization, capital C, and its attendant globalization. And the diffusion of the Neolithic is of course the second chapter of our tale. We must face the fact that our account is one of a seeming subset of the whole of Civilization. For the onset of agriculture and of civilization follows our eonic mainline. And this greater integration of culture is more than just the means of production, agriculture. And it seems that this larger integration happened only once, in the Fertile Crescent. We can clearly trace the diffusion from this great beginning. We must note in passing that if you wish to evolve Civilization on a planet, this ‘middle east’ is a good middle, the roughly equidistant point from the farflung sectors of Eurasia. Diffusion will rapidly reach the entire continental surface.

To understand what we must be missing, it might be useful to imagine a history of Archaic and Classical Greece, if this had occurred without the technology of writing, to realize that a complete transition could be right under our noses and we wouldn’t see it. The bards would have sung their tales, with no Homer to record their saga. The Greek world shows a field of city states, one of which, Athens, especially flagships ‘premonitions’ of the future, and flowers over a very brief interval. Such incidents in earlier periods are so far beyond our resolving power. We see that our position for earlier time may be hopeless. Further the factor of self-consciousness can exist behind primitive thinking and crude knowledge, the feeling we often get with Gilgamesh. Accounts of the Neolithic are thus under suspicion of showing us the rough outlines of ‘stream history’ and the mideonic surges of larger scale formations (viz. the way the Roman Empire follows the Axial period), but not the generative flash points, if any, leading the system on.

The Great Flood? In Noah's Flood, the authors William Ryan and Walter Pitman propose the interesting thesis that the later myths of the flood are really a semi-historical memory of the sudden flooding ca. 5600 BCE of the Black Sea in the period of the retreat of the Ice Age glaciers. Conveniently timed to the end of the first phase of our speculative Neolithic sequence, this calamity may have triggered the first of a series of migrations of peoples, such as the Ubaid into Mesopotamia, those who will begin the creation of the first rise of civilization.⁹⁵

4.3.1 Fields of Diffusion

As we develop our outline it becomes obvious that we are dealing with a series of transitions and their oikoumenes, a more useful framework than that of the 'civilization' which is often a set of layers of different cultures. This makes the study of diffusion central, as it should be. Our transitions create a series of diffusion fields where a high degree of sequential dependency reigns. The fields can overlap, please note, and tracing the layers is often a considerable study. Because of this factor, among others, it is more useful to recast our 'fundamental unit of analysis' as a series of transitions and their fields of diffusion, rather than as a series of civilizations. The point is flexible, since the study of civilizations has its own tradition and sets a pattern hard to break. But the point is that civilizations are too amorphous to have a dynamics, this belongs to the eonic sequence alone.

Theories of the birth of civilization, such as Toynbee's consideration of challenge and response and many others, are confounded by the relativity of the term 'civilization' and the clear evidence of its gestation, if not outright early appearance as 'civil evolution', in the primordial transition, village, town, state. And yet the rapid crystallization of the forms of the state, the invention of writing, indeed most of the foundations of later social organization, seem to cross a threshold in the centuries clustered around -3000, to stabilize for an immensely enduring era that will last until a new period seems to dawn at the time of the Classical Greeks and the world of Canaanite 'Israel'. In a word almost everything that comes later is sequentially dependent on the world of Sumer. Almost. In a word, Sumer was important.

This emergence of higher civilization, as a relative onset, is highly concentrated in the Fertile Crescent, and we suspect, despite every possibility of the independent emergence of the discovery of agriculture, that the appearance of advanced civilizations occurs uniquely in one source. This challenge to theories of the independent evolution of civilization is controversial, and depends on the consideration of issues of diffusion. But it is difficult to defend, for example, the absolute independence of the New World civilizations from any contact with the Old World sources. As Cyrus Gordon notes,

Prehistoric and primitive men may have 'invented' in isolation a number of ways of life belonging to the domain of cultural anthropology. For historians of civilized man, however, the entire globe has for thousands of years constituted One World. If high independently invented civilizations have existed, they were not on this planet.⁹⁶

Although we strongly suspect this to be the case, we need not commit, and our perspective is more flexible, and allows a looser, our stream and sequence, interpretation. Indeed, we have created a two-level construct, and nothing disallows *both* the independent emergence of proto-civilization, and the distinctly driven eonic evolution we see in our mainline. The eonic sequence simply amplifies a selection of cultures in its direct path. These independent sources, however, can't compete with the impact of the eonic sequence. And, after careful study, it is hard to believe even the far flung Olmecs aren't sequentially dependent on Sumer/Egypt in Transition 1. These two possibilities, stream and sequence, can then interact, creating a complicated situation. But as time goes on the mainline is likely to predominate.

This would go a long way toward explaining the complex situation we see in the New World civilizations, whose status we cannot determine without better data. But these civilizations, so far from Eurasia, have a hard time, and can't advance very far. Finally, the appearance of synchrony as seen especially in the Axial transitions should advise us to exercise extreme caution about the sources of anything. The fields of diffusion provide raw material, but the eonic mainline performs the major effects of advance. Yes, we do see this synchrony, but we also see that in each case, that there has been diffusion from the Mesopotamian world. Not easy to discover with China, but it is there. The advantage of our approach is that it uses ideas of relative changes, and from this perspective we don't have to commit our model to extravagant assumptions about poorly observed civilizations. But, despite this, we should be strongly suspicious in favor of diffusion in many cases where independent evolution is claimed.

Our stream and sequence approach requires both perspectives. But we should predict at once that some element of diffusion is present in the worlds of the Olmec, Maya, and other New World civilizations. But since we don't have the full data we won't commit ourselves in advance, save as a prediction: you'll find that connection someday. Note that the issue is one of *relative free action in a field of diffusion*, in this case diffusion of information (from bad sources like the Phoenicians) and very little direct imitation. This allows a huge scope for diverse realizations with predominant stream inertia. Civilizations aren't autonomous, and ideas and technology spread rapidly. If someone arrives with new information, that is overlaid on the resulting civilization. If the information is at second hand often the result is less than stellar. The New World cultures were no doubt unfortunate to receive the diffused influences of the Phoenicians, even as their cousin culture in Canaan is about to spawn the 'protocols of intertribal mediation' that we see emerging in the Old Testament during the Axial interval. These never reach the New World until too late and defunct in the imperialist form of the Holocaust of Columbus, Christianity taken over by thugs. This effect of packaged literature appearing in the Axial interval as diffusion instruments is crucial for the foundations of modernity, and the struggles over animal (and human) sacrifice, just to take one example, show the way a new stage of culture is reached in global form from localized transitions.

This double aspect in our model is clearly present in the New World. As to diffusion, the legends of the Maya, Inca, Aztecs even said so! It is not prejudicial to take this stance. Quite the contrary, once we see that there is a mysterious driver behind the great advances, the sluggishness of many sectors ceases to be some sort of judgment on

other cultures. Behind the rise of civilization in the Fertile Crescent lies the whole history of the Neolithic. A great preparation occurred, almost five thousand years! That's a lot of preparation. So far all we see in the New World is the sudden emergence of the Olmec. We don't see, at least not yet, the equivalent lead up in the New World. We must therefore suspect diffusion.

But note that both viewpoints are possible, up to a point. Civilizations evolve in isolation, but their integration and manifestation of advanced features almost always shows direct diffusion from the Sumer and Egypt phase. This does not rule out prior influences however from an earlier period. With or without extensions to the eonic sequence. This does not contradict the basic model, but it does leave the pattern ragged. It would be very nice to know what was going on throughout the Neolithic, for we see definite cases where diffusion has clearly occurred from some earlier phase of the Neolithic.

In conclusion, the question of diffusion is controversial because it puts a premium, it seems, on biased cultural sources connected to the eonic sequence. This and many other examples put our sequence in a somewhat ambiguous light because it seems to favor the mainline of the sequence. We have to face the fact that this is what the evidence shows, along with the catastrophe of anti-semitism and the dangers of Eurocentrism, false universalization, and that we are nonetheless one world evolving towards a greater unity, and the temporary advantage of the transitional areas near the mainline sequence is not a function of cultural superiority but the action of the eonic effect itself. The immense reserve diversity of greater universal history must not be sacrificed to this. But small wonder the modern transition produces its convulsions of globalization and Eurocentric imbalance!

In general, diffusion reigns. As Thor Heyerdahl notes,

The isolationist sees it as an insult to the intellect of the American Indian to look for outside inspiration behind the aboriginal American civilization. But is it not more of an insult to the bulk of American Indians, who lived outside the high culture areas and who had no civilization, to overlook the possibility that they simply have lacked corresponding helpful influence? Can we Europeans say that we descend from independent inventors of civilization? Do we forget that Europe was still the domain of illiterate barbarism when the literate Olmecs erected masterpieces of sculpture with hieroglyphic inscriptions and complicated calendar dates...⁹⁷

Note the implications of the stream and sequence argument, taking the case of Greece. The stream of Greek culture shows two periods of early flowering, the first is the Mycenaean. This is out of the master sequence, and shows diffusion and sequential dependency on the first phase, the transition of Sumer and Egypt, mediated via the mideonic world of the Minoan. It actually collapses and goes into decline, then takes off like a rocket in the next phase of the master sequence. Only a model of the type we have constructed can do justice to this complex of relations in three and four dimensions on the surface of a planet.

4.3.2 Genesis of the Great Religions

We see the onset of the Great Religions in the Axial Age, yet surely their real beginning lies in the Neolithic. The relation of religion and civilization is complex, although our eonic phasing clarifies its confusion by distinguishing the stream and sequence distinction between religious evolution in general and the results when this crosses the boundary of the Axial Age. This effect must have existed before. An example of this is the entry of Buddhism and Jainism *onto the world stage*, relative to the Axial interval.

The best and most beautifully clear example of this relative transform effect is the modern Reformation. A small piece breaks away and undergoes rapid-fire change climaxing in this case with something that by the point of the divide no longer seems religious at all, modern secularism, not to be confused with scientism. These ‘re-formations’ show the relationship of ‘evolving’ religion and the eonic sequence. In light of the modern Reformation, the Old Testament suddenly becomes comprehensible and clearly records this contradiction. We even see vestigial traces of old Goddess worship.

A similar effect must have been present earlier. The interaction of the early goddess-worship, Indo-European and Semitic polytheism, and the transition of these to patriarchal monotheism is one of the most confusing aspects of historical study. It is mostly an effect of the intersection of Indo-European, and Semitic, nomadisms with our Axial phase. We will thus allow ourselves one speculative venture not connected with our basic analysis, but in an area where our thinking can perhaps clarify the confusion over an early ‘matriarchy’, that has continued ever since the works of Bachofen. The idea that Greek religion, for example, shows an overlay of earlier goddess-oriented religion, perhaps with a Neolithic source, overlaid with Indo-European polytheism is a view that is frequently rebutted, and yet in broad outlines might make a great deal of sense. It is a perfectly natural outcome. The sudden patriarchal ‘re-formation’ is thus slightly anomalous.

It seems that the period ‘-8000 to -5500’ is the natural gestation point for an entity that we tend to call ‘religion’ in civilization (i.e. ‘organized’ religion), as a *relative beginning* of elements that show artifacts going back much earlier. Our basic point is that the beginnings of ‘religion’ and of ‘civilization’, in the sense of the civilizationalists, are ‘out of sync’. The momentum of this is such as to explain its tenacious resurfacing at points inconvenient to secularists. The Catholic world ends in a grabbag of such elements, including the resurfacing Mariology. This leaves the middle Neolithic as the possible ‘beginning’ of such organized ‘religion’, by a process of elimination. It is clear in India that the tradition of Shaivism, as a matrix of both yoga and tantra, is far older than the Axial Age and appears in precisely this period of transition in the Neolithic.

As with the Axial period, we might suspect an ‘eonic driver’. It is a very natural suggestion, if only we do not let ourselves become so entranced by wild claims of some primordial Golden Age of Matriarchal utopia. Here, we might reflect that future men, told of a religion of love called ‘Christianity’ might scoff on the grounds that Christian history shows few signs of such an emotion. But such a religion *did* exist as symbolism! Perhaps

the symbolism of matriarchal divinity is the net result of the spiritual sourcing of this first era of religious emergence in a Neolithic goddess orientation. Asking ourselves the question, what is the later eonic evidence for the sources of religion, and having seen them, ask again, could a similar eonic structure account for the traces of later religion in early Sumer, early and later India, etc.,...?

Thus our model has suggested, and has some reasonable evidence, that agricultural discovery and its cultural integration are two different processes, *the former capable of multiple independent discovery, the latter a phenomenon more typical of a localized eonic transition*, perhaps associated with the rise of the first villages or towns. Thus, in *The Myth of the Goddess*, by Anne Baring and Jules Cashford, stemming from the works of Gimbutas, and others, we have a suggestive description of a broad cultural formation of the type so reminiscent of later religious culture of the patriarchal type.

As the authors suggest, in *The Myth of the Goddess*, “The picture that is emerging is of a *single cultural matrix* that underlies and relates all these different areas to each other” in a broad zone from the Balkans to world of the Indus. A ‘*unified cultural matrix*’, matriarchal or not, is exactly what we suspect, and is a precise description of an ‘unorganized’ religion, for example, and is certainly a candidate for eonic start-up, as a spearhead zone generates the expansion of a cultural type. Our study as a whole shows that it is not impossible or unreasonable to claim the rapid and sudden arising of a seed religious mode in a very brief transitional time-frame. The Axial period shows an *exact* model of how this can happen, albeit in a patriarchal mode. The list of transitions shows that every period of transition reveals the elements of a religious ‘re-formation’ or ‘neo-formation’.

4.3.3 The Tower of Babel

The key to human evolution, especially at this final stage, lies in the enigma of the evolution of language. The attempt to reduce the one to the other, however, can be ‘clutching at straws’ in the desperate hope to find the lucky genetic mutation as triggering mechanism for the remarkably swift metamorphosis of modern man. That passage was to an altogether integrated and comprehensive new stage of Mind, in which language is but one component. Nonetheless, language, if not the full key, is surely the central pivot of the neurological and other changes that bring on the stage of human culture. It is significant that we actually have specific evidence, the FoxP2 gene, for some genetic component to this passage to the new stage of linguistic humanity. We should note however that these hopes for a simple explanation via some genetic miracle do not square with the facts as we know, or suspect them in the eonic effect.

Recall that as we examined the core eonic effect, especially the Axial Age, that we can see a long-range evolutionary driver is at work, able to micromanage art, philosophy and religion, in short three century bursts, hopscotching across the surface of a planet. This leaves us skeptical of standard Darwinian accounts of the emergence of language. In fact, the man emerging from Africa is already the possessor of language as we know it. And the outstanding click languages of the San peoples surviving to this day

in the southern part of the African continent might give us some hint as to the nature of this earliest linguistic phase of humans. We should note that the language of the !Kung or San, with their highly complex click sounds, and well over a hundred basic phonemic units, seem to represent a stage of linguistic complexity from which all subsequent languages appear to have declined!

The Origin of Languages The spread and differentiation of language has been studied by the linguist Joseph Greenberg who has tried to reconstruct some aspects of this original language, in the process showing how many of the already known languages families, such as the Indo-European, can be seen as members of larger units. This inconclusive data suggests nonetheless a primordial common language, undoubtedly related to the outstanding languages of the descendants of the first modern humans.⁹⁸

Here we must offer a caveat to the usual view of linguistic ‘evolution’, or rather diversification, to point out that there is a difference between the two. The same two-level evolution, macro and micro, must be suspected in the emergence of language. The formation of the capacity for language must be quite different from the linguistic transformations of already existing languages. The diversity of language that we see springs from a prior unity, no doubt, and that unity is the result of a different process, one at a bare minimum encompassing a full spectrum of cultural and genetic changes.

Thus the standard example given to buttress Darwinian explanation of linguistic diversification as an analog to Darwinian microevolution is surely misleading, at best. In the throes of the Darwin debate and beset with the Creationist design arguments, Robert Pennock in *The Tower of Babel*, attempts to compare the ‘evolution’ of language with Darwinian evolution. But we must already wonder if this differentiation of languages does not rather correspond to a type of ‘microevolution’, leaving the real ‘macroevolution’ as obscure as before. The various theories of an original superfamily of human languages, perhaps taking us back to the Great Explosion, are highly suggestive here.⁹⁹

The eonic effect puts an ace up our sleeve: we see distinct eonic sequences of linguistic phenomena at the level of poetic art. Examine the eonic sequence in terms of Axial Greek epic and lyric poetry, Homer to Archilochus onward, and its precise eonic timing. Everything falls into place, down to the poetic meters. This clear relative transformation (given the unknown but clearly indicated stream entry phenomenon of bards and their sagas) shows us that ‘macroevolution’ in short bursts definitely exists in the most exotic form as the advanced linguistic-poetic behavior of the man, whatever that tells us about early linguistic evolution. Nearby, a similar phenomenon is occurring in the emergence of the Old Testament literature.

The collation of history with the invention of writing is misleading, perhaps, in so far as even in historical times traditions of oral literature remain outstanding. Homer is notable because he put an oral tradition into writing, one that he did not invent. The oral traditions of Indian yoga should remind us that millennia of religion in the Neolithic or before could have maintained continuity before the onset of written documents. Lao Tse, in fact, often seems to be protesting the misleading character of written documents, as if

these were a decline from a deeper form of transmission. Buddhists often indicated just such an issue, and spoke of the direct transmission of teachings, forever grumbling at the limits of written sutras. The Old Testament is thoroughly modern in this regard, the first of the great literary religions armed with the new 'hi-tech' technology of democratized alphabetic writing. These hotshots are pointing to the future of 'religion by the book'.

4.4 Egypt, Sumer and The 'Rise of Civilization'

We come to the majestic first visible phase of our eonic sequence with the parallel emergence of the Sumerian and Egyptian transitions at the end of the third millennium. Right on schedule at the end of the fourth millennium we see two synchronous emergent phases bringing into existence the first period of higher civilization. This is the beginning of an epoch in world history that will endure until, like clockwork, the next phase of our eonic sequence, the so-called Axial Age. The prime innovation of this new era is the onset of literate civilization with the invention of writing. We should consider the Sumerian nexus to be, in some sense, a mainline, with Egypt a newcomer, or sidewinder, to this core area, whose previous steps are clearly visible to the north of Sumer in the Hassuna/Halaaf cultures of what we suspect, in the first example of what we called the 'frontier effect', is a prior stage in the emergence of civilization.

Two synchronous transitions?: ca. -3300 to -3000: the statistical region of our first transition is a bit thin, just on the borderline of our standard, and yet we can see clearly that these periods show the sudden synchronous crystallization of higher civilization in Egypt and Sumer in exact timing. The eonic signature is unmistakable, down to the rough three century transition (keeping in mind these are relative transformations). Although the data is insufficient, we can even still detect the rough point of the divide phenomenon ca. -3000, and a rapid fall off by the end of first millennium after this divide.

The overall fit of the data is too close to be chance, and the dynamics are visible from looking at the way two civilizations peak very early, and then stabilize for the next two millennia. In Sumer, the resemblance to later Greece is clear: a system of city-states yields rapidly to a string of empires. The civilization of Egypt, especially, remains almost static after the first emergence of its basic forms. That this is a stage of complexification of the Neolithic, and not the absolute beginning described in older works of such historians as Toynbee is actually a better confirmation of our thesis. Toynbee and many others are driven to posit theories of the sudden jump to a higher level that we see here, such as Toynbee's 'Challenge and Response'. But in our formulation the search for local antecedent causes misses the larger dimension of the eonic sequence, where the evolution of the whole proceeding toward globalization demands an analysis far broader than the purely sociological or environmental. The eonic model is primed to resolve the standard continuity/discontinuity debate that arises at each of our three transitional periods. Walter Emery notes:

At a period approximately 3400 years before Christ, a great change took place in Egypt, and the country passed rapidly from a state of Neolithic culture with a

complex tribal character to one of well-organized monarchy...At the same time the art of writing appears, monumental architecture and the arts and crafts develop to an astonishing degree, and all the evidence points to the existence of luxurious civilization. All this was achieved within a comparatively short period of time for there appears to be little or no background to these fundamental developments in writing and architecture.¹⁰⁰

We are at the threshold of the Urban Revolution, so-called. Gordon Childe notes, in *Man Makes Himself*:

And so by 3000 B.C. the archaeologist's picture of Egypt, Mesopotamia, and the Indus valley no longer focuses attention on communities of simple farmers, but on States embracing various professions and classes. The foreground is occupied by priests, princes, scribes, and officials, and an army of specialized craftsmen, professional soldiers, and miscellaneous laborers, all withdrawn from the primary task of food-production. The most striking objects now unearthed are no longer the tools of agriculture and the chase and other products of domestic industry, but temple furniture, weapons, wheel-made pots, jewelry, and other manufactures turned out on a large scale by skilled artisans. As monuments we have instead of huts and farmhouses, monumental tombs, temples, palaces, and workshops. And in them we find all manner of exotic substances, not as rarities, but regularly imported and used in everyday life.¹⁰¹

In fact, the case of the Indus civilization is quite different, and appears later in the diffusion field created by Sumer and Egypt. We can clock somewhat precisely the spread of higher civilization as State formation across Eurasia as a function distance with the Indus, followed by the Shang, and the case of the Minoans of Crete, and then the Mycenaean Greeks arising in the mixed diffusion fields of the Sumerian and Egyptian civilizations.

Childe adds the Urban Revolution to his Neolithic, and we can see how the idea of revolution is groping toward our idea of transitions. There is a suspicious resemblance between the two, for the Urban Revolution is in reality also another agricultural revolution whereby the birth of the structures of the state, and higher civil society, emerge in relation to the regulation and control of the productive surplus in forms of society labeled 'hydraulic' in the world of the irrigated civilization we see in Egypt, and Sumer. Look at the rise of the modern, it is an Industrial Revolution, but also still another agricultural revolution. Egypt is the obvious example of this, as the rise to civilization becomes from another point of view a new stage of agricultural industry. The immense prosperity of the Egyptian experiment ushers in a civilization with the resources to indulge in the great Pyramid Age to come.

4.4.1 Sumer and The Cuneiform Tradition

The core area of transition to the new era of higher civilization is really Sumer, or we should say the Sumerian 'field', for this 'zone of innovation', meeting the complex

challenge of hydraulic agriculture in a rainless terrain between the Tigris and the Euphrates, is set to generate the globalizing expansion of civilization both by diffusion and by the emergence of an endless succession of empires, from the first Akkadian unification of the northern and southern parts of the field to the Assyrian succession of empires that will be the backdrop to the emergence of 'Israel', or 'Israel/Judah', at the end of the Mesopotamian era. The great era of Babylon, and the achievements of Hammurabi and his distillation of the elements of social law, represents the climax of the development of civilization to this point.

The great epoch created by the Sumerians and Egyptians follows our eonic outline exactly, and with this interval shows all the symptoms of late decline that we see in the next era so dominated, in the Occident, by the Roman Empire whose falling away precipitates a veritable Dark Age. We do not see exactly the same pattern in the later stages of this earlier age, but we do see the way in which ossification is overtaking the first great experiment in civilization by the last millennium before the Axial period. The field of diffusion has long since expanded almost globally, and we see the successors in Crete prepare the way for the Greeks, who will, at the fringes of the core Middle Eastern oikoumene, proceed to a frontier innovation of the next stage of civilization, next to the completely remarkable Israelites who will virtually recast civilization as a set of ideas that can pass beyond the dominations of empire.

Considerable debate has always attended the question of diffusion from Sumer to Egypt. The question remains unresolved, but we see that the solution lies in our eonic model with its independent emergent transitional areas. In general, the rule is that direct imitation by inspection of an artifact or cultural institution creates diffusion, but the effect of an entire transition over centuries is not visible to men and therefore not open to imitation, thence diffusion. But they do diffuse piecemeal. We see that while technological borrowings are possible and likely the synchronous appearance of two separated cultural streams is a function of our larger eonic sequence, and that diffusion could never occur fast enough or comprehensively enough to induce a parallel transition. These transitions are never visible to centuries later, if then.

Once we grasp the factors of synchronous emergence and relative transforms the emergence of Egypt/Sumer falls into place with an abstract structure exactly like the later Axial Age (minus the parallels in India and China, in our still almost inchoate eonic sequence). We have thus two types of 'civilizations' in our account, the first not really civilizations but intervals: the independently emerging transition zones, to wit, the transitions in Egypt and Sumer, and mideonic startups in the diffusion fields thus created. The diffusion field of Egypt and Sumer is immense, from Shang China to India, to Crete and the Mycenaean, and the whole field of successor cultures in the wake of Sumer, beginning with the Akkadians. These two types differ since the first expresses macroevolution in our sense, and the second microevolution, System Action and Free Action: the difference in quality or seminal innovation is important to consider. This will become devastatingly obvious in the Axial period where the transitional areas and their mideonic diffusion fields differ markedly in their qualitative effects and creativity. This factor is undoubtedly present in the starting transitions in Egypt and Sumer, but it can be very confusing *because a higher degree of consciousness expressing System Action in a people who are more primitive than their successors expressing post-transitional 'Free*

Action. This is very hard to sort out in these first two cases where our data is just on the borderline, but even so we can see this effect immediately in a long-range view. The effect is clearly visible in Archaic Greece where relatively less advanced people produce the *Iliad*. Let us beware of speculation, however, and accept a minimum version of our model by simply noting that the timing of our eonic sequence fits the data very well, but our resolving power is still inadequate for the statistical event regions we call the transitions, in Sumer and Egypt. The usual debate over continuity and discontinuity arises at this point. But both views are correct in our analysis. This kind of analysis might seem at first strange, but with a little reflection it becomes very simple, and evidence-oriented, and accounts for all the facts in dramatic fashion.

We are left with the strange way in which our eonic sequence shows directionality, and yet also stages parallel experiments, as if to explore diversity and balance a set of opposites. Nature is ingenious! The theocratic authoritarian form of this first royal experiment in a unified Egypt contrasts with the purported early semi-republican city states of Sumer, so reminiscent of Axial Greece. These city-states all too rapidly turn into kingships. These in turn within a millennium will become the units in the coming of empire. Egypt and Sumer stand in contrast in the way that the one shows a high degree of geographical integration from the beginning, while the second is a more diffuse field of city states often in conflict with themselves and generating the tensions leading to the phenomenon of empire. The Sumerian field with its unique agricultural challenge in the floodplain 'between the two rivers' can't even provide its own wood, stone or copper, and is perfectly set to generate the network of an expanding diffusion field via trade. Civilization is thus born as a set of ideas in motion.

We should note that *our eonic series never generates empires*, and yet the dynamic of empire arises from the void left by the set of transitions that are always limited in their localizations. The next phase in our sequence will show the way that development will jump to a fringe region, Greece, which is free of empire, just long enough to produce its contributions. We also see the way in which the tiny Israel, almost marginalized from the start, manages to induce finally a new form of religion despite its inability to withstand empire.

In the Sumerian field we can see the obvious way in which the creative era at the beginning comes to be dominated by the sluggish repetitiveness of empire. The period of Egypt and Sumer, at their 'beginnings' near -3000, constitutes the point at which the most basic fundamentals of man's 'civil condition' came into existence over a substrate of previously achieved agricultural life. There is more than a family resemblance to the phase of 'modernism' we claim exclusively for the achievements of our own time, if we look at the same five hundred years of the Sumerian emergence, three hundred of rapid advance, and two of stabilizing crystallization after -3000, from its 'medieval' sources in the religiously preoccupied world that came before of the Ubaid, and the Uruk.

Mideonic trend toward empire Another clue to our eonic structure is the drift into mideonic dramas of empire, the curse of civilization, and yet admittedly the workhorse of globalization. The initial Sumerian innovative network of city-states so reminiscent of later Greece breaks down as the inexorable forces of integration precipitate the drift of the system into imperial histories. Our model

highlights at once the gross trend, the curse of civilization, the mideonic drift into empire. The whole period resembles the next, a century of democracy, then nothing. And yet our system is unstable as the empire phases moves rapidly to generate greater integration in a globalizing system.

The great Sumerian tradition is born, and the forgotten Sumerian buried in Akkadian is directly analogous to Latin buried in later languages in the next cycle. The Cuneiform tradition dominates throughout, with the same effect in the case of Egypt and its hieroglyphic literature.

In Mesopotamia, we see a more characteristic reflection of our unit of analysis concept in the way the 'civilization' arising from the transition very soon changes its center of gravity, as the Sumerians bestow 'cuneiform' culture on a long series of expanding empires, beginning with the Akkadians. The center of gravity begins to shift, but that is grist for the mill in the eonic model. A common tradition is shared by all the descendants of the first phase, from the Akkadians to the Hittites to the Assyrians. Only with Greece and 'Israel' do we see the true eonic transform in action and this simply lifts the next phase out of its late sluggish Mesopotamian-Egyptian deep freeze. This culture diffuses widely and, of course, the early world of Canaan, which will spawn the 'Israel effect' (Israel/Judah) of the next phase is inside this field of diffusion, a point accurately reflected in the myths of an 'Abraham' from Ur.

Cities, state formation, and the world of literate culture suddenly come together in the last centuries before -3000. The key invention of writing changes the dynamics of world history and is taken as the standard for the 'beginning of history', save that we have defined that differently in terms of early human evolution. The State, in its ambiguity, is perhaps the foundational invention in the rise of civilization. It is hard to assess to what degree this emergence of the State is an absolute historical first here, but the crystallization and advance are for all intents and purposes the real beginning, as are the first intimations of civil society. This is no sentimental issue of royal panoplies, as we see from the consequences in the degenerations of states into empires and the dominations of elites.

The moment the state comes into existence, a problem arises, a permanent crisis of the individual. Existence in a State is the first prerequisite to advance, but its effects prove also counterproductive, and its effects on the individual will generate the great dialectic of freedom in the state and freedom from the state that will surge forward in the next Axial interval. Israel, let us note, is, not a religion factory, but a response, as a state, at first, in the next step of the eonic sequence, to the perceived histories of states and empires. Challenges to the State arise in the next Axial phase of our eonic sequence. The 'revolutionary idea' is born in the Axial interval. This point is another indication of the connectedness of the eonic sequence. It is a partial paradox of this first phase of higher civilization that it coexists with outstanding legacies of religion that far predate the rise of the State. It seems clear that religion in the temple complexes of the Ubaid and before are the first forms of social integration and that the state as the entry to the politics of mass societies comes in its wake.

The value of our model is that it gives us a rationale for the demarcation of the so-called 'rise of civilization' as instead, in the case of Sumer especially, a phase of *relative* transition in a greater history that precedes it. Armed with the examples of the subsequent

Axial Age and modern transitions this insight begins to make sense of the data. This helps to resolve the continuity/discontinuity paradox that arises at each stage of our eonic series. We come thus to the spectacular rise of ‘civilization’ visible in the rise of Sumer and Dynastic Egypt. We begin at the halfway mark, as close to the modern world, as to the onset of the Neolithic. The point is worth considering since this ‘axial’ period generates the basic tone of future civilization, as a form of State existence. If Hegel, at the modern divide, is musing oddly about the divine sanctity of the state, to the frowns of Marx, and the horror of libertarians, it is because the State shows eonic correlation, whatever its beginnings in Paleolithic chieftaincy, and is cast in eonic granite, starting here, and subsequent stages of the eonic sequence respond to the first, Sumerian/Egyptian, experiments.

We have already noted the similarity of the case of Sumer to the rise of modernity in the sense that it echoes the Axial Age, its real starting point, after a long intermediate or medieval period. In the same way we must consider that the relatively advanced stage of the Sumerians is indicative of considerable prior development, and in fact we suspect that an entire era has lead up to what can only be called an advanced stage of civilization. The resemblance to the later case is striking:

Later double sequence:

Axial Age, Greece, Rome,...
 medieval interval
 modern take-off, after ca. 1500

Earlier double sequence:

Hassuna, after ca. 5800
 medieval interval, Ubaid, etc,...
 take-off, end of third millennium

Our schema suggests that this era, roughly the Chalcolithic, stretches from the sixth to the third millennium, and sources after the first phase of the Neolithic. And we see the characteristic sluggish but gestating ‘medievalism’ of the Ubaid period, which finally explodes toward the end of the Uruk period and produces something with a strong resemblance to the later Greek Axial Age in its network of incipient city states, which will cede as did the Axial Age to a scheme of integrating empires at a lower level of creative action. Just as modernity seems like the dawn of an entirely new era, it nonetheless contains the relative transformations of much that is really outstanding Axial cultural descendants. This analogy might help to understand what is going on with the onset of higher civilization in Sumer, and to a lesser degree in Egypt, where there is no earlier stage quite like this and where the new beginning is far more dramatic. Let us note again the rough sequence leading up to Sumer, noting how the flow of civilization is from the north to the south in a characteristic frontier effect

The Hassuna period	ca. 5800-5500 BC
The Halaf period	ca. 5500-4500 BC
The Ubaid period	ca. 5000-3750 BC
The Uruk period	ca. 3750-3150 BC
The Jemdet Nasr period	ca. 3150-2900 BC

The era of Sumer is the great moment in the onset of higher civilization and shows a hidden resemblance to the rise of modernity. Almost all of the forms of later civilization

find their incipient phases in this period. The Sumerians themselves are a somewhat mysterious people of unknown origin, and their civilization was already in part an integrated cultural oikoumene including notably Semitic peoples who will come to the fore in the later unification with Akkad. The result of our first transition is thus already more than a culture or a civilization, but instead a cultural matrix that will endure in many guises until the next phase of our eonic sequence, in the era of the Assyrians and the Persians.

3300 to 3000 BCE	statistical region of ‘transitional interval’, in the eonic model
3150 to 2900	The Jemdet Nasr period
2900 to 2350	The Early Dynastic
2350 to 2193	Sargon, The Akkadian empire
2112 to 2004	Third Dynasty Of Ur
2000 to 1600	Isin-Larsa period, Old Babylonian, Old Assyrian period
1792 to 1750	Hammurabi
1600 to 1000	Middle Babylonian, Assyrian period
1250 to 1150	Dark Ages, etc,...
1000 to 612	Neo-Assyrian period
900 to 600	statistical region of next transition, Israel, Archaic Greece

The Sumerian beginning sets a stage that will witness an immense drama of civilizations inside the cuneiform diffusion field with their ominous long term drift toward empire. The visible chronology of Mesopotamia is misleading because it hides a system of early and vigorous city-states that show in their outstanding myths the basic proto-republicanism of cities where assemblies of citizens govern affairs. The suspicious similarity to what occurs in the Greek transition is remarkable, and there are even some claims for primitive democracy in this period. The trend toward kingship in the period after the indicated transition, then, is one of the indications of mideonic drift. The point is clear from next phase of our eonic sequence.¹⁰²

Triple birth of democracy? We have already seen that the double emergence of democracy along our eonic mainline sequence is not a coincidence, in its timing and placement. It would be astounding if this were really a triple sequence. But so far our data for the early period of our first transitions is merely suggestive of ‘generalized republican city states’, near candidates for democracy.¹⁰³

In any case, we should always be wary of confusing the mideonic period with the transitional era. As the later example of the Axial Age shows, the brief appearance of democracy is soon over, and the remainder of the mideonic interval shows nothing further in that regard. All we see is empire and monarchic declines. *Most of the history that we see is thus in a state of deviation from initial conditions!*

Related to this is the question of slavery. Although class division is a phenomenon of the rise of the State, it is also true that efforts to establish social justice are also present from the beginning. But the arising of slavery, we must suspect, is an anomaly. We

should be wary here since the trend toward social stratification visible from the Neolithic is clearly in evidence in Egypt. But it is worth considering a slightly different view: we are so conditioned to the standard linear view of history that we tend to see slavery as present from the beginning and overcome only in the modern phase of abolition. And we focus on the classical example of Rome. But in fact our eonic sequence, to a close look, always does things right from the beginning, and the deviations from the mainline are quite different. Slavery is a late outcome, and we can see that our eonic sequence never, as far as we can tell, amplifies or programs the institution of slavery, as macro-action, although the case of the later Axial Age Greeks seems, at first, to contradict this. The arising of slavery is a phenomenon of micro-action. And it arises over time as a pathology of civilization. The exact history of slavery is difficult to sort out, and instances of slavery may have occurred almost primordially in the history of man from the earliest stages, but the evidence suggests that slavery as a formal social institution did not exist at the onset of higher civilization, in either Mesopotamia or Egypt. Yet it becomes a civilizational curse in their wake.

Slavery was an internal development within ancient societies and not an essential element in their origin. None of the pre-classical societies were economically dependent upon slave labour, although most increasingly came to use slaves, as military conquests brought in more and more prisoners of war.¹⁰⁴

And yet over time, beginning with anomalous contexts, such as that of captives in war, or debt slavery, the phenomenon amplifies to become a condition of civilization as a whole. By the time of the Roman era the endemic nature of slavery is established, taken for granted, and yet a limit of development is reached. If we examine the Greek era in the Axial interval we can see that it is just one the borderline, and the way that slavery, still inchoate, slips through the cracks, and that all of the innovations of that transitional era are going in the opposite direction, so to speak: the emergence of the idea of freedom is nearly stillborn in the context of a crystallizing slave society, but begins the counter-movement that will reach fulfillment only in modern times.

As we examine the later eonic sequence we notice, in the Axial period, the way in which the writing down of epic literatures emerges in concert with the transitional phase: the Greek example being especially notable. In the case of Sumer we see the obvious fact that writing must come first, and that its invention is directly correlated with the transitional interval, which completes with a still relatively primitive state of writing, too early for epic. But it is not long before a new literature in writing arises. The first great written literature emerges from the cuneiform tradition. The epic of Gilgamesh, or Bilgames in Sumerian, is the first masterpiece in this great stream. Although appearing relatively late in the early mideonic period, we can follow its earlier traces to the 'revolution in writing' sourcing in the Uruk world of the transition, the 'first city in human history'. All of the classic signs of a relative transform are visible in the typical 'continuity' debate over its origins.

Gilgamesh and Writing Writing developed through a long process, beginning with simple notations of images and numbers, needed by traders to account for goods exchanged and received. According to one theory, full-scale writing gradually emerged over the course of several centuries, as symbols accumulated

and people began to use them for their phonetic value. Yet widely scattered experimentation would have produced a proliferation of mutually incomprehensible systems, each useless to anyone beyond a given scribe and his circle. An increasing number of historians of writing have come to regard this process as marked by punctuated equilibrium, to use a term from evolutionary biology. In this theory, the transition from established methods of accounting via symbols to true writing entailed an intellectual revolution, carried out by a group of scribes working together between 3300 and 3200 BCE to formulate the basic norms of a workable system.¹⁰⁵

This phenomenon speaks for itself in terms of our eonic analysis. The influence of this and other works on the later Old Testament is both a striking case of diffusion and an indication of the way our eonic system acts recursively as it selects strains from its previous steps and remorphs them again in its next transition, albeit cast in the new mode of monotheism.

4.4.2 Egypt: A Synchronous ‘Axial’ Effect

The great civilization of Egypt emerges and crystallizes rapidly, and then stabilizes for the remainder of the epoch, a direct indication of the dynamics of the eonic sequence. The great pyramid age with which Egyptian history is associated in our minds climaxes early in the fourth dynasty period and is soon over. These projects are ambiguous: do they represent the onset of slavery, or is this period still animated with the enthusiastic participation of a willing population? Whatever the case, by the end of the Egyptian age the *rigor mortis* of theocratic despotism will have become the object of a Mosaic myth of liberation. The saga of Egypt begins with the unification of the Upper and Lower kingdoms dead center in the interval marked as one of our transitions, and this symbolism will persist throughout the whole of the Egyptian era, as will the mystique of the divine Pharaoh.

Eonic Effects It is impossible to grasp this history without the discrete-continuous interpretation seen in the eonic effect. That Egypt spends most of its history in decline is at first impossible to grasp, but an immediate insight given our perspective on ‘eonic effects’, or phenomena.

The rise of the Dynastic Pharaohs is spectacular, and a new form is set for millennia. The lopsided history of the Pyramid Age in the early third, followed by discontinuation, is an obvious clue. Many archaeologists have remarked on the speed of emergence of higher civilization, i.e. our transition, and in fact the phenomenon of thresholding is obvious from the contrast of scales, before and after, especially in the case of Egypt. From its modest Predynastic period, the phenomenon of the Egyptian civilization that we know rises from the desert into its monumental grandeur. And then stops. Very early on the momentum of innovation freezes as Egyptian civilization becomes set:

5500 to 3100 BCE: the Predynastic period

3300 to 3000: statistical region of ‘transitional interval’, in the eonic model

3300 to 3100: Late Gerzean

3100?: Unification of Upper and Lower Egypt by Menes/Aha

3100 to 2700: Early Dynastic period

2700 to 2140: Old Kingdom

2180 to 2130: First Intermediate period

2130 to 1785: Middle Kingdom

1785 to 1550: Second Intermediate period

1550 to 1080: New Kingdom

1080 to 664: Third Intermediate period

664 to 332: Saite, then Late period, ending in Ptolemaic¹⁰⁶

This history gives almost perfect expression to existence within an epoch, beginning with a transitional interval, the creation of a new civilization within the confines of the world of the Nile, its beginning, middle and end, and passing away or dissolution at the next stage of the eonic sequence as the center of gravity of development moves to a new location. In a way, Egypt is misleading since our tale is not about civilizations, but transitions, and their oikoumenes and diffusion fields, and it is unique in the way its isolation creates a world or civilization unto itself. Our perspective is perfectly adaptable in that case. As we examine the Sumerian transition we see that the ‘civilization’ is an oikoumene with ‘Sumerian’ traces in a field of multiple distinct cultures, a kind of generalized ‘cuneiform’ civilization with the soon forgotten Sumer’s innovations always in the background.

As noted, the world of Sumer, perhaps quite properly, lacked any kind of centralized organization, and as with the Greek city states reaped the fruits of diversity and innovation even as the lack of unity generated conflict and the pressure toward empire. Egypt by contrast was in many ways the world’s first nation state, and the beginning of its drama lies in the unification of Lower and Upper Egypt by Pharaoh Narmer (who may also be the same as Aha) around -3150. This unification is recorded in the so-called Narmer Palette showing the triumph of the first national Pharaoh, and this emblematic token almost resembles the American bald eagle in the enduring significance of its symbolism for an entire epoch.

It was the later Egyptian-Greek historian Manetho who first wrote down a chronicle of the history of Egypt, in the process setting the tradition of thinking of Egyptian history in terms of dynasties. The first two dynasties, called the Thinite by Manetho, from 3150 to 2700 BCE, should induce caution, since we know very little about them, and yet they represent the first realization period of the equally obscure transition interval. The majestic period of the Great Pyramids starting in the Fourth Dynasty might already show signs of deviation from the initial essential tone of the beginning period.¹⁰⁷

3300 to 3000 BCE: statistical region of eonic transition

3100 to 2890: Archaic period

- 3100 to 2890:** Dynasty 1, Menes/Namer (Aha)
- 2890 to 2696:** Dynasty 2
- 2696 to 2181:** Old Kingdom
- 2686 to 2613:** Dynasty 3, Djoser
- 2613 to 2498:** Dynasty 4, Snefru, Khufu, the Pyramid age

This periodization fits our eonic sequence very well indeed, but we should like a lot more information about the era just before and after the unification, since this is when we suspect the primordial innovations and relative transformations in culture, economy and religion are occurring that will fret an entire era to come. We should note the way in which our ‘epochs’ tend to fall into beginnings, middle and end, followed by the onset of a new transitional phase. The Archaic and Old Kingdoms hold the momentum of the transition, and then after that the history of Egypt is a kind of equilibrium after punctuation that remains relatively unchanged until the end. And we can see that while the disastrous fall into a Dark Age characteristic of the next cycle in Europe is not present in this case, the reality at several points comes close at a number of points.

Egyptian religion hides many secrets, and we can only throw up our hands when we encounter the later term ‘hermetica’ to describe the remnants of this religious complex as its fragments float down the ‘Nile of History’ as they are dispersed in the wake of the Axial Age to come in the next epoch. That Axial Age will recreate a new era of religion as a veil of ignorance and amnesia descends over the previous stage. And yet we can see that something, we are never quite sure what, has filtered into the later monotheism of the Israelites, to say nothing of the polytheism of the Greeks. And we can surely detect the echoes of this great and mysterious tradition of Egyptian religion in the proliferation of Gnosticisms that interact with and become visible in the period of the crystallization of Christianity. There are of course two streams of influence, two great diffusion fields, and the sage of Abraham leaving the Sumerian city of Ur in a migration to Canaan must be matched with the myths of Moses in Egypt.

It is difficult, if not impossible, for the modern mind, if it is conditioned to reductionist scientism, to make any headway with the at first preposterous character of Egyptian religious forms. The preoccupation with death and the afterlife might seem excessive to the point of abnormality, but is this fair? It might help to consider the legacy of Tibetan Buddhism with its *Book of the Dead*, to match that of the Egyptian, to suspect the hidden meanings behind the elaborate and labyrinthine rituals of this more ‘primitive’ stage of world of the pilgrims of Egypt. One thing is clear, which is that our modern scientific skepticism, which we should not relinquish, should not blind us to the harmonic overtones of profundity that hide behind and match the outer forms of popular belief. Otherwise we should underestimate this legacy, and as equally fail to see that behind the outlandish extravagance of Egyptian polytheism, so misleading on the surface, lies one of the sources of the monotheism to come in the next era of our eonic history. The story of Moses is a giveaway in that regard, and is really a myth of diffusion.

We see that this double emergence Sumer and Egypt is structurally similar to that of the Axial Age with its synchronous effect, the same trick in a more inchoate form. These two civilizations will set the tone for an entire epoch to come and will be the generative sources in the lineage of civilizations until the next step in our sequence in the Axial period 2400 years later

The Egyptian Sidewinder There is a kind of mainline to our eonic sequence, here Sumer, and a set of sidewinders, so obvious in the Axial period. The case of the sidewinder Egypt can be understood by analogy with the Axial Age, where Rome, India and China, etc, pop into the eonic sequence and become sidewinder streams, and remembering that the eonic effect shows intermittent sequence, and (often) synchronous emergence in the phase of transition. Consider China or India in the Axial Age. Isolated, they suddenly ping in echo to the Axial concert. All other interactions are by diffusion, before and after the Axial global convulsion. The eonic sequence finds a mainline in the Greek/Israelite frontier transitions, but India and China suddenly show relative emergence in an Axial echo as sidewinders to the mainline. China, far away and isolated, is still in the diffusion field of the earlier era and is ready for the relative beginning overlaid on its stream evolution. Something similar is obviously evident in Egypt, which has a parallel gestation in the diffusion field of the Neolithic, then suddenly shows synchronous take-off in concert with Sumer.

Roman/American Sidewinders Two other later notable sidewinders, that show the effect, are the Roman republic's emergentism, that arises in tandem with the farflung field of Greek city states stretching even into Italy and with their many republican experiments, and the American which becomes an instant adjunct to the English transition, then near its divide suddenly becomes a full-blown core transition area at the end of the eighteenth century. The North American field is really a flow zone for the English transition, and the relationship of small to large region is no accident.

This is not textbook teleology! The sudden appearance of side bets next to to the mainline of the eonic sequence has the clear effect of increasing the overall potential of the system. Despite the confusing appearance, this tandem effect in Sumer/Egypt is thus suddenly recognizable, and completely isomorphic to the case of the Axial Age. There is also every possibility of direct diffusion of many Egyptian elements, e.g. hieroglyphic writing. But these technological loans, if any, can't explain the autonomous integrated cultural advance perfectly correlated with high-level eonic periodization. Such complex integrations don't diffuse. Note that in this kind of mechanism, sidewinders can seem to skip a stage. This splitting of streams shows us there is no unique mainline, and also shows a more efficient way to accelerate development toward globalization as the eonic sequence splits and jumpstarts sidewinders that have had good prior diffusion. It is worth keeping this point in mind if the impulse to indulge in facile teleological thinking arises. The baton passes very quixotically between civilizations and always resurfaces in a new frontier zone.

The Pyramid Age....

Slavery: a suspicion As we study the rise of civilization we see that slavery is not a normal or standard phase of civilization but a deviation of the mideonic eras as a pathology of civilization. The condition becomes endemic and persistent, but the reality is that micro-action deviates from the mainline over time, and we must notice that the corrective comes from the mainline: the eonic emergence of abolition in the modern transition.

The Great Pyramids: a test case? A false kind of unconscious teleological thinking often enters into our thinking about slavery. We have a feeling that it was an inevitable stage of civilization, that the amount of labor involved required this as a sacrifice of the ages, or an inevitable condition of man prior to the liberation of the Industrial Revolution. Unfortunately, this kind of thinking even permeates the assumptions of Karl Marx whose theories of historical materialism are affected by it, as he stripped his system of all forms of 'sentimental idealism'. It is thus remarkable to consider the very early example set by the building of the Great pyramids, which were not built by slaves but a kind of conscript labor or corvee, as with military service in later societies. This instance puts to shame the later emergence of the slave institutions as degenerations of elite exploitation, not stages of techno-economy, and is a liberation from the implicit cynicism of too much elite legitimation of the forms of economic domination as forms of historical inevitability.¹⁰⁸

The early phase of Egyptian civilization seems to have been able to integrate its labor force into a cultural project that clearly declined later into the kind of despotic system so common later (and as portrayed, millennia later, in the Mosaic myths of the exploited Israelites in Egypt). It is staggering to consider the alternate history of civilization in which all its monumental projects were constructed without slave labor. Thus another brand of Marxist protest might be that elites corrupt the gifts of the eonic sequence, and move to destroy free labor. We consider this kind of idealistic view impossible, but the Egyptian case suggests otherwise.

This example should also remind us that the action on two levels in our eonic model is crucial for our understanding. Macro-action and micro-action intersect and diverge, leaving a confusing situation where 'touching the ideal' contrasts with the mideonic deviations of 'history as usual'. It also points to the reality, that without the 'eonic feedback' process, generating a new direction, the stream of free action is all too liable to produce degenerations. And it is important to consider that later Greek civilization is both a slave society and the source of a first democratic experiment, the birthplace of the idea of freedom. How do we explain this contradiction? There could be no better example of a schizophrenic system operating on two levels simultaneously. Even as slavery (relatively mild in the Archaic period) takes hold and becomes institutionalized the future is being seeded during the transition with a solution, a new idea, a seed planted for the future, one that will die out after the Axial interval and yet recur in the next phase of the sequence.

This transitional effect is just as visible by its contrast with what follows and can also be seen by zooming out and looking at the long periods *after* the transitions: The plateau stability or even fall-off is suddenly obvious, especially in Egypt, where the lack of cultural innovation after ca. -2000 haunts its history to the end. Even if we can't close

on rich data at the level of decades to find a divide, we can see the obvious high level fact that the whole system descends a step and never recovers, whether we call that medievalism or not. Thus,

Mideonic Slowdown As Cyril Aldred notes of Egypt, the institutions of kingship remained ‘frozen at the moment’ of their creation, while the first four dynasties essentially created the forms of the entire Egyptian civilization, “as soon as a solution had been sanctioned...there was no further development.” Much of the Egypt with which we are familiar is from a much later stage. It is thus easy to spot in broad outline the basic factor of relative transformation.¹⁰⁹

Egypt is often said to be one of the first of the ‘religious’ cultures visible later in the Hebraic and Indic traditions. Or so many have said. We should undoubtedly explore this idea, and, finally, vigorously reject such a distinction. And later reject it as vigorously in the case of India and ‘Israel’, although not with quite the ‘grim determination towards economic facts’ as the historical materialist. And yet this religious dimension is very real, and now very difficult for us to understand. This factor is overrated and underrated by all students. How depict such a primitive cream puff of Paleolithic religious nonsense as esoteric? Actually, that confusion is part of the charm of the beguiling Egyptian nexus, whose mystery we still fail to understand. This civilization will fool you. It seems rather that we see, on the outer level, an element of the theocratic in the creation of an integrated population, almost the first nation-state. And religion is one of its keynotes. But the considerable imputation of esoteric mysteries to what is obviously, to use our stream and sequence language, the sudden amplification of a Neolithic stream religion, and in many ways primitive, religious legacy, is the more obvious explanation. This legacy nonetheless develops a mysterious esotericism, which will spring from behind the exterior of its religious forms to resurface in many strange places, from the Greek mystery cults, to the Gnostic traditions of the coming age of monotheism. It is important to acknowledge this dimension of Egyptian civilization, and yet to be wary of the near plague of speculative Egyptology that has produced an imaginary Egypt. This aura arises because men of great consciousness can exist in a state of primitive knowledge. This confusion arises over and over again in our history. In any case, the flotsam of religious Egypt, ‘hermetica’, has confused later times, and the secret of the Egyptians remains as mysterious as ever. The coming tale of Moses will betray this secret side of Egypt, although the resulting saga is more Hollywood than history, and the period of Egypt in question far later, and already quite in decline.

The primitive grandeur of civilization arriving in stone is the better tale here of what seems an experiment in theocratic monarchy, and the first true case of ‘state integration’ of a whole people, this next to the more diffuse case of the Sumerians, with their bright beginning in a matrix of city-states, so soon to pass away into empire. If our periodization is correct, then something is going to be lost early and the period after the rough divide ca. -3000 might show almost immediately the characteristic deviations of mideonic civilization in action. This is clearly enough from both zones of our eonic sequence, Sumer and Egypt. We might thus miscalculate the Pyramid Age which might already show the beginnings of decline from an unknown and invisible peak.

Our data warns us that even as Egyptian history starts to become visible it might already be a departure from its initial conditions. We simply do not know, we can't quite detect the 'relative transforms' that token the sudden onset of micro-action. However, the initial period, the first 'third', of the Pyramid Age surely gives us the rough idea. But we can see social mechanization setting in fairly rapidly, and it may be that the gigantism of the Great Pyramids is already a distortion of the basic 'tuning'. In any case, the question of the labor force that constructed the Pyramids has produced a debate, and some probably false conclusions about slavery in Egypt. It seems rather that the classic first case of social state integration produced a willing labor force without slavery, in the form of a kind of corvee, or conscript labor.

Notes

4.5 From Akkad to the Assyrians,...And Israel ...

Soon we are in the first great medieval, mideonic, period. We can do what History does to history, leapfrog 2400 years, to find the next step in our eonic series reflected in the Old Testament and general Axial period. Passing on very quickly with a marker laid down, and having witnessed the 'birth of civilization', or the Urban Revolution, in the rapid advance of Egypt and Sumer, whose separation is mostly an illusion of relative starting points that has truncated the Neolithic, we are now in the centuries after -3000 when we see the first crystallization of the Sumerian-to-become-Mesopotamian and the later Egyptian worlds. The pyramids get bigger and bigger for a while. And then the process stops. By and large, fundamental advance is gone by -2000.

After Sumer, the effect of sequential stabilization from Akkad to the Assyrians is very notable, and leaves higher civilization in a frozen state very quickly, as the centuries pass in a stabilization of the original and rapidly created new traditions. Note, this is not a law. Nothing in our account prevents 'free action' filling the medievalizing gap with fresh advances. Civilization is advancing on many fronts. But somehow these worlds are stuck on their sources. The long centuries of Egyptian civilization, especially, seem like grandeur in stone, as the form and circumstance of its birth condition its outcomes very clearly. The next phase will show the clear grounds for what we are about, and give us a glimpse of this aspect of our analysis. In a bird's eye view, we pass dynasties of the Egyptians, the rise of Babylon, the Hittites, the world of Ugarit, the endless frontier corners, the Hittites, and Assyrians, the Indus, and the Shang, and the entry of many nomadic invaders into the feast of civilization where they will in perhaps be at the right place and the right time to experience the next period of cyclical phase.

Although our theory is about rise, rise, rise, and not rise and fall, in fact, by -1200 we see a world coming to pieces, in the midst of the vast expansion across Eurasia of the most chaotic proto-capitalism, the spread of war and slavery, and the inability of the earlier zones of first advance to perform any new gestures different from what they have

already done. We need to change gears for a moment, from the sequential-cyclical to the parallel. We must beware of confusing the earliest onset with the cataclysmic breakdown that occurs across the ancient world ca. -1200. We cannot attribute rise and decline, as such, to eonic cycles, although it might well happen that way. And it is not the same as the 'Iron Age', whose beginning is much earlier and still diffusing in an independent fashion. The new technology of iron will greatly influence what comes, but it cannot be called the causative factor of the changes that come. It is important to be clear that this advance is not reasonably seen as technology generated, although the influence of new iron weapons is a clear co-factor in the equalizing trend that suddenly sweeps across the whole field. But the basic issue is clear, the next cycle, or system return, comes 'on schedule' in a broad swath across Eurasia, a remarkable synchronous phase...

4.5.1 The Indo-European Migrations

The next era of the coming Axial Age will show what is tantamount to a whole new cast of peoples, with a remarkable series of diverse transitional cultures, from Rome to China, among them the new cultures of the Indo-European diaspora that will enter the outstanding oikoumene from central Asia. A great deal of nonsense has arisen over the Indo-European question, and a false mystique has arisen as a result. But a closer look shows merely the non-paradox of highly intelligent streams of exterior tribalisms entering the 'sequence' of the eonic effect. The process transforms the entry material and makes it contribute toward the larger history of civilization. The perfect example of that is the stream and sequence aspects of the Homeric corpus which enters the eonic sequence in its transformed glory with perfect timing. This stream and sequence analysis accounts much better for the facts (despite its inherent mysteriousness), once we grasp how to apply the distinction.

The eonic effect shows the remarkable way in which a basic architecture of civilization emerges as a series of invariants passed on between transient cultures, and the system is invigorated and spread at each stage of its expansion by the entry of new peoples. This is the stream and sequence effect in which streams of people intersect with the eonic sequence and produce a set of new mixtures of the inherited tradition refreshed by the contributions of newcomers. This effect is especially notable in the next coming era after the Egyptians and the Sumerians. The exact details and history of the Indo-Europeans is very controversial and subject to a great many rival scholarly hypotheses, but the basic outline is clear. From somewhere in central Eurasia, probably the steppes between the southern Urals, the northern Caucasus and the Black Sea, the proto-Indo-Europeans, with their characteristic language and culture, began a series of migrations that produced the Italic, Greek, Hittite, Iranian, and Indic branches, among others, that will set the stage for a whole series of new civilizations and their literatures. Their association with the horse and then the technology of the chariot is decisive in their success in entering, and then often dominating, the older sphere of civilization.

It is clear that the issue of the proto-Indo-Europeans and their homeland remains an unresolved historical riddle, and one recent controversy, for example, has the original exodus area in India. The controversy over the so-called Aryan Invasion theory whereby the invading 'Aryans' of the Indo-European diaspora took over India, subjugating the indigenous peoples, is now a highly politicized debate in which the imperialistic propaganda of the old British Empire is charged with colonialist mythology. This issue has raised a set of important questions about the history of religion in India, but it has not clarified the Indo-European question. The critics of the Aryan invasion theory are perhaps correct in one way to see that the elements of Hinduism predate the appearance of the Vedic groups, but it then follows that the Rig Veda is not the source of the later religious culture of yogic action that we see in Buddhism. In another strain of interpretation, the question of the Indo-European homeland is connected to that of the Neolithic origins of agriculture and the ancestral Indo-Europeans are thought to have sourced in the Anatolian sphere, spreading their language with the diffusion of the new technology of farming culture.¹¹⁰

Perhaps the problem is simpler than we think, and the original hypotheses are essentially correct, or at least provide us with a general framework and starting point: we have a central Eurasian cultural complex, somewhere north of the Black Sea, with a proto-Indo-European language and culture, and this culture spreads in three waves, each of which corresponds, most remarkably, to a distinct set of phonemic differentiations. The first group comprises the Anatolian, and Tokharian branches, the second, the Germanic, Italic, Greek, Indic, and Armenian, and the third, the Celtic, Slavic, Baltic, Albanian, and Iranian. That the Indic and the Iranian are in separate groups is surprising, but the closeness of the anomalous, and artificial, Avestan to Vedic Sanskrit has confused the issue of their different phasings. This first wave of migration occurs at the end of the third millennium, the second around the seventeenth century BCE, and the third around the beginning of the first millennium. These migrations resulted in the creation of creoles in the areas in which the migrants settled, and this process is clearly visible in the history of the Greeks, while in India, for example, the exact sequence of events is less clear. The association of this proto-Indo-European people with the horse, and later the chariot, is clear and the reason for their success in entering the old oikoumene.¹¹¹

The clearest example of this process is that of the Greeks, who show all the combinations of stream and sequence dynamics in our sense, entering into Greece in the second millennium in the second wave of the diaspora (in this case perhaps with a genuine invasion of peoples), becoming the disciples of the general Diffusion Field of Egypt/Sumer via the Minoans in the emergence of the Mycenaean world. The sudden passing of this world and the resulting Dark Age of Greece sets the stage for the 'sequence intersection' phase of the greater eonic sequence in the Axial Age. This is the classic flowering of Classical Greece beginning with the first fruit of Indo-European linguistic vigor, the epic series of the *Iliad* and the *Odyssey*, among other sagas, as these are written down by 'Homer' in the eighth century BCE. The primordial elements of epic, bard, and mythology are not entirely clear from the record of proto-Indo-Europeans, but the example of Greek literature, and culture, is an almost perfect example of the stream and sequence dynamic, as the stream of archaic literary tradition, in its oral transmission, suddenly, almost magical, blooms in the sequence field of the Axial Age. In fact this dynamic will grace both the Indo-European and Semitic streams, and the Old Testament,

next to the Iliad, will be the great exemplar of a new literature of a people in parallel to the Greek and other instances in the second cycle of our eonic epochs.

4.5.5 The Curse of Mideonic Empire

One of the obvious facts of the mideonic periods in our eonic framework is the drift into empire. We see this in the wake of Sumer, and then, most obviously, in the wake of the Axial transitions, especially in the Occident. The dynamic behind this is inexorable in the way the brief transitions lose their qualitative richness in the 'middle period', even as the units of aggregation flow outward into their diffusion fields attempting larger and larger synthetic structures of the State. This effect, which will then predominate as the center of gravity of historical chronicles, tends to skew our perceptions in the sense of what is, or should be normal. But most of world history is abnormal! Our eonic mainline is in all observable cases benign but the result is too often the crystallization of empire.

<image5-athenstif.tif>

5. SYMPHONY OF EMERGENCE

5.1 Cycle, System Return: The Axial Age

An entire epoch of higher civilization is now reaching its end, and the world of early Sumer is a forgotten legend buried in the oddities of Akkadian cuneiform, while the civilization of Egypt is in decline. Although we don't see the total collapse into medievalism that will occur in the next Occidental phase of our history our system comes close to this at many points, as civilization is frozen in the repetition of its basic forms. Most of all the progression of empires has risen to dominate civilization. This creates a crisis of development. Something spectacular is about to occur.

The dilemma of empire and globalization proceeds apace, but a new experiment is about to emerge. Our next phase will see a most remarkable play on this curse of empire, in the interplay of the Assyrians and the Israelites. Thus our tale is about globalization, but with a difference. Simple 'global implosion' will not perform the work of real globalization. 'Eonic globalization', so to speak, here the creation of four or more new oikoumenes and their tradition from the synchronous transitions (the 'Axial Age'), clearly mediates the destructive collision of cultures soon imperialized that is set in motion by the dynamism of civilizations emerging from the Neolithic. Further, the 'world religion' as a new form of oikoumene generator comes into existence. In the wake of Sumer and Egypt, an immense Eurasian diffusion field has arisen and there the independent streams of culture enter the stage of higher civilization or state formation. We can observe this in successive intervals proportional to distance, first the Indus civilization, then the Shang in China, the Minoan and then the Mycenaean, and into Africa and Europe. Perhaps even the Olmec in the New World.

The entry and spread of Indo-European and other cultures from Eurasia has set the stage for an entire new set of peoples to pass through the next phase of the mysterious eonic sequence, the Italic and Greek peoples, the Indic and the Iranian. The next period will also generate a remarkable attempt in the appearance of Christianity to braid the colliding culture streams of the Semitic and Indo-European peoples in what almost seems like an experiment in integration. The question of the Indo-Europeans has suffered many confusions, among them the debate over their homeland, and more recently the debate over the Aryan migrations into India, but the overall picture is clear. A whole new cast of peoples enters the oikoumene created by the first stage of civilization, first as disciples, as with the Mycenaeans, then as exemplars of the eonic sequence itself, as with the Classical

Greeks. But it is important to see that the eonic sequence proceeds independently of these cultural streams to create transcultural oikoumenes.¹¹²

We have created the question, then, in relation to our eonic sequence, what next? The stream and the sequence interplay quite obviously stages the competition of two different futures in each case. More specifically, what are the next points of transformation in this ‘eonic’ series? That is, when do we again see a period of phasing onset, of parallel, interactive, zones of accelerated cultural evolution? Now, all at once, the Axial phase makes complete sense.

Suddenly across Eurasia in China, India, Assyria-Persia, Canaan-Phoenicia-Israel, Greece-Rome, we see the rapid synchronous movements of the eonic evolution of civilization in parallel, multiple streams of culture cross the Axial interval. Within about three centuries the foundations for another two millennia come into existence with enigmatic randomness and patterning mixed together. We might wonder why it is that this phenomenon takes place as it does, where it does. One moment it seems global, and then local. Our five zones of transition spawn a great new age then pass rapidly into the creation of oikoumenes, from Rome to China.

Archaic Greece: The clue The idea of the Axial Age has devolved into a new myth of an age of revelation, but the point has been missed that the overall effect is something far broader than religion. The birth of secularism occurs in concert with the birth of the great religions. We see the birth of science, philosophy and democracy in the system of Greek city states.

Israel: A frontier effect The fascination of the Old Testament lies in the way the factor of the ‘state’ passes into that of ‘religion’ in the gestations of a transition. The Old Testament gives transparent testimony to the cultural frontier in the double Egyptian and Sumero-Mesopotamian fields of diffusion, and also makes equally clear its sense of new relative beginnings generating in an exterior ‘close-far’ region. Core Sumer and Egypt slowly fade, as the ‘acorn field’ spawns new start zones. Note the significance of Assyria, and the point is seen. These Mesopotamian Universal Empires are all in the way. It is outside, but ‘too close’, a transitional area, and yet a runaway freight train unable to escape the past. It simply disappears at the climax of rapid change. Persia is slightly better, but still hampered. It injects Zoroastrianism into the pool, and wanes. Tiny Israel morphs outward and carries the day, at least in the westerly direction.

China: The period of Confucius One of the strangest cases of the Axial effect is the sudden transformation *in medias res* of the Axial period in China. This

¹¹² Christopher Beckwith, *Empires Of The Silk Road: A History of Central Eurasia from the Bronze Age to the Present* (Princeton: Princeton University Press, 2009), David Anthony, *The Horse, The Wheel and Language: How Bronze-Age Riders From the Eurasian Steppes Shaped The Modern World* (Princeton: Princeton University Press, 2007), J. P. Mallory, *In Search of the Indo-Europeans* (London: Thames and Hudson, 1989).

comes right on schedule in the midst of an otherwise continuous history. The rise to organized states in Chinese civilization begins very early, and yet we see the synchronous effect right in the correct time frame, as an overlay on the prior development. China and Europe are both at the fringes of the ‘eonic sequence’, (at this point we notice nothing in Europe). The Chinese case is inexplicable in isolation. This shows that the Axial/eonic effect occurs on schedule independently of the local dynamics of civilization.

India: Upanishads to Buddhism The case of India resembles that of ‘Israel’ in producing a world religion from the temporal sequence, as if sifting from a tradition that is already clearly formulated (relative transform) and existing prior to the transition. We see that some dynamic is operating independently of the politics of cultures and empires in the reactions of religion to state integration. With the forest philosophers who renounce history, India creates a protected zone, a parallel world in the Axial spectrum.

Early Rome We should include the case of Rome either by itself or as a cousin of the Greek case. Note that when we speak of the Greek period we are referring to a network of city-states stretching all the way to southern Italy. The appearance of Republican Rome in the wake of the Axial Age is prime data for the eonic effect. Note that the Roman Empire is a much later phenomenon, and in fact dramatizes its own deviation and decline from the sturdy Republican beginnings appearing in the Axial interval.

A Eurasian Integration Note the way the Axial interval *samples* the cultural stream regions all across Eurasia, almost comprehensively. Clearly the phenomenon is trans-civilizational. This ‘sampling’ is the other usage of our term ‘eonic’. The clearest example is Buddhism. The eonic series ‘samples’ the prior stream of religious history and ejects a streamlined package ready to ship outwards into global culture. With this example, the analogous process in the emergence of the Old Testament becomes clear.¹³

Stream and Sequence Our stream and sequence metaphor is especially apt here in the Axial interval: multiple independent streams of culture cross the temporal boundary of the ‘eonic sequence’ and show transformations in place synchronously.

Our perception of five transition areas follows the geographical spectrum logic of the eonic sequence attempting to spread out, and our first approximation could be extended. Thus there is a great deal more to the Middle Eastern transition than the case of Israel. And yet the fact remains that Israel turns into ‘Israel’, an oikoumene generator, the only survivor of this field, the reason being obvious, its ability to produce transcultural vehicles. This ‘tugboat’ Israel effect is remarkable. Herbert Muller in *Freedom in the Ancient World* notes:

All the great achievements of the early civilizations came in the early centuries of their history, long before the end of the third millennium BC...Finally, however, there did occur among some newer peoples in the first millennium BC the revolutionary change that Karl Jaspers has called the ‘Axial period’. The change was marked immediately by the appearance of great names—no longer

the names of kings and conquerors, and of their gods, but of great individuals of a very different kind: Zoroaster, Buddha, Confucius, and Lao-Tse; Amos, Jeremiah, and Isaiah; Homer, Thales, Solon, Aeschylus, Socrates, and a hundred other Greeks. Together they represent the most extraordinary creative era since the rise of civilization, distinguished in particular by the emergence of the higher religions and of philosophy and science....It seems more extraordinary because of the mysterious coincidence that the most influential of these pioneers all appeared in or about the sixth century B.C., independently, in widely separated lands, without any apparent influence on one another...I assume that we do not know [the causation], that we can point to some relevant conditions but cannot wholly explain it, and that a student of freedom should not be distressed thereby, since we could explain it only if history were completely governed by determinate laws...I would suggest that it was perhaps the plainest demonstration of the power of genius, the difference that great men make in history.¹¹⁴

This is a strange puzzle. All we can say, then, is that ca. -1200 we are in the world of Ugarit, the Phoenicians, a Canaanite world whose exact details are still being discovered. This world is, by and large, sequentially dependent on the Egypto-Mesopotamian generation field. Within two centuries after the Exile, a new world is coming into being, in a fashion that has defeated the 'Assyrian continuity' trap, as civilizational evolution. As of -400, we see, with respect to an 'Israel' in this general field a new emergentist monotheism still bearing the traces its 'geo-focalized' sourcing. Monotheism is an outcome of an eonic transition self-referentially applied to itself.

Israel: In a crisis of degenerate empires in proliferation we see a new experiment, the kingdom turning into a cultural integrator as a 'religion'. We see the deeper movement spawning a new 'kingdom everywhere' as the new type of religion. The idea of the 'kingdom of God' is born here, in the most natural fashion, as an almost 'national' root idea, self-extending in the passing beyond 'nation' to an ecumenical idea.

Transition and Oikoumene Our model is an interrelation of transitions and oikoumenes. It is not a question of civilizations, but the creation of inter-cultural vehicles of integration. The most spectacular cases are those of the Judaic and Buddhist traditions, lightweight cores of 'travel anywhere' religious doctrine. But note the hidden or transformed 'ghost of the state' lurking in both. They are a new combination as this progresses to ecumenical forms that can spread across cultures. Thus what we see is not the civilization, but four or five transitions each of which produces a series of oikoumenes.

We are confronted with a problem of analysis and description, five worlds in parallel over several centuries, in a triad of eonic, economic, and technological sequences, so stupendous that we should refrain from instant explanations and do the only thing we can do, pass and point in one step across the whole band, to show one common denominator, the rough architecture of transition, a fluid cultural stream:

...before -900 (at the outside)

a system in transit: clustering creative individuals
 initial results of transformation, a divide
 long term outcomes as *oikoumenes*.

This is the pivot of classical civilization at its onset, a period of great renewal and advance. The Old Testament is really built around this sequence, and everything before -900 is one level of myth, the period after, 'history', however much we find its account to suffer as 'myth' of another kind. This account is distracted by the 'sourcing myths' of Moses and the Exodus, before -900, when the real core is the era of the Prophets, a truly classic pearl-stringer sequence, whose abrupt and meaningfully timed appearance derandomizes the overall picture, to say the least, and leads to the wreckage of forms of 'how does it work' history. In fact the case is surely a variant of what we see in Archaic Greece, in broadest outline.

Notes and Observations With mysterious timing, the 'system return' of our macro-sequence stages the so-called Axial Age. In fact, the term 'Axial Age' is misleading. The 'Axial interval' is actually the transition to a New Age that will last until the rise of the modern world. The spontaneous metaphor of a symphony with a conductor has occurred to a number of people. Thus Koestler, referring to our Axial period, notes,

The sixth century scene evokes the image of an orchestra expectantly tuning up, each player absorbed in his own instrument only, deaf to the caterwaulings of the others. Then there is a dramatic silence, the conductor enters the stage, raps three times with his baton, and harmony emerges from chaos...¹¹⁵

That symphony is still larger than we suspected, and the Axial Age is but one moment in a larger concert originating in the Neolithic, or before.

The Axial interval is one of the greatest mysteries of world history, and we have constructed, very cogently, a frequency hypothesis to clarify its significance. The result is a massive spectrum of innovations across Eurasia. Nothing can match this until the rise of modernity. The parallelism of the separate areas of sudden advance confront us with something operating beyond space and time in some fashion that we have placed at the doorstep of a Kantian analysis, as a kind of orphan of theory.

Axial Interval vs Eonic Transition The idea of an eonic transition from -900 to -600, with a take-off interval of two to four hundred years, -600 to -200 gives clearer understanding of the Axial Age. Our statistical region, from ca. -900 to -600, amply encompasses the phenomenon, followed by a kind of 'divide' at around -600, after which there is a hybrid situation where the Axial effect is yielding to a realization period.

A Divide This is easily visible in the case of 'Israel', that abstraction, which the Exile period creates. In Jaspers' version, which some might find preferable, at first, the statistical region from -800 to -200 is taken as the Axial Age. The problem with this, and our periodization using the eonic sequence uncovers the point at once, is that the Axial Age is already over by -200, and a closer look shows us that.

The Axial Age collates two periods, gestation and take-off The interval definition from Jaspers of the Axial Age from -800 to -200, is too large, collates

two periods, and conceals a rough divide. Our eonic scheme is better, keeping in mind that the separate areas are not quite in sync. It is worth savoring for a moment the synchronous emergence of the Old Testament collations and the passage of the Greek Archaic into the brief period of Classical flowering. They are far more similar than we think. The period of Solon and of Josiah and the crystallization of a new national religion in Judah, followed by the Exile, are the significant moments leading us to place a divide (quite tentatively) at this point roughly ca. -600. The match to our model is remarkable indeed, as the system marshals its resources in slingshot fashion. The standard literature here can be very misleading.

We should also consider that our timing and periodization here for Greece here is odd, at first sight. The Greek flowering seems to come late, and is technically outside of the transitional interval. Just as the Israelite transition is concluding in the period of the Exile, the great Greek flowering is getting underway. There is no contradiction, and we simply need to look closely at the Greek Archaic, as it hides the seminal moment of transformation.

This synchronous emergentism is the most remarkable feature of this second visible stage in our eonic sequence, although, as we have seen, it is present in the previous 'axial' phase of Sumer and its parallel Egypt.

Frontier Effects A point to observe is that the 'frontier effect' is clearly in evidence throughout. China, India, Greece (Rome), and finally, most remarkably, the tiny 'Israel', are all, briefly, 'frontiers' in some sense. The core area around Sumer, and the Egyptian field, both fail to show a characteristic advance zone. Isn't this remarkable? Thus the efficacy of the eonic sequence: something independent of the individual civilization is at work, and our 'sequence' can switch horses and break out of the continuity trap. It is important to see that while this phenomenon is in one way 'global', in another it is clearly focused, and resembles a system operating on a minimum principle: transitional hotspots, or pivots, and then diffusion into oikoumenes.

Innovation must escape the 'empire' trend. The verdict on this point is grim, and we can see that the emergence of Persia, not dissimilar to the case of Greece, is unable to escape this imperialistic cast or blight on civilization. The case of Persia remains somewhat mysterious, for it is at once a clear correlate with Greece, with a similar cultural potential, and yet also a correlate of India, and the emergence of parallel 'spiritual' realizations from a corpus of Indo-European linguistic stock, should have spelled a larger contribution. Yet the Persians/Medes succumb immediately to the 'Assyrian disease', and we are confronted with drama of the Persian Wars recorded in the 'rebellion against antiquity' in the fringe zone of the Greeks. We should note that just at the 'divide' point, Persian and Israelite monotheism meet and blend. The irony is that a stateless entity should be the vehicle to convey a new tradition.

Brief Escape From Empire In reality, we notice that Greece itself experiences merely a brief interval, precisely timed to our eonic periodization, of respite from this phenomenon of empire, and then succumbs in the wake of Alexander.

The usual periodization of the Axial period is thus misleading. By the time of Alexander, we suspect, it is well over. Let us note the remarkable fact that the emergence of monotheism, one of the prime 'eonic emergents' of this Axial period, occurs decisively in the period of the so-called Exile, when Persia and 'Israel' interact, as if the nimble and, ironically, impotent Canaanite non-kingdom were the only vehicle to carry the day. As if unable to untangle monotheism from empire, the Persia Zoroastrianism seems almost to cast its lot with the Israelite stream.

Surviving Empire In the remarkable case of Israel we see a victim of empire producing something new to replace it: an oikoumene religion, or a set of them. Nothing could be more remarkable than this frontier effect in the case of 'Israel', or rather 'Israel/Judah', that patch of Canaanite geography in the double shadow of Sumer and Egypt, suddenly spawning a religious literature, assembled from the folk tales and chronicles legends of its history. The most remarkable aspect of this phenomenon is the way that the geography is constantly challenged, whittled away, leaving a literary remainder, one that will soon diffuse into the general oikoumene emerging first in the Hellenistic, then in the Roman periods. This clever way of transcending geography is a *tour de force* of the Axial period.

The sudden transformation of India and China in this interval is equally remarkable, given their distance from the mainline, and we must suppose that some aspect of our eonic sequence, still unknown to us, is at work here: may we speculate that at a certain stage of advance those ready to respond to this general eonic field will do so. Whatever the case, we can see that the response of India and China is dramatic and will produce two new parallel traditions of civilization, as if this epoch of civilization, just prior to the final stage of globalization to come in the modern period, were an experiment in parallel worlds, an exploration of diversity, and a set of side bets, as it were, against the future.

China The case of China is confusing because we are not sure what we are seeing, with an exact isomorphism of dates and outcomes, empire, but nothing like the Greek democratic experiment. The answer is just there. We see the tension of a transitional passage, exactly timed to the others, in another attempted transformation of culture/politics. What is remarkable in the case of China is the interplay of momentum from the past and the still significant effect of parallel emergentism. Clearly this sector of our eonic sequence cannot quite free itself from the momentum of empire, and yet nonetheless we see the signature of the Axial Age emerges in the midst of this other dynamic. The age of Confucius and the Taoists, for example, is in perfect timing with the overall concert, yet embedded in the same continuity of imperial integration going on since the Shang period. Truly a mysterious wonder.

India In India, we see a variant of the Greek city-states, but the result will be quite different, with an outcome that resembles that of 'Israel': the emergence of a world religion, or several, in fact. The complexity of Indian history is matched unfortunately by the poor quality of the historical data we have to deal with, and

this leaves a number of critical questions so far unanswered, e.g. the question of the Indo-European migrations.

In fact, if we adopt the idea of a transition from -900 to -600, a divide, then a realization period like what we see in Israel, the confusion evaporates at once. The place of Hinduism is misunderstood in all accounts, and the decisive appearance of the religion of Buddhism (and/or Jainism), next to the Occidental proliferation of monotheisms, is the most striking feature of the Axial Age, but one that has confounded those who wish to see in this period some sort of generalized 'age of revelation'. The disconcerting emergentism of an atheistic and theistic religion in parallel is grist for our 'eonic mill', but an obstacle to facile religiosity, and perhaps this is part of the mystery of the Axial Age itself, which operates at a deeper level than such distinctions.

It is important to evade confusion over the question of Hinduism. Hinduism is a hybrid of the ancient tradition of Indian religion stretching backward for millennia, and the Aryan concept nexus of the Vedas. The hybridization of these separate strains is misleading. The Indo-Europeans are not the source of the Indian religious tradition, and the new hybrid is a distortion of that inheritance from antiquity. The Buddhist strain, distilled from the primordial Jainism (from which Hinduism borrows its yogic tradition), is thus in a real sense more representative of the ancient tradition.

Greek Rationality Finally, the case of Greece shows us the way in which false interpretations of the Axial period as some kind of 'spiritual age' are contradicted by the facts. Karen Armstrong in her *The Great Transformation* succumbs to this confusion, and begins to find the 'rationality' of the Greek transition problematical. This is a misunderstanding of what is really afoot in the Axial interval, and this springs in part from the failure to see the larger eonic sequence. Israelite monotheism could just as well be seen as a rationalization of earlier religion. The Axial Age is not about religion, but about the evolution of civilization, and finally of the men inside it. All aspects of this civilization are at issue, therefore, from state formation, to science, art, and philosophy, thence finally religion. We should note that Israel was first and foremost one and the same exemplar of state formation we see in the emergence of Egypt and Sumer. The Greek transition is indeed giving birth to the stream of rationality in history, and requires no apology next to the transformations of religion.

Greek Polytheism We could easily 'pull a fast one' and rewrite the Greek Axial Age as a flowering of polytheism, as this beautiful bouquet spawns the politics of the polis, a host of artistic realizations, and the great tour de force of Greek tragedy. Beside this the discovery of rationalism is almost a sideshow.

IHVH The record of Israel is one of the deterioration of the initial impulse to see some cosmic force at work in history, evading at all costs the degradation of ideas into theistic superstition. Clearly we have lost the original inspiration and have only the exoteric religious cult of vulgar theism. The mystery of the Axial Age was something that the ancient Israelites began to suspect, and then recast in a religious language applying only to their own culture, and that some

decayed into the Biblical Grand Narrative that persists to this day. But the Biblical account can delay our understanding. The example of Greece can help. The Axial period is not about the intervention of God in history. The idea of a monotheistic god is itself an eonic emergent inside the system itself. The whole transformation is about upgrading religion from the chaos into which it has descended. Israel/Judah is in the same stream of religion proceeding from the Neolithic, albeit with its own characteristic forms, with the obvious source resemblance to the Phoenicians and others.

The point here is that the relatively later redactors of the Old Testament are turning into eonic observers!

Old Testament and Eonic Observers It suddenly began to dawn on the Israelites that something remarkable had happened to them over the previous three centuries before the Exile. They sense the Axial Age in action, and undoubtedly confused the issue in some ways. It struck them that only a cosmic force (which they at first refused to call ‘god’) could induce such a transformation at the level of states and empires. It seemed to them that, as with Heraclitus, reality (logos) was speaking to them in a direct revelation. And so in a sense, for the Israelites and the Greeks, it was.

Unfortunately the tale was backdated to include Abraham, Moses, and the rest. These are stream histories before the ‘sequence intersection’. The crucial dynamic is the cascade coming into existence after -750 up to the time of the Exile, exactly in concert with the emergence of the Iliad and/or Greek tragedy. The Greeks never became aware of the similar dynamic in their own history.

And it is clear that at an earlier stage in history a perception of entire geographical regions undergoing transformation could only lead primitive minds to posit the action of a cosmic force or divinity. We are quite hard-pressed not to succumb to design arguments ourselves, until we realize that a designer would not do history this way! This is a very ingenious system at work. Only the awareness that such arguments don’t work will discipline us to think in terms of a ‘system’. We can see that while the action of the eonic sequence, and its Axial interval, is something stupendous, it makes poor sense of the data to bring in theistic notions. The Israelites were themselves concerned to forbid the abuse of ‘god names’.

Indo-Europeans In *The Great Transformation*, a somewhat unfortunate attempt, among many, to understand the Axial period, Karen Armstrong opens with a chapter on the ‘Axial peoples’ and the idea of an ‘Axial Age spirituality’. The idea is entirely incorrect: the Axial Age is about the transformation of history from beyond history, and the transformation of certain Indo-Europeans and Semites, in that history. Such tribal thinking is entirely misleading. There are no intrinsically ‘Axial’ peoples, since the whole effect shows clearly that the eonic sequence simply works on whatever culture it finds in each region. Nor is there an Axial Age spirituality, the Axial period being not about ‘spirituality’ but about the transformation of cultures along a whole spectrum of elements, from politics to art, and in relation to the greater globalization that is underway.¹¹⁶

Metal Age Chronology Breaks Down We pass from the Bronze to the Iron Age and yet this technological transition does not express the change that is soon to come, which is far broader than the technological. The discovery of iron, we should note, has already long since occurred, and it would be difficult to ascribe a direct causal relationship between the immensity of the changes to come and this new technology. Nonetheless its significance remains considerable: the age of cheap iron has a democratizing effect on the fighting of wars, and it is hardly an accident that the hoplite battalions of Greece arise in this new technological phase, and are able to defeat the armies of the more ancient method of war and empire.

Dark Ages Although the ‘Dark Age’ in the wake of the ‘Roman Empire’ is a striking example of the ‘mideonic’ dynamic of decline visible throughout our eonic sequence, we do not quite see such an extreme collapse in the later succession to Egypt and Sumer. But in the case of Greece, we do actually see a collapse of civilization and a Dark Age, as the mysterious ‘Sea Peoples’ coincide with the disappearance of the Mycenaean civilization, and even the question of the historicity of the city of Troy, and its fall depicted in the later *Iliad*, is possibly connected with this period of chaos as the larger system of Sumerian successors are struggling with an almost entropic endgame in their progression of empires. This endless succession of empires needs a new idea. And the crystallization of slavery proceeds apace. Against this backdrop the next phase of our eonic sequence, the so-called Axial Age, will be spectacular.¹¹⁷

The history of Israelite religion remains very difficult to understand, and the constant hybridizing of secular and religious categories is not much help. It cannot be explained, or explained away, in simple sociological terms. There is something genuinely obscure and, unfortunately, incomplete, about all accounts here. At least, one strain is recognizable: the emergence, in a fashion so reminiscent of the modern period of a social movement of Prophets expressing a theme of social justice. One thing we can say is that from a high level view we see something indeed remarkable: the evidence in writing of something missing for the Neolithic (where we suspect organized religion to have been born), a complete history of the transitional phase of an emergent religious stream. We should say ‘stream’ because the result of the Judaic transition is not actually a religion, but a ‘stream’ that will produce many religions. It might help to apply our evolution formalism to Israel. Strange at first, but try it as an exercise, and suddenly you will see that it works.

The Old Testament as a Record of ‘Evolution’ It is highly useful to rewrite in one’s mind the Old Testament as evidence of an evolutionary process in our sense. As we look backwards at the era of the first religions (in the context of civilization) we must wonder what we are missing. If only we had some record, for example, of the period ca. -5500 in Northern Mesopotamia, we might see the eonic evolution of religion in its correct context. The Old Testament is a true first in world history.

Relative Transformations All accounts of the Axial Age are bedeviled by the failure to grasp the idea of relative transformations (e.g. fertilizer in a garden

does not produce absolute beginnings from seed, but relative transformations, spurts of growth). We rarely see absolute innovations, and see instead the sudden remorphings of things that were already there, e.g. monotheism.

The Evolution Formalism We can apply our evolution formalism to Axial Israel, with a remarkable result. We see the microevolution of the Israelites (cf. a work such as *The Bible Unearthed* to see the very ordinary Canaanite history turn extraordinary) undergo an intermittent macroevolutionary episode as eem om the Axial interval, and this macro aspect is one thing, the micro aspect another. It is the latter that is the actual creator of religion, please note. Thus the relationship of System Action and Free Action is clear in retrospect, although it confused its adherents at the time.

The Old Testament tradition clearly records the reality here, without understanding it. For example, it says that Abraham is the first monotheist, and yet monotheism is the product of the ‘age of revelation’. The contradiction is only apparent when, armed with the eonic model, and the idea of relative transformations, we see that the eonic sequence iteselt has nothing to do with monotheism or religion, but is only remorphing elements in its direct path. The idea of a relative transformation is almost that of the idea of a ‘reformation’, and this term arises spontaneously during the Protestant Reformation to express an eonic explanation.

In the original account of the Axial Age there is a certain ambivalence in Jaspers toward his own discovery. The perception of the eonic sequence requires seeing the way in which relative transformations (e.g. the Axial Age did not invent monotheism, but produced a relative transformation that we see in the Israelite transition) are at work in the sudden punctuations of our eonic history. This can be especially confusing as we study the evolution of religion in world history. Thus, there is a problem with Jaspers’ treatment of the Axial Age. His most interesting analysis of his own revolutionary discovery cannot be taken as fully correct, and deserves to be challenged, because his definition is contradictory. His account confuses the secondary generation of Christianity, his Axis of History, with the Axial Age.

Jaspers’ Axial Age—A difficulty One of the basic difficulties in Karl Jaspers’ concept of the Axial Age can be seen in an objection raised by Toynbee, who nonetheless failed to see the significance of the parallel phenomenon. Toynbee’s basic idea is simply to ask why such as Moses or Mohammed, to say nothing of Jesus, are not included in the Axial Age at all. The objection is cogent and shows there is no ‘Axial’ period in the sense intended. There is one in a sense unintended! The seminal ‘wholesale’ effect of the Israelite transition spawns a series of monotheisms (in association with the Persian brand of monotheism).¹¹⁸

We have addressed this problem already with our idea of ‘relative transforms’ in an eonic sequence. That is a bit abstract, but the basic issue is very simple, exactly the effect in a drumbeat system. There is a complex interplay of human inventiveness and the action of the eonic sequence. At some points they are independent and at some points they intersect. When they intersect, the result is spectacular. But the eonic sequence has no monopoly on religion, it simply transforms what it finds. We need to see that religions can obviously rise at all times (Christianity, Islam), but that intersection with the eonic sequence gives the result a special character.

Toynbee's line of argument reveals the impulse to extend the 'turning point' to include extra things, all the relevant spiritual traditions, and falsifies the significance of the unique turning point we call the Axial Age. It is unnecessary to do this, and in any case makes poor sense of the data. The problem is that we are stuck on the idea of an 'age of revelation' It certainly looked like one to the Israelites, and later Christians, but the dynamics were quite different.

The eonic sequence is a timing device, the emergence of religion something different. Men at all times are concerned to express or innovate their religions. They can found new ones at any time. But at that majestic moment when the eonic sequence found various religious streams in its direct path, the result was the creation of a series of world religions. More exactly it was the creation in Israel/Judah of a religious literature in one isolated people with the potential to generate a new set of traditions. But these traditions consolidated much later than the Axial Age itself and are not a part of it. And this of course seems to raise an issue of legitimation.

All we can say is that this confusion is typical, just the kind of thing that would arise in those who experience the effect of an eonic sequence. They are forced to consider two different levels at work, but are unable to quite make sense of it. In any case the sources of legitimation for the successor religions require a new idea. Thus the emergence of the Christian founder is made over to the drama of the god-man. Whatever the case, Christians, without understanding the eonic effect, stepped around it at all points because they saw two things at work, the Axial Age itself, and the later mideonic creation of a religion that fed on that source but generated its own 'starting point'. Given the dynamics of the eonic effect, action and reaction occur. As with the emergence of democracy, a new religion will exist in a state of tension with respect to the eonic sequence. It will express its 'revelation' in an 'eonic' history, and yet be in a state of equal and opposite reaction to that dynamic as it moves to its own self-realization, its own history. And this generates both the promise and the peril of an historical ideology that is also in some fashion anti-historical, and, quite apart from anything else, a stage in the expression of man's freedom.

System Action and Free Action This is a useful moment to consider our distinction of System Action and Free Action. We can see that the Old Testament is primitive and superstitious, yet records the action of a larger system of history. It fits the data perfectly here, despite its fuzzy architecture of whole and part. By the definition of our terms, the Israelite transition shows System Action, while its succession, which actually produces the religions we know of in later times, are the produce of Free Action. The complex history of the Israelite transition appears to show a combination of state-formation, and a theocratic-state religion accompanying that. But the overall picture also shows elements of developing folk religion, state manipulation of that, and, beyond everything, a most remarkable series of prophets emerging somewhere in between folk religion and the state theocracy. This is not a situation easily explained by the usual sociological explanations.

The distinction made here might seem odd, but it is essential to keep distinct the ordinary temporal evolution, so-called, of religion, and the dramatic changes, the other

form of evolution, as we have defined it, that occur along the eonic mainline. If this seems strange then reexamine the facts of the case, and ask if this is not a strange circumstance, an odd history. One group of people suddenly, over three centuries starts to move toward something called monotheism, a literature comes into being at the end, and this diffusionary complex proceeds into a greater environment, where it eventually, along with many other factors, of course, becomes the ground for the creation of several new religions. The source, and the religions, are distinct.

In fact, everything follows our eonic analysis exactly. And the participants themselves were saying essentially the same thing in religious language. But this analysis requires sticking to the facts: the period of so-called revelation is not that at all, but a stage in the eonic sequence, and the actual creation of the 'Great Religions' is a later stage, outside of the eonic sequence. Again, Christians struggled with this fact, and clearly made this distinction in their own language. We should note that this is a clear distortion created by patriarchal cultures entering from stream to sequence: Semites and Indo-Europeans. In a real sense this is a departure, if not decline, from the balanced matriarchal/patriarchal religions of the Neolithic. The facts of the case can be seen in India where the two end up coexisting instead of replacing each other.

A Patriarchal Age Another issue cautioning the notions of revelation is the temporal stamp of the monotheism of the Axial Age. A strange kind of 'patriarchal' age comes into being. This era shows the displacement of the antiquity of goddess religions, with some ambiguity in India. In *Pythagoras' Trousers*, with a feminist viewpoint of the 'axial' era, Margaret Wertheim notes, "Across Eurasia the sixth century B.C. was a turning point for mankind," and explores some of the patriarchal implications of the era of great change. There is arguably a slight regression here, granting that so many millennia of goddess religion had undoubtedly produced a decline of such forms. A new perspective was temporarily needed. There is a clear dilemma here. In any case the vestigial remains of an Asherah in the Old Testament are the token of this change. Religion is advancing, yet it seems to be contracting. This is a difficult question, in part requiring a fuller contour map of our entire eonic argument, whence we will discern the slow influence of nomadic myth structures on the basic cast of the great religions. The Semitic and Indo-European streams bestow their own character onto the resulting outcomes of the Axial transformation. In any case, the patriarchal phase is clearly not characteristic of the larger evolution of religion in the history of civilizations.¹¹⁹

The identical process is evident in India, but with a different content, in fact with the result of 'atheistic' religions mixed with the persistence of the goddess elements in the transformation of Hinduism. The period of the 'axial' simply transforms what enters, as the goddess religions are succeeded by the patriarchal. We need draw no final conclusions beside our basic outline, except to try and determine, if possible, the earlier transformations that have produced 'religion' as a recognizable social construct. The fact of the matter is that the earliest 'cathedral', the basic idea of the 'holy house reaching the sky', the ziggurat, is a temple of the goddess from the era of Eridu, before even the rise of the state. It is little wonder a feminist historian should wonder at the idea of *the Axial Age*.

Two Religions Emerging In Parallel The question of the Axial Age and religion is clearer, in some ways, in the case of India, where the appearance of Buddhism in the wake of the Axial interval exactly parallels in its timing the emergence of the Judaic corpus by around -400, two centuries after the divide, in the era of Ezra. There is, significantly, a question now as to the exact date of Buddha, his birth now being said to have occurred somewhat later than the usual one, a generation after the 'divide', ca. -600 to -550. Clearly we must be careful in assigning Gautama to the Axial Age itself, since he clearly suggests the kind of rationalized packaging of a religion that is characteristic of the first moments just after the transition. That later date would be a reminder that, just as with the Israelite transition, the period of religion formation follows the transition itself. The Axial interval, in India, is unfortunately poorly documented, and we can't quite grasp the exact stages at work. But we can see two strange things happening. One is the transformation of Hindu elements into the Upanishadism that is clearly a forerunner of Buddhism. The other is the mysterious 'different chord' visible in the progression of Jain sages leading up to the figure of Mahavir. One thing that should caution us about later datings of Gautama is the reported interaction of these two, and the ambiguity in Gautama's mind about his own place. Was he another successor in the line of the Jains, or was he the beginning of a new tradition? A most significant dilemma itself.

The questions of Indian religion are immensely difficult, and suffer from the lack of adequate histories, and we are confronted with the enigma of the real sources of the kind of advanced yogic religion that is consolidated in the Buddhist tradition, but which clearly long preceded their crystallization as a facet of Hinduism. This involves the complex issue of the place of the Indo-Europeans in the history of India, and the now controversial debate over their origins, entry into India, and the place of their great religious document, the *Rig Veda*, in the gestation of the later forms of the religions of liberation, such as Buddhism. Many of the problems disappear if we see that Hinduism is a hybrid of more ancient tradition and the Indo-European Vedism which is something entirely different.

The Iliad, in perfect timing The Old Testament is confusing. See what is happening by looking at the emergence of Greek epic, a perfect case of stream and sequence dynamics (the bardic tradition is a stream, its moment of glory sequence). The *Iliad* is the first great manifestation of the new era. As Herman Frankel asks at the beginning of *Early Greek Poetry and Philosophy*, "For us Greek literature begins with the Homeric *Iliad* and the *Odyssey*. Why, unlike the literatures of other peoples, does it start at once with such brilliant and mature creations? Why does it not crawl painfully into view out of murky depths, gradually gaining sureness of form and clarity of content?". With Greece, we see the full effect that is less apparent than if we skim a few prophets or religious founders off the top of the data. For here we see, as in the case of China, the full effects of economic, artistic, scientific, political and religious evolution. One difficulty with a scientific analysis of this Greek transitional period is the fact that science itself emerges from this very period under study.¹²⁰

The emergence of the Old Testament has become entirely confusing. A simple look at the parallel phenomenon occurring in the Greek Axial Age will help to resolve the perplexity.

5.1.1 Non-genetic Evolution

The Axial Age is a clear and devastating challenge to ideas of natural selection and of genetic evolution. Darwin is more or less on record as assuming that natural selection is at work in the destruction of primitive races and that the achievements of the Greek classical period are the result of differential natural selection, a most doubtful viewpoint. Why was there a Greek flowering of culture? Because, by natural selection, the Greeks were smarter or some superior race? What about the Hittites? These were essentially the same tribal and linguistic stock. Yet they shew very little creative culture. They weren't in the eonic mainline. What about the Romans? They are almost a variant tribe, yet already look backwards to an established tradition. One is just before, the other just after. In parallel we find the post-Vedic mimic in concert the Greeks in music of different key. This has to be a problem of periodization. The foundations of the Greek classical achievement appeared at almost record speed from -900 to -600 for reasons, we can strongly suggest, that were conditioned by *zone and period*, in a master sequence. It is a question of eonic determination. This remarkable interval, echoed in the raw structure of the Old Testament, has no other account than as a 'fast interrupt'. Even if we thought they had special talents or intelligence as a culture, this other explanation would hold good. For we will move to see the full counter-experiments in all combinations, the comparable Hittites, and (Greek) Mycenaeans before, the Romans just after. In general, evolutionary theory assumes that selection for intelligence is a foregone conclusion in the evolution of the brain. Even the small snapshot we have of human history shows the 'survivors' too often to be a very restricted range of men. Uphill selection requires unique conditions for success.

We must especially note the falloff of the effect in this parallel case of the Romans, for they almost seem to be there to rescue something from the onset of post-transitional chaos. In general, selection can decrease potential. Our transitional periods seem to increase it. And all the great advances of civilization show eonic period conditioning at their source, temporally and geographically. Selectionism could hardly be the mechanism of this evolution for we see the same population streams switched on and off, although it would be of great interest to know the genetic preliminaries and consequences of these waves of advancing civilization. The danger is that realization from high potential will select away from its innovations, the abortive classical birth of science being an example. For it is possible to consider that outstanding abilities or cultural assets enable particular groups to respond to the eonic effect more readily.

Civilization simply does not arise through the survival of the fittest, and frequently shows signs of logjam as the 'fittest' induce stasis in the persistence of sterile themes of domination, power, and militarism. One can only wonder at the 'genetic cost' of civilization itself, and the effect of centuries of warfare, political submission, and

hangman judges. Nor is the runaway suggestion of the nature of social competition in public thinking a helpful contribution to an already stressed environment of colliding parties whose first need is mutual cooperation. The game of the survival of the fittest makes no sense in a context where we see religions emerge in periodic rhythm, along with science and philosophy.

One of the most remarkable aspects of antiquity is the uphill selection against inertia, indeed, the focal selection of advancing areas. Against the restriction of potential in selection we see separate worlds mapped out in parallel. The entire spectrum of human consciousness is explored during a particular show of emergent culture. The system anticipates its own transitional outcome, as whole literatures appear to service a coming oikoumene. The system seems to focus on the operational instruments of its evolutes in their highest potential, as heights of thought are reached with almost instantaneous bursts of advance, the example of emergent Greek tragedy being one of the most remarkable examples. We see a clear instance of the factor of eonic determination.

5.1.2 Karen Armstrong's *The Great Transformation*

The appearance of *The Great Transformation* by Karen Armstrong has introduced a new set of confusions into the question of the Axial Age. Our previous remarks about a so-called 'Second Axial Age' show how the analysis can go awry if we identify the Axial period with the phenomenon of religion. Thus the subtitle of her work, "The Beginning Of Our Religious Traditions", is already a distortion of the broader balance we can see if we take into account the total phenomenon, especially the at first anomalous case of the Greek transition. Armstrong's distinction of *mythos* and *logos*, with the comparative puzzlement or denigration of the later, shows the result of the misplaced emphasis on religion. This prejudice against rationality is a reflection of the current postmodern critique of the modern theme of reason so evident in many New Age attacks on modernity, as they call for a new era of spirituality. Armstrong, evidently aware of the first edition of *World History and The Eonic Effect*, seems uncertain how to proceed, on the one hand noting the modern transformation and yet pointing to the need for a second Axial Age to solve the problem of the dreaded 'rationality' spawned by Greeks, the black sheep of the previous Axial Age. The rise of the modern is that 'second' Axial Age and it is about a different business than religion.¹²¹

We see that the Axial interval is only secondarily a question of religion. In the first place, the religions that do appear in the wake of the Axial interval are not absolute innovations but, in our terminology, relative stages or transformations in place of outstanding religious traditions. Thus this period is not as such the beginning of our religious traditions, this having long since occurred. It is nonetheless close enough to see the emergence of the major religions such as Buddhism and the Occidental monotheisms in the context of the Axial Age, if we remember that, strictly speaking, they do not emerge exactly in the Axial interval but after it. They are mideonic phenomena. Thus, significantly, Armstrong is hard-pressed to explicate the emergence of Islam long after

the Axial interval. But this is no problem in our approach. Islam shows a clear lineage from the Axial period but is an independent mideonic process initiated for reasons explicable on other grounds than Axial analysis.

Armstrong then proceeds to downplay the element of synchrony in the Axial phenomenon, attempting thence to collapse the distinct transitional cultures quite wrongly into a set of 'Axial peoples' (there is no such distinction between peoples), proceeding to a kind of sausage interpretation of quite different things in terms of an 'Axial ethos'. But the range of Axial transitions shows multiple distinct outcomes sharing an abstract character of 'innovation' or creative renewal, with or without any echoes of content. Our eonic sequence seems to exploit diversity rather than impose some unified cultural matrix. This confusion becomes quite drastic if we try to find the common denominator between a theistic and atheistic religion!

The eonic sequence is about many things and the prime moment of the emergence of the so-called great religions is only one aspect of that. Our system never repeats itself and the outcome of the modern transition shows the diminuendo rather than the amplification of religion. The question of religion for the future is not answered by our eonic model, but we can say that anything that will resemble the Axial Age creation of religions will have only the elements of the modern transition to work with, anything else likely to be ad hoc reformations of earlier elements. A closer look shows that the Age of Reason quietly proceeded in its own vein, especially if we look closely at figures such as Spinoza, the emergence of Biblical Criticism, and the German Enlightenment. The issue is not the regurgitation of religious doctrines but, ironically, the critique of reason itself that challenges the core of the ideological distortions and metaphysical extravagance of the Axial descendants. The works of Hegel and Schopenhauer show two branching explorations, one toward reconstituted post-Christianity, the other toward Buddhism, appearing almost instantaneously at the Great Divide of the modern transition. Schopenhauer outwitted the literature of ancient sutras almost without trying, and without realizing what he had done. These formulations are, of course, only momentary philosophic gestures, but they show how our modern transition, with what almost seems like cunning, seizes the high ground against the postmodern flood of religious restoration attempted in the various New Movements reflecting the traditions of antiquity. The question of a Second Axial is thus solved in disguise by the Enlightenment era. The question of rationality needs to be seen in its full scope, from the rationality of science, to the critique of reason, religion within the limits of reason, to the Hegelian Reason in history, to the confusions of scientism and its technocratic nemesis. Hegel's 'reason in history' is a genuine upgrade, whatever we think of it, of the vulgar theism spawned in the Old Testament. These issues can't be resolved with eclectic ideological concoctions of postmodern 'spirituality' or the ministrations of New Age gurus.

In general the complexity of the Axial Age should caution us against simplifications or generalized interpretations. Our strategy is first to map the phenomenon in its broader context. The attempt to interpret the content of the particular transitions is a second and very difficult task requiring an independently expanded scale.

5.1.3 Art, Evolution and The Tragic Genre

We are confronted by the fact that Greek tragedy arises in the Greek Axial interval, flowers in spectacular fashion and in perfect correlation, then begins to wane promptly at the conclusion of the transitional interval. In terms of our evolution formalism the correspondence is eerily exact, in terms of macro and micro, System Action and Free Action. We are left to wonder about earlier stages of human evolution if we see such spectacular kibitzing at the level of art.

Thus, the historian William MacNeill, in *Keeping Together in Time*, considers the element of dance and song in human evolution. But this process is right under our noses if we carefully do some accounting of relative transforms in our eonic pattern. Most ‘song and dance’ elements are well established in the human legacy and cease to show *relative transformation*. We need to find one that is inside the eonic mainline, what we will call an eonic emergent. We can see that the eonic pattern is pervaded by spectacular cases of artistic flowering. Here is a prime case for our distinctions made between what is potential at all times and what appears in our macroevolutionary pattern. We can in fact isolate one spectacular *intermittent* effect in the genre of Greek tragedy (whose ‘song and dance’ elements are almost vestigial, as it passes into a literary genre). Its relevance to our ‘evolution of freedom’ is direct. And the suspicious similarity of the ‘tragic theme’ to the issues of religious evolution should alert us to the importance of the issue. The potential to create art, acts of purpose, and will, and the freedom to ‘screw up’, closely resemble each other. This is a complex subject, but our remarks will be restricted to periodization, and it also true that the example of the tragic genre, although of special interest, is only one of a whole range.¹²²

As we move to create a model we need to remind ourselves that aesthetic issues are a still more complex domain beyond even the ethical ones we find lacking in causal thinking. Later we will look at the philosopher Kant, and there find it no accident his Newtonian musings split into three critiques, one each for the causal, ethical, and aesthetic modes, with an ambiguous fourth as to the teleological. As a token of the complexity of (eonic) evolution we can notice the issue of the evolution of art embedded in our data. Note that, from a high-level view, seen in retrospect, we can see that as the Axial interval switches on somewhere ca. -900 a whole series of literatures start coming into existence, accomplished by -400 at the latest. Nothing in this preempts later contributions, but the relative effect is unmistakable, occurs simultaneously in five or more areas independently, and shows feats never matched even today. Note especially the sequence from the *Iliad* to Greek tragedy, which suddenly appears very briefly. This kind of data is beyond analysis in current science, yet simple periodization forces a paradox. We are approaching a crisis of analytical concepts. *The difficulty of the tragic genre makes its appearance ultra-rare, and as it happens it sandbanks inside our pattern.*

Note how Greek drama (comedy/tragedy) is confected out of ‘song and dance situations’, in tribal traditions of dance and choral verse, and complex poetic lore. This point can be exaggerated, but the data is sufficient to open a discussion (and even include the quite different example of Judaic, and other, literature). In fact, that lead up is not

very much, and the genre simply appears like an apparition (as far as we can make out), with the epic as a clear precursor. A similar effect is visible in the Old Testament era before the exile, as a complex literature comes into existence based in part on received texts, and new additions in the immediate prior time frame. This case is interesting because its redactors explicitly noticed a termination or cutoff in the emergence process, e.g. by about -400, and created redactions of the material. Nietzsche puzzled over the sudden cutoff in Greek tragedy. He cites the factor of rationalism, but isn't the issue the rapid falloff of 'eonic determination'? We usually take the Old Testament as a religious document, but fail to notice the almost exact synchronous emergence of two literatures in Axial concert.

We should note that more primitive men often had a sense that their arts were not subject to arbitrary volition. It is perhaps futile to remind our modern reductionist that Homer opens his great oeuvre with an invocation of a muse. The question is highly complex. We need not just examples of art, but an example of relative transformation sandbanked inside the eonic effect. The genre of tragedy gives a good example, especially cogent because it shows direct eonic correlation, appeared in a great flash in a short spree, and then died out in the middle period, a strong hint of system action behind the scenes. The problem is that this case is tough, it is beyond our powers of analysis. Please note this thinking is self-referentially about the evolution of freedom (man and his 'fate'), and, further, the freedom to produce art, not the evolutionary generation of art deterministically. This is both clearly visible and beyond our powers of analysis by an order of magnitude. But there is no contradiction here. Any agent with a large investment fund creates a field of potential creative action not deterministically realized. In any case, we can see that Greek tragedy as a social construct is in the mainline of the eonic sequence. This example is useful because we are not distracted by the religious issues of the Old Testament. Directly comparable examples are occurring in India and China.

In general, let us note that our 'evolution of some kind' seems able to leave great art in its wake, as a matter of relative transformation, i.e. in the intermittent series visible as the eonic effect. Please note what we mean, the *potential for art* already exists in man and occurs in every generation but at a relatively higher degree of contingency, the random distribution of genius. Here we see our 'evolution' inducing a spectacular clustering period of the highest art, e.g. Greek Tragedy, with or without the factor of genius, against (to some degree) the element of contingency. Later periods can't continue this because they don't understand it.

This 'evolution' doesn't just generate art, it generates relative transforms seen in periods of higher, the highest, level of art. Yet human creativity is never violated. We know this only by periodization and careful accounting of time periods. Therefore this 'evolution' operates at some higher level than the highest level of art. The same could be said of philosophy or religion. Shall we go on? Darwinian stock is starting to collapse. We have several million years of coarse-grained observation of Darwinian evolution, and five thousand years of fine-grained observation of some other 'evolution'. Are the two the same, or did one pass into the other, and if so, when?

The Tower of Babel In the throes of the Darwin debate and beset with the Creationist design arguments, Robert Pennock in *The Tower of Babel*, attempts to compare the 'evolution' of language with Darwinian evolution. But we must

already wonder if this differentiation of languages does not rather correspond to a type of ‘microevolution’, leaving the real ‘macroevolution’ as obscure as before. The various theories of an original superfamily of human languages, perhaps taking us back to the Great Explosion, are highly suggestive here.¹²³

Axial Age Literature The eonic effect puts an ace up our sleeve: we see distinct eonic sequences of linguistic phenomena at the level of poetic art. Examine the eonic sequence in terms of Axial Greek epic and lyric poetry, Homer to Archilochus onward, and its precise eonic timing. Everything falls into place, down to the poetic meters. This clear relative transformation (given the unknown but clearly indicated stream entry phenomenon of bards and their sagas) shows us that ‘macroevolution’ in short bursts definitely exists in the most exotic form as the advanced linguistic-poetic behavior of the man, whatever that tells us about early linguistic evolution. Nearby, a similar phenomenon is occurring in the emergence of the Old Testament literature.

Oral Traditions The collation of history with the invention of writing is misleading, perhaps, in so far as even in historical times traditions of oral literature remain outstanding. Homer is notable because he put an oral tradition into writing, one that he did not invent. The oral traditions of Indian yoga should remind us that millennia of religion in the Neolithic or before could have maintained continuity before the onset of written documents. Lao Tse, in fact, often seems to be protesting the misleading character of written documents, as if these were a decline from a deeper form of transmission. Buddhists often indicated just such an issue, and spoke of the direct transmission of teachings, forever grumbling at the limits of written sutras. The Old Testament is thoroughly modern in this regard, the first of the great literary religions armed with the new ‘hi-tech’ technology of democratized alphabetic writing. These hotshots are pointing to the future of ‘religion by the book’.

5.2 Stream and Sequence: The Axial Transitions

We are beginning to sense that the Axial Age is something more than a cluster of brilliant sages: it is a transformation of a whole cultural sphere. We can also look at it in terms of our ideas of stream and sequence: a series of parallel streams suddenly intersect with a larger sequence. We begin to notice the Axial pattern in terms of creative individuals. But its philosophers and sages are the tip of the iceberg, and behind them we see whole cultural regions, out of the blue, proceed rapidly to a new stage of culture. On the one hand it is essential to induce change through individuals seeding cultures with new ideas. But this does not explain the overall coordination over time of complex emergent events, i.e. a string of poets, the birth of democracy, or a world religion. The clearest and best-documented case is that of Archaic/Classical Greece. Roughly we have the following remarkable surge:

Early tribal history of the Greeks

1200-900 From Mycenaean period to Greek Dark Ages

900-600 Dark Ages yield to Archaic period

600-400 The great take-off period, the Greek 'Miracle'

400 onward: We enter the Hellenistic, it's over

Compare this now to Israel:

Early Canaanite 'stream' history

1200-900? The onset of the 'Israel/Judah' kingdoms

900-600 The history of 'Israel/Judah', emergence of Prophets

600-400 The Exile period, crystallization of texts

400 onward: A new religion has come into existence

Note the remarkable similarity! This periodization is slightly formulaic. The interval from -900 to -400 encloses the basic mystery, the intersection of stream and sequence. But the three centuries from -900 to -600 show the field of action, with a 'divide' point about -600, as the 'output productions' proceed from the 'Axial' causation. Similar periodizations break through their disguises in Rome, China and India. Note the isomorphic character of these two histories. It is impossible to distinguish 'sacred' and 'secular', once we see the connection. This is the embedded 'transition' pattern. In the middle of continuous stream of culture a sudden relative speed up occurs. We must realize the high level at which this dynamic is operating. And remarkably in both cases a great literature comes into existence, the Greek and Old Testament epics. Note that 'Israel/Judah' disappears near the Exile, depriving us of a flowering or realization period, but enforcing a mysterious extra-state character to what will be a 'cultural complex' that travels transculturally. Note that our system treats states and religions equally in its dynamics, and it is the case that the core Axial period for 'Israel/Judah' is about a state, and not about a 'world religion'. Judaism as we know it comes much later, as do Christianity and Islam.

The five centuries from -900 to -400 enclose the principal effect. But the real interval is very early, from -800 to -600. This periodization in turn shows us what's going on in the case of Israel. The case of Archaic Greece is especially telling because we aren't distracted by religious questions. Its clarity is enhanced by the fact that its earlier Mycenaean phase collapses and Greece goes into what is called its Dark Age. This is the 'stream and sequence' effect. The stream of Greek cultures shows many civilizations, but that part that we call the 'Axial interval' stands out. Why? Because, as we shall see it intersects with a greater sequence. In the same way the Old Testament is confusing, because it includes, just as does the *Iliad*, the prior tales and chronicles of a Canaanite people, the stream history, but the crucial era is the Axial interval and this occurs in exact concert with that of Archaic Greece. It is clear that the Israelites were aware of something strange happening in their history: they noticed their 'Axial' transformation.

The sudden reawakening of Greek history in the Archaic period after the collapse of the Mycenaean is the classic clue. Thus its sudden resurgence, as if on cue and in parallel with the other regions of the Eurasian continent, is the more remarkable. We are

stunned, by zooming out to see the whole pattern, to see that the Greek Archaic is exploding *on schedule in a larger system*, not solely as the result of antecedent influences. Against the backdrop of world history as a whole this brief period from around -900 to -400 induces an immensity of innovative advances, with an intensity that has never been matched to this day, although the rise of the modern is a fair competitor. *Note that we cannot ascribe simple causal/local influences as the cause of this phenomenon, since we are observing a part of a total Eurasian phenomenon.* Each of five regions, Rome, Greece, Israel/Judah, India, and China, has an analogous interval in this fashion (the Roman being a bit late), although the Chinese and Indian are less well-known. The case of (early) Rome is really an aspect or variant of the Greek case, and can be considered, at this level of generality, in the same category. We can see that Rome arrives a bit later, for the obvious reason that it waits on diffusion from the Greek system.

We have the clue to the Old Testament: it contains a core account of precisely this interval, with a great deal of other material tacked on as lead-up history. The Axial interval is more about the emergence of the Bible than of Israelite history. Much of the content of the Bible distracts us from the crucial Axial interval. The tales of Abraham, Moses, the Exodus, are clearly the mythical lore of a Canaanite people who, especially during the Axial interval, accumulate a literature that, at the end of this interval, becomes what we know of as the Bible. Note the resemblance of this to the way the Greek *Iliad* and *Odyssey* come into existence. Achilles and Odysseus are not Axial figures, but the crystallization of the Greek epics is a prime Axial effect! The Homeric period in the eighth century is followed by an immense flowering of literature, which becomes incandescent in the period of Greek Tragedy. The latter lasts barely a century, and is gone. Stand back from this analogous biblical phenomenon, which casts its spell to this day. Is it not a very odd and historically embedded text? We see that its correlation with the Axial interval reveals at once its real significance. Our approach almost does better justice to this history. It makes almost no sense stripped of its religious mythology until we see its Axial context.

Note the way the historical facticity behind the Biblical myths changes its character after around -900 in the wake of the David/Solomon era myths and we have the histories of Israel/Judah or general Canaan up to the Exile. As foundational religious history, this is quite peculiar stuff, but in light of the Axial context it becomes precious historical lore indeed, the first documentation in writing of the genesis of a religious formation, a world historical moment. Note how various traditions of prophets suddenly without warning turn into the remarkable string of the classic Prophetic cluster in concert with the Greek timing. The sameness in difference from the Greek example is beguiling. We note how *just around the Exile* the Biblical corpus comes into something resembling its final form, and that from -400 onward the phenomenon is essentially finished, as the record is codified. The seeds of a 'world religion' or the materials for several have appeared and crystallized. Remarkably, as it happens, 'Israel/Judah' suddenly disappears at the period of the Exile, and we don't see the analogous sudden flowering that we find in Greece after -600. It makes no difference, however, to the overall effect. There is an

irony to this circumstance, it almost feeds the phenomenon itself by separating a literature from a region!

Let us not forget that our discussions of religion in the abstract can forget the obvious: the Bible records the actual history of a Canaanite kingdom during the Axial interval. The religions arise later. Once that interval closes, the record stops. From that point onward, a tradition is born and its adherents are looking backward. The material, here as in the other cases, flows outward into its environment to have what effects it will have. For the peoples of that era, the Biblical corpus was a tremendous new cultural asset, an almanac of Civilization. It spread through the regions of the Roman Empire and beyond because it was of great help in the assimilation of tribal peoples to the shock of expanding civilization. We constantly think of religion in terms of metaphysical abstractions, but that misses the historical point that, sourcing in the Axial interval, a cultural instrument appears that assists the process of tribal integration into the world system. For its time the Bible was 'state of the art'.

We can be certain that the Biblical history is only one aspect of what must have been a far more complex 'Axial interval' in the regions of the Middle East as a whole. As our strange phenomenon shows it is trying to balance itself, as it were, across Eurasia. In the context of monotheism, the phenomenon of Zoroastrianism, and much else, should join our account. It is not clear just when Zarathustra lived, but it is highly significant that just at the Exile there is a blending of the Biblical and Zoroastrian literatures. Be wary of thinking that this period *invents* monotheism. That probably already existed, and is in fact a primordial belief fairly well known to the Paleolithic in the Great Spirit cultures, for example. What we are seeing here is the effect of the Axial interval on what is, as primordial monotheism, already probably in existence, mixed no doubt in a melee of polytheistic beliefs. That effect is to spawn a world religion. But the Axial Age as such has nothing to do with religion, and in fact the term requires adjustment to historical realities: we see that religion *in one sense*, and speaking in broad strokes, is simply the ad hoc output of the Axial interval. It is important to see that the actual world religions we now speak of *are constructs outside of the Axial Age*, created by men recalling unsuccessfully the histories of that period.

In general the whole case of the Axial interval in the Middle East must be larger than what we see now. But the case of Israel/Judah is put in writing, and somehow carries the day because, and this is the whole point, it produces a literature and cultural record that outlasts everything else from this time and zone. We will brutally secularize this history, thus bringing out its true beauty, but let us not forget how remarkable Israelite history is. Just as the Israelites suspected, there is a Big History at work. And we have stumbled on something else of significance. As we move to complete our pattern, we will see that Sumer and Egypt comprise an earlier version of this kind of phenomenon, millennia before. But these centers of earlier advance are silent in the Axial Age. Why is that?

The clue here is to see that Greece, and 'Israel/Judah' are essentially frontier areas, for their time, and that the drama of the great Empires, such as the Assyrian, which

are the legacy in decline of these earlier periods, is being bypassed by clusters of innovation on their fringes. These empires are dinosaurs of an earlier age period. Note how the Greeks barely survived these attempts by Empire to destroy their world, that the 'Israel/Judah' is a dramatic account of the history of surviving or not surviving these destructive empires. The Axial Age here is a record of innovation outsmarting the momentum of the legacy of a previous cycle of civilizations. This *frontier effect* will help resolve one of the puzzles of the isolation of the rise of the modern on the fringes of the European system. Thus if you factor out the Sumerian core area, and the Egyptian zone, and consider the Occidental zone of the Eastern Mediterranean and South Asia, you suddenly realize there are very few innovation zones available. One is precisely the Canaanite region, another the Greek, conveniently buffered by Aegean. The Indian, Chinese, and Roman cases automatically fulfill this requirement also.

We have the essential framework for what is happening in the Roman, Indian, and Chinese cases. In many ways the Roman phenomenon is part of the Greek, which spawned an immense network of city-states and republican experiments, from the Black Sea to southern Italy, some of them producing democracy, the classic Athenian. Thus Rome springs into existence in the wake of this network and is essentially a variant of it. We must keep in mind the obvious fact that all these cultural zones are extremely different in character and that we can't be talking about the autonomous mechanics of these cultures or civilizations. The Axial phenomenon simply happens independently of the prior histories and cultural mechanics of each region. In the Greek case we do see, however, the expenditure of Axial impetus on innovative cultural forms, among them Greek democracy. Note that this appears suddenly in the wake of Solon, -600, and that it doesn't last very long. Later we will realize even these particulars, down to the decades of a half-century interval, are not accidental.

5.2.1 Archaic Greece: The Clue

Our stream and sequence metaphor is especially apt, and illuminating, in the case of Greece, which has both a long stream history, and an intersecting history in the Axial period. The whole effect is almost eerie and, furthermore, shows us the real key to parallel history of Israel/Judah, strange as that might at first seem. The Greeks would seem to have separated from their Indo-European ancestors in the period ca. -2000, and then entered Greece to stage the Mycenaean civilization.

1800 to 1400	Cretan and Mycenaean civilizations
1260 to 1230	Mycenaean attack on Troy VIIa
1200 to 1050	Dorian invasions, a Dark Age begins
From 900	Axial Interval to about 400
900 to 750	Emergence of polis, the spectrum of Greek city states

- 800 to 700** Greek alphabet and the work of Homer
- 650's onward** The first 'age of revolution', republican poleis, Solon,...
- 500's onward** Late emergence of Athenian flowering, democracy, tragedy, a scientific revolution, philosophy, and much more, cascade in a spectacular display
- 400's onward** Clear waning of transitional effects, coming of Empire phase

The discovery of the Axial Age by Karl Jaspers and others was one of the most important achievements of modern historiography, but the result has often been a series of misinterpretations of this phenomenon, and an inability to escape the framework of Old Testament history.

The terminology of the Axial Age has devolved into a confused perception of some kind of religious age, a sort of generalized age of revelation. Indeed! But not in the sense intended. And this Old Testament fixation has resulted in the inability to see the phenomenon for what it is. The phenomenon of Axial Age Greece is then seen as in some fashion not conforming to the archetype of an age of revelation, and ends up the black sheep of the Axial Age. The reality is that the study of the Greek Archaic is the key to seeing the real Axial effect, undistracted by questions of the emergence of religion. And the irony is that by studying the example of Greece we can find the clue to understanding the highly confusing history of Old Testament Israel. The interval of Axial Greece is one of the most enigmatic of historical periods in the way it suddenly spawns a fast run of creative innovation, and this, as we zoom out to see the context, almost like clockwork.

The Biblical history has been so overdramatized by epic supernaturalism that we can no longer see what the history was, or its significance. If we turn to Greece it is like catching something unexpected in the act, and in the end far more remarkable than the embroidered sagas of the Bible, now seen in many cases to lack an historical basis. Simple periodization and a bird's eye view of world history as a whole gives us the indication of something very strange: if we track changes in centuries relative to millennia, the whole history of the Greek phenomenon looks almost miraculous, as we note the overall pattern. Something doesn't add up in the usual analysis. We have the canonical instance of an 'eonic transition'. And in this case we the phenomenon in its full detail.

The unexpected suddenness of the Greek transition is remarkable. In *The Origins of Greek Civilization*, a study of Archaic Greece, C. G. Starr describes the inexplicable and truly extraordinary period of the Greek Archaic and is driven to feel that

the common historical view on this matter [of the tempo of historical change] is faulty. It is time we gave over interpreting human development as a slow evolution of Darwinian type; great changes often occur in veritable jumps.¹²⁴

As Starr, in a further book on this period, notes at the beginning of *The Economic and Social Growth of Early Greece: 800-500 B.C.*, the Greeks in -800 lived in small rural villages on the Aegean, "three hundred years later Greek life was framed in a complex economic structure embracing much of the Mediterranean and centered in cities which were socially differentiated", creating the foundation of the great classical period.¹²⁵

There is no simple answer to the complexities of what we are seeing until we start to consider what the broad sequence of our turning points suggests, relative beginnings, and a reworking of the incoming stream. This means that, while many genuine novelties are appearing, by and large, we see a transformation of what is entering a period and what is emerging. The dynamic seems independent of the content. Things appear in a total cultural spectrum, with Greek philosophy and early science, dramatic tragedy, or pottery, showing the passage from one end of the spiritual to the other of art, politics, and economy. The key is that the interrupt is coming on cue, and simply creates a kind of intensity or amplitude of generative change.

We are forced at once to distinguish two different things:

the temporal ongoingness of cultural evolution, a ‘this leads to that’ aspect,
an interrupt phase: fast action, accelerating from earlier periods.

Consider Greek history in this light. We have a people, its temporal sequence, a series of stages, nomads arriving from Asia, early Neolithic farmers, Bronze Age Mycenaeans, then suddenly the period of Archaic Greece, and its Classical ascent-vertical as a foundational period that templates a whole new age. We see this five times, at all once, to the century, in some cases to the decade. The sudden advance of the Greeks does not spring, then, from long antecedent influences, although the raw material of diffusion is there. This means that it happens suddenly without slow buildup, relative to the scale of intermediate mideonic stages, even as it must accept the antecedent influences of a long runway, whose only effect can be timbre but not the note.

The Greek example, especially, shows the spectacular surge, then its first flowering, roughly, after -600, as science, drama, architecture and sculpture, political thought, and a Mediterranean presence, and much else, emerge, develop, and create whole new categories of thought, social existence, and art. We can break the problem down into clear stages, relative to world history, stripped to a minimum of actual data.

From -900 onward, there are barely visible signs of Greek renewal as it appears from its Dark Age. There is a pronounced appearance of a new pottery style, the Geometric. By the turn of the eighth century, the onset of the earliest period of what is called Archaic Greece. The record of the Olympic Games begins in -776. By the end of the century, the take-off is gathering momentum. Out of nowhere we find the *Iliad* fully accomplished as a written epic, Hesiod following in its wake, then a great flowering of poetic forms. The Greek city-states are crystallizing in an era of colonization, social revolution, and economic advance. By the middle of the seventh century, a new form of culture has arisen, one in which the early Sparta, and Athens, are still cut from the same cloth, a generalized field of city-state constitutionalism, with a trend toward republicanism. At the rough era of the Exile, we find, in the generation of Solon, ca. -600, the Archaic Age graduating, the labels are relatively arbitrary, to what we call the Classical Period, the age of Marathon, Herodotus, the birth of Greek Democracy, Pericles, and the Parthenon, and the Peloponesian War. Soon, by the fourth century, we are in the age of Plato, Aristotle, then Alexander, and the rushing advance wanes.

We see this basic structure repeated in each case, China, India, the core Old Testament period, and Greece. Persia, indeed Assyria, Rome, and other areas such as Carthage, perhaps, are slightly different, but clearly related, variants. The cultures in the original core area, like Assyria, tend to *fail* because they are too large, retrograde or caught up in the past. It is the nimbler Israel and Greece that take off. Analysis requires great caution: the overall perception of a *mechanical* event is rendered over to correlation by a seemingly random pattern of *creative* events. It seems like a ‘spiritual’ phenomenon. Confucius, Laotse, Buddha, Mahavir, Deutero-Isaiah.

The Hellenic example is of especial interest because its stream shows so clearly the four or more separate conditions of culture possible to the nomadic tribalisms entering the field of successive phases, in the relations of multiple encounters with the eonic sequence:

1. its earliest stage as a nomadic tribalism arriving from Asia and Hyperborean minus infinity. By what process of cultural evolution the early Indo-Europeans achieve their characteristic culture remains unknown. The same stands true for all of the primordial cultures of the Paleolithic.

2. Then, a sequential or mideonic stage in the first phase of civilization after Sumer, as the Mycenaean relative and apprentice of the Minoans. The difference between a *phasing transition* and the *sequential dependency* induced in its wake is clear from looking at the Mycenaean world, very much in the mold of the Middle East, and the Minoans, themselves in a complex blend of this same, and earlier diffusion. This era makes what comes later the more remarkable. For it shows that pure diffusion is a different effect.

3. a phase of eonic transition: after an artificially created or contingent ‘Dark Ages’, we see the rapid appearance of the transitional period leading to its great classical contribution, followed by

4. a post-transitional passage into its Hellenistic period as a generator of a new oikoumene.

This is not the evolution of a ‘Greek’ culture, but eonic evolution in the greater eonic sequence, in a cross-section or cycle sampling, during a period of phasing transformation. This is confusing because a process universal in scope exploits the tribal/local to refresh itself and create new templates of cultural advance that will then find themselves short in the passage to their real destiny, the molding of oikoumene cultures, that don’t have this phase intensification, into an integrated whole. It is hard to avoid the conclusion that a *local* acceleration finds its meaning in a *global* context. The sudden transformation occurs just as the great cycle of phase picks up, and does so in a ‘near-far’ relation to the nearby Mesopotamian world. This ‘near-far’ is the mechanics of parallel interactive diffusion. The transition induces *more* interaction from a safe distance, during the Orientalizing period in the seventh century.

The case of Greece is especially interesting because of the artificial discontinuity created by its post-Mycenaean collapse. We might be hard-pressed to uncover the identical pattern in China, visible from ca. -750 to ca. -400, without the Greek example. The Chinese example shows that prior growth, relatively strong in this case, is an independent process, a fact that might elucidate the modern period. For any earlier

developmental continuity is merely summed with the interrupt phase, which is only visible from its highest achievements. Indeed, Greece is nearly reduced to the Stone Age after the collapse of the Mycenaean period, starts from behind and then overtakes its greater environment! We might try to extend the buildup to -1200 in some particulars, but the very nature of the evidence cautions that an effect is visible only because nature could not manage five separate generations unless its synchronous action were brief, indeed synchronous. The whole effect of this parallelism is extraordinary and yet it has gone virtually unnoticed, or ignored, except among a small string of scholars, and, indeed, has been the object of dismissal by others.

With this simpler Greek example, we can decipher the Old Testament data, without being distracted by religious trappings. It is remarkable how the Old Testament, with an additional account given by later history to the period just after the Exile, gives direct clocking testimony of one time-zone slice, the Canaanite pocket world, to the whole phenomenon of the great synchrony, irregardless of its content. The Old Testament is a series of 'story slots' built around the eonic effect in its core period in the interstices of Mesopotamia-Egypt that its redactors 'knew' without knowing must correspond to their historical record, whose exact details they were hard pressed to reduce to fact. The runway, acceleration, crossing, and realization-emergence are told in the thoughts and words of a crystallizing first-emergent group, the Israelites becoming the Jews in the later Hellenistic world of the Second Temple. In India, the chronological record is not so detailed but as clear, the appearance of early Buddhism in the period after -600, within the memory of the earlier Upanishadic era just before it, is almost directly parallel, bulls eye fashion, within the limits of a generation. Just as the Old Testament literatures begin to crystallize by -400, so the 'Buddhism' we see has crystallized from the fertile era of gestation, in the period before roughly -600. The 'peculiar' appearance of the Upanishadic phenomenon as a buffer between the runway and emergence periods is a giveaway, as incomprehensible as the rest, but the bearer of a clue in the form of its preoccupation with self-consciousness.

5.2.2 The Old Testament as Eonic Data

One of the most remarkable cases of the eonic effect is reflected in the Old Testament. Historians are beginning to close in on the Old Testament period, to produce an account that finally begins to make sense of the confusing history and scholarship here. Biblical scholarship, so-called, has often been little more than the theologian's disinformation. We have to manage to be somewhat ruthless, and yet respectful here. We are about to annex the Old Testament to a secular model. The document, as it stands now, is beyond salvage on its own terms. But a secular account can fail as badly as the religious.

One advantage of our eonic approach is that we can partition world history into a series of meaningful blocks, and assess their high level relationships, up to a point, without the exact data. Thus we might inject some bogus data from the Old Testament

account, passed like bad money by theologians, and then find that wrong. But our ‘eonic history’ of the Old Testament would remain, more or less. That’s because it is pure architecture with default content, e.g. the well-attested facts we know, and even those we may not know. And those facts are almost entirely in the ‘eonic Axial range’. Almost nothing can be taken at face value in this labyrinth of distortions. But an invariant structure remains in all accounts. That high-level model merely says that the *core* Old Testament block, a few centuries before the Exile, roughly, in the period of the Prophets, shows ‘eonic determination’, Axial Age correlation, same as Archaic Greece, which it resembles very closely (at this level of abstraction). We can see immediately on the grounds of periodization alone that we are missing something in the standard accounts, religious or secular. The religious account is mythic, while the secular can’t explain the timing. Timing of what? However, the right data finally seems to be emerging, and it fits our eonic model to a tee.

In fact the whole document falls into our lap as a play of ‘eonic data’ built around a transition, albeit in disguise. Don’t be distracted by monotheism here. Like Orpheus, if you look backward at Eurydice, you will be lost, confused all over again. A transition is a fuzzy time-zone patch where eonic emergents appear on schedule in a frontier effect. The relative transform of the nth god name sequence is itself an eonic emergent, monotheism is an eonic emergent self-referentially applied to its own ‘history’. A close look shows an embedded account of this eonic transition. Let us look again at our stream analysis of the Greeks:

An independent stream, e.g. Indo-European Greeks

A mideonic entry into a diffusion field, e.g. Mycenaeans

A transitional time-slice, e.g. the Archaic Greek period

A post-transitional oikoumene

Let us note in passing that the third, transitional period produces a great literature in the gesture of putting the *Iliad* into writing, sometime in the eighth century or early seventh. This literature is about the second Mycenaean period, which is not a part of the Axial period. So it is the transitional rendition of ‘stream entry myths’ that is significant.

Now substitute the relevant data from the Canaanite area of the emergent ‘Israel’. Our Axial period clearly seems to straddle a broad band all the way across Eurasia, one transition in a suitable roughly spaced spot from Rome to China. We have to be careful and not exclude other ‘eonic data’ in the Mesopotamian region. But, as history shows, this field tends to fail the test of the ‘acorn effect’ and we see the hopeless cases like the Assyrian empire rise and disappear, unable to extricate themselves from the mideonic empire trap. (Note that Israel is itself barely able to manage its acorn effect, and yet seems to survive its own demise as a kingdom. First ‘Israel’ is lost, as the remnant Judah becomes the carrier, then that is lost). The only real survivor of this area will prove to be the Biblical documents and the Judaic stream. With that caveat (we will see clear blending later with Zoroastrian thematics), we can take this one great gift of data slightly to the fore. We get the following:

An independent stream, e.g. Semitic Canaanites

A mideonic entry into a diffusion field, e.g. tales of Egypt, a kingdom in the field of late Mesopotamian mideonic empires

A transitional time-slice, e.g. 'Israel' and Judah up to the Exile

A post-transitional oikoumene or generator, here spectacular, several religions

The two structures are isomorphic, if we can sort out the actual data that we are dealing with. The Old Testament clearly records a transition, but throws us off the scent because of its instant mythological wrapper. But given this resemblance of our two lists we can safely predict the key period will correspond to the Greek Dark Ages and Archaic period. And that there might be a clustering near the divide, if we can find one to correspond to the modern. Tracking backward 2400 years gives us about -600, the period of or just before the Exile. The clue might lie there and our butterfly net coordinates suggests something interesting between about -900 and -600, especially the last half: about the time of the major Prophets! We check the divide period. Let's look at 'state of the art' Biblical Criticism, attempting to uncover the archaeology of Israel. As the authors of *The Bible Unearthed* note,

During a few extraordinary decades of spiritual ferment and political agitation toward the end of the seventh century BCE, an unlikely coalition of Judahite court officials, scribes, priests, peasants, and prophets came together to create a new movement. At its core was a sacred scripture of unparalleled literary and spiritual genius. It was an epic saga woven together from an astonishingly rich collection of historical writings, memories, legends, folk tales, anecdotes, royal propaganda prophecy, and ancient poetry.¹²⁶

So the Old Testament is really a creation of the divide period! It may not be quite that simple, but the point is clear. This is a climax of strains emerging in the period of Axial phasing. Thus the new world of Biblical archaeology is producing a remarkable result, in the almost complete erosion of the standard Old Testament mythology. The secular student of the eonic effect finds the 'eonic rubric', compression near the seventh century, splendidly confirmed by the emerging picture of the rapid crystallization of a viable but still contradictory monotheism in the 'YHWH alone' movement and the testimony of the Prophets, in a rapid phase visible consolidated in the period of Josiah. It is here that many of the outstanding Judaic myths suddenly crystallize via the formation of an ideology of what is still a 'state religion' in the kingdom of Judah. And it is this corpus, complete with its contradictions and the strategies of its lost moment, that will be injected into the world stream, among other characteristics its unwitting record of the eonic effect being the most ironic, and the strange 'miracle' of another kind, the secular student must reckon with as he inherits the elegant remnant of this 'tavern of ruin' as eonic data. We tend to get into a snafu over the clear nationalistic origin of the Bible, its Prophetic anticipations (with retroactive fudging), and the final result, which is several religions in tandem. But in fact the whole structural dynamic is 'eonic' from beginning to end, as long as we don't get sidetracked by later revisionism. It is hard to think of anything more remarkable than the appearance of the Prophets, but it is not more

remarkable than the appearance of the Greek Pre-Socratics, Buddha, Confucius, and Lao Tse.

We see the pieces falling into place once we realize that the patriarchal myths of Abraham, the tale of the Exodus, the saga of Joshua and the invasion of Canaan, and the Davidic/Solomonic Kingdom are later nationalistic myths emerging over the transition and starting to crystallize just before the Exile. These are stream entry materials from the mideonic period. Elements clearly predated this codification, but the point is that we see the eonic timing almost eerily in place. Who were the Israelites then? In fact we see that current archaeology shows us the highland peoples drifting in and out of Bedouin stages in the millennium before the pastoralist David, around whom a considerable myth is to be created. The account that we have is backdated with the later codifications we now see in the Bible. Monotheism appears relatively late, in organized form, although there is no objection to evidence that it existed in some primordial version much earlier. But there are still clear elements of polytheistic religion until near the end. And in fact, the whole point was that there was a process of consolidation based on the Jerusalem temple, appearing near the end of the eighth century in our 'acorn field', the remarkable Judah.

Now compare this to the Greek case. We can almost map isomorphic elements one to one between the two. Both produce a nationalistic literature during a transition, using elements outstanding from a mideonic legacy of the culture stream. This history of the Israelites turning into Jews shows a remarkable culture-form, something like networking ironically enforced by the repeated loss of the 'geographical base'. The spread of this network into the coming worlds of recurrent empire will prove a source of general innovations throughout that greater area yielding finally to the Roman world, and this feature goes a long way toward accounting for the emergent Christianity to come.

We must be very careful of teleological questions here, keeping in mind that while our large-scale model shows 'eonic directionality', that does not allow us to transfer that directionality to the interiors and their mideonic productions, e.g. Christianity. Our model only allows 'seeds sown in a transition' to create a cone of diffusion in its follow-up, as the period of eonic determination passes into 'free action'. Some other form of explanation is needed. We can make no teleological statements about the relationship of emergent monotheism and later Judaism, Christianity or Islam, save that they are in the oikoumenes generated by the transition. However, we can see that while our eonic effect is intermittent, and complete by the time of the divide, ca. the period of the Exile, the clear sense of the transition is the creation of instruments of cultural integration, oikoumenes, and that is the result we see emerging in the wake of this transition. Beware of teleological thinking here, and indeed we see in the centuries to come clear 'teleological tragedy' in action as the collision and jackknifing of the mideonic and transitional productions. It is worth proceeding to the Indic example to see the eerie isomorphism once again in the transitional gestation and crystallization of a world religion. For a system modeler this result is far more gripping than the mythology of the text itself.

The Bible and the *Iliad* In conclusion, in spite of the dangers of speculation, let us not underestimate our system or forget the implications of our eonic sequence. We just learned to see how remarkable the case of the Greek transition is. It ends up being less equipped to travel culturally than the Judaic,

but the core dynamic is the same, and we suddenly are stunned to see a ‘frequency phenomenon’ behind the rapid emergentism of literatures in the mainline. Thus, as a matter of frequency the *Iliad* appears in world history. What could such a bizarre statement mean? We could backtrack to that period, sure to discover that while Homer might have been a great poet (if he existed at all) historical homogeneity could not be violated, and we could (sort of) imagine how the *Iliad* came about. And yet as we zoom out we see a clear macroevolutionary meaning *in our sense*. Our model can accept this data then, but it is remarkable indeed.

And that does not preempt any other deeper explanation of the context and free activity of a Homer (who might have been a committee). Our eonic periods are truly enigmas. Consider the onset of the Greek Archaic, and the sudden, out of the blue crystallization of its stream entry literature (bards and their oral epics) across the boundary of eonic sequence. Presto, a great masterwork. Thus we can muse on a classic example of an eonic effect, the appearance of the *Iliad*.

This is a frequency phenomenon, no? Regardless of whether we decide on a real Homer or not. Understand this example, and the eonic effect is yours. The stream, i.e. proto-Hellenic bardic traditions (mixed with other Middle Eastern traditions), suddenly produces a great literature in the wake of Homer, as if on schedule, as it intersects with the cyclical sequence, why? A man wrote this. But it is a clear function of time, taken in our large blocks. So what’s the answer? Whatever the answer, we see that the temporal stream and the evolutionary sequence are distinct. What a beautiful way to evolve a field of disparate (and very stubborn) ‘primitives’, if we can manage the ‘nameless something’ that does this sort of thing without naming it. Now translate this argument to the Old Testament, and see what you see.

Canaan and ‘Israel/Judah’: The Old Testament Riddle It is hard, in fact, impossible, to think of *any* other explanation than that of the eonic effect, for what is bequeathed to us by the redactors of the Old Testament, who, incidentally, lived after the events they purported to describe. It is the eonic ‘smoking gun’, for behind its history, however we reconstruct historical incidents from its account, lies an implicit straddling of the period -900 to -600, with a particular intensity in the period between -750 and afterward, an eonic Bull’s eye, and indirect evidence that stands on its own irregardless of the complete facts.

The study of Israel from the eonic perspective is in the final analysis the most effective for it can help in seeing that the impulse to find transcendental explanations is automatically suggested by the intangibility of the eonic sequence.

Minimum Eonic Periodization of ‘Histories of Israel’:

1. stream approach
2. transitional period: eonic sequence intersection
3. divide period
4. realization period.

That's it, our eonic history of Israel. And it resolves all the paradoxes of the Israel phenomenon. Reflect on the overall dynamic context. The only safe data, as the Greek example might have forewarned us, is that of the prophetic period, precisely at the climax of phase, and the period of the Exile and the post-Exilic history. David and Solomon are almost like Achilles, and Agamemnon, probably existed... The eonic matrix shows us the master key, satisfied by all accounts. The Old Testament redactors in the period from after the Exile unconsciously followed a procedure based on these steps, for the same reason the modern historian is confused by the continuity-discontinuity paradox of the modern, its medieval antecedent, and the sudden clustering near a divide.

Thus it is important to see that the redactors were at step 4, overwhelmed by the period at step 3, and attempting to interpret, create, and include the remnant documents and memories of steps 2, and the mythical or semi-historical step 1.

1. First we have the 'primordial' semi-historical Abraham/Moses stage, corresponding to the mid-eonic phase of the Canaanite cultures in the shadow of the Middle Eastern empires springing from Babylon and Egypt, the world of the Ugarit.

2. This period of the stream leads into the just-before period of Solomon, the history and kingdom of a people in a not especially extraordinary Mediterranean kingdom and empire, flourishing and then going into what many describe as a start of political decline. The kingdom is evidently not the transitional phenomenon. By -750 the age of the prophets is the one clear outer symptom of the transition given to us, so parallel with the Upanishadic Age. It is this phase of the prophets that *tokens* the period of transition as such, just as the Greek philosophers token the Greek transition.

3. We see the climax of the prophetic movement just as the divide point is reached. It is indeed extraordinary to see the emergence of monotheism and its sudden packaging in the period after -600. As the system crosses the divide we see the Persian phenomenon and its state 'Zoroastrianism', blending in, and then the great expansion of the Jewish network into the Middle East and Mediterranean worlds.

The ship has set sail, and we are in the emerging world of Judaism. Shot out of a cannon, the Israelites become Jews and burrow into the Roman Empire as a parallel counterpoint to the 'great Athens' passing into Rome. Like a 'throw and catch' in a computer program it is this strain in the great classical phase that will unveil from its latency the 'failsafe' response to the great passage from transitional 'eonic determination' to 'free action'. As our system passes from Solon to Pericles, to Alexander, to the Caesars, a 'recovery' vehicle emerges in halting steps from the Judaic branch as the rising oikoumene inherits of the benefits of parallelism.

It is significant, as a lost strain of this transition, that the tale of the Exodus myth expresses one of the first appearances in world history of the type of 'revolutionary ideology', however seminal in form. The Post-Exilic world was many things, and one aspect of it was a conservative continuation of the type of 'temple culture' already very ancient in the Middle East. The 'revolution' is still the 'revolution of the ages' with its transparent symbolism of 'new age' and 'Egyptian repression'.

5.2.3 Aryans, Hinduism, and a Buddhist Revolution

The history of classical antiquity in the occident is a braiding of Athens, Jerusalem...and Benares. Beside Israel stands the mysterious India, the great foundry of religious consciousness in the history of civilization. The source of this contribution, we suspect, is very ancient, already so by the time of the emergence of Buddhism, which is a kind of reform movement, and baton transfer from the Jain tradition.

The Primordial Tradition It is incorrect to see the source of Indian religion in the Axial Age. The primordial 'Shaivism', the source of yoga/tantra, probably appears in the Neolithic period. The question of Indo-European invasion/migration has muddled the whole history with a confusing 'something' called 'Hinduism' and its Vedic interpolation. Note the further comic irony that the (spurious, no doubt) periodization of the 'dread Kali Yuga' puts the classic era of the Axial period, Hinduism included, in the rubric of decline!

Shiva and Dionysus Is much of what we see in the classical era a set of remnants from an earlier period of Neolithic religion, spread across an entire oikoumene from India to Europe? The thesis is plausible in the abstract, while the details remain controversial.¹²⁷

Both Israel and India are considered 'spiritual cultures', but this prejudicial notion does not correspond to the real facts, and if we observe carefully, and then consider first China, and then Greece, we will see a spectrum, not a dualistic division. In fact the Axial period of India shows a remarkable resemblance to the Greek and Judaic cases combined, a system of city states suddenly crystallizing a tradition in a spectrum of philosophers and sages. The emergence of Hinduism is deceptive, for it is a hybrid created between the more ancient, probably Dravidian, tradition, and the peoples of the Aryan invasion.¹²⁸

The history of India, and of its religions, can be very confusing in this regard, due in part to the cultural contradictions of its different traditions. The question of the Aryan invasion has produced a set of attempts to deny the reality of that process whereby an Indo-European migration resulted in a hybrid cultural formation of the Aryan and Dravidian elements. The grafting of the Aryan rule of caste on a religious tradition in which it was absent creates the distorted phenomenon of Brahminism, and a subtle exploitative field of guruism.

Stream and Sequence: Buddhism The case of Buddhism in India is spectacular, and a classic case of our stream and sequence effect. The streams of primordial Shaivism and Jainism are sifted and refined to produce a world religion ready to ship outwards in parallel to Occidental monotheism. The streamlined Buddhism carries none of the baggage that will chaotify so-called Hinduism.

Dates of Buddha There is a considerable effort to revise the dates of the Buddha. This is quite suspicious, although a later date would in some ways conform better to our thesis: the seminal era of Axial innovations is followed (as with Ezra and Nehemiah in Israel) by a codification of a world religion.

Post-Axial Shaivite Revival The stream and sequence argument can help to sort out post-Axial Indian history, for the resurfacing of the primordial Shaivism generates a series of indirect effects that can be confusing, for example, the sudden odd appearance of ‘tantra’ in a Buddhist context.¹²⁹

Many commentators, and critics of the Aryan invasion hypothesis, have pointed to the great antiquity of Indian religion. But this is not an argument against the relatively late appearance of the Indo-Europeans, merely a suggestion that earlier, perhaps the Dravidian, cultures were the primordial vehicle of the ancient from which the core of Indian religion sprang. Once seen in this light, many of the problems that distract us from a correct picture of Indian history fall away. Beside this lies the tradition of Jainism, which seems to come to an end in the Axial Age, even as it spawns a successor tradition in the emergence of Buddhism. We must note the apt application of our ‘stream and sequence’ argument, and the way in which, through all the confusions, the Axial period seems to resolve the stream by creating an element of Indian religion for the sequence, by creating a global vehicle, Buddhism.¹³⁰

Thus India, if we care to set aside our western viewpoint, shows us something preserved from great antiquity, and it would seem that we have glimpses of the birth of the great religions in the Neolithic. In any case, the primordial ‘religion’ of Shaivism, from which springs the lore of yoga and tantra, lurks behind the later results that we see in Hinduism and Buddhism. *Before* the emergence of monotheism, the impulse of the sacred was preparing to leap beyond the notions of the transcendental or the conceptions of divinity to base religion on inquiry into consciousness.

The tendency of Westerners to see a single linear track of civilization, the ‘rise of the West’, and forgets that the modern transition in its sudden unbalancing westward of the eonic sequence, is a very recent phenomenon in a once relatively backward zone of world civilization. It is almost impossible to sort out the emergence of, and relationships between, the forms of the classic yogas as they appear already before the Aryan entry into India, and reappear blended with Vedism and its issues of sacrifice, polytheism, and caste in the later Hinduism. The sudden eruption of Jainism and Buddhism, in period, is a clue to the later loss of the correct picture.

The earliest period of Indian history has already seen the civilization of the Indus come and go as the entry of the Vedic Aryans finds their religious culture to be typical of the proto-Iranian, and proto-Germanic spiritual cultures and the elements of the divisions into castes that are still visible in some aspects of Greek and Roman culture. The mystery is where the elements of the great yogas come from if not from the Vedic culture that shows a completely different character. Already these elements are visible in the famous cylinder seal of the meditating yogi found in the Indus archaeological nexus. A considerable revisionist literature is now challenging the standard version of the Aryan invasion. But the picture is still unclear.

Upanishad It is almost impossible to grasp the complexity of Indian religious history without seeing the context of the eonic effect, or the Axial Age. The sudden appearance of the Upanishads in the exact time-frame of the transition, morphing out of quite different elements, is one of the most remarkable emergent processes of the transition. The transformation does its job, even if the result is misleading, i.e. it seems the outcome of some kind of Aryan Vedism.

But in fact it is a primordian tradition picked up in the field of the eonic transition.

Jainism It is Jainism that is carrying the great tradition of yoga from an earlier age, and these elements flow into the timely recreation of that tradition in Buddhism, and then in so-called Hinduism. The figure of Parshvadeva, a Jain teerthankar in the eighth century BCE suggests that a seminal transition now almost invisible to us was the decisive action in the gestation of the later Hindu and Buddhist outcomes.¹³¹

For our account, we can remain neutral, but the eonic context clarifies at once the way in which Buddhism suddenly appears in still another example of the ‘relative transform’ effect applied to an incoming stream, taking a bird’s eye view over millennia. In essence, and in exactly the same time frame, we see localized cultural elements turn into a global religion rendered independent of cultural context. By the time of Ashoka we see the same passage to ‘oikoumene integrator’ in the early mixed forms that are characteristic of the Persian Empire. This eonic isomorphism with the Judaic case is entirely remarkable, and explains why Buddhism seems to stand out from its Hindu background. The great Hindu comeback against the Axial Buddhist ‘revolution’ produces the world of the misleading *Bhagavad Gita*.

The emergence of Buddhism in the standard accounts is just after our divide, ca. -600. Some scholars now put this date forward, which would be appropriate also, since we can see that Buddhism is appearing about the time of the Ezra era in Israel. Our actual transitional era is almost lost to us, in detail, and produces the sources of the remarkable *Samkhya*, and a great deal more in a great flowering. All this is almost perfectly matched to our eonic model, which should allow us to stand back and put this era in perspective. Please note the appearance of another classic example of the relative transform (of a religion) that we have seen already in the steps of the eonic sequence. That is, the stream of Indian history already contains what the Axial Age will amplify and turn into the exteriorizing world religion of Buddhism. We should note, however, that ‘Hinduism’ in the post-Axial period is essentially still another relative transform of itself, and thus on its own terms an ‘eonic emergent’.

The interruption of the rationalistic Buddhism between Vedism and the later Hinduism is the giveaway, however indirect, of the redirected stream so evident in the synchronous world of Israel and Greece.¹³²

As Prem Nath Bazaz notes in *The Role of the Bhagavad Gita in Indian History*:

The seventh and sixth centuries B.C. witnessed in India, as in Greece, an intellectual ferment. Dissatisfaction with the Vedic natural religion gave rise to speculations about the origin of the universe and things contained in it...There arose early in the sixth century B.C. an order of *paribrajakas* (literally ‘wanderers’) who were intellectuals devoted to search after truth...The movement of *paribrajakas* spread far and wide in Northern India; they were accepted as harbingers of a new age...¹³³

The views expressed in this flawed and highly charged but useful book suggest the fact that Buddha was not only a religious founder, but a social revolutionary, a view with a bit of its own myth perhaps, but the account gives an apt descant on the Axial period compared with the later destruction of Buddhist India. It is time for some fact checks on all accounts until the record is straight. The stage of the *Bhagavad Gita* represents the reactionary phase of Neo-Brahmanism that came later. This history deserves an account by a modern leftist, and may cure our contemporary New Agers of sentimental views of the history of guruism.

East and West? There is no ‘philosophic’ East and West, although over time a kind of misleading differentiation arises. Those who find a something called ‘Western civilization’ are really speaking about an artificial construct built around two transitions, whose final effect is a transmission of this mainline out of Sumer back onto the full Eurasian field. The mutual influence of East and West is continual throughout the classical era. Thus, many are the speculations about the interactive influences, viz. the influence of Buddhism on Jesus. We can hardly spot the exact blends, yet we can easily discover the overlap in the Indian, Judaic-Persian, and Greek-Roman cones of diffusion.

Lokayata The Upanishadic age was a close cousin, that is, temporal parallel, of the world of the Pre-Socratics and Sophists, and its spirit was extraordinarily broad, and in many ways deeper. Jawaharlal Nehru’s *The Discovery of India* describes the contemporary rescue of over fifty thousand Sanskrit manuscripts on what, given the extensive destruction, must have been the great quantity of ancient literature. “Among the books that have been lost is the entire literature on materialism which followed the period of the early Upanishads.” This is the lost world of the ‘lokyata’, reflected in the *Samkhya*. We have become so conditioned to the ‘material’/ ‘spiritual’ distinction that we can barely appreciate the way the realm of religion was once cast (among a spectrum of such) as a naturalistic philosophy.

Quest for the Historical Gita The history of Indian religion is a highly difficult swamp laced with the propaganda of the Hindu reaction to Buddhism. *The Gita As It Was, Rediscovering the Original Bhagavadgita*, by Phulgenda Sinha, attempts to uncover the text of the original non-theistic Gita from the layers of distorted interpolation that brought it to its present state. The idea of a Buddhist revolution is partly an anachronism, but we do see in the contrast of Buddhism and Hinduism another smoking gun example of an ‘eonic effect’.

An Evolutionary Psychology: Classical Samkhya The legacy of ancient *Samkhya* with its universal naturalism might prove of help in a period of extreme reductionist materialism. Charged with materialism *Samkhya* is then again charged with idealism, and dualism, and shows a remarkable collation of opposites, and a distant resemblance to Kantian thinking. One problem is that this discourse has already been appropriated for any number of metaphysical speculations about cosmic involution, which don’t do justice to the original. At the point where it appears in the *Bhagavad Gita* it has already lost its original significance. The world of *Samkhya* points in principle to everything known in the ancient sutras, and this material is late in terms of our eonic Axial period, but still close to its source.

The history of Indian philosophy seems determined to place a Kapila right on schedule as an eonic sage, as the creator of *Samkhya* in the time-period 600 B.C, as though to assist our delineation of eonic architecture. The evidence suggests that it was emerging from an Upanishadic phase that is registered even in the *Mahabharata*. The exact form that it took in the age of Gautama is not clear, but the influence on Buddhism is so obvious that we can feel confident that the main features of the system were more or less in place in the time of Buddha. This is slightly out of character in the Upanishadic context, as these progress into the consolidation of Hinduism, but we should note that the whole tradition here has never truly been shown to have anything to do with Indo-European, or Vedic, religious traditions.

The fate of this system was denunciation by the later Shankarans who had quietly expropriated its terminology and concepts, witness the references in the misleading *Bhagavad Gita*. And they were not the last. Great later embarrassment rings through the history of mysticism and religion in the fact that the great breakthrough of the classical Indian transition produced a 'materialist' mysticism. But such a thing was quite natural in the age of Buddha and Mahavir, although we cannot say what the true original form of all this was, for the Shiva cult and its yogi far predate Buddhism. All we see now are the later redactions of the Hindu medieval period, so concerned under the influence of Islam to conceal the whole subject in a monotheistic wrapper.

The sutra posits a dualistic distinction of *prakriti* and *purusha*. This double aspect model is the key. The 'spiritual' principle is strictly segregated from the sources of natural manifestation, and these include mind and soul. The 'spirit' of man is higher 'material', and not the same as *purusha*, which is uncreated, and uncreating. *Prakriti* comes in two aspects, uncreated, created. It is this unmanifest *prakriti* that is the obstacle to easy self-realization. The value of the *Samkhya* approach is to see that one mistakes one's spirituality for what is in reality a material manifestation in subtle form. The beauty of the system of *Samkhya*, the codified echo of some unknown Buddha, as ancient as the speculations of Thales and as deserving of a place in the Smithsonian of proto-science, is its consistency and simplicity: everything is 'material' in an all-encompassing naturalism, that is, all is of a piece, matter, energy, mind, purpose, god, and yet beside this is a witness, perhaps misunderstood as 'consciousness', a term they did not use, and which mis-portrays the element '*purusha*'. It is misleading indeed to translate the term '*purusha*' as *consciousness*. This 'dualism' then receives a sort of myth of the relation of the two in a striking image of a kind of evolution as punctuated equilibrium. This witness does nothing, and is neither god nor creator. Everything comes into existence from primordial matter as a cascade of evolutionary triads or *gunas*, doubling in number in some later formulations: 3, 6, 12, 24, 48,... This aspect is speculative and has degenerated into its own form of bogus cosmic mechanics that found its final burial grounds in the pastiche of such as Ouspensky.

The dualism of 'spirit' and 'matter' disappears and becomes a 'dialectic' or triad, in a tetrad including *purusha*. It is not a dualism of matter and spirit, but a dualism between the 'unnamable, but named, *purusha*' and a natural triad, of three 'matters'. Some of these 'matters' are unmanifest, and that's what causes the confusion of spiritual *samsara*. The point is that the higher range of this triad, the 'sattwic' is confused with the

spiritual. Perhaps it is the spiritual, but there is something beyond that. This dialectic is biophysical, the fact of the body, the mind, and the triadic ‘connector’, ‘e-motion’, desire, etc,... Science might have grown better in this acidic soil, as it thrashes about in Cartesian schizophrenia (although Descartes is attempting a similar gesture), sinking deeper even as Descartes is denounced, unable to get its ‘materialism’ in order. *Samkhya* is one great key to the labyrinth of Indian spirituality, tracing its origins to the era of Buddha.

Samkhya can be useful as a reminder that religions are not spiritual but upsurges in *prakriti*. Yogis hitchhike on the form and one day are found to have slipped away as the *purusha* element, allergic to religion, subtracts their name from the religious roll call. We see the point looking at the eonic effect with its ambiguous, now material, now spiritual, eonic emergents. The distinction of matter and spirit in Western language tends to divide the ‘sattwic’ from the whole man to call that the spiritual.¹³⁴

5.2.4 Axial China: Continuity and Discontinuity

As we see from the parallel echoes in this synchronous phase, there is no inherent difference between the East and the West. The Chinese Axial intersection is beguiling because its isolation shows the eonic effect in a displaced and attenuated form, and the effect of a creative period one third of the way through an otherwise relatively continuous stream.

The Chinese Axial Interval The strange thing about the Chinese instance is that it is almost invisible, on the surface. But the clues are there to an exact match if we can understand them. The change of character in the eighth century Chou era, the appearance of classic tradition ca. -600, and the resolution to empire in exact concert with the Hellenistic, tell us that we are seeing something in disguise, or else a politico-democratic trend toward equalization ideology that never fully realized itself.

The Chinese case proceeds rapidly toward integration as empire, as a political construct, after the Warring states period, in the same time-frame as the Hellenistic. This continuity is remarkable and we find the later Sung period, and the near take-off of a great economy where the West is in a medieval period. Part of the difference lies in the relative isolation of Chinese civilization from the Western transitions (although not from external invaders). However, the diffusing sources from the first transitions in the Sumerian field are what trigger (as far as we can tell) the rise of the mideonic Shang era, and before. Note by comparison the immense number of collisions in the Mesopotamian downfield, resulting in the emergence of the integrator religions. Taoism and Confucianism are the parallel equivalents, a unique blend of the political, philosophical, and mystical. There is an irony in the later diffusion of Buddhism to China, for in Taoism we see another variant of the same.

What evolutionary theory will then accept a transition one third of the way through its history? Thus, as we ponder the relevant era in light of this continuity, our consideration of the fundamental unit of historical analysis will force us to consider

something operating independently of the actual stream combinations of culture. Is there any support for such a strange idea in the literature? Kwang-Chih Kwang, in *The Archaeology of Ancient China* notes the turning point in the Chou era (eighth century), and observes, “A new era in the history of North China began in the Eastern Chou. In political history, ancient China consisted of the Shang and Chou dynasties, but in cultural history, the subdivision may be placed at the Middle of the Chou dynasty, dividing the Shang-Chou periods into two stages.”¹³⁵

Far too much analysis has been given to the question of why science in the modern sense didn't emerge in China. Despite being a very advanced culture able to develop in isolation (though, please note, with nothing like the emergentist democracy phenomenon), the emergence of modern science appeared in a less developed region. But as we look at the eonic sequence, the reason is clear. The mainline eonic sequence tends to hug its basic center of gravity, and diffusion rich fields near that.

Comparing the Chinese and Greek transitions is interesting because of the clear, but intangible, common denominator behind the clear difference in historical generation, and the ringing chord of philosophic ‘enlightenment’ that comes ashore in spite of causal diversity. The history of its transition is the history of its philosophic generation, and the transposition of ‘science, mysticism, monotheism, philosophy, and political ideology’ in recombination that shows a glimpse of the ‘eonic abstraction’ at work. In the strange dynamism of the Taoism and Confucianism we find the synchronous ‘eonic equivalent’ of the occidental monotheisms, an extraordinary alternate universe that bypasses so many of the confusions that arise in the west, and a clear indication that the forms of ‘revelation’ are in fact ‘free action’. But the western religious forms will end better adapted to cultural integration, at least in principle. In practice, the entry of the Chinese philosophies into the West almost from the beginning of the modern era and their popularity and influence on the philosophes shows the real case of greater universality.

Science and Civilization in China The example of China is instructive, since it is so lateral to the center of gravity of eonic sequence, yet shows uncommon continuity, along with technical expertise that never, however, gets the full ‘eonic amplification’ of the emergent science all too obviously hugging the ‘central track’ out of Sumer. The recurrent birth of science is a function of the triple phase track out of Sumer, with the mideonic efforts to keep it afloat the gestating result by the Islamic world during the medieval slump. Even so we find the invention of printing, gunpowder, and the compass as mideonic Chinese inventions that dawdle in isolation to first cross a transition after diffusion to the stepping stone region in the West. The attempts of Joseph Needham to study emergent science in China are perhaps excessively focused on the wrong factors. The main issue, given the ‘case of the missing centuries’, is the center of gravity of the eonic sequence, not the claims of Western technical superiority. China never even received the main early scientific texts, or had the direct influence of the Ionian or other intimations much more available to the ‘near-far’ Milesians. We see the clear difference of technostream and the intangible eonic determination.

5.2.5 A Flowering of Greek Tragedy and The Birth Of Democracy

Before passing on, let us consider once again the Greek transition, in its fullness, and note also the correlation of Greek Tragedy and Greek democracy, an apt association. The Greek period suddenly stands out as the clearest instance of eonic transition in the Axial Age.

Let us indulge one speculative extension of our basic outline, by wondering why the Greek transition is so spectacular after its divide, while the Israelite is largely before it, i.e. up to -600. This puzzle suddenly suggests our distinction of System Action and Free Action, and that the induction of freedom, and its realization must have an in-between period where the two are in a hybrid state, exactly what we see!

The Chronicle of Freedom One phenomenon of note is the way in which the Greek transition lags slightly behind the Judaic. That is, we see the onset of the great Classical flowering in the wake of the Greek Archaic in the period, roughly, from the generation of Solon, just after the divide. The Israelite transition gets its main work done before the divide, yet, in a real sense, crystallizes afterwards. Our model gives us a strange insight into this with our distinction of eonic determination and free action, macro-action and micro-action. The emergence of freedom ought to show eonic determination, yet must also be self-created. It is thus almost eerie to see the exact take-off the Athenian experiment just at -600. Indeed, much of the Greek achievement shows just this timing. The great run of the Pre-Socratics appears with Thales just after the putative divide, the Judaic instance having already completed the forms of its later codifications.¹³⁶

Presocratics and Sophists, BCE

Thales	580
Anaximander	570
Anaximenes	550
Xenophanes, Pythagoras	530
Heraclitus	500
Parmenides	490
Anaxagoras	470
Zeno	460
Empedocles	450
Protagoras	440

This might not be clear, and is a bit speculative on our part, but the point is that after the transition and the divide, there is no more ‘revelation’, only ‘free action’! Sink

or swim. But this is a hybrid situation where the system action is the real impetus, but it must be the result of human free action. Consider a different example, and analogy: you can create a theatre, system action, but the composition of plays must be free action.

Our model is of course approximate, and there are other good reasons why Greece might be slightly delayed, but there is a clue here to something our model is perfectly designed to explain: the transition to micro-action from macro-action. *True freedom must be self-constructed*. There is an immense mystery here, yet the logic is obvious. Create the foundation, and then leave the actual construction to men themselves. Note the contradiction that must be resolved: “freedom will not evolve and requires system determination. But system determination will produce only a causal sequence, and therefore for freedom to self-evolve there must be no system determination”. Our data, in light of our model, beautifully expresses the solution to this contradiction. And we can see why the experiment in democracy might be so brief.

Democracy’s Eerie Timing: By our rough measure the ‘eonic determination of democracy’ (System Action) would be invisibly *inside* the transition, but democracy as ‘free action’ should be directly emergent *after* a divide. *Mirabile dictu*, that’s what the evidence shows, twice in a row, the modern democratic revolutions occurring once again with this timing. It is remarkable, though still speculative, to see how well the puzzle fits. It defies chance, and we see the halting ‘democracy as free action’ emerge in the generations after Solon and nose-dive within two centuries.

Two Divides Although our model is crude it seems often exacter than we could have expected and the double emergentism of democracy in world history, twice in a row, just as a divide occurs, is almost eerie in its precision, twenty-four hundred years apart.

Two Enlightenments Peter Gay in *The Enlightenment: An Interpretation* explicitly notes and portrays the double succession of ‘enlightenments’, Greek and modern, and their exact correlation with our eonic sequence.¹³⁷

Let us note one of its most remarkable incidents: the emergentism of democracy and the tragic genre in concert. We see that the Greek transition was the era of the birth (relative transforms again) of the idea of Freedom (no doubt not its absolute birth), the Greek ‘*eleutheria*’, in clear correlation with the second of our turning points. We have already connected this to the recursion seen in the last transition. The great clue to the rise of the modern lies not in the economic statistics of medieval towns, or the chase for the essence of the Renaissance, but here in antiquity. Armed with a discrete-continuous model the point becomes clear (none of which denies the importance of the great Medieval gestation period). One way to see it is by tracing the idea of ‘freedom’ as it submerges in the era after the Greeks, to resurface in the modern world. The emergence of democracy in the city-state of Athens is one of the great moments of this period, in the first incarnation of ‘proto-liberalism’, against a backdrop of many republican experiments from Rome to China.

Eleutheria/Isonomia This period is that of the birth of so many of our current cultural preoccupations. “It was not in the streets of Paris that the spirit of man

was first stirred by the cry ‘liberty and equality’, but in Athens of Pericles long before. The idea that freedom is man’s birthright was first proclaimed on Greek soil.”¹³⁸

Greek Tragedy The emergence of democracy has become our signature example of an eonic double emergent. The eonic effect is beautifully reflected in the parallel, simultaneous, Greek Tragedy. There is a deep enigma here in the paradox spawned by our terminology, the ‘eonic determination of Freedom’. A variant of this is to look at Greek tragedy with a similar question about the ‘eonic determination of Greek Tragedy’ (i.e. the riddle of its periodization). Why does this mysterious genre arise like an island in an ocean in concert with the Axial period, and in parallel with the generation of the emergence of democracy, and then disappear within a few generations?¹³⁹

Note the timing of the philosophy of history and idea of freedom, in our discrete freedom sequence, and the echoes our method uncovers between two divides. The philosophy of history, since Kant, has produced a vast literature on the subject of freedom in history. The eonic model is crude but effective in showing the direct relevance of the one to the other using periodization, and to the arising, in the earlier period, of the characteristic themes of the ‘redemption of the will’ in later religions like Christianity. Historical evolutionary man is a kind of ‘tragical Frankenstein’ and his jerky ‘ethical changes of direction’ echo the Third Antinomy with its arcane yet significant distinctions of phenomenal and ‘transcendental freedom’. We see a sudden concordance of themes, and are ready to study this literature where by a curious non-coincidence we see the issue of the esthetic state arise near the modern divide. We also see that Kant discovers the connection between causal, ethical, and esthetic subjects, and what is more the deep relation of esthetic to teleological judgments. Does the irony suddenly stand out? Can we sense the deep unconscious gestation at work in the Greek transition and in its great tragedians?

Perhaps too much mystification is made of the riddle of tragedy. Nietzsche’s analysis contains one insight that is expanded into something misleading and extravagant. It is also, whatever its mysteries, a simple issue of action and failure, and a descant on the redemptive themes arising in other transitions. There could be an intimation of the ‘tragic’ in our ‘freedom’ question, in the consideration of what Kant calls ‘radical evil’. The issue is that simple, in crude terms. A ‘tragedy’ is an ‘action script’ left unrealized as a virtual exploration of ‘history and the elusive factor of will, in the dilemma of phenomenal and transcendental freedom. What is the ‘fate’ of the individual (pun intended with that overused cliché of discourse on tragedy), i.e. the future of his ‘free action’ inside and outside the eonic effect. The genre of tragedy was unable to continue past the great transition here. In any case, we need not presume to understand or define such a complex as the history of the tragic genre to see that it has an eonic history, most strangely.

We should be wary of trying to define what a tragedy is, and this has a classic literature, e.g. the views of Hegel. But at a higher level of abstraction, Greek Tragedy is interesting in relation to our history *because it shows creative action in the eonic mainline in a form that sequential eras cannot duplicate, and therefore can be taken as showing eonic determination.* This unique instance is thus a prime candidate for the ‘evolution of art’ in our sense, or any other sense.

We must be wary of including the modern examples in such a statement, for they show a different character. But the modern recurrence, even if we accept unique instances as evidence of historical dynamism, must constitute a still further compounding of the mystery. The genre attempts to make a comeback just at the high-octane surge of the rise of the modern, and cannot survive longer than a generation. Why Shakespeare and Racine were the only two men since Euripides able to excel in the genre is difficult to grasp. It is surely no accident the discrete freedom sequence is resurgent in the generation after Shakespeare.

We began with a challenge from the biologist to find an example in history at a close range of the evolution of art. We have a spectacular example in the 'eonic determination' of the tragic genre in the Greek transition.

5.3 A Rebirth of Freedom...Cycle, System Return...

We are set to leapfrog into the future. We can note here the frontier effect about to occur as Europe is seeded and the Roman World expands to its limit in the European sector, the source of the next advance, almost precisely at the limits of expansion. It seems like there is a distinct 'Western Civilization' that is in some fashion doing one history but that is an illusion of perspective. At this period Europe is a backward fringe area in the sequential zone of the later Roman system. As such it begins to receive, finally, the rich influences of the eonic sequence indirectly. It rises from its slumber slowly but surely. Europe will be the last frontier diffusion zone left in the Eurasian field, Japan being another such. But Europe is fortunate in so far as its medley of tradition will inherit the output of two transit areas, the Judaic, and the Greek, and its languages are a closer match to those traditions, facilitating the spread of the Axial novelties.

The suggestion of the eonic sequence is return on the far future, and we are already in the modern period, as we find its seeds as much in the dilemma of the Hellenistic, as in the economic derivations of capitalism from Medieval Christendom. We have come to another 'what next?' point. And we already know the answer, and, further, see why students of the early modern are condemned to equivocate the causality of the European resurgence. The modern period is gestating just here, for system return after 2400 years in a jump diffusion zone, i.e. at the fringes of the tide of expansion. There will be few candidates. The Hellenistic passes into the Roman Empire, thence at the boundary in Northern Europe we find a zone both fed the great advance, and yet still virtually untouched. Granting the dangers of 'discrete oversimplification' as against the sterility of 'continuity models', we are nonetheless drawn to the strange conclusion that the rise of the modern shows 'system return' in frequency, in a jump diffusion zone, as the 'emergence zone', this time unique, for the great roll of eonic sequence rolling out of the Neolithic. We are back at our starting point, the rise of the West, as the next response of eonic sequence to the Eurasian field.

Paul Kennedy, at the beginning of *The Rise and Fall of the Great Powers*, asks, “Why was it among the scattered and relatively unsophisticated people inhabiting the western parts of the Eurasian landmass that there occurred an unstoppable process of economic development and technological innovation which would steadily make it the commercial and military leader in world affairs?”¹⁴⁰ We have the answer, and the question has already been asked for Archaic Greece, and the other transitional areas. Thus the answer, in part, has been to see the factor of periodization beside the factor of eonic jump diffusion, or the frontier effect, the takeoff in the open fringe, if this has been balanced by good diffusion from the sources.

As of 1500 we see all the inheritor civilizations of the classical phase in a state of convergent stabilization. The field of civilization has reached the same point of ambiguous inertia evident in the centuries before -900. We know what to expect. An untouched extension, as it turns out, in the diffusion field of the Roman system, will abruptly experience takeoff. Thus, find the areas adjacent to the last advance, inside but near the edge of the field of diffusion, sequential dependents as yet untouched by the eonic sequence. Suitable frontier zones are few, Japan, Southeast Asia, Siberia, Europe, The New World?

One ironic fact is that Northeastern Europe, still out of the eonic sequence, has benefited from strong sequential dependency, and is really very ‘close’ to the great diffusion tracks of both Sumer and the classical phase. No field could be as ready as Japan, but it is far from the sequence center of gravity, and isolated. It is interesting and not surprising that Japan will suddenly and so easily move into the transitional network. In some ways the Orient is more advanced, and one effect of our model is the increasing difficulty of staging a relative transform against the whole. And our account must distinguish the economic aspect from the cultural in what we term the ‘modern’, creating a different account altogether. In some ways Europe benefits from its backwardness, but has to cover a lot of ground in a short time, as with Archaic Greece.

European history, in many ways, would seem a mystery. Why did it take so long for it to enter the civilizational nexus? It was always relatively close to the great centers of advance, and yet remained relatively static, once reaching a Neolithic plateau, until its ‘sequential’ entry in the period of the Roman Empire. Already in the era of Egypt we see mysterious stirrings of high barbarism that show rational and religious activity at a high level based on solid foundations in the diffusion of the first Neolithic that reaches Europe and stops, even as the Middle Eastern sources and centers move quickly to higher plateaus. Two great transformations come and go without triggering the passage to higher civil integration via a transitional sourcing. But it receives the great lessons of the ancients in a great vehicle of sequential generation, medieval Catholicism, abetted by the contributions of the Islamic world.

Notes

5.4 On the Threshold of World Civilization

The great era of world transformation passes, and by -400 we can see the waning of the effect. The outside date, -200, for Jaspers' Axial Age is far too late. By then the Athenian world is gone, the Roman Republic is beginning to suffer strains, and era of Empire is soon to come. The great religions are coming into being. We can see the difference in the post-transitional period at once in the passage of the Greek world to the Hellenistic Age. In Greece, the difference is dramatic, visible by the fourth century. *Polis* is turning into *cosmopolis*. Indeed it was in this period, as the classicist H. Kitto notes in an essay on the decline of the Greek polis, that the word itself, '*cosmopolis*', was coined to serve the passage to an allegiance to the greater community of man. A great expenditure of history grew from this point to prepare a first universal cosmopolitanism.¹⁴¹

In *The Harvest Of Hellenism*, F. E. Peters opens his depiction of the great oikoumene that is unfolding by noting, "This is a book about a second generation', the first generation being that of the Hellenes from Homer to Aristotle, the second one 'without a name', Greeks, Macedonians, Romans, Syrians, Jews, Egyptians. They came "under the spell of the Hellenes...condemned or blessed to reap where their spiritual fathers had sown."¹⁴²

In fact, Plato and Aristotle are a bit late, but show the last consolidation of our transition, before the rapid waning of the eonic dynamic. The period of the transition from the classical flowering to the Hellenistic world is the most solid, and the most confusing, period where the evidence of historical directionality, and a mysterious misdirection, come together. One aspect of the change is evidenced in the neo-authoritarianism of Plato denounced by Popper and can be found in the minor classic, *The Liberal Temper in Greek Politics*, by Eric Havelock. The use of the term 'liberal' for the Classical Greeks will not work. However, the basic point that Havelock is making is valid, by any terminology, in showing the change of character that came over the Greek world in the generation of Plato. The Sophists are maligned, but they are exemplars of the inchoate transition figures.¹⁴³

Our eonic model shows us at a glance the psychology of religion that arises in the Christian world, and the compulsion men had to think there were spiritual forces operating on their future, generated from the transition. They were correct, and correctly produced a myth of the eonic effect! But it is not the action of divinity. Only secular thought can summon the brusqueness to remind his religious brethren that a divinity would never act according to the hopelessly confused outcomes of monotheism, as the

mideonic stream jackknives and produces Anti-Semitism, and the rival emergent teleological vehicles struggling with medieval inertia.

The world into which the transition passes is one aspect of the perception of cycles that can do harm to progressive advance. As the sociologist Krishan Kumar notes in *Prophecy and Progress*,

the backward-looking spell of the memory of the world of classical antiquity remained, to bewitch thinkers into a sense that the great, golden age of man was really in the past, by comparison with which present times were mean and secondhand. This spell was decisively broken only towards the end of the seventeenth century.¹⁴⁴

Our framework now highlights the great historical drama of ‘decline and fall’, the progression toward religion and empire as oikoumene generators that will characterize the immense interval, the mideonic period, from the end of the Axial Age to the rise of modernity.

Decline and Fall The succession to the Axial Age provides us with an awesome display, and partial explanation, of the mechanics of ‘decline and fall’, and in the Occident the final collapse of the Roman Empire about a millennium after the onset of the ‘new age’ is the demarcation point for the tellingly named ‘middle ages’. We should be careful to distinguish the mechanics of our eonic effect, as self-organization, from declines of civilizations, which are due to other processes. This pattern is the mirror image to the eonic sequence, and is often the source of comparisons for critics of modernity. But the two situations are quite different. Please note that there is no inherent inevitability for this mideonic decline. It is possible for the system to advance from its transitional periods, and do that consistently. But we can see how the logic of disorganization slowly overtakes the larger system created by our eonic sequence, and this requires ‘restarting’ at the point of the next cycle. A frequent comparison of modernity, or else the ‘American Empire’, to the decline of Rome enters into an ideological sermonizing against the imperialistic capitalisms of modern nation-states. But these comparisons are misleading. Even if we accept the possibility of comparison of such different eras and cultures, the modern system would still be at about the point corresponding to -400, with almost a millennium to go! The decline of the Roman Republic into Empire, and of the Empire into medievalism are two separate things.¹⁴⁵

5.4.1 Slavery, Abolition, and Eonic Sequence

Classical civilization is reaching a crisis point here in the Roman world, beyond which no progress is possible short of abolition, which, please note, ignites explosively just at our next divide.

Consider antiquity, then, in the wake of the Axial period, then the beginning of civilization. A system set to advance, with new elements of economy, simply nosedives, the factor of slave society growing progressively worse—until the medieval period, in the

West at least. Christianity and Islam get honorable mention here, but they simply were unable to solve the problem, however much they laid the foundations for a 'New Man' able to handle the elements of modern civilization. We cannot neglect their crucial seminal contribution, nor blind our eyes to their inability to resolve the problem in full. This factor of slavery exists from the beginning, but never as a true functionality of real civilization, which cannot come into existence in such form, we should think.

In the worlds of Sumer and Egypt, the issue was ambiguous, but slowly deteriorating. But Marx is right in one way, the factor of 'implicit class struggle' attends the birth of the state. Critics of Marx correctly point out that 'class struggle' never appears until modern times. But that misses the point. The dilemma arises from the nature of the state itself, implicitly. One should wager a sum we would see, with close evidence, no intrinsic slavery at those points where state-emergence shows eonic determination.

It should be, we suspect, like the Greek case where the new and future mode is stillborn in the midst of the old. We can't be sure without facts. After all, the myth of Exodus clearly records a great drama of 'class struggle' and incipient revolution. But we need better historical evidence. Slavery has perhaps existed since the Paleolithic in some form. And it seems as if 'history' is compromising here, 'to get things done', until the rise of industrial civilization and abolition. We simply can't make that assumption so easily. A discrete-continuous system simply resets itself in a new future, and the past is truncated.

The subject, peasant, Neolithic farmer, or embryonic citizen, as an entity of socialization at the beginning of civilization, might be exploited, but he is an embryonic 'citizen', even before the grandeur of the Pharaohs. Class struggle is thus implicit in the birth of the state. But as to slavery, we might speculate that the system is inchoate and can go either way. Freedom is born in parallel with amplifying slavery. *Thus we have no real evidence that slavery shows direct eonic determination.* The point is that we cannot assume that 'Big History' is exploiting slavery on its way to a better future. Our transitions simply happen, the idea of freedom emerges, doesn't take the first time, and the result is history getting worse, not better. But there will come an end state to the tragic era of slavery, but it will come in eonic time, not by slow evolution of liberty!

We could just as well say that men in the direct line of the eonic sequence prove unable to realize its real direction, or mix elements outstanding to the mideonic realization. Cynical Machiavellians might take note of just how much of humanity's time they have frittered away. The Roman world can go no further, so to speak, until the issue of slavery is resolved.

All this may seem to be naïve idealism, but it is a reminder that we can specify no active agent behind our eonic sequence, which becomes 'active' (?) briefly, shuts down, and waits, apparently. But we do see something more like Santa Claus dropping gifts at regular intervals than some bloodthirsty spirit moving toward the 'end of history'. It is savage man, projecting his carnivorous instincts against the universe that seems to be the problem. In general, while a realist attitude toward slavery might seem the normal view, world history appears to mostly a legacy of abnormalities, so far. The point of our argument is to summon up a dialectical antithesis, and then demand hard proof in a

deductive model of any proposition asserting the ‘stage of history inevitability’ of slavery.

Market Evolution It is here in this period that the idea of the evolution of the ‘market order’ as the basis of historical sociology will fail: it does not evolve spontaneously against slavery (although the Roman Empire, it could be argued, has a considerable market evolution based on slavery). Instead the whole western system peters out and ends up in a Christian/Islamic medievalism. The picture of civilization at this point was not pretty, precisely because the market order was too immature to pass beyond slavery. The great irony, for those who think ‘self-interest’ as secular religion can explain history is the long delay in the birth of (modern-style) capitalism and it almost seems like there was a need for a long religious preparation. The market order requires sophisticated help like everything else. We still see the last phase of the confusion in the modern transition where freedom grows in relation to the core, while slavery is exploited at the fringe, resulting in the historical confusion of the American paradox, a slave state grafted onto democratic generation. The ancient system never achieved the market order as it amplified the slave system into such institutions as the Roman *latifundia*. Such statements require the obvious qualification and challenge of noting that capitalism was essentially already born in one sense, in the snafu over ‘relative transformations’ our model handles properly.¹⁴⁶

5.4.2 Religion and Empire

In context of the eonic effect the generation of Christianity and later Islam (and Judaism as we know it now) from the Israelite core phase suddenly falls into place in our explanation. The mechanics of these religions is impossible to understand without an eonic model, that is the distinction of System Action and Free Action. The action of the large-scale historical component (which call evolutionary) is one thing, its realization by men, Free Action, is quite another. Many of the endless confusions over religion will be clearer if we understand this difference. And one consequence is that, according to our rules at least, we cannot explain the mideonic religions to come, i.e. our system does not control the coming mideonic futures, although these are sequentially related to some core potential in the transition, and the Old and New Testaments of the Christians virtually say just that as they create an eonic myth of the mysterious system they find themselves in. It is easy to fall into a ditch here, and it is good to be wary. It is helpful also to look at the Buddhist example for comparison to see the strange core process at work. But we can see how the general pattern is in some fashion latent in the transitional period.

Christianity: A mideonic phenomenon It is important to remember we are dealing with eonic history, and this does not produce an all-inclusive account of its mideonic periods. It is not our job to fill the blanks with some simplistic account of, for example, the emergence of Christianity which is not a part of our eonic sequence. But our schema produces an exact, but abstract, rendition of the emergence of Christianity (or Mahayana, or Islam), and then comes to a stop, our job done, as it were: the transitions produce a seed material as macro-action

and these proceed toward the diffusion field there to generate materials for the generation of an oikoumene in the field of micro-action. It is hard to think of a better (eonic) portrait of the emergence of Christianity. But even as it explains, it explains nothing, which is as it should be. These mideonic religions are creations of men, not the eonic sequence, expressions of their freedom under eonic determination, or macro-action.

Thus, it is very easy to produce a plausible scenario of the way our model ‘generates’ the seeds for what comes, as long as we are wary of thinking we can grind out the particulars with eonic analysis, we can’t. The case of Christianity, for example, is both exceedingly obscure and completely transparent, at least with respect to our model. The Judaic stream brims and overflows, as we see a spiritual movement suffer the strains of transcultural integration and break away into a new religion.

These religions are now challenged in the next phase of our system, and the New Age effect is starting over. Nothing in our account requires any future for religion, since this category tends to the *ad hoc* of its age period. But modern secular thought can barely do justice to the immense task performed by the era of these mighty oikoumene integrators whose impulse moved toward the protection of disparate peoples and diverse evolutionary groups. Secular would replace this integrator theme with Darwinian thinking, then wonders fundamentalism is resurgent. We are so distracted by the metaphysical issues of theology that we fail to see the gestation of a new man from the action of these mysteriously emerging formations rising to challenge, then defeated by, the world of empire.

The critique of someone like Nietzsche of the onset of these champions of spiritual equality is unfair, and historically blind, and we must dread a future constructed of scientism, Darwinist reductionism, and neo-barbarism if an improper or ill-considered exit into secularism entirely displaces the impulse toward the community of man these vehicles created. Modern man must surpass these religions without regression. Our modern transition has already laid the foundation for a resolution of these questions. But we must note the way that these mideonic periods tend to fall into chaotification. Darwinism will almost certainly reignite an ‘Athens-Jerusalem’ style collision if it grows to overtake the global consciousness. This won’t have anything to do with a renewal of the ancient religions. A similar effect is very clear in the far left of the nineteenth century, a materialist movement.

We will remain within the deliberate restriction of our model and issue its stern reminder, that these religions are *mideonic constructs*. That means that men created them, and how they did that is simply not clear from the evidence, and requires some grounding in the more adept spiritualities of India. Especially with the birth of Christianity is that the case. It is a puzzle with too many missing pieces, one of them the charming tidbit of the ‘three Magi’. The triple action of John the Baptist, Jesus and Paul is hard to reconstruct, and too coordinated to be chance, but too *ad hoc* to be divine action. We can easily suspect, but not prove, something missing is crucial. The story of Paul’s conversion is a giveaway, but a giveaway to what? A true *tour de force* of concerted action whose choreographers we do not see, and whose tactics we may never know.

Thus, we can now see the era of phase pass into a distinctively different period of ecumenization, one that we can call 'mideonic', not really 'medieval' in the normal sense, or even in decline, but distinctly 'inside' the new boundary created by the era of phase. Comparison with the previous cycle tells us immediately, as one clue, what is afoot. In the Mesopotamian sphere, small starts rapidly degrade into Universal Empires as the false integrations of the ecumenizers, Sumer to Akkad. A new answer is needed, and the beautiful Greek world, passing to the Hellenistic, the Roman to follow, will prove unable to provide it. The world religions appear in the passage from phase, and the occidental monotheism will speak from Sinai in the myth of Moses, from a people, the effect is beautiful, whose Incredible Shrinking Kingdom actually disappears at the climax of transition! Nowhere at all touches the grand Void and spawns the Islamic chase toward the far-flung Everywhere as one in the Kingdom of...

The most obvious indication is the truly ominous decline of the entire system, in the West. The fall of the Roman Empire is the token piece here, yet we might assume that our system predicts this, or the argument requires it. Not true. This massive decline is not visible to anything like this degree in the world of China. Our subject is eonic rise, plateau, rise, not *necessarily* decline and fall. The problem is that system runs out of octane, and becomes humdrum, sluggish, then starts downhill slowly, unable to advance, among other reasons because of the factor of slavery. Our system might have had two millennia of democratic experiments. Instead modern man ends up doing tenth grade work in the eleventh grade. We see the drastic cutoff point, as the transition coughs, sputters, and dies across the board.

The eonic falloff phenomenon in the Hellenistic Age is the answer to Dodds' 'failure of nerve'. The difference is unmistakable very quickly, and proceeds from the era that started with the *Iliad* and passed toward that of Vergil's *Aeneid*. The contrast of Athens and Rome shows the clear difference of 'phase and sequential dependency indicated at the root of this analysis. We see the one blend into the other as the new era proceeds, and proceeds from the sturdy Roman Republic to the time of the Empire.

Mideonic Forces? The nature of our tale changes as we pass from eras of transition to the related sequential dependency of the mideonic world that arises from eonic generation. Our model has a problem, we can't explain the 'middle periods'. We designed it that way, on the basis of the evidence, the plus, beside the minus, of a discrete-continuous model. Everything in the mideonic interval defaults to 'free action', an apt and illuminating, though limited, approach, justified, however, by the facts. That is its value, and limit. By definition of our terms there are no such 'mideonic' forces, and the system proceeds on its own. And yet there seem to be such. Something in the transitions generates the potential to create the mideonic realization. In one way the answer is right in front of us.

Our form of analysis creates a seeming paradox, the reverse of that of the transition. If we attribute 'driving force' to phase, and yet associate this with emergent freedom, we are confronted with the chance that after the phase we will wish to see 'unforced freedom' and yet more probably will find a loss of freedom. Such paradoxes are really a sign that we cannot apply conventional dynamical statements to the system we find. But the data reflects this feature of the model most definitely and we know we

are on the right track to something because of such accurate reflections of the model. The terms of explanation are 'eonic determination' and 'free action'.

Sequential dependency is not determinism. Instead, information flows outward and there's a good chance the local future may conform to that information. The new influences of the transition diffuse outward, sort of hoping to influence the future, but more or less just keeping its fingers crossed. So what's to stop someone in the mideonic times and places to simply ignore the general 'evolutionary' direction. We see the elemental significance of religion as a core area generates a 'script of action', in the form of a corpus of materials, which, remarkably, even include claims on divinity saying, 'Do this', 'This is how free action' should behave. The tablets of the law, crystallizing as myth just at our divide, in the expanded abstraction of the state called a 'religion', flow outward into the field of free action.

Anti-Semitism, Mideonic Jackknife, Teleological Tragedy One of the clearest indications, and liabilities of, eonic evolution in our sense is the danger of jackknifing realizations in the mideonic period as the system action wanes just at the point where its productions meet a greater totality. The nature of our model allows us no use of the mechanics of transitions to explain the mideonic outcomes. And history reflects this, keeping in mind that our account of 'ET5, Israel' is not theistic. We can see the difficulties and dangers of making teleological statements about the eonic mainline, and yet we tend to see the projection of the core transitions onto the greater field of culture as somehow the intended outcome of the whole process. The problem with this, and there are others, is that the middle period and the long term are different, and the result turns into a teleological ideology on the part of those realizing its action. The Jews and the Christians quite obviously diverged in their interpretations. This example should cure anyone of teleological thinking. We can see the quiet desperation of someone like Mohammed, 'start over from scratch'. The entire egregious and wrong result of Christianity with its Anti-Semitic strain is one of horrors of world history. We should note that we see similar effects in India in the divergence of Buddhism and Hinduism and the long conflicts between the two.

In any case, the confusion of Christians and Jews is especially tragic. It is logical, in retrospect, to see the transformation of the Judaic emergentism into a world religion as part of distributed evolution, but the actual details shows an arbitrary character, and a very dubious series of attempts to justify the result in theological terms. The modern period shows the whole danger all over again in the rise of the far left in the throes of globalization, and we need to try and find some resolution of the inexorable deviations of teleological claims on the future, owned by noone.

Christianity/Judaism, Islam, System Action, Free Action Our model produces a beautiful insight into the emergence of the great religions, so-called, but at the same time we must be clear that it takes a 'hands off' approach to their appearance since by the very nature of a discrete-continuous model they are beyond the range of our dynamical explanations, or explorations. They default to mideonic 'free action'. The most we can claim is that something in our eonic sequence, here the Axial interval, produced seeds that flowed into a diffusion zone thence to be raw materials for mideonic constructs, and the mediation of new oikoumenes. Full stop. And that much the evidence shows, most

powerfully. And yet this ‘explanation’, even as it explains everything, explains nothing, and we must respect the historical integrity of these outcomes by opening a new file for their study. We must trace their historical chronicles without invoking the dynamics of the eonic sequence. Because of their occulted origins, that is extremely difficult to do. We have abstracted the question beyond the design argument visible in the Old Testament, and shown its eonic character, one the first Christians struggled with most directly. No designer would use a discrete-continuous action, it is clearly evolutionary, and makes sense in those terms.

The Axial interval of the Old Testament appears on schedule, while, for example, the initialization point of Christianity is given no explanation in our model. And that is right and proper. It defaults to mideonic micro-action. All we can conclude is that later men, in the realization of the powerful corpus of eonic emergents appearing in the eonic interval, saw fit to do certain things that later became major religions. And they struggled even more specifically with their inchoate perceptions of an ‘eonic effect’ in action by noting the special character of their source point, calling that, misleadingly, an age of revelation, thinking further that certain prophets predicted what they were doing. This issue of prophecy confused them since we must doubt that interpretation, as we see that what occurred was at most a selective realization among a host of potential outcomes, the contrast of Christianity and Islam giving a powerful indication of this different potential realized.

It might be that our eonic model is too basic, that a deeper dynamic is missing in our attempt to express the character of the eonic sequence. But we are bereft of the means to carry this further, although hints and intimations of such lurk in the data. For example the sudden appearance in concert of Mahayana and Christianity six centuries after the divide, both as schemata of redemption, must leave us wondering what we have missed. And the curious Zoroastrian character of Islam near the source points of that other tradition hint at a more complex picture than we have drawn. And the appearance of Sufistic traditions embedded in Islam shows us an experiment in ‘religion-formation’ taken to a very high level indeed, a phenomenon well beyond the capacity of our model to explain.

Let us note what later secularists tend to (wish to) forget, the theocratic ambitions of the great religions of the Axial Age, visible powerfully in the transmutation of the Israelite theocratic state religion into an oikoumene action script pool, leading to the projects of ‘spiritualization of empire’, however confused or unsuccessful the outcome, leading to the powerful dialectical reversal in the modern transition. This was a response to the degenerations of empire so obvious in the encounter of Israel and the Assyrians, for example. We need to take everything in its time, ‘root for the team’ in its time, and then do backflips as we pass to the successive stages of the eonic sequence.

Unfortunately great confusion has arisen in the emergence of secondary, often ‘occult’ or ‘esoteric’ spiritual traditions. We cannot rule out the possibility that emergent Christianity or Islam were the creations of historically undocumented agents of ‘will’ operating via proxies. The suspicious appearance of sufistic agents in the background of Islam is one question mark. The previous appearance of such characters and their occulted feats has to be considered in the puzzling veil drawn in the New Testament around the basic chronicle, consider the beguiling appearance of the ‘Three Magi’, a sort

of smoking gun of some kind. An ironic historical version of a design, human, all too human, argument lurks therefore in the attempt to decipher the undecipherable beginnings of Christianity. Whatever the case, what they did exploited the rich material appearing in the wake of the Israelitic transition. This well-tilled soil was a spectacular opportunity. They saw their opportunity, saw it as predicted by the Prophetic tradition and wove a new tapestry around that eonic saga, of which they were only partially aware. We can be almost certain these curiously veiled ‘complots’ lurk in the Buddhist sequence with their known ability to act beyond space via proxies. So everything about the onset of Christianity has to put into the category of ‘unanswered questions’. The ‘designers’, whoever they were, leave only a cold trail.

It is significant that the eonic sequence operates at a deeper level than that achieved by Buddhist agents who carried out the stream of the religion of Buddhism. That is enigmatic indeed since it shows that historical agents at the level of ‘enlightenment’ still are unable to fully free themselves from the historical determination of the eonic sequence. There is some ‘causality of freedom’ we don’t see since the so-called ‘fourth state’ beyond self-consciousness (turiya) can emerge, not only in relation to the efforts of individuals, but on schedule in an historical sequence. The sudden appearance of a ‘Buddha’ on cue in a matrix of periodization seems to contradict assumptions about historical transcendence. There is some higher power we do not grasp behind this, although we see it is connected to evolution in our sense. In any case, the eonic sequence comes out ‘clean’, untampered with in its scale and prodigious variety by the manipulations of spiritual agents. These figures give themselves away with their preoccupation with ‘founders’ at t-zero initialization points, and are not in a position to even observe, let alone exert authority over the direction of evolution (transitions of several centuries in length, globally dispersed over millennia), and were clearly unaware of the larger process to which they powerfully contributed.

Islam It is clear from our model why the Axial religions began to crystallize about two centuries after -600, as the transitions wane. Our list of transitions was minimal and might have included the parallel Zoroastrian tradition that will influence Islam. We have spoken of the eonic emergence of religion, but this is misleading if it is seen as deterministic causal generation from sources. For the steps of construction, although echoing their sources, show little that was predestined. The point should be clear in the fanning process of the several ‘islams’, with the original Judaic tugboat proceeding on its own way.

But these religions accomplish their missions, in many ways. A foundation is laid for passing beyond slavery, for new types of social existence. That the Judaic tradition proved more capably potential for this task than the Hellenic is a reminder of the efficacy of parallel emergentism with its multiple potentials. The picture is difficult to resolve accurately. Was the post-Exilic Judaism a firebrand revolutionary force moving against the past, or a ‘steady as she goes’ conservative force maintaining a variant of the ancient Mesopotamian temple tradition in a new upgraded form? In any case, the ‘myth of Exodus’ expresses beautifully the ‘virtual revolution’ behind the eonic revolution in a tale, as noted, dated precisely to the generations near the divide, or later. The classical phase shows at its clearest our ‘fundamental unit’ in action, the creation of a bouquet of

multiple oikoumenes, from China to the West, as separate yet intersecting cones of diffusion that fall short of global closure. History has outsmarted the one-track mind, with a hope against the imperialists.

The emergence of a world civilization would seem the achievement of the modern transition. It is arguable that a 'world civilization' was already coming into existence from the period after the Sumerian. Within a few centuries the implications of 'first civilization' were already generating a first *world* civilization around the Sumerian generator as the expanding field of civilization passed into its Akkadian expansion. Whatever the case, the classical world lays the real foundation for global civilization, even as it spawns its characteristic 'islams' in the occident.

The abrupt appearance of Islam at the exact middle of the great passage of our second cycle is hardly surprising. Like the engagement of a pusher unit on a freight train, to move sluggish tons over a mountain range, the effect of this 'man-made' jump-start was decisive, in many ways, with respect to the chaos of occidental antiquity. The same can be said, to a lesser extent, of medieval Christianity, of which Islam is all too obviously a brilliantly streamlined upgrade, ditching the hopeless metaphysical baggage of this trial-run. The issues in the time of Mohammed were very real. Twelve hundred years of coordinated civilization had fallen to pieces. Men, who could see, were aghast at the situation in which they found themselves, at the climax of cyclical downturn.

That this generation of a whole new religious civilization was 'mideonic free action' rather than phase generation, i.e. no exception to our pattern, can be seen from many clues, preeminent among them the fact that one prophet *was* able to precipitate a 'butterfly effect' against the disorganization of the times.

6. TRANSITION AND MODERNITY

6.1 A New Age Begins

‘We are at the dawn of a new era!’ exclaimed Luther more prophetically than he himself imagined... ‘Rarely is a work undertaken out of wisdom and precaution,’ he declared, ‘but everything is undertaken out of ignorance.’ The man who initiates creative action can seldom know where his steps will lead him...But if Luther was a prime mover, the forces that soon set all Europe in motion were stronger than any single man.’¹⁴⁷

Returning full circle from our search for the sources of the eonic sequence we arrive once again at the dawn of modernity to find our world system taking off on schedule in the sixteenth century in one of the last diffusion frontiers left, spawning the new era that we call modernity. The rise of modern is now transparent as the third great transition in our eonic sequence. We are back at our starting point with a structure of elegant, yet mysterious, coherence that highlights two different levels at work in world history. Despite these theoretical-sounding statements, the pattern of the eonic effect, let us remind our selves, is purely empirical, however we understand it, and the sudden rise of the modern world from the sixteenth century onward is a mysterious given of world history, and completes the equal mystery of the previous two transitions we have examined.

All the confusions of discontinuity, Eurocentrism, and secularism, disappear in the expanded scale of our eonic analysis. The rise of the modern is not a development of a Western Civilization, but an eonic transition expressing world-historical directionality of a cluster of culture complexes in a frontier effect: North Italy, Spain, France, the Protestant Crescent (Germany, Holland, England, and soon, its sidewinder, North America). This transitional phase is over by the end of the Enlightenment, and the system rapidly starts to globalize on this new basis, in the slow shift of the center of gravity. Once again our eonic sequence hazards its globalization on a temporary localization and the immense strain of macro-action via micro-action soon finds democratic emergentism competing with imperialism and revolution. We should note that globalization in our sense is a function of the eonic sequence, and not the same as economic globalization.

As if the last place left on the planet to stage a surprise attack against Eurasian inertia the Euro-partition created by the Reformation generates a new frontier sector that takes off in a race against time and newly expanding slavery, in the brief launch window, closing if not closed, by the rough point of the divide, before the underdog becomes a new source of domination and empire. Democracy comes roaring back, much stronger this time, abolition is achieved, and it almost seems as if the Ionian Enlightenment is in a

¹⁴⁷Chapter 6

[?] Lewis Spitz, *The Renaissance and Reformation Movements* (1971), p. 301.

second coming against the theocratic worlds created by the winners of the Axial period. We can add the 'rise of the modern', now a time-slice phase, to our list of stream and sequence intersections, resetting the directionality of the world system as it moves toward globalization.

We can see how this transition forms a coherent unit in two rough halves as the Reformation and the Copernican Revolution leading past the Thirty Years War brings us to the new age of the Enlightenment, renewed democracy, and the Industrial Revolution. Although past the modern divide, we are still altogether in the grips of the modern transition, and culture still has the freshness of a new age in world history, despite the convulsions of the past two centuries and the onset of postmodern chaotification in the waning of the elusive factor of eonic determination.

The resemblance to the Greek transition is striking, almost like a recursion. The immense potential lost in the post-Axial chaotification of the Hellenistic seems to get a second chance. Let us note that science, including the idea of evolution, and democracy both failed the 'survival of the fittest' test, the case of the missing centuries, and show our clear evidence of eonic mainline reinduction. So much for Darwinian thinking. Our univalent modern transition, compared to the Axial parallelism, is severely imbalanced in one sense, leading to Eurocentric illusions, but the overall logic is clear, and the swift turn toward cultural globalization occurs promptly in the wake of the divide, thwarted by the forces of rising imperialism.

The phenomenon of Axial parallelism would be counterproductive in the modern transition, and the emergence of universalist themes is a striking feature of the Enlightenment contribution to globalization, real globalization. Alone among the great religions the Christian stream is in the eonic mainline and the swift remorphing of its Protestant trigger into the Enlightenment shows the deft effectiveness of the transitional era. Our model renders no judgment as to either the true definition of religion, or its future in the world system. In one sense, as secularists would believe, religion is a redundant category, from the view of our fundamental unit of historical analysis. But it would be naïve in the extreme to pronounce on the future passing of religion, as the host of New Age movements, to say nothing of the leftist themes of class struggle, already show the trend toward mideonic reformulation of religious fundamentals. The issue is not religion, as such, but the inability of all parties to create spiritual vehicles that are not vehicles of exploitation, or domination.

It is thus significant that many now sense what they call a 'postmodern' age. Our interpretation shows the reason, and the paradox of progress surging, progress in paradox. This term is superfluous in our model and postmodernist periodization tends to create confusion, whatever our views on its philosophies, where a 'dialectic of the Enlightenment' is simply par for the course. As a critique of teleological ideologies postmodernist thinking is significant. But we might just as well critique a lack of a true universal history, equally able to produce a 'postmodern' assessment of our historical dynamics.

Our interpretation deftly bypasses the illusions of Eurocentrism and we see that the eonic sequence is moving on a far greater scale than that of individual civilizations, if only it can become disentangled from the local medium of its long-range action. Our system can generate change in the core, but cannot control its peripheries, the undoubted

reason such an explosive left arose so quickly in the wake of our transition to challenge the instant distortions of globalization. Our modern transition is not the triumph of 'Western Civilization' but a pivot on the way toward globalization. And this globalization is not the same as economic development. That is true by definition in our account, but clearly economic action rapidly becomes the key player in this instance. If we compare the three centuries of the ancient Axial transitions, plus the two centuries immediately in their wake, then look at the modern instance, as five centuries from the onset of modernity, we see it is not surprising and no accident to find the current preoccupation with empire and pseudo-globalization of economic exploitation. It is almost too mechanically precise for comfort.

Well past our divide period, the world system is now in the throes of its reversal toward the whole, and our model is ready with its balance of two universal histories in the dialectic of universalism and diversity. Chauvinist or Eurocentric accounts of our modern transition (e.g. the 'Judeo-Christian tradition, etc,...') will be swiftly disabused of their sense of centrality as the system slowly but surely changes its center of gravity. In fact, the first shift in that center of gravity occurred early on in the American sidwinder. The latter would do well to consider the gifts of time, not overestimate one's brilliance, and not fall behind as the globalization process continues. We should not forget that, while our use of the term 'evolution' is at risk of an ethnocentrism reflecting the transition zones, its scope in reality is universal, and moves to garland the fruits not only of its prior stages, but of the universal dimension of evolution in the greater community of man irregardless of its coordinates in relation to the eonic sequence.

By our analysis, instead of a postmodern, we are in a post-transitional period, a better way to put it, still close to onset of a great New Age of world history, whose potential we must hope will not end betrayed as have prior stages of civilization. If postmodern philosophies echo and descant the very Enlightenment they critique, then they join that canon in reasonable fashion. But if the idea is to replace the modern transition with a new New Age negating the rise of the modern, the odds against success are very great, unless simple decline is a possible candidate. Although in a postmodern period the rise of the modern and the Enlightenment are under attack and the critique of imperialism and empire seems to replace the discourse of democracy, our emphasis on the early modern is the right one, in terms of the overall 'eonic evolution of civilization'.

Our transition is taken as the dawn of a New Age. The mythology of New Ages is unending, but our eonic mainline gives us a useful way to set the record straight and we can categorize the modern transition as the dawn of a New Age in some hope to still the commotion here. Although our use of the idea of a 'New Age' is informal, and has no theoretical status, we can, for all intents and purposes, depict the third transition as rapidly emerging modernism in terms of a 'New Age', the third in visible world history, the more so as its challenge to the outstanding religions of antiquity is so reminiscent of the 'relative transformations' of the Axial period. Beware of those pronouncing the Enlightenment a failure and proclaiming the new New Age for some guru or others ambitious to exploit a postmodern strategy.

We have almost whimsically taken on the lore of cyclical theories, to challenge the Spenglers and Toynbees. Our data shows the correct grounds for this, but does not allow us any empirical generalization. So we merely observe the factual mystery of a cyclical phenomenon first visible in the era of early Egypt and Sumer. We must be clear we are speaking of *cyclical progression*, empirically given as with economic cycles, and not *cyclical recurrence* in some metaphysical phantasm of cycles. The cyclical progression of 'Mondays' in a sequence of weeks is not the same as the cyclical recurrence of their interior events. One reason to produce a 'cyclical' theory at all is to challenge the prophets of doom and decline who will attempt to point to some 'decline of the West' as a postmodern comeback against modernity. This view reconciles perfectly the 'opposed' linear and cyclical views of history and gives new meaning to ideas of evolutionary progress. Our viewpoint reconciles the so-called linear and cyclical views of history into one concept.

The center of gravity of our modern post-transition might well change, but this is not an issue of the imperial powers of the first and early inheritors of the modern system. It is good to be wary of the Toynbean formulation. Toynbee begrudged the modern world the breakthrough Enlightenment, and seems to find at the point of globalization the need for religion as some phantom of the internal proletariat. We are wise to this game. These religions are mostly mideonic sludge at this point, and don't correspond to the Axial source.

A Second Axial Age? It is an historical given that the eonic effect was perceived at first in its second step, the so-called Axial Age. Thus it is also possible to take the eonic pattern as an unassembled puzzle, with its major piece, or pieces, the data and perception of the so-called 'Axial Age', as a study in itself. The pattern in this aspect was described by the philosopher Karl Jaspers, who summarized a series of perceptions by many scholars stretching backward into the nineteenth century.

The problem is that the phenomenon of the Axial Age finally makes no sense in isolation. Thus we have a sequential and synchronous pattern whose connection is not at first clear. Later the logic of globalization will suggest one solution to the overall pattern of selected hotspots showing eonic transformation, according to a minimum principle. The sudden synchronous appearance of cultural innovation in Rome, Greece, the Middle East, India and China in a period centered on -600 is inexplicable under conventional assumptions. Standard causal reasoning about the 'evolution of cultures' fails because of the simultaneity of relative advances in these separated areas. The phenomenon does not emerge by slow evolution from the prior state of these separate cultures. There is some kind of global factor operating independently of particular civilizations.

Looking at this Axial phenomenon we are confronted with an inexplicable mystery. But one clue to the riddle lies in seeing that this period is not unique, but one in a series. The resolution of the mystery comes to us quickly, as long as we are not distracted by the interpretations of the Axial period solely as a spiritual age of religions. We ask, are there any other periods like this? The great clue is the remarkable resemblance of the Greek Axial interval and the sudden rise of modernity from 1500 to 1800. Moving in the opposite direction, can we find a similar period of rapid innovation and sudden advance? We don't have far to look. We suddenly see that the birth of civilization, and the rise of modernity are different phases of a larger pattern, with the

Axial Age in the middle. Seeing the rise of the modern as a kind of second Axial Age suddenly makes sense of the data. In fact it is a third, at least, the extraordinary rise of Dynastic Egypt and early Sumer being a giveaway. We are forced to consider that the Axial Age is really a step in a sequence, and moving backwards and forwards we suddenly discover the full pattern. We can see three turning points equally spaced, with an interval of about 2400 years, clear evidence of a cyclical phenomenon.

The question of the Axial Age has spawned a new historical myth of a spiritual age producing the world's great religions. The fact that Buddhism (and Jainism) are 'atheistic' while the Israelite Axial interval spawns a theistic religion makes any simple interpretation highly problematic. The case of Greece is then downplayed because it doesn't fit the religious pattern (it actually shows a last great flowering of polytheism along with the seminal emergence of a critique of such). The pattern is far more complex than an association with transcendental mythologies. If there were ever an age of 'revelation' it has to be the Greek case, whose multidimensionality is spectacular. Out of the blue, a frontier area relative to the Middle East undergoes a prodigious flowering. Note the extraordinary synchrony of the core Old Testament period of the Prophets, and Archaic Greece. Then note how the Indic zone recycles itself in Buddhism, Jainism, etc, stripped of all local associations with 'Hinduism' (a highly vexed term). In fact, 'Hinduism' itself recrystallizes as almost a new religion. Our historical dynamic thus transcends the content enclosed in the remarkable 'Axial interval'.

The problem is the extraordinary parallelism that places the 'Axial' period beyond anything to do with religion. This is also the era of the birth of democracy, science, and the proto-secularism of the modern period. These are all pups from the same litter in what must obviously be a form of multitasking parallel evolution, a shotgun effect exploring different possibilities. The Axial Age appears at first to be unique, but then shows itself as a step in a more general pattern, perhaps a sequence? With this question the real antecedent and continuation suggest themselves, the birth of civilization, and the rise of modernity. One problem is that we see a naturalistic phenomenon in the 'evolution of religions' and in general a dynamic that has nothing to do with religion at all.

We can discover the significance of both the Axial Age and of modernity by asking a question, Is there a second Axial Age? The rise of the modern world is simply another 'axial' transformation, disguised behind its secularism. The formulation of Karl Jaspers remains ambiguous on the question of the rise of the modern. The reason is the stumbling block created by misleading definitions of 'secularism'. Darwinism, atheism, scientific positivism, Nietzschean anti-modernism, the calamities of the First World War and the Holocaust, are all taken in evidence to either define the secular or castigate it. This misses the point entirely. The 'secular' is suddenly obvious as the type of society emerging from the *early modern*, ca. 1500 to 1800. This is a complex dialectical spectrum (as was the Axial Age), not an 'ism' defined by some watered down version of scientism or the Enlightenment. Thus the 'secular' for us is not a philosophy, but a temporal interval in a larger sequence, with a geographical sourcing area, showing a complex dialectical center of gravity around religious transformation (the Reformation), the Scientific Revolution, emergent economic modernism (capitalism, and its potential

counterpoints, e.g. socialism), the Enlightenment (and its potential/actual counterpoints, e.g. the Romantic movement), re-emergent democratic experiments, and much else. A kind of postmodern fog has already settled over our perceptions on this point.

6.1.1 From Reformation to Revolution

Of all of our transitions, the modern is the most transparent because we have continuous data throughout, and the result shows a clear overall dynamic and interior structure, in a unity stretching from the Reformation and Copernican Revolution to the Enlightenment and French/American Revolutions. And this transition falls naturally into two stages, centered on the seventeenth century, as the Reformation ignites the fast passage, the field clearing in the wake of the Thirty Years War, to give birth to the seminal first signs of virtually all the characteristic eonic emergents of modernity. The relative transformation of a small piece of Christendom on a northern frontier, the Protestant Reformation, is a classic instance of the 'eonic evolution of religion'. This 'reformation' is at first confusing in that it is a religious rebirth that remorphs into secularism.

Our model summons up the enigma of revolution and solves it indirectly. To be blunt, the thesis of slow evolution fails completely and the cluster of revolutions in the modern transition is no accident. However, these revolutions inside the transition are unique and don't transfer outside the transitional interval. A great deal of confusion has arisen over 'revolution', in part due to the influence of leftist ideologies, which are a secondary response to economic contradictions in emergent capitalism and the post-transitional onset of globalization. But Marx saw the point very well, and categorized modernity as a 'bourgeois revolution'. Whether that is fair or not, or a complete analysis, the point is clear that the center of gravity of the early modern 'revolutions' lies in emergent liberalism, with the ambiguous Münzer a genuine prophet of working class revolution. And that's the point: the full potential is clearly present at the beginning, and the issue is not liberalism vs socialism, but the outcome of the modern transition, as such. But our eonic 'revolution', to use the apt metaphor of 'revolution', is something else, and as a transition is a response to the entire world system as of ca. 1400, and echoes a recursion on the order of the Axial Age. Its action produces a new potential for civilization, with many possible outcomes. Having jolted the Eurasian system from its doldrums, it comes to a stop. It is not true that there is some kind of teleological result in the emergence of capitalism. Note the resemblance of the Greek Axial and the modern transition, one with, the other without a capitalist outcome. The same can be said of technological innovation.

Technostream != eonic sequence An immense technological revolution accompanies modernity, in the wake of the Scientific Revolution (with the exception of the Big Three, clocks, gunpowder, printing bestowed much earlier from China) but it is important to see that the rise of the modern is only secondarily a technological revolution, if only because that's the way we define it. The technostream is a series of human innovations, the eonic sequence a macroevolutionary driver able to remorph whole culture streams. Modernity and

the Greek Axial show an isomorphism independent of technological factors, one with, the other without advanced technology.

Econostream != eonic sequence The same can be said of the economic stream of history, whose actions are basic market operations, the higher cultural software for modern capitalism being claimed by the eonic sequence. Economic systems are universal and occur at all times and places.

The Burkean perspective is equally uncomprehending. The fetish of medievalism is dispatched forthwith in a ruthless recasting of infrastructure. We see the answer: our transitions are revolutionary as macro-action, but not the same thing as revolutions as such which are micro-action. Failure to grasp this distinction has produced confusion, especially in the Marxist focus on economic transformation via revolutionary adventurism, and a new kind of revolution attempting to extend the idea of revolution from liberal to socialist emphasis. No secondary revolutionary initiative can match the complexity of an eonic transition. And these aren't primarily economic. The question of private property gets a thorough foundation, then our later leftists just after the divide try to reverse this. Such a recasting would force a 'recompute' of the whole transition, small wonder the far left fell into chaos, in the sudden appearance of a 'floating fourth turning point' phenomenon, the 'islam' of the socialist revolutionary. The latter, in any case, will, we can see, prove a constant, if incoherent, mideonic companion to 'bourgeois' modernity. This statement makes no judgment whatever about the relative justice in capitalist or socialist systems. In any case we can't extrapolate a theory of revolutions outside the eonic sequence, since the latter is macro-action and anything else micro-action. Social transformation in that case must be constructivist.

Even our mighty transitional interval, to ca. 1800, can barely achieve a basic liberal revolution, getting lucky once with its North American sidewinder (a frontier effect!), and then comes to a stop, as the synchronous emergence of a new economic system conditions the outcome, and throws democratic revolution out of whack. The emergence of the far left as microaction attempting to complete the result ends in collision and the system becomes the chaotic result we see. We should be wary here, since our model gives the appearance, due to its periodization, of a strong legitimation of the liberal order, but nothing in our mechanics of transitions is designed to resolve the ambiguity in a system using a shotgun approach, and where democracy, liberalism, socialism, and capitalist claims on freedom are all synchronous eonic emergents. We have to exit the model to deal with real problems.

Thus revolution as micro-action in the wake of the modern divide becomes problematical, allowing the system to crystallize in the ambiguous democracies of capitalism. The modern transition is a comprehensive transformation across the full spectrum of culture, not simply political revolution. But the metaphorically 'revolutionary' character of modernity is clear from the Reformation itself, accompanied by the German social revolution of 1625. Our later associations with the idea of revolution might make us forget that the truly foundational period of the English Civil War shows us a hybrid stage where the concerns of the Reformation are at work. It

begins as a religious conflict and ends with the birth of secular politics. The question of revolution is controversial but the eonic model reduces the question to a simple clarity. Revolutions are eonic emergents. The transition itself stands beyond its incidents of political action. The transition is a massively complex interplay of philosophic, religious, economic, political, and aesthetic emergents. No group of revolutionary agents can match this scale.

The early modern: an emergent field Let's list a few of the eonic emergents relevant to our definition of the modern *transition*. Although the size of this dataset is staggering, if we list enough overlapping zoom targets we can likely get a fair picture of what's going on. The list can keep growing. We are *outside* this transition, and must assess using *judgment* what should be on the list. But even with a partial or debatable list we can make our point, TP3 creates a massive change of historical direction. Thus we get:

The Reformation, with Luther's and Tyndale's Bible, Copernicus, Vesalius, then the seventeenth century Scientific Revolution, the birth of liberalism, Descartes and the rise of modern philosophy, Hobbes and onward, the German, English, American and French Revolutions, the birth of democracy, the Enlightenment. The Industrial Revolution, and the onset of modern capitalism...

Note that the generation near the American Revolution, our divide inside our transition, is one of the most massively packed periods of innovation in world history, and much more than a matter of technical innovations.

We see the French and American Revolutions (and soon liberalism spawning democratic liberalism), the Industrial Revolution, the Enlightenment with a Scottish Enlightenment, and a German *Aufklärung*, Adam Smith and a new economics, German Classical philosophy and the Romantic Movement, Kant, Hume, Bentham, Thomas Paine, ... This just skims the most visible data off the top. Our divide is a matter of degree, and could be from 1750 to 1850. But there is a clear fall off in the rate of *basic cultural* innovations, as opposed to technical innovations or economic expansions. A good way to see that is in the Industrial Revolution. That creates a massive transition of its own, and then stabilizes as a 'market society', however unstable that is.

TP3+: Since our turning point is a finite interval, it produces a divide (early nineteenth century?) and, sooner or later, goes through a post-transitional phase, perhaps of reaction against the turning point.

The onset of the modern transition shows us a mysterious starting chord in the synchronous appearance of Luther, and Münzer, next to Machiavelli and our first modern Utopian Thomas More. Let us remind ourselves that if Machiavelli initiates a new science of politics, the hidden note of politically invisible actors, no doubt immoral riff-raff, mongrel descendants of the godly Pharaohs, it is also true that precisely at our divide an ultra-idealistic protest, anti-Machiavel, appears in the Kantian contretemps with Benjamin Constant. Before continuing we should rescue our subject for some 'idealistic thinking' with an interpolated 'sermon' in the midst of 'value free science'. Realist politics and the devious schemes of Machiavelli have no status in our system.

An ominous question Has civilization been hijacked by Machiavellian politicians? Note, in our account, how little politics matters in the long run. A few brief incidents of successful bootstrapping beyond dead history in a chronicle of the ‘history of crime’, e.g. the American Revolution, a non-random event structure relative to world history. Our transition in its braiding of macro and micro-evolution shows the strain of morphing toward an ideal, moral ideals at that. There is no implication that the outcome matches that ideal. Fussy old Kant, perched on a crag near the Great Divide, won’t even grant the right to lie by power elites, to the consternation of Benjamin Constant.

We should finally count our blessings to have the counterpoint in a figure so foolish as Kant to protest the ‘dead political zone’. The moral is not assume anything, as far as our model is concerned, about the morality of political action, and the failures, or successes, of obscure political schemes is judged finally by ethical, not simply ‘scientific’, protocols. That said, the enigma of Machiavelli haunts any and all attempts to recast the eonic sequence as ‘idealist history’ and we must remind ourselves, that theory, at least, cannot lie, suspicious that Darwinism is a Machiavellian deception of ideology.

The Northern Crescent In relation to the frontier effect, the prime transitional zones lie along a Northern Crescent, with an early trigger in Northern Italy: Germany, Holland, England, France, Spain. The North American sidewinder rapidly initializes and by the divide point is a prime emergence zone. Our transition has to risk Eurocentrism, then start a fast getaway after the divide: globalization via localization. We are not talking about Western Civilization, or Europe.

Luther—and Münzer Luther’s ‘revolution’ is a geopolitical one, the decisive stroke against the theocratic empire of Christendom, and his ‘re-formation’ is the classic instance of the ‘relative transform’ effect, so characteristic of our eonic sequence: break off a piece of the prior state of affairs, and remorph that in a frontier effect. Neglected in the overall portrait is the German social revolution of 1625, and the appearance of the first of our radical eschatological champions of the proletariat, Münzer.

Machiavelli is often said to initiate the modern era of politics, but he is a perfectly Janus-faced figure, looking backward and forward at the same time. As our eonic system starts uphill on Mount Improbable, the world of the Borgias, and the anemic ‘renaissance’, are left behind, and the counsel to the Prince ends in ambiguity. Machiavellianism has no real status as an ‘eonic emergent’ except as a token of post-Christianity, but becomes a *de facto* pseudo-standard. But his classic reflections on republicanism will resurface in timely echo at the onset of the American Revolution and the complexity of the integration of separate components of that great new beginning of democracy, or republicanism, both echoes and transcends any interpretation of horizontal politics. Observe how Machiavellian *real politik* is outsmarted by the end of the transition as it touches

the ideal, even as the politicians reclaim control of state systems, having learned nothing, but mouthing a different set of slogans.¹⁴⁸

More's Utopia One translator of More's classic remarks that its position is like that of the baby of the Judgment of Solomon, Catholic tract or political manifesto? It is a premonition, at the least, of the last question spawned by our transition, gestating liberal worlds, the question of private property. In the relative transform of a genre created in antiquity, it spawns the 'eonic emergence' of the utopian genre, perhaps even the genre of science fiction. We should note that our eonic sequence deals in potentials, and utopianism is an exploration of potentiality in relation to horizontally causal history.¹⁴⁹

Copernicus The 'eonic evolution of science' in the form of a second Scientific Revolution, the Greek being the first, is a sixteenth century phenomenon, and the 'great paradigm shift' of the Copernican Revolution heralds the first order of business for our eonic sequence, the rebirth of Archimedean physics.

As we examine the modern transition, a puzzle resolved about the Greek Axial interval comes to light: why is the effect of the Greek transition so clustered *after* its divide, and why does the first half of the interval, in the Greek Dark Age, seem to be empty or invisible? In fact, we see the answer in the modern instance. The first half of our transition is hard to distinguish from the 'Middle Ages'. The real onset of 'modernity' occurs in the seventeenth century after the closing of the Thirty Years War. The Greek Reformation, and the progression from monarchy, is there, if we care to look (eschewing overly precise analogies). The first visible effects of the Greek transition appear in the second half, in the eighth century BCE, visible in the Homeric starting point. In a strangely similar pattern, the modern transition really takes off in the generation after Shakespeare and Cervantes, with his Don Quijote, quite the modernist *malgré lui*.

Thus the Treaty of Westphalia tokens the clearing of the field as the seminal gestation of the Enlightenment begins with rise of modern science, philosophy, and the intimations of democracy. We see in the title of the great work by Copernicus, *De Orbis Revolutionibus*, that ushered in the Scientific Revolution both the unfolding, and a new signature definition, of the term 'revolution of the ages', with the ironic new modern meaning for the term, emerging in relation to the other.

The English Civil War The key to the politics of the coming new age is seen in the English Civil War. As Christopher Hill notes in *The Century of Revolution, 1603-1714*, "During the seventeenth century modern English society and a modern state began to take shape, and England's position in the world was transformed", and yet the transformation lies beyond the question of states, the German field having been almost torn to pieces, yet still exhibiting all the elements, by its end, of the transition. The German *Aufklärung* proceeds with or without a state. The seeds of the English exemplar will resurface in the American sidewinder in the emergence of the first great mass democracy—at the divide. Christopher Hill, in his *The English Bible and the Seventeenth-century Revolution*, notes the frequent observation that the English Revolution

¹⁴⁹Thomas More, *Utopia*, trans. Paul Turner (New York: Penguin, 1965).

had no ‘ideological forebears’, that noone passing through it “knew they were living through a revolution”, often taking their cue from the Bible!¹⁵⁰

Levellers and True Levellers The period of the English Civil War suddenly spawns a virtual hotbed of diverse and beautifully potential radical movements, from the Levellers to the Diggers and Ranters, prophetic in their import, and leaving behind a legacy that will resurface in the great moment of equalization that emerges at the divide. These virtual eonic emergents that soon disappear remind us that we can never finally conclude the outcomes of our transitions correspond fully to ‘what was intended’, so to speak. It wasn’t long before the same old elites reestablish control. The American Revolution will receive many of the influences appearing at this brief moment of historical self-consciousness.¹⁵¹

A bloodless revolution As we examine the eonic sequence we see the danger in this kind of evolution with its frontier effect that certain eonic emergents will be left behind in the hopscotch between cultures, the Indic vegetarianism being one example. Yet if we examine the period of the English Revolution we notice the sudden appearance of a new modern vegetarianism, leaving us to wonder indeed at the nature of our eonic pattern. The modern transition will have a problem in leaving the Indic tradition behind. But we will see its efforts to compensate in the wake of the Enlightenment.¹⁵²

Leviathan: Hobbes to Locke The first seventeenth plateau of the transition produces a recursion from beginnings of political science, with the brutal clarity of Hobbes’ opening note, followed by the essence of the future liberalism crystallizing in Locke.¹⁵³

Birth of the Enlightenment The real beginning of the Enlightenment occurs in the seventeenth century with Descartes and Spinoza, and a host of other seminal premonitions of modernity...¹⁵⁴

The New Atlantis Our transition is not without prophets, in the true ‘eonic’ sense, and Francis Bacon, although now beset with the critiques of his enthusiasm, creates the ethos of innovation and technological liberation.¹⁵⁵

The eonic evolution of science Our rubric the ‘eonic evolution of X’ comes into its own as we observe the nicely scheduled re-ignition of science seen in the (second) Scientific Revolution in our eonic mainline. We should declare the case of the missing centuries solved in noting that the emergence of science is bound up in the ‘eonic determination’ of the eonic sequence. This raises the question of the contrasting ‘science as free action’ in the passage to the post-transition. Indeed the crystallization of ‘scientism’ shows just this effect.

The rise of a distinctly modern philosophy crystallizes with Descartes. As Bryan Magee notes in an account of Schopenhauer, the rise of modern philosophy shows a clear narrative that chaotifies after the period of Kant.¹⁵⁶

Descartes to Hume/Kant The course of Cartesian dualism haunts modernity from beginning to end, and yet if we feel the urge to the non-dual we should consider the plight of contemporary neuroscience shorn of dualistic ‘crudities’. Descartes did his work well, and describes the two-sided creature that will inherit the wasteland of Aristotle and Aquinas.¹⁵⁷

Spinoza It would be hard to find two more ‘eonic’ beings than Descartes and Spinoza. Spinoza, as if in the first order of business for modernity, appears like an apparition in the Dutch Enlightenment, and produces the last Biblical apochrypha in his brilliant ‘exodus’, the invention of Biblical Criticism, pantheism, and the foundations of liberal secularism. His thinking proceeds underground then resurfaces at the Great Divide in the famous Pantheism debate.

Perhaps the true resolution is glimpsed at the threshold of awareness, as in Kant’s transcendental deduction:

The Rationalist Descartes takes the ‘I think’ to indicate the existence of a substance, distinct from the body. This ignores the important paradox concerning consciousness—which is that we cannot experience it, because it is experience. Hence, the saying “the I which sees itself cannot see itself”. Kant recognizes this paradoxical point and explains it. According to him, the ‘I’ is not an object of possible experience, because it is a presupposition of experience.¹⁵⁸

No Age of Revelation here. All you get is a ‘transcendental deduction’. The course of modern philosophy is reflected in this statement, in the endgame of Heidegger, and the postmoderns. As the modern transition takes off into its scientific fugue, Descartes produces a brilliant ‘fix’ or failsafe that will allow the work to be done by those destined to be left orphaned by the onset of reductionism and its myths, almost as pernicious in potential as those of fanatic monotheism. The work of Kant, and his descanting Schopenhauer, perfectly timed at the divide, will lift the question into a realm evocative of the Upansishads, as our eonic sequence comes full circle.

The New Physics The great glory of the modern transition is the birth of the New Physics, with the calculus of Newton and Leibnitz. But the monofocus on the majestic emergence of the new science distracts us from the more complex dynamics and interplay of ideas generated in our transition.

The Leibnitz-Clarke debate Our transition produces an improbable pearl-stringing sequence of exotic genius, and the counterpoint of two such, Newton and Leibnitz, can be seen in the so-called Leibnitz-Clarke interaction which tests the limits of the new physical world view precisely at its onset, resulting finally in the classic antinomies explored in the Kantian dialectic.¹⁵⁹

Analytical Mechanics The breakthroughs of Newton and the early physics develop by leaps and bounds and by the conclusion of the Enlightenment have transformed into the abstractions of analytical mechanics, the Laplacean moment, of causal physics matched by the Kantian extension, and this mechanics already seems to prophecy the coming Quantum Mechanics, which is born here, essentially, in tandem with Young’s wave theory of light. Even as physicalism spawns the reign of nineteenth century ‘frozen scientism’, physics

has already, by the point of the divide, moved to a potentially deeper perspective.

Rebirth of teleology Newtonian science, in reaction to Aristotle, comes full circle with the appearance of a new teleological insight, quite inchoate, in the minimum principles of analytical mechanics.

The eighteenth century stages the classic second phase of the Enlightenment and this ends in the rushing cascade of the point of the Great Divide, the generation of revolutions and the emergence of capitalism. This period is massively packed with innovations in all areas and consists of multiple ‘enlightenments’, the French, English, German, Dutch, Scottish, American,...

Battle of The Ancients and Moderns The classic debate over modernity is the morning songbird of the birth of a new idea of progress, and the passage beyond the achievements of the ancients.¹⁶⁰

Voltaire, Diderot, D’Holbach Voltaire and the philosophes are the spearhead for the secularization process inexorably springing from the Reformation. Diderot with his *Encyclopedie* tokens the ‘information revolutions’ to come. We should note that Voltaire was not an atheist. The rise of modern of atheism is ‘still another eonic emergent’, a long suppressed dialectical potential, no more, no less.

Rousseau and Kant Rousseau is in many ways a difficult figure to understand, in part because we think in terms of results, not in terms of the creative dialectical moments of true innovators. Rousseau precipitates the reaction to Newtonianism, the democratic revolution in the evolutionary macro-action of equality/equalization, and is a direct influence on the Kantian analysis of the idea of freedom in the context of the New Physics.

The invention of autonomy Historians of this period are often describing processes of eonic emergence without realizing it. J. B. Schneewind traces the complex chords of the discovery of autonomy from the rebirth (relative transform) of natural law theory and climaxing in the moral philosophy of Kant.¹⁶¹

Perpetual Peace Kant is also the author of a famous essay on the emergence of an international system of peace, a text with traceable antecedents in the early modern, thence connected with the emergence of ‘just war’ philosophies. Alex Bellamy in *Just Wars* traces the tradition, appropriately (no accident!), to one eonic source, the Greek transition, “Between 700 and 450 BC, Greek city-states observed loose traditions aimed at limiting war...The Peloponnesian War caused these customs to break down.” A double eonic emergent! Note the concordance as to periodization of the Peloponnesian and First World Wars. Note the pre and post divide timing. We must be wary of what we call an eonic emergent in this case, and be ready to refine analysis, since the appearance of ‘jihad’ in the wake of the Israelitic corpus might also be called an eonic emergent, better in fact a

degenerated mideonic echo. Our term, in this case, is too coarse-grained a sieve. Our model is too crude to solve the problem of war, indeed we see Hegel with dialectical precision fall in the trap with his remarks on warfare. At least we can be sure that our two-level analysis abstracts teleological unknowns from any connection to temporal drivers of warfare. Kant's thinking at the divide point sounds the clarion call for peace, most eerily in its timing.¹⁶²

German Classical Philosophy Kant triggers one of the most remarkable surges of philosophical innovation in world history in the the *tour de force* sequence, Fichte, Schelling, and Hegel, concluding with Schopenhauer and Marx.¹⁶³

Two meanings of historicism The period of Kant is flush with dialectical oppositions and the appearance of, and then conflict with, Herder, Hamman, and the *Sturm und Drang*, expressing the contradictions of our 'idea for a universal history', which we have put into our framework of 'two, or multiple, universal histories', in the twin levels of our eonic model. As our eonic sequence swings outward toward globalization the theme of universalism will require challenge from the 'other' universal histories in the garlanding of diversity against the dangers of Eurocentrism.

Birth of Romanticism Our eonic model instantly transposes our viewpoint into a larger context where the issue of modernity is not the 'ism' of the Enlightenment, but the concert of many eonic emergents, among them the contrary descant of Romanticism. The sudden flowering of poets near the divide challenges the emerging scientism with a chorus of contrary poetic music.

The Pantheism debate Spinoza resurfaces from the early modern just at our divide and is reckoned against Kant in what is really the climax of the Protestant Reformation.¹⁶⁴

Aesthetics With roots once again in the seventeenth century, we see the birth of aesthetics as a modern discourse, the contribution of Kant, once again, standing out in the birth of the Romantic reaction to the Enlightenment. Kant's third critique, paradoxically, almost has a greater influence than his first, in the reactions of Goethe and Schiller.¹⁶⁵

Bach to Beethoven...to Wagner In a mystery of aesthetic dynamics we see the clear relative transform we call 'classical music' peaking in the Enlightenment/divide period, reaching its climax at a white heat in the music of Mozart and Beethoven. This eonic emergent starts falling apart at the end of the nineteenth century.

Utilitarianism Our deliberate over-emphasis on a Kantian perspective should not for a moment blind us to the immense potential spectrum ('dialectic') of our divide period, seeing, for example, the parallel birth of utilitarianism as an unmistakable eonic emergent, perfectly timed. Our transition is a multidimensional set of innovations.

Adam Smith Seen in context, Adam Smith, perfectly timed, is a champion of liberty, prior to the emergence of the capitalism he senses coming into existence.

Note how Smith has clear roots in the transition, e.g. with figures such as Mandeville.

The eonic evolution of evolutionism The idea of evolution is reborn in the Enlightenment as an obvious eonic emergent, and finds its first true theorist in

Lamarck who produces the correct framework for a theoretical foundation of evolution in the double action of micro and macro factors...Darwinism will decline from this insight. This period also produces the teleomechanists, and the *Naturphilosophen*.

The period straddling 1800 periodizes as our transitional divide. The clustering of emergent processes is so massive as to be almost a dialectical flood. The transition to micro-action occurs within a half century.

The Great Divide Our transition is swiftly accomplished and gives rise to the sense of a divide. Such a massively packed point of innovation is the best evidence of our eonic model.

Discrete freedom sequence Like clockwork, 2400 years apart, from Solon to Tom Paine, the ratio of macro to micro-action spawns twice-born a democratic emergentism, just at a divide point. Now we see the logic of the mysterious timing of the great democratic revolution(s) of the end of the eighteenth century. Our calculus suggests that the divide line is the appropriate point for 'free action' to overtake 'system action' in the passage from eonic determination to free action, however 'free'. The brilliance of the generation of Thomas Jefferson passes quickly to the crystallizing outcome in the world of the Age of Jackson, as a new democratic experiment takes its chances as free micro-action in the new mideonic period. The Athenian experiment lasted about two centuries. The year 2000 might prove ominous for the American experiment.

Abolitionism Out of the blue the abolitionists, appear just at the divide and the overcoming of the great curse of slavery is given its great historical first. The timing is almost uncanny, but our eonic model gives us the mysterious clue.¹⁶⁶

Human Rights A prime eonic emergent here is the concept of human rights which comes to the forefront in the eighteenth century, and along with it the (relative) transformation of concepts of natural law arrive just in time to stage an ideological accelerator for this period of revolutions.¹⁶⁷

Feminism A late-breaking eonic emergent (but we can see once again its sources in the seventeenth century), feminism is nonetheless another child of our transition, witness such figures as Wollstonecraft, and its slow take-off in the nineteenth century will await fruition in the twentieth.

Trend toward equalization We can stand back for a moment to see how misleading Darwinian thinking is. Evolution responds to the 'survival of the fittest' with injected trends toward equalization. Twice in our eonic sequence, beginning with Axial Age, we see the eonic determination during phases of

macro-action, of the evolutionary trend toward equalization. This emerges with unmistakable force in Rousseau, and we can see that the immediate tension arising in the contradictory new economic order. Equalization is an aspect of macroevolution.

Our transition draws to a conclusion with the great era of democratic revolutions, the passage to the new capitalism, the Industrial Revolution, as the nineteenth century begins the New Age proper of 'modernity', whose spectrum of opposites is a very balanced dialectic. Watered down renderings of secularism will tend to beggar this holistic totality.

The birth of liberalism From the seventeenth century to the point of the divide we see the gestation of liberalism, climaxing in its take off in the generation of the great revolutions.

The American Revolution It is hard to think of a more stunning eonic phenomenon than the almost uncanny and magnificent emergence of the great American democratic experiment, perfectly timed at the Great Divide, and showing the massive improbability of so many creative political 'revolutionaries', from Jefferson to Thomas Paine. A frontier effect inside a frontier effect, our transition seems almost deliberately to stage its novelty in the geographical fringe area of the open Americas, free of the inertias of European political continuity. The switch-off between system action and free action is clearly visible at once in the drop to a cruder lower grade, but essential, 'realization onset', seen in Age of Jackson. Simply spectacular.

Tom Paine Like Spinoza and Kant, Thomas Paine is one of the most perfectly timed gremlins of the eonic effect, appearing in perfect concert, as if with a task to perform, the clarion of secularism, economic freedom, and democracy. Dying out of fashion, in his wake the contrary tide of American fundamentalism will rise to claim a democratic revolution it did not initiate.

Age of Reason Paine's classic is accompanied by critiques of reason (reason noumenal or phenomenal?), and Hegel on Reason in History...

The rational the real? Our eonic model outflanks yet fulfills Hegel's classic rumination on the rational as the real, one destined to chaotification short of our rigorous division of levels. We see the eonic sequence expresses an ideal while mideonic micro-action may or may not be so legitimated as rational.

Industrial Revolution Revolution indeed! We tend to see modernity as characterized by capitalism, but this is misleading. Emergent capitalism is a classic 'eonic emergent' in the larger system of the modern transition. This 'relative transform' reinvents the already existing forms of commercial economy at a new level of technology and a new level of economic philosophy, or ideology.

The French Revolution to 1848 The same eonic characterization is deserved by the French Revolution, whose fate is to become the controversially ambiguous 'failure' of the period of the Great Terror. The democratic future will be endlessly delayed by the reactionary formations haunting the comparison with

the American exemplar. The French Revolution also shows intimations of the nineteenth 'far left' emerging in the wake of the revolutions of 1848.

Tom Paine and the sans-culottes Paine has a close call with the sans-culottes...The progression from the American to the French Revolution uncovers the latent contradictions in the liberal revolution as an eonic emergent as the element of class warfare enters with the birth of the step child 'socialism', and Graccus Babeuf's timely appearance at the first of the fake Thermidors.

Is there a Kantian Babouvism? The latent contradiction is expressed perfectly in the ambiguities of the classic liberal Kant's categorical imperative, and an antinomy of teleological judgment with respect to the 'end(s) of history', Babeuf to Marx, via Hegel.

Napoleon at Jena...Laplace whispers in his ear...Hegel...

The Restoration Is conservatism an eonic emergent? The incomprehending Burke, oblivious to his surroundings, nonetheless exposes the contradictory logic of revolution, as the drama of action and reaction play themselves out, from the streets to Paris to the Commune.

Romanticism...

Modern science...to scientism We have flipped the balance in our selection of eonic emergents away from the main event, the spectacular surge of modern science, toward the softer sounds of the multiple garlands of other emergent processes prone to being drowned out in the roaring thunder of the scientific revolution, cresting at the divide, onward through the nineteenth century. This temporary operational bias is easily corrected, and will itself correct our mesmerized focus on the science stream. This transition is almost overwhelmed by modern science, and yet, not. Kant with austere elegance poses the idea of freedom in a complement to the Newtonian triumph.

Schopenhauer The philosopher Schopenhauer, in parallel opposition with Hegel, produces a brilliant Kantian seed 'sutra' of superior quality to the decayed Upanishadism that will overwhelm Enlightenment discourse with another version of that term. The two neatly express a Buddhist and Christian line of realization.

Phenomenologies of spirit We have devised a means to outflank Hegelian metaphysics for an age of scientism, and yet we must pause to confess our wonder at the magnificent completion of the Protestant Reformation seen in its genuine 'prophet', the philosopher Hegel, and his version upgrade of archaic 'god talk'. This instant archaeological monument shows us an eonic observer first sensing the eonic effect, and giving expression, as did the creators of the Old Testament, to the eonic character of a transition in the eonic sequence.

Was Hegel an atheist? Enough to ask, we need not answer what some have asked. Camouflaged for the age of the Restoration Hegel's Concept sublates

theism/atheism into a philosophy of religion that will soon be swept aside in the scientific revolution, yet one that carries the hidden dialectic that will haunt the age of scientism.

Manchester...and the birth of ‘socialism’ The rushing logic of the modern transition shows the first signs of jackknife as the bourgeois revolution is sublated into a prophetically envisioned and renewed democratic revolution: a socialism of the proletariat, in a negation of the first outcome of revolution. The question of private property is too basic for easy revisions and the result will be the birth of a floating fourth turning point ideology.

Young Hegelians, Left Hegelians In the collapse of the Hegelian movement the secular era of modernity comes into its own, soon weighted down with the implications of metaphysical materialism and scientific positivism. Karl Marx carries the day with the last stage of liberalism remorphing into an ideology of mideonic ‘floating fourth turning points’.

1848: Marx, Schopenhauer,,... Was Marx a frustrated ‘transcendental idealist’? The strange fissions of the ‘Concept’ show us two figures on opposite sides of the barricades of 1848, and it is strange that Marx’s philosophy of history could so easily have been cast with a non-positivistic foundation. Wagner is there, and will attempt the perhaps failed, perhaps itself tragic, art-politics of the aesthetic state in his realization of his operatic labors.

We have garlanded just a few of the ‘eonic emergents’ and ‘relative transforms’ that characterize the modern transition. It is difficult to grasp the way so many creative individuals and innovations are clustered in the short rush of three centuries, with its climax at the point of the divide. We can see all at once that the explanation is eonic, and that such perfect timing reflects our frequency hypothesis.

System shutdown By the very nature of our model, we can see that the factor of macro ‘system action’, being intermittent, will wane and micro free action will rise to fill the void, with potentially ambiguous results. We see this effect clearly in the nineteenth century, despite its explosion of changes and innovations. The deep action of the early modern is at the source in almost every case. The dangers of chaotification or derailment are ever-present, and with the First World War and the Holocaust we see the first of the mideonic calamities possible in this eonic progression. Take the measure of the modern transition: its action is at all points benign, then it stops. The continuations of completely uncomprehending politicians can wreak havoc in the outcome. Please note that scientism, Darwin, Nietzsche, come well after the divide point and yet rapidly purloin the definition of the Enlightenment.

Zooming in, zooming out We have done a kind of ‘hundred yard dash’ through the modern transition, culling a short list of eonic emergents, just on the verge of a more intensive look. We need to do the exercise many times from different viewpoints. We should, just here, before losing the forest in the trees, also zoom out to see the context against the backdrop of world history with just enough to see the clustering effect that once seemed like discontinuity but now seems like fullness.

6.2 An Age of Enlightenment

With uncanny timing, the period of the Enlightenment climaxes at the end of the modern transition just before the point of the divide. This period is especially significant in our account since it is the last manifestation of the enigmatic macroevolution we have discovered, followed by the rapid shutdown of the eonic sequence in the next generation.

We see that this ‘evolution’ generates fields of mass action, not a unilinear doctrine and notice at once the immense spectrum of synchronous realizations that appear in concert. It is almost like grand opera and the masterchord of Reason in History reverberates like a downstage soliloquy as the era of secularism comes into being. We are already in a later period, suffering the misleading postmodern reaction to this, the most pointed of Axial moments in our matrix of transitions.¹⁶⁸

This chord endures many descants between the *philosophes*, the French, English, Scottish and German Enlightenments, the Romantics, but this diversity merely enriches its potential and its overall tenor is the classic redirection of the secular age emerging after the great Axial experiments in religion whose legacies arrive at modernity burdened with metaphysical claims on the course of history. Keep in mind, however, that our transitions are time-slices and geographical regions, and the restriction of thought to some ‘project of the Enlightenment’ (soon the object of much hue and cry and declarations of failure) will beggar the whole. The success or failure of the ‘Enlightenment Project’ is not the fundamental issue, in so far as the redirection of the globalization of world history relative to antiquity has been swiftly accomplished with prodigious energy, a roaring success in the tumult of effects. The action of our system is a *fait accompli* by the end of the eighteenth century, and it is not a question of philosophic viewpoint.

Kant’s classic question, “What is Enlightenment?” unwittingly throws down the gauntlet, but in an already transposed form that is moving with the rise of Romanticism. Now the world of Buddhism, in a great irony, appears with a challenge more sophisticated than that which the Enlightenment confronted in the legacy of metaphysical monotheism. Could the new dawn fail? Given the strategies of all too many New Age movements with their postmodern emphasis we can see they have already miscalculated history, a severe failure of tactics and perspective that must downgrade their stock. We see the significance of the transposed ‘Enlightenment’ of classic German philosophy which contains its concealed Upanishad. The mysterious logic of modernity as a whole is more than a match for the challengers.

The Enlightenment It was the philosopher Kant who said that while the men of his age might not be enlightened it was an Age of Enlightenment. This catches the correct issue of periodization. And yet the period referred to is more complex than it seems because of the ambiguity of places, times, and themes

taken to represent its keynote. Even as the subtheme of rationality undergoes a crescendo, deeper currents are stirring, that will answer to the riddle of why, amidst the triumph of science, the finished work will cross into the nineteenth century in revolution, a romantic descant and Reason bearing the orphan of Dialectic. We should note the great irony of the real sense of the Kantian version of Reason in the complex of his two seemingly contradictory critiques.

Although we associate the Enlightenment with the eighteenth century, its roots are really in the seventeenth century, and its true parentage still earlier in the era of the Reformation, as it rises to the Thirty Years War. There is a unity to the steps, from the breakdown of the Catholic world of theocracy, the partition of Protestantism, the ambiguity of authority followed by the disposition to reinvent the state or secure the elements of new sovereignties, Hobbes and the English War, in the 'bourgeois' economic and liberal mode of civil society, followed by the focus on the place of the individual discovered in freedom, to search for a new ethical self, and encountering the physics of the new materialism found from the rebirth of science as a system of the world. An almost timeless age in itself, and yet a moment in a larger sequence, the Enlightenment is seen best in its own context, which is its challenge to the past, more even than the future, as the birth of the idea of Progress bears witness to the rising breeze against doldrums of slow centuries. The confusions of postmodernism disappear, if we see that we are merely post-Enlightenment, find the dialectic a premonition of the world of Gödel and the limitations of systems, beside the birth of engines of steam in the timely arrow of thermodynamic times of departure from Newtonian timeless laws, Industrialism of the new Locomotive. A New Age is born.¹⁶⁹

Little noticed in standard accounts of the Enlightenment is the sudden, late, injection by diffusion of Indian religion into the secular sphere, and this will prove a considerable groundswell of anti-modernism in the equivocations of New Ages and New Age movements. The counterattack of the gurus against modernity is a serious long term threat, a point that can be seen in the post-Axial onset of the great religions.

Schopenhauer and Indian Religion The modern transition produces a remarkable flow of reverse diffusion, as Indian religion, exactly at the point of the divide starts a new world expansion. The 'Upanishadic' meanings of the term 'enlightenment' will prove an ironic counterpoint in the rising flood of New Movements beginning in the nineteenth century. In one of the most neglected incidents of the period, Schopenhauer beats this phenomenon at the draw with an instant home-grown remorphing of the Kantian legacy into a reflection and independent recreation of Indian spiritual psychologies.¹⁷⁰

The Theme of Autonomy Religion is hardly possible without the individual's freedom! Thus the secular age is just as well seen as the moment of first birth of religion, as the degenerate remnants of monotheistic theocracy are subject to attack. A more subtle danger lies in the occulted side of the Eastern religions, whose remnants will generate a subtle reactionary trend in the nineteenth century. The New Age movements in reaction to modernity and the Enlightenment are suspiciously nervous about a figure such as Kant who explicitly defined 'Enlightenment' in terms of human autonomy:

Enlightenment is man's emergence from his self-incurred immaturity. Immaturity is the inability to use one's own understanding without the guidance of another. This immaturity is self-incurred if its cause is not lack of understanding, but lack of resolution and courage to use it without the guidance of another. The motto of enlightenment is therefore: *Sapere aude!* Have courage to use your own understanding!¹⁷¹

This battle is being fought all over again. Now, why is it that the gurus (and religious priesthoods) are terrified of this essay, and, especially the gurus, who hope to maintain their legacy among those who have no allowed concept of autonomy?

6.2.1 The Crisis of The Enlightenment

One of confusions that beset defenders of modern secularism is the narrow definition of the Enlightenment's scope and meaning really deriving from the later period of so-called Positivism. Our account here is about *the modern transition*, and the Enlightenment is clearly a climactic phase of that, but in the final analysis the modern transformation as a whole is really about the dynamics of world history, as evolution, in a play of geographical regions. Any 'ism', in the shotgun spectrum of 'isms' taken to define it is going to fail if it selects only a subset of the greater process for its definition. By 1800 the 'eonic effect' of the modern transition is a *fait accompli*, in a passage not likely to be undone by postmodern critiques of some 'ism' usually conceived of in terms of scientific rationality. The total effect includes not just its foundation in the new sciences, but the total spectrum of emergent entities, many of them contradictory.

Thus the German Enlightenment, and its Romantic successors, are part of the total effect, yet routinely cast aside in the triumph of technological scientism. Hegel spoke well in his attempts to think 'dialectically' about the contradictions forming a deeper unity in the play of opposites. But it is Kant who, with almost Frankensteinian simplicity, cast the issues in terms of the mediation of causality and freedom. His distinction of 'theoretical' and 'practical' reason is key. We see that the modern transition is about more than science. It shows the parallel synchronous emergence of liberalism(s) and the sciences.

As we examine the explosive rise of science in the modern transition we could easily have predicted that this massive change in the consciousness of civilization would suffer a crisis of its own methodology as the Newtonian world picture fails to achieve a unity of concepts applied to the totality of man and culture. This crisis is clearly the outcome we see the various postmodern attempts to expose the 'dialectic of the Enlightenment'. What should be obvious from our comprehensive approach is that the Enlightenment is itself its own 'Counter-Enlightenment' and, just at the divide, starts to descant in the German *Aufklärung*. It is no accident that we have chosen an epistemological ground near the modern divide!

The limits to Enlightenment rationality are trumpeted now in the West also, in variants of the postmodern strategies of anti-modernists. And the already classic challenge and critique of the Enlightenment such as the *Dialectic of Enlightenment* of Horkheimer and Adorno is simply par for the course, the critique of Reason. What objection could there be to a critique of Enlightenment rational discourse? It is the very dialectic invoked to prevent frozen thought. The inescapable best answer to all of this is that the 'rise of the modern' has nothing to do with this discussion, and is a relationship of geographical regions, and the 'switched on' character of modernism is really about putting the system of world history into motion out of its doldrums. By 1800, the world system has been outsmarted, whatever happens after that.

The remarkable thing is that the Enlightenment, taken as a whole, is the actual source of its own 'Counter-Enlightenment'. There is a deeper 'dialectic of Enlightenment' in the broad spectrum of our modern transition, which generates multiple perspectives, including its own self-critique. As we have seen already we tend to downshift in a selection from what we think is the 'Enlightenment' and then suffer dialectical reversal. Our general transition has created a level of high potential in its densely packed riches, and these include already the 'postmodern reversal'. This is a point the philosopher Hegel was grappling with. We contract definitions while our eonic mainline uses a scattershot tactic that includes its own contradictions, a figure such as Rousseau being a classic example, one tremendously difficult to pin down in his synthesis of opposites.

Counter-Enlightenments The Enlightenment gives birth to a slew of Counter-Enlightenments in multiple varieties, and while much of this is purely reactionary, the subtle 'dialectic of the Enlightenment' must play itself out as the expression of creative exploration. We can hardly exclude the Romantic movement from the modern transition!¹⁷²

Thus, the contradictions of modern culture move with the crisis of its correct definition. The nature of the modern transformation is itself under attack as a Burkean gloom animates the revisionist or neo-traditionalist perceptions of the long transition from the world of antiquity, to say nothing of the movement of 'postmodernism'. Now a new philosophic scapegoat, the Enlightenment, taken through the debunking of the idea of Progress, is found to be a deviant interlude, like an episode of rational flu in a decline from the High Middle Ages. Men have short memories, unless indeed with de Maistrean or Nietzschean consistency they renounce the hard won freedoms gained in revolutionary struggle.¹⁷³

There is a plaintive conservative or postmodernist attempt to root out the Enlightenment's key concept or idea, its Achilles heel, as if to stay the flood, and fix the kingdom for stragglers, or restore Christendom from a Mt. Sinai of conservative think tanks. A contemporary conservative phrasing wishes to exploit a false antithesis of rival or exhausted forms of modernism from which to move backwards, ambitious for the resurrection of 'traditional' values. In reality, no traditional values of the kind aspired to by conservative thought can be found, if they are not consistent with the Code of Hammurabi, which would be the most traditional, by default, the precedent by cuneiform tablet, if we could find grounds for stopping our search in the Babylonian period.

The presumption of greater insight into the values of morality by the men of antiquity is one of the most consistently misleading claims made by champions of the past, with the frequent and related charge of nihilism cast before the wearing away of churches. The great charm of the Judeo-Christian myth-nexus betrays also the first birth of mass-hypnosis as social ideology, and the first birth of Madison Avenue mendacity. The views of the ancients are forever a force to be reckoned with, but the difficulty arises as to whether the guardians of tradition should be taken to represent them. As Peter Gay pointed out in his study of the Enlightenment, *The Rise of Paganism*, the *philosophes* began by attempting to recover the very sources of classical tradition, moving slowly to surpass them in The Battle of the Ancients and the Moderns. He calls it the 'recovery of nerve', and it is ironically, as will become clear, poised against the cyclical views of time still seen in Machiavelli and the men of the Renaissance.

The social morality of the Middle Ages was a failure, by modern standards, in a world where reading the Bible was restricted to an elite. It is worth recalling the almost psychotic social theology of indulgences and exploitation that moved Luther to cry 'Enough'. Now the *philosophes* are maligned, in a strange amnesia that their protests against religious fanaticism were directed against the torture and execution of heretics, still in their own century. One of the first great acts of the modern world was the martyrdom of Tyndale, a first translator of the English Bible. The simple act of reading the Bible in the vernacular is not a traditional, but a modern value. Another of these confusing effects is the invigoration of the Abolitionist by the tide of rationalism, to spearhead in religion's name what religion had so long proved unable to accomplish. The interactive effects of tradition, Reformation, and the Enlightenment in relation to economic and political transformation are here near beyond analysis.

The disorder of modern life, in the wake of the Enlightenment, is poorly diagnosed as a collapse of the conservative's traditional values or the postmodernist's crisis of rationality, notwithstanding the clear danger of 'all around collapse' into purely economic selections of the almost perfectly balanced achievements, not of the 'enlightenment', but of the modern transformation as a whole.

In *The Moral Sense*, James Q. Wilson, in a search for the elusive 'moral sense', examines the circumstantial evidence of our modernist relativism in the correlation of crime waves and this existentialist 'nihilism', and tracks down the guilty culprit, "We all live in a world shaped by the ambiguous legacy of the Enlightenment." The fashion of cavil with the certainly ambiguous Enlightenment seems an odd symptom of the times, filled with a puzzling disillusion, roller coaster fright, genuine reckonings of the costs of progress, and hopeless efforts to seek refuge in tradition. But his basic question is apt, "There is no settled explanation for why the Enlightenment occurred in the West, and not elsewhere." Why indeed? Why did the first scientists emerge among the Milesians? Or the Upanishadic 'Enlightenment' in the North India of -600? Or the first urbanization in -3000 in the city-states of Sumer? What do all these have to do with the Enlightenment? All of these periods were themselves, 'enlightenments', and it is ironic that the modern period should, as were these others, find itself the target of a new conservative resistance.

For it joins this select list, leaving the upholders of tradition with a series of medievalist distortions.¹⁷⁴

Suddenly, we see the overall relationship of ‘enlightenments’ to the eonic sequence. We are in search of many ‘enlightenments’ inside our eonic pattern, with or without a common denominator.

Ages of Enlightenment There would appear to have been many ‘Enlightenments’, as the correlation of the modern term with Buddhist or Upanishadic terminology might have suggested. Peter Gay, in his study of the Enlightenment begins with ‘the first enlightenment’, and prefaces his study of the eighteenth century phenomenon with one of the Greek. The modern world, and the early classical age of Greece, show a remarkable concordance in this respect, as a great period of social change generates an emergent rationalism. The rationalist complains against mysticism, but if we look closely we will see a similar complaint in the Buddha, in his ‘rational’ version of the Upanishadic.¹⁷⁵

This fact might tempt us sorely to generalize this ‘enlightenment’ to see a core philosophy in all of our great periods of change. It won’t work. But the general core is the interplay of ‘reason, consciousness, and will’ in a kind of kaleidoscope of infinite effects. This pattern of infinite effects must seek refuge in stable historical refuge, such as that of the modern Enlightenment against the great confusions of ‘will and consciousness’ created by the ancient religions.

Rousseau and The Sociobiologists One of the most persistent strains of current sociobiology is its animus toward the figure of Rousseau. Sometimes the figure of Hobbes is, on the contrary, held up as more scientific. We see the problem already. Our universal history must map out an entire transition, yet Darwinism is selecting a strain of that totality. It is nothing less than a scandal that one of the prime evolutionary agents of modern evolution in our sense, is dismissed as some kind of villainous monster.¹⁷⁶

The pretense that sociobiology has transcended the problems he dealt with shows the naïvete of Darwinian scientism at its most glaring. Darwinian thinking, we see already, is selecting a narrow strain of ideas to explain evolution, even as they fall into a post-Enlightenment ‘potential well’. Our ‘eonic evolution of civilization’, unbeknownst to the Darwinist, has outsmarted this ‘downshifting’ of thought with its shotgun spectrum of multiple possibilities. And this both seeds and transcends the peculiar, and brilliant, strains of the Scottish Enlightenment in which Darwin seems to move.

Rousseau, gazing on the sorry record of civilization, noted its severe retardation, and its failure to produce equality, and the lack of any ‘class struggle’, proposed that a ‘now or never point’ had been reached. His gesture speaks for itself, and leaves him as one of the world historical figures of human civilization, beside the riffraff proposed by Hegel, such as Caesar and Napoleon.

The question of the social contract is indeterminate in our model, and the severe criticisms of this by biological theorists have to be taken seriously, of course. But we do notice that this idea shows eonic determination, by our reckoning, and so our red alert goes on, and we give it a careful second look, for we could reconstruct the idea in a more general fashion, given our eonic method. One obvious problem would seem the cogency of claims for a social contract placed in the past, as if Rousseau were presuming on the

terrain ceded to the Darwinists. We should certainly grant that speculations about ‘natural man’ and some fiction of the primordial evolution of social contracts are beyond the range of our evidence, but then so is the entirely speculative philosophy of history given to us by the Darwinists, as the decision procedure to decide these questions for science. We have never observed the evolution of morality, *à la* the Darwin myth, although we have observed two full scale religions emerge in the Axial phase, thus at a higher evidentiary level. As we proceed toward our eonic periodization we will engage an irony, which is that we bring ‘evolution’ into our present, or recent past, and there we find, amusingly, that the period of ‘social contract creation’ is in our ‘eonic present’, i.e. in the period of the modern transition, in our to-be-defined eonic sequence! There is a general modern present, and this includes the various social contract theories, natural law theories, plus a great many much sounder themes that have persisted. But the point is simply to beware of jumping to conclusions. We base these ‘advances’ of scientism on assumptions of scientific reductionism, assumptions Newton never held. And we already can see they are starting to crumble. There is a new a different level of evolution that reaches our immediate past.

And this social contract formation shows us that political philosophy falls into the range of our ‘non-random’ pattern. And that emergent egalitarianism is by deductive correlation seen to be ‘evolutionary’. Evolution needs to balance its populations perhaps. In any case, any serious theory of evolution must do more than pick and choose among favorite political philosophers, it must account for the directionality visible in the evolution of philosophy itself. There Rousseau stands out as an evolutionary agent, in our sense. Thus, in a word, we see a distinct process of ‘social contract formation’ associated with our modern transition.¹⁷⁷

So there’s the long sought evidence for social contract formation: in fact we see intermittent ‘social contract formation’ proceeding down our eonic mainline in periods of peak intensity.

Philosophy and Periodization: Kant’s Eerie Timing One of the tales of Kant is his legendary clockwork timing. One of the eerie ‘coincidences’ of the eonic sequence is the precise appearance of philosophies of freedom just at the modern divide. An application of our method will show us that the philosophy of history itself shows non-random patterning, something we have already seen in the emergence of science. We can do something very basic, simply to see the place of the philosophy of history first *in the pattern of eonic data*. We stumble thus on a strange fact, the macroevolution or eonic determination, or modulation of philosophy in the sequence mainline. We see the self-referential co-emergentism of system and idea, in perfectly timed concert. This ultra subtle point will dawn on the reader slowly.

TP3: If we take a close look at the modern transition we notice a clear compressed clustering of world philosophy in a distinct modulation against the whole. Hegel came close to seeing this fact, did in fact see it. With intimations in the sixteenth century we see the take-off in the seventeenth with Descartes, Locke, Spinoza, Berkeley, the *philosophes*, then

TP3+: The divide The Enlightenment, French, Scottish, and German. The German Enlightenment especially shows a spectacular crescendo at the point of the divide hovering around it, with a rapid fall off by the time of Marx and Schopenhauer's influence (he actually comes just after the divide). We have seen enough to know this can't be due to chance, and we zoom in to see what help this period can give us in our search for an historical methodology since it is a key moment in our eonic mainline. Indeed we notice twice in a row teleological thinking compressed on a divide, the Exile in TP2, being another. Second round on the teleological merry-go-round? Maybe we will get it this time.

We have seen from the beginning that our eonic observer is embedded in the system he wishes to study, thus the 'case of the missing centuries' shows us that science itself is bound up in the eonic sequence. Thus the history of science is itself eonic data.

Hegel, Philosophy of History, and the Dialectic Looking at the eonic effect, the meaning of Hegel suddenly stands out. We have not given any indication of his system of philosophy, but his philosophy of history was the first great answer to Kant's challenge, the result being a curious theology of Spinoza, and a defense of modernity by one almost Burkean in his traditionalist sympathies. He couldn't see the eonic effect, and proceeded to a theory of the dialectic that we have not used. In any case, stand back and savor the spectacle of this sudden flowering of philosophy near the so-called Great Divide.

Hegelian Dialectic The dialectic in Hegel is an artificial construct of ancient mysticism, one that cannot perform the job it is assigned. It is the perfect symbol of the history of philosophy, and as we see this shows clear correlation with our eonic series. But we have stayed away from dialectics because it can lead to wrong results, and we have implicitly discovered the real McCoy in the elements of our data, as it reconciles the action of causality and freedom in a higher unity. We need to take the long view and savor the moment that Hegel represents in the cascade of philosophic explosion that begins with Kant. This spectacular eruption just near our divide is mysterious and almost eerie.

Hegel's system is a siren call of post-Kantian metaphysics resurrected, and we should steer clear of his thinking in our own so-named 'science of freedom' seen in the eonic sequence. We have produced an almost perfect example of a real dialectical 'synthesis' and should stay well away from such language lest we muddle it all over again. We should declare Hegel 'eonic data' and proceed. We can automatically sublimate Hegel thus in our greater eonic 'dialectic', with breathing room to assess his classic work (which Schopenhauer spent a half-century attacking). Hegel, for us, is the first to sense the significance of the discrete freedom sequence, whatever his lapse into design arguments. The perception deserved, deserves to be backdated to a Kantian version, before the Romantic vilification of Newton begins. This forces us into a dialectical sword fight (what of perpetual peace?) with nineteenth century stragglers suffering 'Hegelian brain damage'. His legacy is still unclarified. In the nonce we are quite safe, having gotten on our feet, from any direct attack on our rediscovery of basic Kantian dualism. Non-dualists proceed as they may. Hegel's historical slaughterbench overseen by an ambiguous Frankenstein indicating 'geist' is superfluous in our account, and we see that

the eonic sequence is at all points benign expressing a potential ideal, the savagery of the field of micro-action devoid of, stripped of, teleological significance.

The point for us, despite our reservations about ‘dialectic’, is that Hegel was altogether sensible about the complexity of development, and never, at least in principle, let himself fly off on a dialectical tangent into some philosophic dead end. The reductionist positivism that overtakes modern science is at severe risk of just this danger. Although the dialectical reaction of Marx shows this unity was incomplete, yet he even may be said to generate Marx’s dialectical reaction. He saw that the philosophy of history is the history of philosophy, and tried to ‘sublate’ the history of thought into a higher unity. If the results were often opaque, the gesture itself is significant. If at each step of our outline we opionate this or that, and select what we wish to agree with, we come to the end with a subset of our pattern. But our pattern will keep us honest, because it is larger than our opinionation, just as Hegel demands.

We can’t avoid ‘dialectic’ because it is the history of philosophy itself, with one clear eonic signature in the Pre-Socratics (to say nothing of the Indic philosophers of the age of Buddha). It must be part of our history. Thus we are always inside the complexities of philosophy, and must master it or it will master us. How to proceed? Hegel saw that to proceed he needed to sublate his antecedent stream into a comprehensive system. In that context ‘dialectic’ does make sense. We won’t follow Hegel’s approach, save to ‘sublate’ Hegel into our eonic model, but must be mindful that some watered-down secular scientism will not past muster as a universal language to describe the history of philosophy, let alone the emergence of civilization in its multidimensional eonic ‘dialectical’ spectrum. Since our own frequency hypothesis is a direct instance of such scientism, we might take our cue from Hegel to develop a ‘science of freedom’. The point is that we can’t escape into ‘historical objectivity’ by rejecting philosophy: we must transcend it, whatever that means.

Look at the Axial Age. What more dialectical entity could we imagine? A complete set of dialects. So let us ‘reinvert dialectic’, but this empirically, as an historical map of contradictions and diversity in action, a descriptive anthropology of philosophic deviations, call it dialogical zigzag. We will apply dumb Aristotelian logic to that map, mindful however that Hegelian thought echoes the non-dual philosophies of great depth that we see in India. And we might search, in the end, some strategy to interpret that. We hardly have another option than some rendering of dialectic if we are to take on, simultaneously, the Pre-Socratics and early Sophists, and materialists, the Hebrew Prophets, and the yogis of India, or Lao Tse, in one sweep. But in the end our model steps beyond philosophy into the existential dimension of self-consciousness.

To sublate Hegel into the eonic model would seem presumptuous but is achieved, if you reflect on the strategy of depicting transitions, at a stroke by the eonic pattern itself, and in some sense by the passage of time, we come later, and the observation that German Classical Philosophy is itself an eonic emergent, and that therefore we declare Hegel’s system to be itself ‘eonic data’. The point is clear as we examine the modern divide, so called. This is the reason philosophy is hard-pressed to advance beyond this

point. Thus our eonic observer stands near this divide, clipboard, jungle-hat, and scientific white smock, noting the eonic emergence of a 'philosophy of spirit' near the divide. 'Aha!' he thinks, beautiful. So the solution to our Hegel problem is that he is 'eonic data', and the Hegelian archaeological site is something to be reckoned with. And so it goes with the whole history of (modern) philosophy (which includes natural philosophy, i.e. science). It is fitting that Schopenhauer should see fit to tear Hegel to pieces, but his work we can see will stand as a monument, or Sphinx, to future times.

6.2.2 Theory and Ideology: *Das Adam Smith Problem*

Many Darwinists seem convinced Darwinian theory is connected to their economic viewpoints. Survival of the fittest and economic competition seem to collate in a unified theory of how things happen. But this nexus of belief is misleading, a prime case, ironically, of Burke's injunction against theories, for which he so cantankerously berated Rousseau, the bugaboo of the modern sociobiologist. These theories arise and combine incestuously because of the absence of correctly formulated historical or evolutionary theories. In the case of Adam Smith we should note the ambiguity of his moral thinking in relation to economics. We should be careful with his economic reasoning since it does not suffer the same kind of reductionist fallacy we have seen in Darwinism.

Das Adam Smith Problem This was the phrase of nineteenth century German scholars puzzling over Adam Smith, moralist and economist. Any study of evolution is well accompanied by the study of the moralist Adam Smith, and not his phantom double in the history of economic theory.¹⁷⁸

Although Adam Smith deserves the critique of someone like Marx, he is in class by himself, and we can somberly reflect that if his thinking were ever actually used, some of the worst aspects of liberalism derailing into economic domination might have been obviated. He was not the first (cf. Mandeville and the parable of the bees) to sense that moral behavior in a larger system can become paradoxical around the dynamics of self-interest. OK, but so what? after the extraordinary amount of sophisticated anti-moralizing and ideological manipulation that has overtaken horse-trading in a market. If we consider that extremity of reaction to these simple issues visible at the stage of Leninism it would seem appropriate to be cautious here. We cannot really hope to justify greed to make economies function. This Faustian gambit, already the case despite any idealist protests, carries, pace Marx, a steep price in the end: the revolutionary endgame. Whatever the case, Adam Smith was an economist, not an evolutionary biologist. The unconscious transfer of his reasoning to evolutionary explanation, *faute de mieux*, is a fallacy.

It is thus true that Smith's thinking seems to suffer core incoherence, witness this 'Adam Smith Problem' (in this and the various other forms in arises in the enigmatic Adam). In the final analysis, this is the wisdom of a customs inspector tired of chasing smugglers. The point for us is that while his thinking might explain economies it cannot explain social evolution. The dynamics of markets is the great temptation of the lotus eaters of modernity, the main event of the drama, but, it would seem, not the drama to

come. We should enter the mood of this emergentism of markets, and yet not confuse it with the dynamics of history. The influence of his thinking on modern ideology seems to begin even with Kant, confuse Hegel and then Darwin. Marx's thinking has been so subject to its own ideological contortions that we forget the brilliant, almost instinctive, sense that something alarming was underway: the foundations of modern thought were laced with an economic myth.

Darwin is often defended from Social Darwinism. It is hard to grasp how one can get away with this. We fail to see the way the very foundation of theory is off the mark, appearing in the context of Smith, Malthus, and Spencer. A recent biography of Darwin, *Darwin, Life of a Tormented Evolutionist* gives a closer picture of the man behind the theory.

Social Darwinism is often taken to be something extraneous, an ugly concretion to the pure Darwinian corpus after the event, tarnishing Darwin's image. But his notebooks make plain that competition, free trade, imperialism, racial extermination, and sexual inequality, were written into the equation from the start—'Darwinism' was always intended to explain human society.¹⁷⁹

This work also depicts the background to the Darwin revolution in the generation of Malthus, the Reform Bill, and the conservative reaction to the French Revolution when the idea of evolution was tainted with radicalism. In fact, the Whiggish Darwin is both open to criticism on ideological grounds, and some wonder at the deftness whereby he managed a 'conservative' revolution, establishing a new view of man's emergence from deep time. One of the confusions of Darwin's theoretical strategy was the effort to de-emphasize the discontinuous as grounds for the supernatural, with a possible ambiguity in relation to purely political or ideological preference or bias. This issue is altogether ironic, as we will see, in relation to the 'discontinuity' of our historic eras, and the correlation of these to social change, revolution, and, indeed, ideas of revelation as they emerge historically.¹⁸⁰

It is simply not true that the man's overall evolution occurs in the same fashion as the evolution of economies. Darwin was a scion of the generation of the Industrial Revolution, witness the progressive innovators in his immediate ancestors, such as the Wedgewoods. This was the great generation of the Scottish Enlightenment and the appearance of a new economic historicism. Adam Smith, much misunderstood, becomes an icon of biological theorists, and his form of thinking starts to pervade social thought very early, often in concealed form, as in Hegel's 'cunning of reason'. These seminal thinkers were not doing biology.

Darwinian theory is an addlepatented hybrid of economic sociology and a shotgun marriage of the views of Adam Smith, to the point where the credibility of the subject has been lost, or should have been. It is impossible to grasp this point if you think Darwin produced a complete theory of evolution. And since defenders of capitalist systems think there is a connection, debating Darwin's theory becomes an exercise in near sedition or toeing the party line. In the famous words of Karl Marx, the ruling ideas are the ideas of the Bourgeoisie. The game is an old one. Start with Malthus and the point is clear, a

science of population is founded by a rank reactionary impulse, “let them starve”, and the debate over this, amidst the Richardian extension of Adam Smith, takes up a whole generation, as the birth of social theory is stirred with an almost laughable and primitive mixture of conservative ideology and radical objections, as the very idea of evolution, with its leftist cast, is conservatized and housetrained for economic purposes. The Malthus debate shows a cousin resemblance to the Darwin debate, and endured for an entire generation.

Smith is not telling us how economies evolve, in the sense of universal history, as much as how they should be arranged in his view, in the context of mercantilism and the collision throughout history of the state and its regulation of markets. He addresses the boundary conditions for a type of economy, and we are free to change them. Once we set the conditions they evolve one way, as opposed to another. The myth that markets are some omniscient helmsman of social evolution is false by any standard of evidence. The views of the Hayeks on ‘spontaneous order’ completely fail to distinguish cultural and economic factors. It took a generation of heroic state regulators and factory inspectors to stamp out child labor of the worst sort, in England.¹⁸¹

There is no esoteric mystery here. The selectionist theory, muddled with economics, sounds plausible if you have no real concept of evolution. And it plays at once into the hands of conservatives of class. Thus the theory was a gesture of class struggle from the start. The same is not true of the idea of evolution itself. Evolution was a radical idea associated with revolution in the generation of Lamarck.

Rightly understood, the issue of equality is one of evolution. Once we study history carefully in light of the eonic effect we realize that the ‘theory’ of natural selection is a clever way to hide the ideology of inequality. And we see that macrohistory in the context of the ‘eonic sequence’ injects equalization processes as a counter-trend into the historical trends toward disequalization. So much for the Darwinian sleight of hand, that trump of the grubby Whigs of capitalism.

The trend toward equality is more than momentary idealism. It shows a macro component. Is this not one of the factors in the Judaic transition? Of the age of Solon? Buddhist Mahayana? And then finally of modern times? Historical ‘evolution’, we should note, shows this alternation of equalization and reaction. Is it chance that Solon appears dead center in our eonic pattern at an exact point of its action? Equalization has been banished from this science, as the sociobiologists take aim so obsessively at Rousseau, but history shows another story. In modern times it shows a Rousseau, again in dead center correlation. A close look shows that there must obviously be, in practice, a counterweight to purely selectionist development. And history shows it. The irony is that the rise of the modern shows it at close range. Rousseau is transparent as our third transition moves to shake off the legacies of slavery, inequality, and political domination that he rightly sees as a pathology of civilization. Note that part of the problem is the confusion of continuity. The sudden swing in a new modern direction complete with seminal founders like Rousseau is a world historical spectacle understood only by the student of eonic periodization.

6.2.3 Toward a New Enlightenment?

In *Toward a New Enlightenment*, introducing a neo-Humanist manifesto, Paul Kurtz attempts to probe the puzzle of the strange chorus of challenges to the Enlightenment, to decipher the cause of sudden retrograde cultural movement, as if in shock that modernization could actually fail. It is fascinating to watch the birth of a new Humanist tradition looking back toward the Enlightenment, but somewhat alarming to see the full scope of the original phenomenon restricted by efforts to select this and reject that. Amputating the sixteenth century start phase, or Kant, Hegel and Left Hegelians, the ‘dialectic’, Romanticism, might seem appropriate or not, but the remainder would not constitute the ‘Enlightenment’ whose scale was something so vast, contradictory, and interconnected with the evolution of a larger system that to select and repeat becomes a new dilemma of traditionalism, requiring a ‘technology’ of culture, perhaps still short of the Freeman Dyson sphere, making alterations in the structure of the Solar System itself, but nonetheless an innocent invocation of coordinated energies, far beyond our current powers.

But this raises the question for our study: if free men created the modern world, can they not create, or move toward a new Enlightenment? In the opposite perspective, what force, effect, transformation, or cultural activity as an organized large-scale cause could initiate a ‘New Enlightenment’ and create a genuine passage over an identifiable divide into such a new era? Conservatives will be horrified. It could mean taking over the government.

The idea will be seen to resemble the basic question of our study: what is eonic transition? Thus we see not an ‘Enlightenment’, but a transitional period dealing with the intractability of large-scale social change with an Enlightenment event inside it, as it were. The very question has an ironic relation to that of continuity and discontinuity, social change in relation to social scale, and the forms of runway and approach clearly evident in the rise of modernism, as seen in the Reformation. We can also suggest the difference between the historical contingency of a period called the ‘Enlightenment’, and a ‘rational’ plan or procedure to compute a new one, starting with efforts to corner the supply of three-corned hats, and a ticklish decision about whether we should proceed it with another reformation, and let it all get out of hand with another revolution. As we can see ‘eonic determination’ and ‘free action’ are reversed, the catch we have seen in the failures of revolution.

6.3 The Great Divide

As noted, our eonic sequence is built around a series of short-acting intervals or transitions, and any such intermittent process will generate a 'divide', that is, the rough point at which the intermittent effect wanes and the outcome stabilizes. It is one of the most spectacular confirmations of our perspective that it uncovers this unsuspected aspect of the rise of the modern. We shouldn't be distracted by the secondary or exponential changes ignited by the new period generated. It is the core emergents, high-level cultural innovations, that are crucial, not their subsequent course. The downfield is something else. We deduce this in the abstract, and turn to our data to see if it reflects anything like this. It definitely does, and we can spot the right point immediately.

Thus, the period of the end of the eighteenth and the beginning of the nineteenth century foots the bill at once, and is one of the most fantastic (relative) 'start-up' periods of world history (a start-up inside a larger start-up, the transition), as the system crosses a 'divide'. This crossing point, a divide, comes near the end of the most recent of our eonic transitions. As we move backwards we can deduce the rough points of the earlier transitions and divides, although the divide for the first transition is not yet within the range of observation.

In one way this divide is an illusion created by the greater 'divide' of a transition. But the divide around 1800 is very real (we can take 1750-1850 as a broader version). We see one of history's great evolutionary moments. By definition the system is moving from eonic determination to free action. It is also the moment that the economist W.W. Rostow, in economic terms, called a 'take-off'. It is essential, however, not to confuse this divide with a purely economic phenomenon, as in the 'take-off' of the English Industrial Revolution. The fantastic creativity of the threshold period of the American, French and Industrial Revolutions, the climax of our great turning point, is mirrored in the spawn of neologisms that appear at the beginning of the nineteenth century. Eric Hobsbawm, at the start of *The Age of Revolution*, a history of this period from the French and Industrial Revolution to its close after 1848, begins his account of this Dual Revolution with a list of some of these terms:

*industry, factory, middle class, working class, capitalism, socialism, aristocracy, railway, liberal, conservative, nationality, scientist, engineer, proletariat, (economic) crisis, journalism, ideology.*¹⁸²

The retail of current change tends to be smothered by the wholesale of this great divide period, and these words almost tell the story of the modern period of transformation by themselves, and demonstrate very dramatically the way in which something more than transient fashion is coming into existence. They are each miniature examples of what we have called eonic emergents', growth processes that suddenly come into being, or amplify, or transform from something related, and whose character shows a clear relationship, and therefore correlation, with the overall process of modernization in its broadest sense. The sheer density of social change that ushered in a new world in the period of the post-Enlightenment can be seen in the nature of our daily preoccupations whose structure spring from this period.

¹⁸² Eric Hobsbawm, *The Age of Revolution, 1789-1848* (New York: New American Library, 1962), p. 17.

In our own age, we are the children of this mysterious ‘divide’ of the generation of the French Revolution, with its cornucopia of accelerated changes. We aren’t being dogmatic, for the effect is relatively fuzzy, and can call this divide the period from 1750 to 1850. But once we suspect an intermittent process, we zero in for this property, and find it in this case (and marginally for our earlier turning points, as we will see). The divide is the climax of the rise of the modern and the scale and depth of the change that occurred in the whole period, especially near this divide, dwarfs all other candidates and is comparable only with the onset of civilization and the onset of the ‘Classical’ World.

In the space of a generation, the Dual Revolution of the English ‘great transformation’ of industrialism and the French political conflagration, as a volcano of the ‘Left’ passing into Socialism and Communism, initiate a global-scale ‘crossing of the divide’ that encompasses the American Revolution, immense cultural changes in politics, class structure, philosophy, religion, science, literature, indeed *every* category of human behavior. After more than two thousand years, democracy, driven by ‘class struggle’, emerges into universal acceptance after universal condemnation. The final assault on slavery rises with the paeans of Freedom culminating in the American Civil War.

Awash even after two centuries in a global transformation that dwarfs the memory of the wrathful minutes of revolutionary ardor in the streets of Paris, we arrive in our moment still animated by its momentum with enough distance to review its meaning from a greater perspective, and with an earnest hope, that only some phantom of the ultra-right could challenge, that as its children we will not undo its axioms. In a history of 5000 years we are barely more than a century past one of history’s most terrible institutions, human slavery. And we would be deceived by our briefer time and the immediacy of a nearer moment if we complacently assumed that an action of Freedom guaranteed our future from the reaction of a greater time.

6.3.1 Revolutions Per Second: The Rebirth of Democracy

The onset of the French Revolution deserves as much as any date in history, beside the more glorious flagship American onset from 1776, the importance that has risen around it, as the period that initiated a shockwave of modernizing change that was national, then continental, and then global in nature, and whose cornucopia of diffusing consequences is still with us. That it was directly influenced from the fringe by the American revolution in its virgin open spaces is itself significant, and it was therefore a subtle recursion, in the broadest sense, of the experience of the English Civil War, and its aftermath, the Glorious Revolution of 1688, against a backdrop of the rising liberalism and deeper underground radicalism generated from the philosophic, scientific, and revolutionary experiences of the English.

In the prismatic view of Dickens, it was the ‘best of times, the worst of times...’ When asked what he thought was the significance of the French revolution, the Chinese Premier Zhou Enlai is said to have answered, “It’s too soon to tell”.¹⁸³ The era invokes a

field of potential, against which relative free action passes between hypothetical eonic determination, and the realizations of new forms of society. Francois Furet, the historian of the French Revolution and its ideological history, has declared that the 'Revolution is over'. It is also true that the Revolution has been repeatedly declared over, from almost its first phases, and continually spills over into future incidents, 1830, 1848, and finally the Russian Revolution. Perhaps what is not 'over' is the lesson learned, after so much passivity, that man must make himself, and not endure the posture of civil or religious slavery. Between the American and the French Revolutions we see the spectrum of historical dynamic pass from Freedom to its reality, cost, and full-scale imposition against inertia, in the drama of Equality, the price of freedom, and a field of change pass from its radicals to its conservatives. The note comes due. Every aspect and stage here has already been prefigured, seminally, in the English Civil War.

The American Revolution seems like a kind of 'butterfly effect', a small-scale effect provoking larger and enduring consequences. Note that the endless debates over revolution are really about the intractable nature of simple changes, the French and especially the Russian being the obvious examples, compared to the American. It is all very well to denounce Rousseau and Robespierre but if such an immense convulsion echoing the American example failed to produce a republic these critics are really saying that freedom is impossible or utopian, and that we should, *à la* de Maistre, revert to primitive systems of barbarous ages past. Let us note at least that our system, upon full study, will be seen to adopt a shotgun approach and the total net effect of democratization springs as much from sources having nothing to do with the French Revolution. So therefore not everything, indeed not much at all, rides on the brief reign of Robespierre, whose failure seems to be grounds for every reactionary sermon delivered up to those who wouldn't dream of surrendering their own benefits. The classic example here is abolition, about which Enlightenment thinkers were a bit 'sluggish', the job done by the epigones of our to-be-secularized Protestant Reformation.

The myth of slow evolutionary change is not here concordant with the facts, and, Burke notwithstanding, our system explodes because change is thwarted even as the American system has set sail (albeit without dealing with abolition). It is a 'now or never point' relative to world history. Thus the conditions of the American version were obviously quite exceptional. And the American is the more remarkable for showing the 'what might have been' with respect to much modern confusion. If we consider the Decembrists in Russia, and the immense delay in the Russian case, we would do well to lay the violence of revolution as well at the feet of hopelessly muddled reactionaries.

In the final analysis these three revolutions, English, American, French (and what of the early German version in 1625?) are one and the same, and pass into 1848, the business too obviously still incomplete, as the tide climaxes and begins to recede, leaving the ghoulish Russian experiment stranded, with an historical expectation about 'revolution' that played them false. Just here we see the drama of 'permanent revolution' beginning, and a distinction is essential, between historical process claimed as revolution, and the free activity to create one based on memory, a fatal danger. Beside the late failure of the Russian Revolution, we see the issue of modernism computed against the incidents of its success or failure, and find that, relative to 1500-1800, history successfully reaches a new plateau, whatever the outcome of its particular incidents.

Our three centuries since Luther cover immense ground, but we can see the clear unity, as the ‘real Revolution’, by nature’s method. Behind this unity we can as well see the deeper disunity, and catch the mechanism as what we suspect, small scale influences defeating the large, the sourcing of the American system at the fringes being a classic example. And the climax of our period of transition is spectacular, as the economic and democratic revolutions sweep the field in the last generation of the eighteenth century, and then cross a mysterious divide ca. 1800 into a period of relative stabilization. But these are, probably, already relatively contingent outcomes in a process that was complete at the time of the Thirty Years War.¹⁸⁴

After the experience of the Russian revolution the rejection of revolution as a process has become the dominant viewpoint. But the issue of ‘revolution’ is fundamental, whatever we think, because the slow evolution of society would never, by incremental change, given human nature and its obsession to dominate and enslave, to say nothing of the clear evidence that long term history keeps getting stuck, have produced the forms of modern freedom, democracy, or even economic development. Only a small fringe area at the boundary of Eurasia seems to have been able to break out of the system of antiquity. But we can grant the point of skepticism to see that revolutions aren’t to be had for the asking, and don’t just come about from audacity.

The point is simply that man as man simply will not, because the record of history shows that he will not, grant freedom to his fellow man. And the great achievements of freedom show initial bursts of eonic determination. There is a mysterious ‘something else’ involved in the appearance of democracy.

6.3.2 Econostream != Eonic Sequence

Endless confusion arises from confusing the rise of modernity and the emergence of capitalism. Our model clarifies the difference and produces a strange result, at first sight: capitalism is not a stage of history. It has always existed, and its modern apotheosis is merely an intensification, nearly a rebirth of a primordial category of civilization. It is ironic we arrive at this Marxian echo via a critique of Marx, with none of the vexed issues that forever obscure the insights of this challenger of reigning ideology. Such an insight might as well be a tenet of liberalism, and we note that liberal culture struggled mightily to balance its limits in the hybrid social democratic experiments.

In our model, we can spot the problem at once, because we can see that capitalism ceases to have macrodynamic status. We may indifferently say that capitalism, empirically but not theoretically, is a *de facto* stage of history (because it happened that way) or a cream puff overamped by the eonic sequence, which remorphs what it finds already in its direct path. Any other approach is tantamount to surrender to the egregious mechanized ‘alienation’ that, taken seriously, would rapidly undo the very economic system in question. These systems require intelligent choices at all points, and threaten to

degenerate almost immediately into ideologically induced chaos. If the system goes out of control then intervention is required.

Ecological disaster? The danger of ‘alienation’ inside an ideology of market laws is dangerous, and conceals a teleological delusion. The unrestricted play of humanly created market laws left on auto-pilot threatens all at once to consume a whole planet. At some point you have to step off the merry-go-round.

A market ideologist should rightly claim something for the inherent economic efficacy of such a new economic formation, and produce a plug-in component for our incomplete account. But, to restate Marx’s point in our terms, economic evolution does not represent general evolution, and sooner or later its divergence from eonic sequence will produce distortion. Unfortunately such a statement only applies to millennia. It is thus not surprising that great tension arises at once in the unexpected outcome of classical liberalism. The idea of ‘market laws’ all sufficient to generate cultural evolution in all forms, or as the final arbiter of historical outcomes, has turned into a fetish of theory buttressed by mathematical fantasies.

Capitalism rendered into social evolution via Darwinism and the economic interpretation of history is a theoretical mismatch that has completely misled all thinking. A post-Darwinian liberalism ought without delay to rethink its scripts, for an immense counterattack is already underway against all this taken as defining modernity. It is a complete botch of a subject. Why overstress this system designed to produce integration with cockeyed junk theories of evolution, with the egregious infection of Social Darwinism, theories clearly downshifting from the deeper content of the idea’s rebirth, just near our divide? Lamarck had it right the first time, with a two level theory.

As to economics, but not evolution, we have but to see the potential ideal, as freedom realization, in the classical liberalism of such as Adam Smith, Thomas Paine, and Immanuel Kant, which lasted only a generation, in its climax almost exactly at our divide, to remind ourselves of the difference between eonic determination and free action at work, as the system devolves almost instantly to the regime of economic hyenas denounced by Marx. The future of this system is not predicted by our model, but we can see that the failure of abolition at the founding climax of the American version of democracy proves the necessity of mideonic course corrections, a perilous voyage as the American Civil War makes clear. These botched initial conditions make the rise of the left comprehensible, and inevitable. In any case we are confused by the overlay of eonic sequence and econostream.

Our eonic system has a problem. It is like trying to distribute a general good via an army of looters. The results are mixed at best! Our European underdog springing from the fringes of Eurasia is soon an exploiter, and the list of crippled development zones soon grows tragically long. The missionary is soon the imperialist, and that notable New Man of modernity, the economic hyena of global capital is handed an ace of almost unlimited power, rapidly reducing the liberal infrastructure to his demands. After the whole deliberations of ‘right’ and balanced power in the new politics the whole system ends up in the hands of a fourth branch of government, the capitalists.

These two levels give us an insight into the confusions of ‘revolution’ with evolutionary thinking. We can clearly see the revolutionary character in some sense of

our transitions, but the phenomenon of the modern revolution is more restricted and arises with a particularity that is subordinate to the greater generality of the eonic sequence. We have but to see the emergentism of the first great States in the first to see that our transitions are unique phases of development, and creative incidents, its successors possibly reacting against the starting point. Great confusion arises here because the modern left confuses these two levels distinct in our thesis, and assumes that the ignition of change via a revolutionary transformation of regime will also produce the new culture of the future to go with it.

We can see, however, that while our transitions are revolutionary, they are not the same as ‘revolutions’. But the many revolutions of this transition are suddenly seen, against the backdrop of long stabilizing centuries, as though breaking the flow of continuity whose sluggish ‘probable future’ is being preempted. We see why the analysis, by causal explanation, of ‘revolution’ is destined to fail, for the phenomenon is conditioned by eonic determination, yet must realize itself as free action, in the opportunity of Freedom. And yet the passage is made, and the convulsions timed to our transition and divide explode against the inertia of antiquity. It would be easy to take the achievement of freedom for granted and forget the brief launch window, closing if not closed, that we have seen as characteristic in the pattern of complex diffusion and renewal. The issue was resolved therefore by our implicit suspicion, our Freedom argument, that emerging freedom shows eonic determination in the evolutionary eonic sequence, a severe caution to easy assumptions about the efficacy of free action in the post transitional period.

6.4 System Shutdown: Between System Action and Free Action

We come, at the end, to the Joker in the deck: the passage from the macro to the micro aspect of our eonic system. In the period after the Great Divide the ‘evolutionary system action’ is complete and stops, and the void is filled within several centuries by what we call ‘free action’. The effect is clearly visible in the wake of the Axial Age, and we can suddenly see at once a clue to the nineteenth and twentieth centuries, as our system seems to slide into chaos, even as it progressing by leaps and bounds. A key question, among others, is whether democracy will survive or if our system will slide into empire, once again. Inherent in the structure of a discrete-continuous model is the phenomenon of the divide, as we have seen, and the system shutdown in its wake. We have the option of enforcing a cutoff just here, our job complete: the demonstration of a non-random pattern. We are liable to jump to premature conclusions without tracing the complete history leading to our current present. We have invoked something that is suddenly far larger than ourselves, and its depth and subtlety is tremendous.

‘Ideology’ alert: eonic observers, and agents We began our analysis with an objective analysis, as if exterior to the data, using periodization to see what we called the ‘eonic effect’, but as we conclude our demonstration we discover

ourselves inside this ‘effect’ as observers turned agents forced to mediate multiple ideological perspectives via the history of philosophy. This does not change our demonstration of a non-random pattern, or of the connection of history and evolution. But it remains true that we are in the context of micro-action attempting to understand macro-action. Our perceptions will tend to fall out of sync between the early nineteenth century and our present. It is long study.

Still, ideology or not, we notice some very obvious macro processes: most spectacularly, our system, as noted, seems to have an uncanny way of staging, restaging, ‘democratic emergence’ (then stops, waiting on micro-action). Much more. As observers turned agents we feel compelled to press the model into service in the affirmation of this evolutionary wonder, one that the far left was unable to properly understand, despite its prompt appearance at the dangerous point of globalization. This breakthrough, at one point *was* the left! Democracy reappears via revolution.

Thus strictly speaking we are done, our model closes, and says nothing about the mideonic outcome. System return, if any, will occur we suppose in twenty-four hundred years. Like a penitentiary the doors slam shut and the inmates may attempt to make their own rules. These properties of our model seem quite artificial implications of its structure, and yet, remarkably, we can spot this shutdown point quite clearly in the early to mid-nineteenth century. Compare the foundational generation of the American republic and the immediate successor generation(s) of the period of Andrew Jackson onward, initialization to realization. This sudden shift, macro to micro, although strictly speaking a formal approximation in a model, throws immediate light on the sudden calamities, e.g. the First World War and the Holocaust, that overtake the post-transition. This post-transitional onset must nonetheless be declared a bit fuzzy (later events, e.g. the American Civil War, show obvious eonic determination, though outside our designated interval) and raises a host of questions near the limits of this kind of model, designed to show a non-random pattern in history, but stumbling on something much vaster, and rapidly finding itself in a thicket of ideological issues, wishing to resolve them, but not able to do so in a rigorous fashion. The only solution is to proceed comprehensively with a balanced inspection of the whole spectrum of possibilities. We can take a step in this direction with a portrait of the rapid shift between, say, Kantian classical liberalism and the emerging nineteenth century left, e.g. Marx. We note the plight of the eonic observer, who should be able to distance himself in terms of several millennia to really see what the outcome of the modern transition turns out to be. Instead he is immersed, scientist to sans-culotte, in the history he wishes to describe, no doubt trading his objectivity for a commitment to versions of that outcome. At least we can say that the sudden emergence of ideologies of freedom shows strong eonic determination!

We should clear about our intentions and the status of the model, which is strictly advisory, and can’t be used to legitimate outcomes. Nothing dogmatic can be claimed about a three term sequence, clearly showing only half its data. Perhaps that’s a fortunate circumstance, preempting the formation of a crude mechanistic perspective. Since there will be immediate deviation from initial conditions that strategy of justification will soon prove problematic. That is especially the case in the modern instance where the agendas of economic action in the name of freedom generate exploitation. Our statements about

turning points in history are strong claims in the realm of fact about evolution, but at the same time, especially in the case of the modern transition, likely to be affirmations of the significance and historical justification of modernity. (Eonic) evolution applies only to the macro-sequence, not to the field of micro-action. And the latter presumes, realistically or not, the highest standard of ethical action. This is hardly evident in the imaginary world of Machiavellian politicians and their *real politik*, which have no status in our model. The application of Darwinian thinking to this situation does not bode well for the future of modernity. Nor does the confused thinking of Nietzsche, soon the ideologue for a postmodern ‘new beginning’(?!), who is clearly a bit of an impostor in the sudden post-transition.

In fact, with a little care there need be no problem in our semi-ideological approach as we vigorously apply the insight into historical dynamics to the situation we find ourselves inheriting from the eonic sequence. The striking appearance of the discrete freedom sequence leaves us, for example, with the chance to anticipate possible recurrent situations. Will democracy last? Will the American democratic system turn into an empire? The ominous resemblance to the case, Solon to Alexander, of Athens whose experiment in democracy devolves to empire should give us pause. We should renounce Spenglerian pseudo-analysis, grasp the difference between cyclical recurrence and progressive cyclicity and see that our task is not repetition, but breaking out of cycles to do the job right, this time!

Let us note at least that we have displaced arguments about historical inevitability from our analysis, and have designed our model to leave the future free from hard predictions. The appearance of a figure such as Spengler is significant, since we can see that his predictions are bogus, yet might just show themselves right in practice for the wrong reason. There is nothing inevitable about a decline of the West, but since our eonic system is not about the ‘West’ but the modern transition generating a global oikoumene, a shift in the center of gravity might well occur.

Implicit in the whole discussion of the eonic effect is the portrait of the process of globalization via localization and this leaves the question of modernity and Eurocentrism stranded in stark contradiction. In principle our model has resolved this issue but in practice we see the immense tension that occurs in the sudden reversal from localization toward globalization. Let us note that the emergence of the American democratic experiment was a revolt against colonialism.

Eurocentric confusions Our analysis is complicated by the seeming Eurocentric character of the data at its endpoint. We have erected multiple failsafes against such implications, but the mis-impression makes the data difficult to use properly without careful study. Our demonstration is rigged to reflect the ‘Big Skid’ between classic liberalism (the Kantian brand is the most useful) and a leftist succession, which in fact the data shows. There are multiple perspectives possible, but the early and ominous jackknife effect requires careful ‘dialectical’ study. Our post-transition will rapidly degrade into something else, the field of imperialism, economically ambiguous systems of domination, etc...

Note that nothing in the model justifies anything after the shutdown point, its main action having been to set up a complex potential, prior to the transition from macro-action to micro-action. In fact, the model is a theoretical self-defense against Eurocentricism. But it does make claims that are suddenly obvious, about modernity and its source point. Note again our distinctions of directionality and teleology. Note that 'eonic globalization' is reflected in the eonic sequence only, and is not the same as the 'globalization', mostly economic, that follows in its wake.

6.4.1 The Curse Of Mideonic Empire?

**Once again we are confronted with the issue of mideonic empire,
this time as a question...**

Notes

6.5 1848: End of Eonic Sequence?

We reach the end of our eonic sequence, as our transition concludes and our system enters a new era, one that will soon move beyond its source area (and the Eurocentric confusions of that) toward a global oikoumene. The rough year 1848 is useful, for we can see that this is the first point at which one could begin to clearly perceive the eonic effect. And who do we find here but Marx and Engels generating a post-transitional 'second opinion' or course correction, an activity destined to swift failure. Our discrete freedom sequence seems to end up an indiscrete Whiggocracy and to have some unfinished business. Not surprising. Whenever there is a Leveller a True Leveller can't be far behind.¹⁸⁵

End of Eonic Sequence? We are left with a sense of wonder about the relation of modernity, and the eonic effect as such, to evolution. Far more than purely genetic evolution the evidence we have uncovered shows that the fine-tuning of evolution stretches into the subtlest aspects of culture, from art to politics and the ideologies of culture. It is at first hard to accept this larger dimension of evolution just behind our historical present, but this approach is in reality far superior to the reductionist perspective.

Theory and Ideology But isn't there a contradiction in the exploitation of theory as ideology in our portrait? The answer is that our system transcends the phenomenon of philosophy, as our realization of its highest abstractions comes into being a political philosophy and the tactics of action. We can see in the close relationship of the ideas of freedom and causality that the deeper level of System Action operates with a generalized mechanics that far transcends the

realm of ideology or Free Action, and glimpses of which we begin to sense in the spectacular dynamics of both the eonic sequence and its embedded 'discrete freedom sequence'.

As we conclude our portrait of the eonic effect we see that we only observe it as exit from its action, and that as we distance ourselves from the modern transition the dilemma of our free potential to create history in the wake of the evolution of our own freedom becomes a paradox and a dilemma. We see the similar situation at the conclusion of the Axial Age resulted in chaotification, and decline, and the expectation of some kind of returning new age or 'end time'. We must hope that this time we will become the masters of our own self-consciousness and withstand the tide of mechanization that overcame the civilization of antiquity. We should imagine that in the modern instance we have completed a major evolutionary passage, an interval of man becoming man comparable to what we suspected was the 'great explosion' of the Paleolithic. Our evolution formalism and eonic model are set up so that they switch off in our present and we only observe statements about dynamics in the past. System Action yields to Free Action and this prevents the kind of confusion with theories and action we demonstrated with the Oedipus Paradox.

Although the year 1848 is no more than a rough marker chosen as a peg to hang a tale, and end a book, it neatly shows the point at which our pattern starts into its post-transition, and reversal from localization to globalization, unprotected by any factor of eonic determination from imperialistic degenerations and the new economic systems, soon to be downshifted further by Darwinian ideology. Even a cursory glance at modern philosophy shows how the seminal era slumps out after the generation of Marx and Schopenhauer. Many other indicators make the point. This time, seeing the effect, we can take action to recover. We tend to be mesmerized by the ignited exponential processes (e.g. the demographic transition) beginning in the transition, but these are not the same. We must stick to the rules of our model, which suggests the intermittency of our transitions, which puts us outside of the eonic sequence. That will at least enforce a discipline of teleological disarmament of all parties.

1848: Teleological antinomies We can easily spot the crude division point predicted by the model at about the time of the French and Industrial Revolutions, at the outside by 1848, a truly spectacular generation in world history. This division is useful because it is about the exact 'first point' at which our 'eonic observer' can start to see the eonic effect, and also because its symbolic significance forces the issue of ideology.

This choice of symbolic year is about the same as Hegel's 1806, but more cogently directed to the issues, and merely a useful token for a rough ending to the transition. It is like the difference between ignition, liftoff and steady flight getting underway. But is it also the end of the eonic sequence? We don't know. But it is an unsettling thought, since 'revolutions as free action' will move to take the place of transitional sequence.

Armed with the distinction of macro and micro-action we can see at a glance the overall dynamic at work, however we understand it, and it is unsettling. We think in terms of linear progress, and then are understandably baffled by the First World War, the Holocaust. Whatever else is the case, these are well outside the eonic sequence. These are clear cases where mideonic stupidity is starting up again. Nietzsche influenced by Darwin does not bode well for the future.

Can we even maintain the modern transition, let alone advance it? In fact, we can, but we see in antiquity this dread effect as the classical transitions run out of octane fuel and lapse to a higher degree of mechanization, never to recover. That is less likely in this case, although we see the fall-off take effect as the transitional effect wanes. This is not Spenglerian decline but a one-time slump-down from a bursting episode of high performance, followed by a more stable process tending to a more contingent social drift, and then potentially, we can hope, new advance, but without eonic determination, a new freedom beyond the eonic sequence. This is the punctuation, then equilibrium, of the whole eonic effect. But it is not really equilibrium, and the metaphor is not quite right. A whole series of take-offs have been ignited, and it is completely within the rules of the game to realize the dynamic and compensate. The fate of the Hellenistic need not be ours.

Although our model seems to be confounded by an ideological modernism or a Eurocentric focus now under challenge, we see that in fact it has a built-in device to reconcile these contradictions, and we leave our system just as it undergoes its convulsive reversal from local transition to global oikoumene creation. It is important to remember that in our model, the local and long-range future diverge, and no teleological claim on the latter is possible for the former. And our system aggressively reminds us of this as the sequence seems to stop in the wake of the revolutionary early modern. This explains the baffling puzzle arising in the instant bifurcation of our system at the very moment it is getting under way. And one issue is the teleological antinomy, latent in Kant's Challenge, of the potential system and actual outcome, with its economic emergentism taken as the 'final state of the system'. Chillingly apt that Marx (not alone!) proposes the abstract category 'socialism', which he refuses to define, as a next 'transition'. This thinking merely reflects the antinomy, and it is important to remember that our model predicts nothing. It is right that it be that way and we can see that Marxism suffered the fiasco of a 'local time teleological' projection. Marx/Engels as champions of democracy works quite nicely.

Econostream != eonic sequence We don't need to indulge in leftist propaganda to see that our model distinguishes two things: the economic stream and the eonic sequence diverge. If someone says that you must submit to economic 'laws' in the name of history, laws that make him rich and others poor, that man is pulling the wool over your eyes with bogus theory, because we can see that economic processes pertain only to economies and don't generate the long-range future (at least so far, looking backward), these points not to be taken dogmatically. Our model simply mirrors the debate, its proper task.

How elegant yet somber to observe this system cross this divide into a new era in rise of liberalism, the turbulence of revolution, and the passage across the spectrum of the Left to the year 1848, about when our transition moves toward shutdown in the open field of a 'new age'. Although a basic liberal interpretation is well within the bounds of our

model, a kind of default outcome, we should note that this construct cannot be safely used as a form of legitimation for that.

It is not hard to show that emergent liberalism was an imperfect outcome of the modern transition. The American system failed even to abolish slavery, proof that nothing deductive can be extracted from 'eonic determination', in case propagandists aim at a legitimation of modernism via this model. The sudden chaotification resembles overshoot and undershoot in a control system, and the instability or equivocation is evident from the first in the twin figures of Luther and Münzer, then in Locke and the Levellers. As if a last minute course correction, suddenly turning into a demand for a different outcome, finds Marx and Engels challenging the whole transition as it were, on the verge of a disastrous attempt at course correction. Lest we forget, they took action at a desperate moment in a system that almost failed to accomplish abolition. We are left with an unnerving question, What else is missing?

An immense ideological veil protects the confusion of eonic sequence versus econostream. The modern transition rapidly crystallized into the capitalist societies dominated by market ideology that are prone to the domination of a new type of elite. We can't quite mediate that using our model, and the potential of this system so far outstrips systems of antiquity that leftist reactions tend to backfire. The world of our transition is nearly done before the Industrial Revolution, which rapidly generates a secondary post-transitional culture of the new capitalist society. Looking at the chaotic movements of world history we should think this development potentially almost benign by comparison, and the classic Marxist critiques, while altogether cogent and seminal, tended to misdiagnosis and false efforts to construct an undefined socialism whose record speaks for itself. We cannot legislate these issues with our model, which promptly reflects this dilemma without resolving it. We see the obvious lost opportunity: the founders of the American system could have created a socialist republic, but were too fixated on Roman history.

However, the whole point of our model is that it allows us to distinguish two levels, e.g. emergent democracy at its initialization, however obscure, and the subsequent realization, which may be flawed or fail. In a global context the dilemma of empire arises very quickly and we find the sad reaction to the American system rising to produce a challenge to its future. The rich potential of the eonic starting point is soon forgotten in the mix of Darwinism, classical liberalism, economic ideology and scientism that assembles the new worldview. Locked in this box we fail to see the limits to our vision this induces. Challenged at once by the far left, the new economic society ambiguously enters its mideonic pilgrimage in experiments still young in the reckoning of five thousand years. The future of the reign of Capital is an ominous suspense.

The new world of capitalism must be judged on its own terms, our job done. We have merely disengaged it from the macrosequence. But we must note that before classical liberalism stands the work of its creators, who never foresaw the results of their endorsement of economic freedom, that orphan of the discrete freedom sequence. The eonic mainline can't control the economic field, as core and periphery imbalance arises.

But the difference between the two can be seen in the way the modern transformation lets loose a new round of slavery in the periphery, while the core, racing against time, generates abolition, and not a moment too soon. The American sidwinder system doesn't make it, and we have the preposterous constitution of four-fifths person at the outcome. Downfield course corrections beyond the divide point prove very costly, and are prone to fall into the hands of those who don't know what they are doing. In the post-divide the gates of the penitentiary slam closed, and the inmates begin to make their own rules.

Like a great oak tree the eonic sequence sprouts a new limb and this injects new life into the world system, even as the other limbs continue in their growth and separate existence, forced however to mediate the immense confusions of globalization. Needless to say we must evaluate dialectically the nature of the modern outcome by sifting the eonic emergents defining our transition. There is no simple talisman or formula of success. Some more complex process has differentiated into a scattershot spectrum of results and we are inside that field of eonic emergents, assessing their components as relative free action. We must beware of getting lost in fantasies of a 'Western Civilization', although that confusion will prove inevitable, at great cost to the slowing of globalization momentum.

6.5.1 Last and First Men

Our current time-frame, ca. the year 2000, now seems to be the geopolitical endgame of the Western system of nation states emerging after 1500. The five centuries since this watershed are visible as a unit of transformation, and one comparable in scope to the birth of civilization, and the passage of classical antiquity. On the scale of millennia its revolutionary breakthroughs of liberty, more even than its emergent new systems of economy, constitute an enigma of cultural evolution, a decisive movement against historical trend that is difficult to account for short of the eonic model.

The great, to many, unexpected, turning point of the times, at the end of this period, is the collapse of the Russian Communist world system, whose outcome was an ambiguous variant of this nationalism, casting the spell of a future internationalism it was unable to achieve. This monumental convulsion in the dynamics of global modernization as the ghost of Universal Empire declared itself the end state in the outcome of modern politics and industrialism, and was so denounced as crypto-eschatological prophetic futurism, especially by those who prefer to claim the genre, and wish their own version of this Event. This juggernaut has now been replaced by resurgent fundamentalism, and the tide of Islam, and we can at least see the dilemma of globalization at work in the wake of a series of micro-transitions operating on a minimum principle.¹⁸⁶

This cycle of revolution starts with the revolutions of 1848, the last and the new first in the tidal wave beginning with the American and the French Revolutions, and earlier. The liberal world gets its revolution, then the system freezes. It is the first fact of modernism that we constantly recycle this core period of leftist surging followed by royalist restoration, action and reaction, whose pivotal years lie between 1789, and 'last'

gasp, 1848, the year of the Communist Manifesto This, we will see, is the point at which the world system crosses what we will call a Great Divide, and the realization of current modernism comes into being. The modern political transformation revolves around one simple issue, one only; will the trend toward liberty move to fulfill itself as equality? If it does, modernism succeeds. If it does not, modernism fails.

The ambiguous mood of 1848, and its gloom of leftist disappointment, fills the air even now in one and the same sense of shock at revolutionary failure. Once again, the failure of capitalism to fail results in a take off in a long Boom like that which followed this earlier period of failed revolution. Beyond this, the grand historical questions remain of the place of revolution in the dynamics of history, its rarity before the rise of the modern world. Its place is clear and yet mysterious. Between early antiquity, and the modern transformation after 1500, freedom in its liberal meanings disappeared, after a first birth, and certainly did not reappear as a result of incremental social evolution. After 1848, the revolutionary tide was ebbing even short of the abolition of slavery, as Leftist ideas expanded into a fragmented sociology of permanent revolution. This recycling of the 'old slogans', 'pieces of eighteen forty-eight', is an appropriate starting point, or ending, in the consideration of historical discontinuity.¹⁸⁷

In all its considerations of historical materialism, leftist ideology has failed to do justice to what it rightly sees as the 'bourgeois revolution'. But behind this surface lies the real key to Marx's own theory. Marx is really a frustrated transcendental idealist attempting to bring the idea of freedom into the surface world of economic determinism. We have seen a better way to deal with that. It is not chance that democracy suddenly reappears in modern times, and as we will see near the 'Great Divide'? The problem is that the system begins to jackknife against itself as the left becomes ambivalent about the hybrid system of democratic freedom and capitalism.

What constitutes democracy remains a critical question, but even approximations will work fine with our argument. We are closing in on Kant's Challenge, and a simple resolution of Marx's difficulties on theory as the term 'democracy' floated into 'dictatorship of the proletariat', in the losing battle for the word's definition, whose crisis is clearly evident in the thinking of Rousseau. If we reach further backwards we see, or so some have claimed, the first, before the first, birth in the first nexus of Sumerian city-states.¹⁸⁸

First and Last Whigs We seem to be committing the 'great blunder' of Whiggery, quite unrepentantly. But we are doing something completely different. The discrete freedom sequence does not 'evolve' from the medieval period, in the notions of liberty said to be latent in the episode of the Magna Carta. Our directional thesis refers to a far larger scale, system return in the eonic sequence. Herbert Butterfield in his *The Whig Interpretation of History*, chides the Whig historians of the nineteenth century who saw history as a process fulfilling their political preferences. But suddenly, we are left with a question, perhaps there *is* a Whig Interpretation of History: but it seems to involve outsmarting the Whigs, Tom Paine style, liberalism becoming

democratic liberalism. Will we be promoting the ‘telos’ of democracy in theory? We should first define the term, and determine whether a teleological system would produce what Marx thought the wrong result. The answer is a cautious ‘yes’, we see a clear directionality suggesting a teleological component. In any case, in the eonic version we discover the Whigs, sometimes known as the ‘Glorious Whigs’, to have made a mess of the question, if the outcome of the English Civil War was hardly democracy. What of the Levellers? But the Whigs were onto something, the first great breakthrough of the modern liberal world. The issue, in any case, has nothing to do with fancies about the Magna Carta. Not slow evolution but a dreadful historical discontinuity seems responsible.¹⁸⁹

The criticism of teleology, although essential, fails to explain why the impostor Freedom ever made a comeback after its ancient defeat, and did so when it did. The correlation of emergent democracy and our eonic pattern, at first seemingly random, will be found to be one of our ‘eonic effects’.

We can see already, most ironically, that emergent democracy is more fruitfully bound up in a question of directionality, and that, if anything, the Marxist initiative simply derailed from this directionality. Thus Popper’s important plea for the open society attempted to deny the existence of historical forces on the grounds of their inherent totalitarian nature, in prophecies or predictions of historical laws, in the exclusive emphasis on the power of rationality to create the future piecemeal. But unfortunately these ‘historical forces’ are very real, however difficult it might be to define them. The simplest way to consider this reality of historical forces would be to look at the discontinuity of modernism as a whole relative to greater antiquity. And ask why society ‘opened’ at all, and so briefly, in the age of Solon, and then waited so long for the renewed fulfillment of this ancient dream.¹⁹⁰

The philosopher Hegel grappled with a sense of the directionality perceivable in the history of freedom, keeping in mind the ambiguity of ‘direction’ in rival linear, or cyclical, interpretations. The acuteness of his thinking is veiled in the philosopher as a metaphysical Sphinx all too liable to misinterpretations, and some earnest questions in the face of his reticence near Prussian censorship. The accusations of defending the reaction forget the brief period of the progressive Prussia. Even as he is defended from the charge of ideologist, he appears to be doing remarkably well in this role for post-Communism as the historical grand finale wished for in a new Restoration of classical liberals. Suffice it to say he, or some phantom by that name, seems to confirm Marx’s warnings, as the current bald eagle for the ‘end of history’. This concept of the ‘end of history’ has been so abused as to seem worthless.

End of eonic sequence? Our model produces a parallel, though quite different, idea of the ‘end of the eonic sequence’. This makes no definite statement about the social form of the period after the last transition, save that the self-evolution of freedom must replace that of the eonic sequence. The ominous possibility of the next ‘revolution’ (as man-made micro-action or pseudo-transition) to reach the ‘end of history’, or the end of the ‘end of history’, lurks beyond bourgeois propaganda in the mideonic wasteland of political systems deviating from the classic period of the divide.

Hegel's metaphysics apart, his commentary on liberal modernity is classic. Hegel was an acute critic of the limits of civil society. As S. Avineri notes,

Hegel accepts Smith's view that behind the senseless and conflicting clash of interests in civil society lies a hidden assumption which implies that everyone in society is thus being well taken care of. Poverty, which for Smith is always marginal to his model, assumes another dimension in Hegel. For the latter, pauperization and the subsequent alienation from society are not incidental to the system but endemic to it...the only problem which remains unresolved according to Hegel's own admission is the problem of poverty.¹⁹¹

Before the leftist tide caused social conservatives to close ranks around Adam Smith, the flaws in the emerging capitalist system were obvious to many, one of them Hegel. But should we man the barricades for Hegel's political suggestions? His critique of the stark contradiction at the root of the emerging capitalist order makes him the direct inspiration for his well-known and less compliant successor. Hegel hesitates, Marx cuts the Gordian knot. Hegel's seminal study of the English political economists nonetheless distorts his 'cunning of reason' idea, and for all his daring with teleological thinking gets it mixed with the 'invisible hand' thinking of the capitalist ideologists.¹⁹²

In *The End of History and the Last Man*, Francis Fukuyama steps without hesitation into this Hegelian vein, anxious to sneak the kludges of teleological idealism into the barren mechanics of sociology, and finds in liberal democracy the "end point of mankind's ideological evolution" and the "final form of human government". This was the Hegel of the philosopher Kojève. The basis of the 'end of history' idea is open to challenge, and the idea is not present in Hegel in the fashion now imagined. A far more interesting approach might be our eonic model, with a question, to be developed, 'Have we reached the end of the *eonic sequence*?' With the eonic model, we know at once what Hegel is driving at, but can't quite put his finger on.¹⁹³

The course of the idea of the Hegelian 'end of history', the idea that history had ended in 1806 after the Battle of Jena, i.e., the principles of liberty and equality had become the 'limits of convergence' of the global system of Universal History, fails as linear directionality, and changes its meaning with context and is bound in the equivocation created by ambiguity between the 'end of history' and the 'end of antiquity', and Hegel himself a harbinger of a New Age, yet haunted by the memory of the Great Terror, and the wish to justify the passage to new and different futures in the collisions of that era. But the New Age is secure, and grants no further proofs of justice, as liberal systems emerge in temporal form guaranteed no Whiggish certainty by the arguments of Hegel. Anyone who uses this nearly hopeless terminology ends up mesmerized. In any case, the rise of pragmatism with its 'naturalized Hegelianism' makes us forget that 'geist' is the fuel for the motor, and a theory of evolution, de facto, and its status as a design argument is like all the rest. The lesson suggested by our discrete freedom sequence is well suggested by the founders of the American system, 'Democracy, if you can keep it'.¹⁹⁴

Meaningful summons of Hegel requires the use of his 'dialectic of stages', which fell, however, into an unfortunate Eurocentrism. Freedom does not proceed from East to West, but along the mainline of the eonic sequence. And this 'dialectic' cannot be tacked onto a sociological argument about the influence of economics or technology on history, for it is a challenge to the very foundation of normal logic, to say nothing of physical causality. The 'end of history' argument in its current form proceeds from the philosopher Kojève, in a hybrid of Hegel, Nietzsche, Marx, and Heidegger. In the end one might do better to backtrack to the buried Kant whence 'ideas for a universal history' have sprung, to find there a more realistic sense that a teleological view of history would do better to adopt a stark realism about the future, in the progression toward the perfect civil constitution, even given the great achievements of the Age of Freedom beautifully reflected the critique of the Dialectic of Illusion.

Fukuyama thus falls back on standard historical theory, and asks, "Do all or most societies evolve in a certain uniform direction, or do their histories follow either a cyclical or simply random path?" Fukuyama proposes to find the historical mechanism in relation to various candidate factors, e.g. the development of scientific knowledge, as a cumulative force whose development can 'clock' the 'irreversibility' of progressive time and asks, "But if history is never to repeat itself, there must be a constant and uniform Mechanism or set of historical first causes that dictates evolution in a single direction, and that somehow preserves the memory of earlier periods into the present."

This states the problem of historical causality quite directly indeed, and in a fashion that makes the linear or uniform and the cyclical mutually exclusive. But here is the exact difficulty, for the mechanism that Fukuyama might wish could show a cyclical character beyond the modern rise of science and technology that seems to hold sway only after 1500, and as much a series of effects as drivers of the motion. And what is the relevance of Hegel here? Hegel's argument is not causal. The 'mechanism' of the 'end of history' is the dialectic of stages in the emergence of Freedom. Normal causality fails as a candidate for the Grand Mechanism. All such efforts amount to variants of macroeconomic models of growth, and they don't work. Sneak in Hegel draped in the American flag. We will soon look at the case of the missing centuries, in relation to science, to discover that science, at least so far, could not be the candidate for this generation of uniform direction, bound up itself in the dynamic history.

The great historical Mechanism that Fukuyama describes must pass muster throughout Universal History, in the record of civilization. It is not sufficient to begin with the rise of modernity and find therein the resolution of Universal History in its effects, rather than its causes. Thus, we cannot assume the implied conclusion of his 'if'. What if history does repeat itself? Such arguments assume, perhaps, the Judeo-Christian 'mythistorical' discovery of linear progressive time as a *fait accompli*.

It is significant to consider the appearance of modern forms of Freedom (and equalization), and the Communist explosion, in its proper context, of 5000 years, the entirety of what we call 'civilization', unable to establish a practical equality of economic justice, except for one brief period near -600. The modern world of Freedom was the child of revolution. This led to the rise of the notion of the 'permanent revolution', when, in fact, a flawed system was simply becoming stable. This stability is guarded by reasonable compromises, and the unique experience of American economic and political

success. But the issue remains, for the gains of freedom are never secure. The discrete veiling of this fact by those who wish to brand 'revolution' as a pathological aberration or the will to power is a token of the brevity of historical memory. Our memories are short if we forget the birth of a left that sprang into existence before the abolition of slavery.¹⁹⁵ But the original sense, and the real heart of Fukuyama's argument, is the preservation of the gains made at the 'end of modernism', and an attempt to insist the technological gains of modernization should be accompanied by the gains of liberty, even as desperado traditionalist cultures wish the fruits of technology while calling liberal modernization 'ethnocentric'. We are forced to consider this thesis to be Hegelian propaganda. Let us, however, take the thesis seriously to this degree: we might reach the 'end of history' if we are successful in achieving true democracy for the first time!

Could humanity regress completely, find itself reviving slavery, theocracy, aristocratic society? Unfortunately it could, because it has, the more so as its experimental 'communist' fail-safe itself deviated and proved an abysmal failure, precisely on this score. Armed with Darwinism regression is already underway! What then is the source of freedom? Part of our confusion is the assumption of pure linear advance, and the viewpoint this creates, that particular forms, cultural states, or periods are islands of random rationality adrift in time. Our study might attempt to give a better meaning to the term 'end of history', as the passage of a divide, and, more basically, a phenomenon related to what we will call eonic transition. And our study might highlight, and possibly reconcile, the contradiction in these linear views of progress into which the cyclical factor would threaten to return, and in the process make us less sanguine about the inevitability of any simple form of short-term political directedness.

6.5.2 Theory and Ideology: Out of Revolution

It is ironic that we only begin to observe the eonic effect as we exit its period of action, and as we pull away from the modern transition we are left to wonder if we are at the end of a major evolutionary interval, or whether once again we will fall into the confusions of the post-Axial period with its decline from creativity and advance. It seems that our observation of the phenomenon signals the end of its returns and that we are left to the realization of our evolved freedom in a future of our own creation.

We are left with a sense of wonder, and the realization of the operation of a larger dynamic, even as we witness a rebirth of freedom in its wake. This double birth of democracy in an exact timing is eerie in its strange precision in the silence of the ages, and a clue to the reality of directional evolution. And, having evolved toward freedom, we must wonder if we will witness once again the cycles of decline and fall, as if in a recurrence of Roman *libertas* proceeding to Roman *imperium*. In fact, the ironic aspect of our eonic pattern is that we become aware of it only as its action concludes, and we enter a new future where our evolving freedom passes into our own potential, and we are left

with the existential sense of our aloneness as we grapple with a mystery that is incompletely known to us.

As we contemplate the future of our own freedom we are left with the paradoxes of slow and fast evolution, and of revolutionary action, whose basic question is, how do we bring about historical change. This is a moment worthy of the comment of Engels, stripped of its capitalist versus socialist trappings:

The objective, external forces which have hitherto dominated history will then pass under control of men themselves. It is only from this point that men, with full consciousness, will fashion their own history; it is only at this point that the social causes set in motion by men will have, predominantly and in constantly increasing measure, the effects willed by men. It is humanity's leap from the realm of necessity to the realm of freedom.

Engels' language on paper is perfect, in light of our thesis, but the reality that we observe in the progression of civilizations is something vastly more complex than historical materialism can explain. And the attempt by Marx to create a theory of revolutions after the example of the French Revolution and Hegelian dialectic is unsound. The importance of their commentary lies in the way they pointed out the contraction of meaning in the idea of freedom around economic freedom, in the sense of the elite manipulation of economies. It is remarkable this 'second opinion' rushed into the fray, but unfortunately the critique was flawed.

The ambiguity of 'revolution' We can see that as we exit the eonic sequence we will be driven to either go into decline or conceive some substitute for the eonic transitions visible behind us. The concoctions of spurious revolutionary theory in Marx and Engels are the perfect example. With a better sense of the vastness of the eonic dynamic we can remain less naïve about the transformation of whole civilization. The eonic effect shows us 'revolutions' done right!

We can see that it is almost science fiction to expect that human free will could as yet control processes of evolution operating over tens of millennia! And this realization shows us the problematical character of the revolutions of the left attempting to recreate society. That is not an argument against revolutions: the rise of modern shows that revolutions are the key to that rise. The left adopted an ideology of revolution, and we can see that, in light of the eonic effect, a Burkean faith in the slow evolution of society is misplaced, and yet at the same time we can see why simple gestures of political revolution have so often proved to be illusions. We can see that 'revolution' is correlated with our eonic sequence, but it does not follow that the model of a revolution corresponds to what we call a 'transition'. The sober reality is that the liberal revolutions gestating in the early modern, and climaxing in the period of the French Revolution stand in a direct association with our eonic systematics, while the anti-liberalism of the nineteenth century left that arose from Marxism seems to have misunderstood the dynamics of historical motion. By making socialism a negation of a liberalism Marx's theories produced nothing but confusion. Since socialism is an idea that came into being in the context of democratic revolution, it is a mystery why such poor leadership vitiated the idea at the dawn of democratic republicanism.

Our eonic portrait, closing on the present, moves between the ur-liberalism of the seventeenth century in the wake of the Thirty Years War and the far left of the nineteenth century, which is just as well, and leaves the reader either in a large library or on the barricades. But a leftist of our own times must ask himself why the initiatives of the nineteenth century far left were unreasonably off the mark and ended in such catastrophe.

We can see how all the effort in our transition works toward one result, basic liberalism, while the effort, post-transition, to modify this outcome is too thin a soup to start from scratch after the main event, and doomed to jackknife against the momentum of renewal created. We should also note how the implicit prediction of this lurks in Kant's Challenge, as an 'antinomy of teleological judgment' haunts the false sense of an end state.

It's not the end of history but the dawn of a New Age, and if the starting point has a problem we should be ready for 'mideonic course corrections'. We have consistently critiqued Marx's theories, but he keeps sneaking back into the picture. It can't be otherwise, because basic contradictions lurk in the capitalist assembly of atomized individuals seeking to maximize utility. All the refutations of Marx forget a simple fact: atomized individuals at the wrong end of the market game may seek to maximize utility via class struggle and revolution.

Since by the structure of the argument we have invoked Kant and given classic liberalism a one-lap advantage this is hardly bias, but a recommendation to embrace the entire spectrum of dialectic from Luther to Marx in the year 1848. This year also sees Schopenhauer offering his opera glasses to a soldier in the revolutionary broils. Despite his ahistorical Buddhist strain, he stumbled backwards into another resolution of universal histories. There also we find Wagner, a cultural derelict of this period, about to proceed from the left to his reactionary views chasing the phantom of the aesthetic state., an idea destined to shipwreck at the hands of Hitler. By this point the classic German philosophy has bifurcated into separate streams as the chaotification of ideologies proceeds. And the concealed Platonic authoritarianism, Kant only exempt, and often charged against the metaphysical tradition pitted against the Lockes, resurfaces with a vengeance to befuddle the left.

The situation is not complex. Our system is injecting a trend toward equalization, Solon, now Rousseau, both perfectly timed in the mechanization of equalization, and undergoes a convulsion. Our divide era has passed yet even the abolition of slavery is incomplete. What are the rights of one class against another in the woes of world history? It is worth reading Hegel at this point. The credentials of a conservative noting in some alarm the incomplete and contradictory result of the liberal systems is unsettling. It is no use speaking of the glories of the market if King Leopold destroys ten million Africans and there exists no system to challenge that on a global basis. We see the resulting anger of Lenin at a critical moment and the even worse futility of the attempted correction. Marx's theories are poorly constructed, but his basic insight has proven all too prophetic. We need not agree with Marx to see the cogency of his critique of Hegel on 'Right', the starting point of his and Engels' strange career. But Stalin's reading of this should remind

us that nature in its wisdom shows an emergentism of renewed natural law theory in our core transition, the tool to get the job done, prior to philosophical tinkering. But we seem to have lost this option. Nature is waiting for man to produce a system of free and equal men. Five thousand years is enough. The climax of the modern transformation falls into place around this dilemma of equality

We end therefore in the year 1848, whose ambiguities of incomplete transformation beggar easy hopes of the 'end of history' conception, and should serve as a reminder of the principle liability warned of by these seminal times, the manufacture of social identity as ideology in the emergence of a new economic order. Our system is not ending, but new-aging. Humanity cannot afford again after two promptings of nature to slide back into a baboonery of lords and ladies.

We are left with Engels' hope that man can learn to transcend the mechanization of forces of history to recast his evolutionary free action as genuine freedom in an intelligent global 'commune' of true men, able to apply direction to econostream without exploitation, and realize the potential of techno-sequence without Faustian hubris, as the tide of human self-consciousness rises to meet and surpass the social forms appearing in phase in a new sequence of his own making that might be called Civilization for the first time.

6.6 New Ages

The forms of historicism include the myths of eons and epochs. Our data leads us through this terrain, yet gives us a handle on the mythological confusions. We live in an age when the millennial calendar of eschatological Christianity, a very ancient cousin of the idea of a New Age, suggests an illusory finish to our affairs that might distract from the practical efforts demanded by problems that have no miraculous solutions. Behind the idea of the last age lies the idea of a 'new age', and the endless echoes of antique notions of epochs, ages of man, and great cycles of nature. Ideas of a 'new age' braided with that of an 'eschaton' and its strange futures are clearly evident in the thinking of the New Testament.

For the onset of the New Age, if this has any meaning, has already come and gone as far as historical Grand Dramatics is concerned. Beyond the issues of the greater future on a scale of millennia, our 'new age' crisis might be very real on a scale of mere centuries: a loss of momentum or postmodern chaotification in the unfolding of a new phase of 'civilization' from its roots in the period of the earliest modernity. Our moment, that one might wish to move 'toward a new enlightenment', instead moves quickly 'toward a new age movement'. A further confusion lies in the idea of decline, near ideas of the rise and fall of civilization, such as those advocated by Spengler and Toynbee. These views cleverly find the Enlightenment the onset of the fallen man's last hurrah, in some hellish finish of 'western' civilization. But secular thought lays the best claim to the 'new age'.¹⁹⁶

The confusions of eschatology, new ages, last ages, and cyclical views of history are chronic, and in the recent versions, come with an anti-modern ideological twist. The eonic effect produces a useful commentary on the issue. We should note that the term 'eonic' was made a synonym for 'intermittent', and invokes a systems analysis metaphor (e.g. digital samplers), but also obviously puns on the word 'eon', and this is both an afterthought, and a means of seeing why myths of 'New Ages' are endemic to history for a reason the eonic effect makes clear. Our 'eonic sequence', will elicit the confusion over myths of the Great Year, and hopefully displace that with something else.

The great shockwave of modernism is the onset of a great new period of history and joins the short list of two previous such transitions, the great force of the first civilizations, and the second great wave of change that gave birth to the classical world. One and the same pattern of geographical differentiation followed by 'globalizing' integration is clearly at work, with, however, a rising expansion of scale in each case. The resemblance of the modernist transformation to these early cousins completes the list of three 'new ages'. Is any of this important? Our eonic pattern moves through this territory, and it is good to be wary of merely recycling archetypes. Our approach is different, purely empirical. The New Age obsession is much ridiculed, but contains a valid impulse. An age of spiritual democracy is clearly coming into existence amidst considerable confusion. Further, the 'new age' idea is an outstanding challenge to the legacy of the great religions now challenged to a great renewal.

The issue of the New Age is simple. Everyone is observing fragments of the eonic effect, without seeing the whole pattern, which is 'evolutionary' in our sense. This has nothing to do with current New Age ideas of 'evolution' as personal transformation. The eonic effect grants no foundational status to the idea of a new age, but solves the problem at once on a de facto basis by suggesting the mistake of periodization in most efforts to periodize New Ages. The quest for the Age of Aquarius was silly, as is the postmodern attempt to undermine the rise of the modern with a 'New Age'. There is even a new myth of the 'Second Axial Age' appearing. The myths of the 'New Age' spring from the lore of the Great Year, a total red herring, whose astrological periodization of the precession of the equinoxes is too short and throws everything else out of whack, leaving the field in total confusion. The mystery of historical cycles has always haunted civilization, for reasons that we will see. It is time to lay the issue to rest. It is hopeless question, but we can take a chance and use our eonic model to attempt some clarification.

One reason for the importance of the idea of a New Age is that the periodic renewal of religious formations, correctly anticipated by many New Agers and Eastern thinkers, is a force to be reckoned with and can have devastating impact on received religions. It is probably the case that the religions generated in the wake of the Axial period will slowly pass away, or be transformed into something else. The effect is very clear from the Axial period itself, which pressed against the remains of still earlier religions, and we can see the issue clearly in the modern world where all the old religions are clearly falling to pieces. The place of the better idea of evolution here is obvious, although Darwinism, due to its reductionist account of man has, if anything, miscast the tone of secularization which was proceeding in more intelligent fashion before the false

metaphysics of selectionist theories gave religious reaction a fresh impetus. Consider that preeminent New Ager, Spinoza, giving birth promptly in the early modern to Biblical Criticism. Also, please note, the Protestant Reformation, in the mainline of our eonic sequence recycles a Christian stream. We should therefore be wary of any predictions.

The mysterious discontinuity of the sixteenth century, and the onset of the modern in the nineteenth are a de facto resolution of the Great Expectation predicted, but whose secular character was not wished for. That the early champions of revolution and change, during the French Revolution, saw fit to periodize a New Age in the 'revolution' of time by attempting to invent a new calendar of the Year Zero is altogether apt, and not quite as ridiculous as the swift reactions of conservatives were soon to make that seem.

Thus, the rise of the modern world has often been seen as the beginning of a New Age, *Novus Ordo Seclorum*. But this falls out of sync with the periodization of the Great Year. We can breathe a sigh of relief, determining the onset of the Aquarian age is superfluous. But a host of 'New Age' gurus, plying the 'standard postmodern strategy' pioneered by Spengler, find the rise of the modern to be an aberration, and the situation to require their ministrations, please forget the many achievements of human liberty attending the old New Age. The new New Age requires the sacrifice of human autonomy, in the name of spiritual guidance. We are presented with the Old Age movement, in a flood of cults promoting archaic confusions.

The condemnation in spiritual terms of the new age of the modern with its revolutionary struggle for freedom is currently being amplified by the postmodern strategies of forces of reaction. In a strange irony, the West was the last place on the planet not subject to the concealed domination of spiritual or 'esoteric' mystifications. It has produced in short order the groundwork for a new disposition of the true spiritual man, able to inherit his autonomy as the natural freedom of his own self-consciousness. We are still living in the future of this moment of this transition to a new era of world history, symbolically climaxing in the generation of the French Revolution, in the sense that our current culture came into existence very swiftly in the century from 1750 to 1850. This greater significance of the Revolutionary period was clearly in the mind of the philosopher Hegel who, ideas of the 'end of history' apart, was inspired both to the early enthusiasm for and the reactionary rejection of this event in its excesses, as one of its most notable observers.

As Hegel notes in his *Phenomenology of Spirit*, written on the eve of Napoleon's approach to Jena, as the supposed (hubristic) World Spirit on horseback:

Our epoch is a birth time, a period of transition. The spirit of man has broken with the old order of things, and with old ways of thinking. The spirit of the times, growing slowly and quietly ripe for the new form it is to assume, disintegrates one piece after another of the structure of the previous world. That it is tottering to its fall is now indicated only by symptoms here and there...but something else is approaching. This gradual crumbling to pieces will be interrupted by the sunrise, which in a flash and at a single stroke, brings to view the form and structure of the new world.

Hegel is useful in one way for he restates a classic mystical theme of the ancients, but slips in the idea of freedom. The guru game will never be the same, and the current

New Age conspiracies against human autonomy using the postmodern strategy should soon play themselves out. Hegel, of course, is sometimes well challenged for his version of the Freedom idea. Indeed, is he not a sly version from the same game? His concealed occult roots should leave us wondering. But the point is clear. Failing Hegel, the pack of left Hegelians, New Agers in the vein of Feuerbach, rewrote the terms of the New Age rather well, although Marxist 'materialism' is too constricted to handle these issues. The terms are set, the 'class struggle' is very much present at the core of religion. The Enlightenment theme of autonomy creates quiet alarm in the spiritual authorities of antiquity. And why would that be so? The dark rumors of the occult fascism pass through the New Age underground.

In the end, there is no theoretical basis for the New Age concept as such in the eonic effect with its crude stages of self-organization, but the battle of the ancients and moderns takes its place, and now takes new forms so visible in the 'old and new' of the vigorous movements styled 'New Age'. But the new age of the modern is real enough, and connects to historical dynamics. The postmodern swindles of the gurus attempting to displace modernity with their own 'New Age' should hopefully prove transparent, and proof they have little grasp of history.

New Age Movements The generation of the sixties and seventies in the West with its plethora of New Age movements rising from the multicultural compression of the emerging world culture, in a proliferation of spiritual groups whose radical therapeutic fringe mixed with an easternizing, semi-Theosophical character, proceeds by such a swift and grim law from the language of spiritual renewal to the commercialization of astrology, pseudo-yoga and channeling that one must wonder what happened. The question of world religion is crucial to our subject, but it is hard for standard historiography to get to the bottom of it, impossible in an age of Darwinism, and the history of India is especially interesting and difficult in this respect. Our discovery of the Shiva seal puts the whole question to the fore, and we have fulfilled our task, to a first approximation, by placing these issues in some relation to real historical evolution.

Shiva Seal: Yoga and Tantra The Indic tradition, witness the Shiva seal, is an elusive play on what is really the twin legacy of yoga and tantra, one tradition, the latter no doubt the evolutionary source of the former, in a fashion lost to us. The degenerations of tantra veil the obvious path to the discovery of yoga.¹⁹⁷

It is not our business to pass judgment on these movements, which constitute part of our eonic history, and which show a thriving realization (attempted) of spiritual democracy, but the amount of sheer drivel produced is enough to completely paralyze the 'spiritual paths' of anyone who ventures here. It should be noted that the world historical significance of Indian religion is reflected in its entry into late modernism, just at our divide, as if to squeeze in on time, and its evaluation an important task of contemporary culture. Note that our eonic sequence never repeats itself, and the Indic stream bids fair to be cheated out of a future transition. But we see the reverse diffusion effect in the spread of modern technology and the Indic tradition starts to flood into modernity almost exactly at the modern divide. We can't play favorites with our term 'eonic determination', but we

can see that these traditions from the Axial Age are not going to get renewed treatment from our eonic mainline, which has already completed its business by the time of the divide. Or so our model suggests.

This helps explain the strange dilemma of the New Age movements we see. In any case a last phase of the Reformation seems to be the case, as the modern pluralistic omnibus picks up all passengers. Note how the seemingly oddball Reformation does in fact show the factor of eonic determination and climaxes near the divide with the birth of such ideas as 'rational theology', as seen in Kant, or Hegel. Hegel was very clear on this point, that German philosophy was the endcap of the Reformation. And it is no accident that it tries to lift itself up by its bootstraps to 'beat the competition' by disgorging a sort of wild flower Upanishadic rabbit from the hat. But the result can't really compete with the Indic strain, at least at first sight. But if we study the Kantian Dialectic carefully we see that the religions of antiquity fall into place around the antinomies of self, soul, divinity, with the idea of freedom appearing in concert. We have the clue. A great new 'Freedom Sutra' is struggling to be born, to integrate all the religions crowding for space in modernity.

That early entry of Indic religion, before the stampede of gurus, began with the generation of the Romantics, and figures such as Schlegel. And the critique from this perspective of the monotheistic traditions is also a significant liberation for the mass hypnosis macro-cults that haunt the Western tradition. But its legacy should be its own self-liberation into an age of spiritual democracy. In fact, despite his disavowals, the figure Schopenhauer is proof these issues were built into modernism at its foundations, so we need not apologize for introducing them. The West has its own confused and concealed Hermetic traditions, but little profit to the public comes from them, it would seem.

Beyond that the New Age shows one irony, that none of the great religions of antiquity are likely to survive in their current form. And yet Hinduism probably gestates in the Neolithic, so we should not predict. A host of gurus have said as much, and the point is hardly controversial. Beside the great religions, the great yogas, and their Sufi variants, are not always benign vehicles. Nor is the classic ashram adapted to needs of modern man. The clear evidence of Christian totalitarianism in the legacy of Constantine suppressing Gnostic cults was not benign either. The endless efforts to repackage antiquity go on and on, to no avail.

The modern Enlightenment is suddenly undervalued now, but its final task will be to rewrite the archaic sutras in a critical vein, a task not easily accomplished, and barely to be hoped for. The Enlightenment chord of Reason in history is taken as some degenerate vice by some, but was already visible in the streamlining of the ancient tradition in the great Gautama. We should certainly be open to a postmodern or yogic critique of reason, but too many, who could use a good scientific education, have wrecked a great thematic of history in the name of mystical idiocy. It is a false quarrel. Reason is the common carrier of historical man. Study the theology Luther was forced to deal with before renouncing the theme of Reason in History. If it can outperform, in the long run, the mystical confusions of self-styled prophets and sages, and it can, then it claims history, leaving the Buddhas to exit history, as wished.

The Enlightenment has been underrated by self-appointed wizards, but will sooner or later show a resurgent effort to evaluate this heritage of antiquity, whose decayed forms are proliferating at a rapid rate. Beside Hegel, a perfect example is the brilliant, if imperfect, formulation of Schopenhauer who automatically proceeds to resurrect these ancient questions (which are obviously latent in Kant). But these men were doing something quite different. Modernity has done its business by staging pluralism, and there these rival stains prosper as never before. What is the objection to modernity?

The problem is that horizontal history rarely produces a viable spiritual movement, and we notice the way the intersection of the ancient Indian stream with the Axial phase suddenly produces such a world religion. Let us note that the original Buddhism does not resemble anything by that name now, a good example being its rejection of vegetarianism.

The authority of gurus is bogus. Due to a false mystique of pre-democratic ages, they have become an obstacle to development. There is no cosmic involution of spiritual men. Instead we see the bottom up bootstrap of autonomous freethinking men realizing their mysterious and latent evolutionary psychology. The point is clearer from something like the early Jain, or early Buddhist, traditions.

In any case, we can also see that this ferment of New Age religion is a delayed aspect of modernism and global diffusion. Note from our later model the fact that it occurs late in this rise and has no special status overriding modernist foundations. This is not the new Axial Age, nor are we likely to see a replication of the period creating a world religion like Buddhism or Christianity. It is thus worth noting again that the only period of Indian religion intersecting with our eonic effect is that of the Axial period, and the result was the creative ferment that gave birth to traditions such as the Buddhist, traditions as rich as that seen in the world of the parallel Greeks.

The Battle of the Ancients and the Moderns recommences in a different form, and a global Reformation moves to interact with the full scope and antiquity of the religions of classical period. That New Age movements have had their opportunity to surpass modernity, yet are unable to do so, can be seen from the confusion created by Theosophy. And yet this movement contained a valid protest against the completely false view of man coming into existence in an age of positivism and Darwinism.

Madame Blavatsky's Baboon The modern secularist has only himself to blame for attempting to foist a 'soul-less' post-Cartesian positivism on the globalizing universal culture. The counterattack was swift, even as Huxley was debating Wilberforce, the Indian world starts launching a series of torpedoes to reset the balance. Darwinism was and is a standing joke in many minds.

But is Theosophy any better than Darwinism? The rapid appearance of a new metaphysics of 'spiritual evolution' in Blavatsky's wake has produced still another field of confusion. But behind the carnival of Blavatsky's 'rubbish heap' lay a serious effort to remind Westerners that the man in the Shiva seal existed before the rise of civilization,

and that the deeper evolutionary psychology of man is hard pressed to survive into a scientific age. Such issues as reincarnation, condemned as crackpot by Scientific Committees investigating the occult, are certainly not the simple one scientific psychology pretends it to be, and the ancient legacy is soon resurgent. The real and deeper issue is human autonomy and the threat to this in the realms of spiritual domination so strangely embraced by the Theosophical obsession with Himalayan masters. Never let the phantoms of the 'Himalayan Masters' control your unconscious.¹⁹⁸

The New Age movement is thus likely to be the vehicle for conservative mystifications and restorations of the worst kind of false postmodernist traditionalism, including the regime of the imitation Hindu-style guru, to a receptive public eager for mysticism and unaware of the hegemonic nature of Brahmanism and the history of the Indian religion between Buddha and Shankara. This world is beautiful in itself, in spite of its historical shadows, and it is unfair to denounce as 'gurus' the modern crop of hucksters trotting down the road with this label.

Nonetheless, this recent movement, frequently excoriated, is of historical interest in its own right, and one whose issues and history deserve their own telling, beginning, not in the seventies, not in the nineteenth century, but in the wake of the first phase of global interaction, and the fascination of the *philosophes* with the arriving data of other cultures, such as the traditions of China. The first achievement of modern culture is a pluralism that can yield a field of renewal to the manifold sources of antique spiritualities to find stowaway passage in modernity, near a technocratic Lord Jim.

The 'self' of man is a mystery not easily understood, and the recorded testimony of complex states of consciousness, however confused, makes Darwinism a dead letter, with its complete absence of any definition of what an organism such as man might be. There are no simple answers here and the Indian tradition promptly equivocates the nature of self/no-self.

A Challenge to Guruism The New Age movement is neglected by modern thought, and these remarks are not a rejection of the so-called New Age movement, as such. In fact, we have potentially built into our thesis the great issues of Indian religion. But if we do so we need to sound a warning that we are not in the endorsement business for the many deceptions that pass under the name of esoteric spirituality. It is important to remember that these movements have none of the factor of macro-action we see in the Axial Age. That's a fact of life, and a warning to false hopes the next guru will ever match, viz. the emergence of Buddhism.

A good starting point is Kant's classic essay, *What is Enlightenment?* The issue of autonomy is an apparent threat to the legacy of guruism, and the time has come to challenge the spiritual authority of these ancient traditions. No mention of the guru is made in the Buddhist Eightfold Way. The manufacture of proxy fascist agents in downfield reincarnation sequences with the unwitting trust of 'disciples' is the end of the line for the legacy of naïve guruism.

Wolves in sheep's clothing. The figure 'Jesus' gave a sound warning. The New Age collapse of Sufistic and Buddhist traditions (to say nothing of the Christian) is already showing the proliferation of freelancers and spiritual capitalists and degenerate cannibals armed with occult means of exploitation. Occult fascists

put democratic politicians at risk. The modern transition with its emphasis on freedom and autonomy should, but won't, put these operators out of business. The modern liberal is a perfectly good exemplar of '*Santanadharm*', with a Kantian angle on transcendental freedom, historically mindful of the spiritual slavery peddled as dharma by the reactionary Neo-Brahmins and their massacre of the Buddhists.

We should inject a caution against an emerging false, or misleading, view of evolution taken as 'spiritual self-evolution'. It is not evolution to do yoga exercises, unless you define it that way, in which case you should not confuse it with general evolution. Noone, not even Gautama Buddha can operate on the level of the eonic evolution we see in history. These people are not evolutionary guides for mankind in the sense of macro-evolution. The propaganda of gurus is in a state of rapid diffusion, and many wild claims are made to buttress an authoritarianism inappropriate to the real development of human autonomy. The question is simple. If we examine the relation of religion to the eonic mainline we can see that evolution in our sense far outstrips any of the cultural initiatives of Buddha figures. Claims related to this of the 'Sufi guides' behind the evolution of man are false, and misleading. We can see the scale of the eonic sequence is so awesome in its effects as to sweep up the religions of entire continents in a greater pattern. The sad truth is that these authoritarian traditions show the same drift and deviation as every other, and could as well profit from the challenges of the Enlightenment to recast their foundations. It is hard to think of a better foundation for a truly informed modern 'spiritual path', based on the individual's autonomy, and receptive to the classic findings of ancient sutras (subjected to some historical sandblasting). The eonic sequence shows us that evolution in our sense is on scale far greater than any initiative of religion.

Looking at the legacy of Buddhas and gurus we notice a highly embarrassing fact. They cannot resolve their own history, its ideologies, or even its data, let alone detect evolution. The many attempts to speak of 'spiritual evolution', sometimes with involutory myths, have muddled the issue of both the classic sutras, and modern empirical evolutionism.

The endless guru wars between the Buddhists and Neo-Brahmanism are forgotten. The latter was the enforcer of last resort of the spurious law of caste and has never repented of this even as it spreads globally. The realm of the guru has an immense propaganda, but it belongs to another age, and is a dangerous game that will turn the disciple into a Faust with a Mephisto problem. Be wary! The issue is that there is a critical point of danger in the release of the 'sovereignty of your own will', which you alone can fritter away. There is absolutely no spiritual law of spiritual guru authority.

The point should be stated then that there are absolutely no spiritual authorities anywhere to which anyone is required to submit. The gurus, Buddhas, Sufis, popes, Jesus Christ, Mohammed, are not spiritual authorities. Their conspiracy to undermine the legacy of the Enlightenment and generate propaganda against human autonomy stretches all the way to fascist anti-modernism. Enlightened men often perform poorly on cultural

issues, and have a poor understanding of history. The long string of hopeless idiots with this label in the recent New Age movement suggests an essential caution: the term can only be verified by individuals after making their own efforts. There is no public standard definition of the term. Rarely does the field get lucky with someone like Gautama (and significantly this occurred in the Axial period). Acquire a stash of bootleg sutras and be off. You are alone here, completely. And that is unfortunate, but it so. That's the way it started, bootstrap from ground zero. Look at the ferment of philosophers and yogis in the period before Buddha, Axial India (about which we know too little). The shadowy gurus come later. And Buddhism is already quite late.

The always unstated problem is that of captive agency, or agency involution. One must always be suspicious of what happened with Wagner, Nietzsche coming to in puzzlement. Something terrible was afoot at the end of the nineteenth century. Rumors abound. Declare yourself a 'null occultist' to figure through the dangerous possibilities, and never be tempted. The most shining Buddha is no more than Mephistopheles to you. Behind too many spiritual fronts lies a predatory world of the esoteric mafias, 'Sufi' hyenas of the will. In the West as Christianity passes with its minimal protection a dangerous realm flows into the void. It is significant the Christ figure warned of it. It is a serious problem with no public resolution.

The world of modern science leaves the typical Westerner ill-equipped to confront or resist the devastating tactics applied without warning by the practitioners of exotic hypnosis known to agents in these traditions. Never trust or join an organization you suspect is a front in the cancerated traditions of the exoteric and esoteric division. The case of Sufism is especially devious in this respect. The legacy of Theosophy is revealing here, yet it is a promoter of the very problem of passive spirituality and cultic dependency that are the opposite of any true search for enlightenment. Dark rumors, or slanders, of fascist Buddhism begin to undermine the whole basis of trust in the spiritual fronts of these antiquated and corrupt religions. No one can exploit your sovereign will unless you yourself consent.

6.6.1 The (Eonic) Evolution Of Religion

The clear but not exclusive association of religious evolution with the eonic effect should prompt us to coin a new phrase, the 'eonic evolution of religion'. Looking at the Axial Age we can see that religious emergence is strongly correlated with the eonic pattern. It is important to consider that the association is not, couldn't be, exclusive.

In the wake of the modern transition, right on schedule, we find a resurgence of religious traditionalism, indeed, fundamentalism, endangering the fragile achievement of secularism, and giving us a sense of *déjà vu* as we note the fate of the Greek Axial and its birth of rationalism (next to the Indic). Quite apart from this consideration, we suddenly inherit a better sense of the nature of religious development over the course of world history, the eonic evolution of religion.

In a nutshell, the issue is simple. Anyone can found a religion at any time, but, as an empirical observation, those emerging in the Axial interval, or any part of the eonic sequence, show a coherence and amplification that gives them a momentum, and a seminal character overshadowing the rest. Thus, our method is simple: we have to separate the general course of religion in general from the result of its intersection with the eonic effect, or eonic sequence, as we will call it. Once we do that the puzzle evaporates. We have spoken of the ‘eonic evolution of civilization’, and can also extend this to the ‘eonic evolution of religion (or science)’. These are formal terms, less profound than they look, cut from the mould of our periodization. The point is that the stream of religious history intersects with the eonic sequence, and a new potential for religion is created. In fact, all we can do is describe a phenomenon we don’t understand. If an intermittent long sequence is overlaid on a series of continuous streams the result would be about what we see historically, in a limited range. The gist is simple, two great religions arise in the mainline of the eonic sequence. Note the distinction of macro-action and micro-action: the creation of a religion is a freely open possibility at any time. The results, however, that occur in the eonic sequence are deeper, or, at least, have greater momentum.

Our discussion of the evolution of freedom, despite its seeming political cast, connects to this at once if we look at religion, on the one hand, as the consideration of the freedom of the individual in the sense of ethical agency, and, on the other, the collective ‘religion’ or ‘re-ligion’, rebinding, of that individual in terms of community. In modern terms, one would ask here, why bother with the second? Isn’t the first the only religion? But we see, like it or not, the dilemma of our freedom and necessity discourse all over again as the historical induction of religion produces all the dilemmas of the state in a different form.

We should remember that ‘Israel/Judah’ was a *state* in the context of empires, and a ‘religion’ emerged from that, still bearing all the traces of its theocratic statist origins. Nor can we safely ascribe any teleological process to what we see, although the temptation is severe. For, clearly, as Christians realized, the match was peculiar: should they annex the Old Testament or simply start from scratch? And the progeny then proceeded to overtake the entire Roman Empire. So the connection is completely transparent, whether or not we find any of this the ‘true essence of religion’ or not. We should note that primitive Buddhism associated with our pattern was a revolt against society, and induced the individual to renounce the ‘state of civilization’ to seek his own salvation outside of the state. But within two centuries there was a Buddhist empire. And the appearance of Mahayana Buddhism in direct concert with Christianity is another reminder of the integrated complexity of our eonic sequence and its effects. Whatever the case, the mystery of religion is discovered in the permutations and combinations of our freedom consideration, and the evolution of man’s self-consciousness. Religions end in the mechanization of social ideology, and rarely serve this purpose. We must also remember the absurdity of discussing ‘religion’ in the abstract as a category in itself. What religion is, changes drastically at each stage of history. The system of medieval

Papacy was as surely a form of 'state/empire' as the Roman. Most discussions of religion now assume the gestures of Luther who created a 'revolution against this state'.¹⁹⁹

We focus on this, one of the subtlest points of our thesis, for a specific reason, among others, that it will help to define the 'secular' age in which we find ourselves. The secular philosophy of history is the object of much criticism for its supposed shallowness, and one might consider, for example, Karl Lowith's acute examination and critique. But what was the objection, apart from the confusions of Darwinian scientism? The modern philosopher of history is indicted as a secularist. In fact, in our analysis the 'secular' shows eonic macro-action, which the great religions of Christianity do not.

And we may with some irony trace the Zoroastrian theme through the modern period, as the recycling of a myth. And then go back and trace it once again as recycled in a previous cycle of the eonic effect, the emergence of the Judeo-Christian tradition. That the term 'secular' should derive from the word 'saeculum' and merely suggest a new age is a reminder that the legacy of the Old Testament is a secular as the 'modern' in this dictionary sense. Our words fail us at this point. There is no ultimate distinction between sacred and secular history once we factor in the eonic effect. The ironic fact is that we are in the same position as the original observers of the modernist eonic transition, to use our developing term, armed with a superset of data calling for a new interpretation, as universal history. We should further note that the same conflict between old and new that we see in modern times is clearly present in the radical Judaic tradition creating its new tradition.²⁰⁰

Witness the near simultaneity of parallel emergent culture in the world of Archaic and Classical Greece, or the China of the period of Confucius. What is going on? *The secular enlightenment is born in this period in parallel*, making a mockery of a series of Comtean age periods, sacred followed by secular. We could as well say an early form of modern thought emerges in the Greek Enlightenment. The clue is to see the spectrum stretching from philosophy to religion to science, and to see the unity of the diverse manifestations in disguise. Then the resemblance of all of them to the rise of the modern will stand out. We need to consider that the transformation indicated in the concept of the 'Axial' age seems independent of its content, and like a wave simply bobs the phenomena it finds already in place. But there can be so simple theistic explanation of the fact that this period produces two religions, one theistic, the other atheistic. There is no absolute category of 'religion'.

Thus it is obvious, although strange, that religions can and do arise potentially at all times, yet the ones that carry the day show the signature of the Axial period, as if they were being amplified or transformed as they cross a temporal boundary. The only explanation here is some idea of an intermittent sequence, calling up the elements already in place and producing something new from what was already there. That is what we will call the 'eonic evolution of religion', and we suspect that it earlier and later signatures in disguise in the model we will construct. We also suspect the birth of this sequence even before the rise of the state in the era of the Neolithic. Thus religions are evolving on two levels. The following will become clearer once our model is established. But the point lies in the question, e.g. what of Christianity (indeed, late Judaism), Islam or the Mahayana?

We are left to ask the nature of religion itself. Here we must see that while the eonic evolution seems to take it to new heights, the factor of mechanization is not religious. Our later discussion of the so-called ‘fundamental unit of historical analysis’ will help here, in part. The confusing entanglement of a strange frequency phenomenon with the essential meaning of religion creates a muddle from which we might hope to free ourselves. One of the confusions, as noted, of the Axial Age concept is that it mimics the idea of an age of revelation. But the problem here, as noted, is that we see the continuous appearance of religions before, during, and after the crucial era, yet we have an especial mystery attached to those that arise in a narrow band pointed to by Jaspers. Thus Buddhism seems to be a cousin to the Judaic exemplar, and appears in an entirely different context, yet proceeding from its ‘Axial’ source outward in the generation of an oikoumene. Christianity and Islam appear in a seemingly contingent fashion quite outside this seminal period. The issue will resolve itself as we go in search of the ‘fundamental unit of historical analysis’ and its transformations, state, empire, and religion.

The sudden reappearance of a strong ‘secular’ civilization, in what is almost a surprise attack on the European fringes of Eurasia dominated by religious formations, echoes the Ionian Enlightenment, so to speak, and reamplifies a lost strain of world history. The theme of Reason in history rises to challenge, and to fulfill, the trend, leaving the deeper question of the place of religion in the future. The significance of Spinoza, for example, and then of Kant, and others, is already forgotten in the ill-conceived effort to replace religion with a positivistic scientism, a gesture doomed to fail. As we will see these developments are as valid datasets in the ‘eonic evolution of religion’ as anything in antiquity, the concept of ‘revelation’ being shown up for what it is, an eonic myth, and returned to the domain of philosophical enquiry.²⁰¹

6.6.2 The ‘Axial’ New Age

Contemporary New Age movements, stretched between radicalism and conservatism, are an attempt to recover the sense of the ‘new age’ that appeared after – 600 in China, India, and the Occident, when the great religions were born. We take for granted the attitude of denunciation expressed by the Hebrew prophets of the world of Babylon without quite asking ourselves why it is that they took this stance, unless as a committed religionist we accept this as a religious issue of pagan morals. The Judaic core-period shows a classic emergentist ‘New Age movement’, in another age. Our eonic outline of periodic architecture gives us no trick answers, or the ability to grind out explanations without close study of actual facts.

All we know is that a group of men gave direct expression to religious and cultural ‘new aging’ and yielded their discourse to immediate successors during ‘downfield new aging’. This is evidently a religious issue, for the obvious ‘superficial’ point is that this was an era of rapid religious evolution, as the form and content of monotheism as we know it took shape and became the inner substance of a new field of

culture, assembling itself from earlier elements. But the issue is a deeper one, for behind the religious factor stands what history was to confirm, the passing of an antique world, whose last representatives were the Assyrians, and the Egyptians of the New Kingdom, their creative energies spent. Thus, Jeremiaiah expresses his furious anathema of Babylon, more than a symbol of the Mesopotamian world that preceded the classical:

And Babylon shall become a heap, a dwelling-place for dragons, an astonishment and a hissing, without an inhabitant.

What? Babylon wasn't all that bad, but the prophecy was confirmed. In a similar vein, Isaiah prophesies:

Every one that is found shall be thrust through; and every one that is joined unto them shall fall by the sword. Their children also shall be dashed to pieces before their eyes; their houses shall be spoiled, and their wives ravished. Their bows shall dash the young men to pieces; and they shall have no pity on the fruit of the womb; their eye shall not spare children.

And Babylon, the glory of kingdoms, the beauty of the Chaldees' excellency, shall be as when God overthrew Sodom and Gomorrah...²⁰²

What is remarkable is how prescient these predictions were, not as revelatory visions but in their sense of geopolitical becoming, and the sense of the dawning of a new era. Where the Greeks, nearby and simultaneous, experienced a fantastic flowering of culture without grasping what was happening to them, the Hebrew prophets began to perceive as the first 'futurologists' the changing shape of civilization itself. And in India there was a 'Great Awakening', in China a fascinating play on a combination of Indian mysticism and Greek rationalism.

The great world generated from Sumer had already been in a 'last phase' for centuries and the world of developed and developing culture and civilization was very much changing gears in this era. And a close look will certainly discover sooner or later the first primitive version of the still earlier 'new aging'. We know it is there, from, for example, the automatic clocking of the Egyptian dynastic tradition from ca. -3000. Nothing could be more natural, once the reason is seen. The tactic of the prophets to ascribe this to the wrath of divinity throws us off the scent, although it give vivid testimony to those who were involved in the creation of the new, which they interpreted in terms of religious evolution, and the need to create a new conception of the divine. Religious issues apart, they were attuned to the phenomenon of rapid transition itself that was so clearly, to our hindsight and our reconstruction of the earlier period, in convulsive passage.

But the countermovement against modernism is already reminiscent of what happened in the ancient world in the period before the coming of Christianity, but after the centuries of the great flowering. In *The Greeks and the Irrational*, E.R. Dodds puzzled over the interruption in the Greek Enlightenment:

Looking at the picture as a whole, an intelligent observer in or about the year 200 B.C. might well have predicted that within a few generations the disintegration of the inherited structure [of the pagan religious world, the

‘Inherited Conglomerate’ of Gilbert Murray] would be complete, and that the perfect Age of Reason would follow. He would, however, have been quite wrong on both points...To understand the reasons for this long-drawn decline is one of the major problems of world history.²⁰³

In a discussion of great importance, not only for understanding what happened in the ancient world but of what might happen in our own, Dodds describes, for example, the onset of astrology like a blight and the loss of the seeds of rationalism, and the weakening, and complete loss, of science. The experiments in political republicanism and democracy seem to vanish into thin air as the processes of empire gain the upper hand and remain in place to the modern world. Further, there is the same influx of mystical ideas and religious forms into the western oikoumene. This is the ‘failure of nerve’, a term invented by Bury who gave it to Gilbert Murray.²⁰⁴

But unfortunately this explanation will not work, even as the defense of the Enlightenment turns into its very opposite, the yogi’s Enlightenment, indeed that of the well-documented ‘gymnosophist’ (naked Jain) of antiquity, for it is not a failure of nerve that is the difficulty. Nor is it correct to scapegoat ‘mysticism’, never defined. Heraclitus was a mystic. There were many men like Socrates in India in the age of Buddha, who wasted no time on ‘mysticism’.

Dodds’ important description of the problem is far from complete in the sense of ‘taking sides’ with one party that failed, and not grasping why. Many parallel fields failed together. It is futile to blame Oriental religions for the ‘failure of nerve’. These oriental sources, along with the clearly analogous Greek mysteries, all arose in parallel with the Greek Enlightenment in the era ca. –600 and interacted in a way that was quite natural. One tends to wring one’s hands and complain of superstition and cultic mysticism or the sudden onset of neo-reincarnationist beliefs, once again so characteristic of our own time, and it won’t do much good. For the effective historical force of all these factors was precisely their parallelism, and parallel decline. We see the original period through the lenses of traditions that come much later.

And beside the rationalist view there is the equally significant cultic side of the Greek flowering with the mysteries of Eleusis, near which arises the strange phenomenon of Greek Drama. We cannot subtract these from our consideration under the rubric of a master theme of rational advance. Nor can we play favorites with the simultaneous appearance in antiquity of Taoism, Buddhism, Judaism (and soon-to-come Christianity and Islam). It is a symphony of many melodies. And the beginnings of science were virtually unknown to most, and remained at best seminal. Finally, the false distinction of the Oriental and Occidental is little more than geographical. A case could be made that the Occidental shows a different ‘tuning’ in the spectrum of ‘Being and Becoming’ leading to its better disposition to progressive culture. This theme is a trifle tired. The idea of ‘progress’ is a modern one, whatever its intimations in earlier times.

It is fascinating to compare China and Greece, and then China and India, and then India and Israel, at the roots of the classical source. We see in Taoism a kind of transition between philosophy, and religion. In India it is the Upanishadic movement that

corresponds to the parallel transitions, analogous to the emergence of the prophets in Israel, as the great New Age movement. Behind the picture of religious innovation, we can find a context of small states, economic development, and political change not unlike that which we see in Greece. In fact this backdrop is the ballast for the whole phenomenon. In India it produced an age of great ferment reminiscent of the Greek, notwithstanding the different spectrum of perspective. In one description,

When Buddha grew to manhood he found the halls, the streets, the very woods of northern India ringing with philosophic disputation, mostly of an atheistic and materialistic trend. The later Upanishads and the oldest Buddhist books are full of references to these heretics. A large class of traveling Sophists—the Paribbajaka, or Wanderers—spent the better part of every year in passing from locality to locality, seeking pupils, or antagonists, in philosophy. Some of them taught logic as the art of proving anything, and earned for themselves the titles of ‘Hairsplitters’ and ‘Earwigglers’; others demonstrated the existence of God and the inexpediency of virtue...Large audiences gathered to hear...It was an age of amazingly free thought, and a thousand experiments in philosophy.²⁰⁵

This ‘materialism’ is not what we make it out to be on the basis of modern thought, and is in danger of grafting a modern conception onto an ancient context. But the fact remains that the later world of Hinduism is almost further from this era than the modern. The world of *Samkhya* rings a distinctively modern note. The remarkable aspect of early Buddhism is its ‘rationalistic’ touch, and its gesture to bring the primordial confusions of consciousness into some kind of ‘tuning’. This is evident in the distinct blend of philosophic rationalism and meditative consciousness that casts its aroma in the world of Buddha, and those who came before the rise of the monotheisms, or the idealistic philosophical Vedanta. The men of this time were not so much materialists as ‘still not confused’ by the relentless coming state theocracy

As the world of the modern New Age movement shows, the authority of the ancient spiritual teacher is not an easy or safe playground and long precedes the emergence of contemporary freedoms. Be ye Lamps unto yourselves, the Buddha warned. As if they foresaw the world to come and the horrific and dangerous variants about to spread into the world as esoteric exploitations, we are left the sutras of the *Samkhya Karika* or the *Yoga Sutras* (as well a good treatise on *vipassana* from, however, the denominational Buddhist sources) which essentially states everything that one needs to know in non-denominational form, without esoteric trappings, although it is difficult to make practical use of this now. The world of Indian moves in parallel to the whole, as the Axial period makes obvious. World history almost needed such a laboratory in isolation. Now as that legacy is bequeathed to the global stream a new and critical perspective is needed to recast and preserve this underground stream.

6.6.3 The Great Freedom Sutra

One of the more notable anti-modern occult conspiracies springs from the shadow Sufistic world, as documented by the reactionary mystic Ouspensky. The Islamic

oikoumene generates the remarkable history of so-called Sufism, and this carries a confused legend of the 'fourth way' (beyond ways of the body, emotions, or mind) as something deeper than the already complex yogas of the world of Buddhism, whose adherents are world-renouncing, leading to 'historical termination of its exemplars', the premonition of realized Man manifesting his full Will as freedom in history. Mathematically, such a being ought to exist, but... The Islamic world hides a number of claimants to this category, rarely seen in public. This has nothing to do with Islam. Such a being would be limited from the start by the historical conditioning of his time and place. He would, for example, have no knowledge of modern physics, and live in mystic limbo (not that modern physics is much help here). A real man of will would require independent soul formation, and some objective in time, since he would more likely pass beyond the realm of rebirths, Buddha style. And just this rumor does exist in the corners of Sufistic lore. So we don't know. Perhaps this man is a myth, his early exemplars poor imitations of themselves, too often 'rogue buddhas' wreaking havoc on the eonic sequence with delusive visions. Almost nothing public is known of this, although its possibility is easily deduced in the abstract, nor is its reality visible in recorded history, and yet beginning with Sumer or before these still rare individuals might have begun to emerge, injecting an obscure factor of unseen action in history, as they mediate remarkable initiatives via proxies. We ought to be entirely suspicious of any and all New Age mythologies on this issue, and point out that such individuals are not the 'secret guides' of human evolution. The point is that the early era of Sumer might conceal an entire spiritual tradition invisible to us, symmetric to the Indian. This Sufi myth indicates as much. We must be wary of any and all claimants to such a 'path of will', mindful of Dante's systematic codification of devils.

In any case, we see that such beings would be limited to the local knowledge at the stage of civilization they found themselves in, and the Axial Age, given its stupendous scale, could not be the result of spiritual guides leading humanity with prophetic vision. Its scale is too immense, its action mechanized at a level of sophistication that eludes human intelligence. We can barely observe its manifestations, and have no idea what it is, save a 'force of nature'. Founding a religion via proxies is, however, within their range of such possible types. Note this point and the clear difference of the *ersatz* religions arising in the wake of the Axial Age, as human realizations. Compared to the Axial scale, Christianity and Islam are different, and show clear 'initialization' points. We must remain suspicious of such isolated source points, our 'floating fourth turning points', that don't fit into our sequence (and don't have to), a good example being precisely the onsets of Christianity and Islam themselves, with their unaccountable sudden success without eonic determination, albeit clearly in the wake of the Axial Age. We are missing the background! Our model doesn't overdetermine history and doesn't explain the mideonic worlds. The point is that we must stick to what the eonic sequence explains, and be wary of the obscurity of much that happens in between. Tracing diffusion is hard enough with tangible artifacts, in this case it is almost impossible. Thus we have no record of much that is crucial to history, save useless tidbits, such as the strange appearance of Three Magi out of nowhere in the gestation of

Christianity. To suggest that Jesus and Muhammad were proxies in such action is unsettling and of course entirely beyond the possibility of current demonstration, and we can't pursue the issue, save to be wary of the standard histories of these two religions springing from their delimited sources. The odor of occult artifice haunts their traditions.

The idea of the 'fourth way' is worthless in its current apocryphal form but suggests its own original meaning, and that, for the future, the conflict of secularism and religion is completely false. If one thinks otherwise, consider Karl Marx. The function of religion, in one sense, to assist the helpless individual in the mechanizations of the state ideology, or civil domination, succumbs to the disease it wishes to cure, and this function is wrested from 'religion' by an agent of labor unrest! Quite the religious man! The only real candidate for the fourth way (whose keynote is the 'religion' as the ordinary life in civilization) is the rise of secular modernism, escaping the dead end of theocracy. Much in modern life shows the echoing signature of this long lost 'path of the will', like a vehicle stuck in first gear.

The Great Freedom Sutra The modern transition has already stolen a march on the classic yogas of antiquity with its seminal discourses of freedom and autonomy, bursting asunder the spurious authority of the gurus. The passage of free men across the abyss of their freedom might prove not so simple, yet the die is cast, and man is left to the existential reality of his own self-evolution.

None other than Kant protests the compromised autonomy of the self mesmerized by religion and demands a 'religion within the limits of reason', whose vehicle is the will of the individual. Nothing esoteric here, the simplest of direct pointings to the 'fourth way'. The right vehicle for this is secular society itself. The catch lies in the deficit between the ideal and the clear reality of the social mechanized state. The 'fourth way', civilization itself, has expanded to include all society, and the individual is left to an abstract possibility, one that existed in all stages of civilization. And yet the formulation is surely the right one, granting the result is like paper money, and the need to produce an enzymatic vitamin factor to assist this ocean of floundering wills. The great religions can be of little help here if they degenerate into ideologies. They simply put their adherents in cold storage. The question is one for the future. The apocryphal 'fourth way' can be set aside, and graduate to the philosophies of freedom that emerge so clearly correlated with the modern transition, and whose status is something far more fundamental than anything legislated by the priesthoods of Christianity or the empire projects of prophets.

6.6.4 Schopenhauer and The Caveman Buddhas

In the evolution of humans the emergence of the Buddha phenomenon remains one of its most enigmatic aspects, as it appears fully blown in the Indic stream (and elsewhere, often in disguise). We see the sheer inadequacy of Darwinian scientism to even describe this phenomenon, let alone confront its evolutionary emergence. Our model should not presume to simplistic explanations, but a close look shows us a number of clues. Although clearly specialized as an exploration of the limits of philosophy the classical German phase of philosophy in the Enlightenment shows us in the works of

Schopenhauer how the connection between the discourse of Reason and the sutras of self-consciousness, as these arise in the phases of Indian Upanishadism, can easily be made.

The resemblance of Kantian critical thinking to the classic vein of discourse on ‘appearances’ (Maya) is brought out clearly by that remarkable successor to Kant, this in parallel to the work of Hegel, despite its later publicity several generations downfield. What is remarkable is that Schopenhauer appears just at the point that reverse diffusion globally injects the stream of Indic religious thought into the dramatics of modernism. And yet, as he insists, his intuitions appear just before the onset of the flood of this diffusion. He even tells us the secret behind this, as he refers to the One Thought behind his opus. Although we cannot easily divine the mysteries of mind in such a Romantic genius, the type *par excellence*, we can roughly intuit what he is driving at, and we can also see that his realization appears almost at one stroke, virtually reinventing ‘buddhism’ on the spot, and in isolation, and this in the most obvious connection to a general mainline of eonic emergence given powerful expression by a figures such as Rousseau and Kant.

This is a specialized philosophic endeavor, and may not reach quite the same result as the practical efforts of ancient yogis and their meditations and ascetic practices, but in the end it is all of a piece. It is this field of eonic emergence that gives us the clue then. And as we look backward toward the vistas of deep time and the period of man’s earliest appearances, we can easily suspect, without the details, just how the Buddha phenomenon could arise suddenly in the deep Paleolithic and almost fully formed from the latent potential of human self-consciousness.

6.6.5 Coda: Amlothi’s Mill

We end with the *piece de resistance* of the eonic effect, the genre of tragedy as a *double* eonic emergent (?!). Is its modern reappearance, Shakespeare, Racine, etc, in the early modern chance? We find once again the mystery of the stream and sequence sifting of myths for eonic transformation, here the charming Icelandic corpus with its ur-Hamlet. This one is elegant, but may set you off on the wild goose chase of the ‘tragic view of life’, which is not indicated at all (although worth considering for its history). Let us look again at our stream analysis of the Greeks:

An independent stream, e.g. Indo-European Greeks

A mideonic entry into a diffusion field, e.g. Mycenaean

A transitional time-slice, e.g. the Archaic Greek period

A post-transitional oikoumene

Now transpose this to the modern transition:

An independent stream, e.g. European streams

A mideonic entry into a diffusion field, e.g. Medieval Europe

A transitional time-slice, e.g. the early modern

A post-transitional oikoumene

We noted the interior placement of Greek tragedy, and can easily find the similar literature in the Euro-stream, once again sand-banked inside the transition. But can we find stream entry materials corresponding to this? In fact, as noted, we can and the result is quite elegant, since it contains a buried 'eonic myth' of New Ages.

Consider again the idea of the 'aesthetic state'. The basic idea is the misperception of the Greek transition and the honorable, but dangerous, ambition to reconstruct its vanished moment. We should note that the idea of constructing an aesthetic state would make a good plot for a tragedy!

Attempts to reconstruct the tragic genre are a distinct outcome of the modern transition itself, just at the divide, note the work of Hegel and Schiller, and are quite different from the real thing. Hegel wishes a repetition of the Greek mode, but rapidly sees this is not going to happen, and our system never quite repeats itself in the same way, although it almost seems to in this case. It proceeds here with dispatch and is done by the seventeenth century. Our distinction of eonic determination and free action is alone able to handle this subtle transition from 'aesthetic state' in the eonic mainline to 'aesthetic state' as deliberative free action, with disastrous results.

Note how Nietzsche and Wagner attempt to replicate an aesthetic movement to match the Greeks, but clearly, almost dumbfounded, we see once again the obvious post-divide deficit of eonic determination and free action. Wagner's gesture is an honorable failure, of almost heroic proportions, fascinating, but he cannot manage to replicate the tragic idea or reproduce the scale of a transition (quite obviously, but what a gesture!). The whole experiment backfires, although such a gesture qualifies as prime eonic data in the transition from eonic evolution to history, in our sense. This example should convince us of the almost mathematical precision of the eonic mainline, and the way our consciousness can barely detect what it is doing. Needless to say the idea of an 'aesthetic state' is a bit artificial and tries to reduce a transition to questions of art, but the Greek Archaic is something, of course, much broader than this. That the final piece of this effort was Hitler's attempt at the 'aesthetic state', we should conclude with a reminder that composing tragedies, as free action without eonic determination, can be a tragedy in action! Be wary of the 'tragic view of life'. You may get your wish. It has fallen into the hands of devious Machiavellians, and we see the gross misuse of the 'tragic view' to perpetrate further horrors of history.

We have given the confusions of the Great Year a wide berth, but it is interesting to relent for one thought from the thesis of de Santillana and Von Duchend in *Hamlet's Mill*. Twice the Indo-European myth structures give birth to a tragic genre as our stream cultures cross the eonic mainline. Yet it is unfathomable by what unconscious brilliance Shakespeare finds and transforms the ancient Icelandic tale of Amlothi into the quintessentially modern Hamlet. For the deepest archetype of cycles lies buried in the myth of the Maelstrom as Amlothi's Mill, The Whirlpool:

Tis said, sang Snaebjorn, that far off, off yonder mere, the Nine Maids stir amain the host-cruel skerry-quern, they who in ages past ground Hamlet's meal. The good chieftain furrows the hull's lair with his ship's peaked prow. Here the sea is called Amlothi's Mill.²⁰⁶

Our system scans its stream entry materials, and here we see this bit of Icelandic pop out into the open. How strange our quite modern existentialist, Hamlet, should have a cyclical myth up his sleeve. But then he was a brilliant fellow, a version upgrade, the expected Fourth Richard. We are left, after our non-causal correlation of events with zones and periods, with a basic question still unresolved, near overwhelming evidence that historical transformation is eonic, the strange appearance nonetheless of an historical system of quite spectacular properties. We get an eerie glimpse behind the scenes as our system computes the potential of will and this echoes in the redemptive and tragic myths that arise in the Axial concert. The balance of our evidence passes now toward the threshold of 'historical evolutionary system, type unknown', but with the symptoms of mystery, in the 'tick tick tick' of our mysterious drumbeat. Perhaps it's a problem in optics or Fourier analysis. But it does art also, before a politics of Richard the Fourth, after a Third. The rest is silence.

It is remarkable therefore that the tragic genre reappears in the early modern. Our timing shows this is not chance. More we cannot say. Soon the idea of progress will be born. Once again, like the crocus in spring, the idea of tragedy comes first, flowers, and is gone.

7. CONCLUSION

7.1 History and Evolution: A Paradox Resolved

We reach the end of the broad indication of the historical eonic pattern, called the eonic effect, whose structure gives us a strange, and incomplete, glimpse of an evolutionary process that transcends the incidents of civilization, and yet is the source of its generation. Our emphasis has been empirical, avoiding theories, and, using only the simplest methods of periodization, we have uncovered a rich structure of universal history that we have also interpreted as evolution. The fallacy of evolutionary theories has been the attempt to create a universal generalization, mimicking a law of physics that will explain evolution in the abstract in all situations. But such generalizations are bound to fail, and the legacy of Darwinian natural selection can be seen to miss almost entirely the real substance of evolutionary dynamics. The eonic effect shows us that ‘evolution’ changes course along its sequence of action. In the main we see that ‘man makes himself’, but that this self-evolution is directed by an intermittent macroevolutionary driver that seems to reset the course, or courses, of microevolution. This ‘stream and sequence’ relationship of the action of a system and the free action that operates inside it is the clue to understanding of evolution and history operating together.

History and Evolution: a paradox resolved We have found the resolution of the paradox of history and evolution with which we began in our brief outline of world history in light of the eonic effect, and the result is an unexpected and spectacular sense of its coherence and greater unity. Beyond the clear pattern of data, we detect the evidence of an abstract dynamical system, a process of discrete-stepping evolution, operating behind the scenes. We need not speculate about such a system, instead replacing it with careful periodization to help us follow the ‘track of evolution in history’ along a time-line: the deeper dynamic is hidden from us, as with the Kantian noumenal behind the phenomenal.

We constructed an evolution formalism to deal with this pattern, as a simple model, not as a new theory of evolution, but as way to help us understand what we are seeing in world history. We then saw the relation of that formalism to a Kantian perspective. This exploration of an ‘evolution formalism’ fell short of deriving a theory, which requires a true ‘theory of everything’. Better to follow evolution as an empirical sequence. We see the reason that debates over evolution end in a chronic metaphysical dilemma. We can, however, with our simple method, track evolution and visualize its action over time, with a surprising result. Just as biologists distinguish the fact and the theory of evolution we can use the ‘fact’ of the eonic effect to understand world history in a new way. Everything we need is available with our basic model of the evolution formalism.

It is ironic that it should be world history that would show us the existence of non-random evolution, where the vistas of deep time fail to reveal the real clue to the

evolutionary riddle, of man at least. The reason for this is obvious, we cannot zoom in on deep time to the proper evidence density, even as the eonic effect shows us sudden and decisive change occurring in intervals of mere centuries, a mere instant in relation to the scale of deep time. Strictly speaking our usage of the term 'evolution' is actually more precise than the usual sloppy Darwinian usage, and is arrived at by deducing that there must be an overlap between the evolution of passive organisms and the history of active agents. It is difficult at first to accept the use of the term 'evolution' for world history, but the logic is inexorable, and the evidence, given that logic, almost overwhelming. Upon reflection, it could hardly be otherwise, and yet Darwinian thinking has not proved capable of handling this simple necessity in any theory of human evolution.

A Non-random Pattern We have achieved our prime objective: the demonstration of a non-random pattern in world history. This is a remarkable example of something that is not supposed to exist, but does, right in our own backyard, historically speaking. It is possible to simply focus on this empirical perception, and construct an outline of world history that follows this pattern, a task we have accomplished in our 'short history of the world'. But as we do this we begin to discover much more behind this pattern, and in fact we see that it represents the action of an evolutionary dynamic or system standing behind chronicle of events. We have constructed an 'evolution formalism' to help us understand what we are seeing, and this formalism can be further extended to become a systems model for our data. We simply savor the empirical demonstration of evolutionary emergentism that leaps out from our 'non-random pattern'.

Thus, where conventional thinking on evolution assumes a factor of randomness to rule all forms of emergence, we have found instead, given closely-tracked evidence, a dramatic pattern of self-organization in the directed emergentism of world civilization. In fact, we have something more than thermodynamic 'self-organization', we have stumbled on a progressive unfolding process, whose visible directionality portends a deeper teleological process behind it.

This dose of empiricism has lifted us out of the speculative thrashing about with 'theories' whose abstract character seems designed to conform to assumptions about science rather than to the facts that nature shows us. The theory of natural selection is attractive to those who wish a simple 'law' of some kind to make biological evolution analogous to physical laws. But this approach is clearly an oversimplification applied to the complexities of history or evolution.

Our approach to evolution has been to remain wary of theories and to attempt to look at the facts of man's emergence into civilization. This strong dose of empiricism has transformed our perspective, and the result is a more solid insight into both universal history and the evolution of man, the key to human evolution. The connection between evolution and history, which at first seemed a contradiction, now seems like the most natural way to harmonize the two ideas, and bring them together into a unified account of the descent of man.

Evolution to History Our evolution formalism has connected evolution and history by interpreting the sequence of transitions in the eonic effect as macroevolution, or System Action, and the resulting free response, or 'Free Action', as microevolution. The result is to see the 'evolution of freedom', and the emergence of history, as human free action, from evolution. This elegant unity of the dual ideas is beautifully reflected in the data of the eonic effect. Thus, we can see that the Axial Age represents the macro factor of 'evolution', while the free action response that creates the details represents the micro factor creating the historical realization of the macro factor. This formalism is not a theory but a set of statements that assist us in understanding what we are seeing.

Evolution and Self-organization World history shows us a spectacular display of self-organization in the emergence of civilization, the problem here being that issues of teleology arise to demand an extension of the concept. We can easily detect this by systematically clocking this history against a frequency hypothesis. The result is, however, far more complex than the usual thermodynamic increase in order associated with self-organization. The result shows that natural selection reasoning is inappropriate to discussions of the dynamics of historical evolution.

Design Arguments and Natural Teleology The data of the eonic effect clearly falls into the category of self-organization, yet seems to outstrip this depiction in the complex details of the emergence of the highest forms of culture, as we have seen, for example, in the realm of art. It almost seems to demand an argument by design. But if we examine the data closely we can see that no designer would quite do things the way we see them in history. There is a clear indication of a teleological component to the directionality of the eonic sequence, and this is a part of what generates a sense of design.

Self-consciousness The ambiguity of our data arises from the way our 'system' promotes and fuels the self-consciousness of man in history, and it is this ambiguous relationship of 'system action and free action' that generates a sense of design.

We can see 'evolution' acting directly on human consciousness in the transformation of self-consciousness. The complex mystery of human evolution has too long been confused with the emergence of physiological or anatomical features, leaving out the evolutionary stages of his consciousness and culture, indeed the emergence of civilization itself. We are fixated by the contrast of the primitive, so-called, and the technological sophisticated aggregates we call 'civilization'. But perhaps to a larger cosmic perspective the difference is more relative than we think, the stage of civilization being of piece with the onset of the Neolithic, thence the onset of behaviourally modern man. Nothing truly fundamental has changed in man throughout, as he remains in essence that creature that embarked on the journey of behaviourally modern man.

A Higher Power Acting Through History It is almost egregious to throw our data into the grabbag of 'self-organization'. The eonic effect fills us with a sense of an almost ominous presence, of a mysterious process or action operating throughout history as a higher power. We see fine-tuning down to the level of poetic meters and even the whole genre Greek tragedy that might leave us

floundering in design arguments. We need to realize that divinity would not act in this way. Conventional theism/atheism will not help us understand this situation.

In fact we have rediscovered, perhaps, the elemental sense of universal history first intuited by the Isrealites, pointing beyond god idols to IHVH, before that degenerated into monotheism. We have lost that tradition, and need to steer well clear of it. We cannot under any circumstance bring 'god ideas' to our depiction, at the risk of corrupting our clarity with the confusions of false design arguments. That would truly wreck our account. The same can be said of the sterile atheism based on the metaphysics of Darwinian natural selection. The depiction of 'evolution' using systems analysis keeps our account honest.

Our method of bringing 'evolution' into history has resolved an ambiguity that has always haunted even the most ordinary usage of this term, which somehow expected man to pass instantaneously beyond evolution to history. We see instead the far more reasonable picture of a transition between the two, in fact, a series of such transitions, precisely the pattern of our eonic sequence. As we examine human evolution we note that there is a uniformity, amidst diversity, to human 'situations', whether those be the primitive campfire culture or the cities of advanced civilization. This should remind us that we could not deprive those 'primitive' situations of earliest men of the description as 'history'. Upon further reflection we realize that the reverse is, must be, true: we cannot deprive the contexts of human history of the term 'evolution'. In fact, we have done better here: we have taken the two terms 'history' and 'evolution' to refer to two levels of action. Creating a standard 'evolution formalism' we have, armed with the evidence of the eonic effect, proved able to call the evidence of macrohistorical dynamics 'evolution' and the action inside these larger frameworks 'emergent history'.

System Action, Free Action We began by looking at a very simple and common distinction, that of a system and the individuals inside it. There are many examples: consider an ocean liner and its passengers. The relationship of a causal system and the free individuals inside it is very common, and throws an especially cogent light on the eonic effect and shows the way that a macroevolutionary process, expressing system action, interacts with a microevolutionary process, expressing free human action. The first we call 'evolution' and the second 'history'. The two are braided together, but with greater human freedom coming to the fore as time goes on.

This double description, based on our characteristic distinction of System Action and Free Action, resolves at a stroke an immense number of paradoxes that have always beset the study of history.

Is there a science of history? This stubborn question lurks unanswered behind all forms of historical description, but comes to the fore with an answer in the context of the eonic effect. This answer, in principle at least (the full answer would be a very long treatise), plays nature's trick on the data and exploits the idea of a 'science of freedom', and the eonic effect shows us some spectacular

data to back this up, for example, the double birth of democracy, and in general the correlation of political systems to our 'eonic sequence'. The point is that we can find actual examples of the 'causality of freedom' in our pattern, a very strong confirmation of our procedure.

There is a kind of tacit avoidance by scientists of the question of a science of history, mostly because of the stubborn refusal of the data to fit into a physicalist theoretical scheme. If we apply a causal analysis to human events, the result is a kind of denatured and lifeless account that presumes to have banished the idea of freedom from the chronicle. With biological evolution, on the borderline of this confusion, it seems as if natural selection, as a law of life, can reduce the issue to one of genetic mechanics. But surely that project was naïve, and improperly documented. We have seen that a different approach that considers the 'evolution of freedom' is adapted far better to the data as we find it.

We began by invoking Kant's Challenge, which is really about this issue of a science of history, and we can see that the eonic sequence resolves Kant's query in a spectacular way. Kant's ambiguity arises very naturally from the fact that, as he seems to have sensed, he was too immersed in the events, and needed the perspective of the future to resolve his question.

It is ironic therefore that the intermittent character of the eonic effect allows us to infer a directionality to world history, short of the teleological conclusion that could only be derived 'at the end of history', so to speak. Thus as we pull away from the modern transition the pieces begin to fall into place for the perception of the directional character of world history based on the succession of epochs and their transitions. It is quite possible for us to do this without concluding anything about the absolute termination of history in the far future. We can see sense the existence of a teleological system even if we are unable to know its final 'telos'.

Thus we can easily come to a positive conclusion about Kant's question about nature's secret plan, for the strange precision in the unfolding of successive stages of civilization uncovered by our careful periodization suggests indeed a 'plan' at work. We need to be careful with such terms, which tend to imply the existence of some kind of 'design' process at work. The question of design is, as we have noted before, ambiguous, for the 'natural teleology', a term from Kant himself, of systems of evolution in our sense is not at all the same as the 'intelligent design' of an exterior agent or designer. And this more specifically shows a direct relation to the unfoldment of a 'perfect civil constitution', for as we can see in our tracking of the emergence of democracy the direct correlation of political forms with our pattern of historical evolution.

Nature's Secret Plan The eonic effect answers directly to Kant's Challenge and shows in the process the clearest indication of 'Nature's Secret Plan' in the directional character of the emergence of higher civilization, splendidly timed and organized, as visible in our sequence of transitions and epochs.

Progress Toward a Civil Constitution There could hardly be a clearer answer to Kant's query about the directionality of political constructs than in the progression of political forms moving toward the realization of freedom, reaching a spectacular climax in the dawn of an age of liberal democracy at the

Great Divide of the modern transition. We can see that this timing is not coincidence.

We have already noted the resemblance of the eonic effect to a process of 'punctuated equilibrium'. The appropriateness of the terms, as if taken from the dictionary for the first time, is striking, and yet we confront the fact that Darwinists have already claimed this terminology for their own theory. And in general, it is true, we cannot subsume all the many cases of biological speciation under our rubric of 'eonic evolution'. We should instead reinvent the terms, as it were, and think in terms of three 'punctuations' and the 'equilibrium' in between them, and the result is a remarkable depiction of the eonic effect as it partitions into periods of rapid transitional advance and the stabilization periods in between.

In general, it is essential to distinguish theories of evolution from depictions of patterns of evidence. One of the consistent confusions of Darwinists is the failure to produce an empirical foundation describing evolution. Instead we see the abstraction of natural selection applied, sight unseen, to a totality of situations as a 'law of evolution'. The realization that one must first describe the long range pattern of evolution empirically resulted in the idea of punctuated equilibrium, as a description of how species emerge. This would in turn lead to a theory of evolution on the basis of that evidence. With the eonic effect we were constrained, quite willingly, to descriptive tactics from the first. And we have eschewed a final theory of the eonic effect on the grounds that it is complex beyond our easy hopes of theoretical reduction, and most importantly because we have not been able to describe the totality of the effect, confining ourselves to the range of evidence for intervals at the level of centuries or less. We have thus confined our account to relative beginnings, and relative transformations, and yet this approach, or tactic, has actually made our enquiry almost more robust, for it frees us of the demand to create artificial consistency in our account. This problem is what has bedeviled the account of human evolution: a reductionist consistency is demanded for the whole, from beginning to end, and the rubric of natural selection is pressed into service for this purpose. But we can see that this simply will not work, and that we must do careful archaeological work on the whole of our empirical base to assess its properties and evolution.

This fixation on theoretical abstractions, such as natural selection, has produced a false estimation of theories on the part of modern science, especially in the realm of biology, but implicitly on the question of history. This misuse of universal generalizations produces what we call the Oedipus Paradox, where the statement of theory and the actions of that agent collide and produce a confusion of meaning. Is the agent a passive executor of a natural law or the active agent of an ideology of theory he calls science? This confusion is precisely what lies behind the dangerous tendency of Darwinism to degenerate into Social Darwinism. It is the vice of incorrectly applied theories.

We should note again the issue of Kant's Challenge, which is essentially an application to the historical of the Kantian critique of scientism, with a demand to

examine the place of human freedom in the context of causal analysis. Our attention to this Kantian perspective repaid itself a thousandfold by showing us that if we follow this demand, nature will show us the evidence for an ‘evolution of freedom’, and that nature is not constrained by the reductionism of Newtonian science. We cannot compute evolution by a law, instead, as with the eonic effect we must track the action of evolution in a systematic fashion, such as that provided by our outline of world history. The eonic effect shows us a way to follow the evolutionary dynamic by a tracking approximation, that doubles as a simple chronicle. This powerful method is free from the obsessions of universal generalization, and reductionist false consistency.

The result is a new perspective on history, in which a dynamic of evolution is brought into the discussion without interfering with the account of free human history. The two different perspectives are brought together in the eonic sequence, in the periods of what we call transitional history. It is remarkable that we are thus always looking backwards at the eonic effect, and that as we enter our present its action has ceased, leaving us to our own freedom. This strange, yet elegant, portrait of nature’s manner of ‘evolving man’ and ‘man self-evolving’ in tandem contains the resolution of the many contradictions and paradoxes that haunt the misapplication of Darwinism to universal history.

In the process we have produced a solid foundation to the study of world history, with the idea of evolution in the background. The eonic effect, or ‘eonic sequence’, turns into a Table of Contents for an outline of world history, beginning with the rise of Egypt and Sumer, the Axial Age, so-called, at the second phase, and concluding with the modern transition. Nothing could be simpler than this portrait of a series of epochs or ages each beginning with a dynamic phase, or transition, and a characteristic ‘middle’, or ‘medieval’ period in between. We suspect that this simple pattern, which is impossible to avoid, really begins in the Neolithic, or before, and we are left to wonder whether the same process is at work continuously throughout evolution, or whether it switches on at crucial periods of evolutionary development. This pattern provokes an old debate over fast and slow evolutions, and we can see that both forms are present, the eonic effect giving us almost for the first time a portrait of ‘fast evolution’ in action, as visible in our set of transitions. It is especially satisfying to catch the sasquatch of rapid development in world history itself, where we can zoom in to see the details.

The Axial Age The clearest case of this process of ‘rapid evolution in action’ is the second stage of our chronicle, the so-called ‘Axial Age’, where Archaic Greece, for example, shows an extraordinary developmental sequence in a matter of centuries. The question of the Axial Age is compounded by the additional wonder of several synchronous and parallel transitions all at once, across Eurasia, from Rome to China. This remarkable display gives us a strong suggestion of something operating at a global level, indeed, beyond space and time, and this the remarkable sense of an ‘age of revelation’.

Evolution of Religion This Axial interval gives birth to two world religions, in Indian Buddhism, and the Israelite ‘monotheism’, and these become the source for a whole epoch of religious development and history. It is important to see, however, that the Axial Age is not the source of either Christianity or Islam, as such, which arise centuries later from the seeds planted in the Axial phase, the

second step in our sequence. This snapshot of religion formation is an eye-opener, and gives us for the first time a picture of how religion evolves in the context of civilization. We must suspect similar intervals of transformation in that most seminal of periods, the Neolithic.

It is essential to see that the emergence of civilization is all of a piece, and we see religious and the socio-political development in the same rhythm and by the same logic. Thus the emergence of proto-secularism in Axial Age Greece, and (theocratic) monotheism in Axial Age Israel, seems at first a contradiction, and yet we see that our system is exploring different possibilities, and then blending them together.

The Axial period by itself is such a remarkable phenomenon that we might be tempted to take it in isolation. But taken in that way the period doesn't quite make sense, and we suddenly realize that the solution to the riddle is to see it as a step in a sequence with the dawn of civilization and the rise of modernity completing the (visible) pattern. Although this might at first seem speculative, a careful look at this expanded pattern shows the rightness of this conclusion. However, it is completely okay to simply revert to our perception of a non-random pattern, and simply note the empirical sequence of great turning points in world history, at the dawn of higher civilization in Egypt and Sumer, the mysterious concert of synchronous social transformations at the dawn of classical antiquity, and the rise of modernity. If anything it is the characteristic appearance of 'medieval' periods in between that shows the pattern clearly.

The rise of the modern, despite its curious disguises, is very similar to an 'axial' interval such as we see in antiquity. And our ability to see it at close range is especially instructive. The rise of the modern is chronically confused by debates over continuity and discontinuity, the contributions of the Middle Ages (often by religious proponents) and the nature of the so-called Renaissance. In the final analysis such debates are beside the point, and we are unable and not required to answer them. Many things can be the case at the same time in complexity of world history, and we don't have to answer all questions to see the dramatic reality of the eonic effect.

And these other debates distract us from seeing the simplicity of our non-random pattern which shows the sudden beginnings of a transition in the sixteenth century, in the context of certain areas of Europe, and this rapidly produces the modern world by the period of the Enlightenment at the end of the eighteenth century. Whatever else may be the case with the medieval period or the Renaissance, the modern transitions stands out very clearly. The question of continuous or discontinuous evolution thus has no simple answer, save that both are the case. The eonic effect, however, shows us what we could not suspect, the real existence of rapid transitional or punctuational periods of fast evolution. And they are a remarkable complement to the companion, 'slow evolution'. We need the knack for seeing 'relative transformations' at work.

Relative Transformations We need to see our periods of transition as 'relative transformations', which means that they produce a stage of relative growth, given the state of the system prior to the onset of a transition. Thus these transformations don't necessarily invent anything, but develop further

something with a prior history. If we turn on a sun-lamp in a greenhouse, that interval of light is a relative transformation, as opposed to the absolute growth from seed that is the total life of a plant. Our eonic transitions are always thus relative transformation of streaming entities undergoing accelerative transformation.

The idea of a relative transformation is really the same as ‘acceleration’ which is, however, a term from physics, not history. The point is that a relative acceleration in the evolution of history can produce a period of rapid development, and this is what we see in the eonic effect. Many defenders of tradition become stuck here and insist that many things, such as science, that seem born in the modern period were really born in the medieval period. In fact, we see that science was born much earlier, gestating even in the era of the Sumerians, and powerfully ‘born’ in the period of the Greek Axial Age. It thus seems as if it was born twice. What is going on? In fact, the idea of relative transformations can resolve the seeming paradox. We see the ordinary historical stream proceeding slowly suddenly amplified by the relative acceleration of our transitional periods. And how remarkable that is!

The rise of the modern world, and our interpretation of modernity, is beset with the confusions of Eurocentrism. In fact, we have developed a clear explanation for the appearance of our transitions with our discussion of the frontier effect, and we can see that the modern transition occurs with precise timing in the greater context of Eurasia, and is not a form or European ideology at all. It might help to consider that with time and some distancing from the rise of the modern age the pattern of the eonic effect beyond the locale of Europe will begin to stand out, especially as the transitional area begins to yield to the greater globalization to which it contributes. We have thus produced the solution to the Eurocentrism problem.

Our short world history is a strong reminder that speculative theories of evolution can be a trap, and the empiricism of the eonic effect shows us forcefully that actually observing evolution is the first step, and this requires a meticulous chronicle of its action over long intervals of time. We cannot reduce this requirement to some evolutionary equivalent of a natural law such as natural selection applied sight unseen to an out-of-focus totality. For, as we have seen, the data of world history shows unexpected novelties and the action almost like feedback to fix outcomes of a previous step. Further, there is something almost strategic in what we have called the ‘eonic sequence’. In the Axial Age it seems to expand to embrace diversity to avoid homogenization, while in its next step it contracts to a single transitional area, as if to embrace that diversity with an homogenized modernity that is transcultural. This kind of effect reminds us that we can’t indulge in mechanical reductions of the eonic effect, and must stay within the field of empirical description against a backdrop of periodization. And that periodization must take the place of a law of evolution.

Our idea for a universal history, echoing a theme of the philosopher Kant, has been set in contrast to, and then reconciled with, the genre of Big History, the attempt to give a reductionist account of cosmology, and history, since the big bang. Our approach seems better able to resolve the contradiction of facts and values, to enlarge the explanation of the origin of life, its evolution, and the emergence of man with a demand for an account of the emergence of freedom. Remarkably the data of world history

suddenly began to make sense once we adopted this approach. Surely this is related to the new findings of what seem like fine-tuning by cosmological physics. That the universe seems tailored to produce life is a discovery that should alert physicists to the way in which their subject approaches completion. Instead this finding seems to have generated another futile conflict between science and religion.

In fact, we have a sense that there are two stages of advance in the wake of the Big Bang: the emergence of life, and the emergence of mind, in the subtle complexities of human self-consciousness. Man is more than the higher evolution of life, he is perhaps, in a sense still obscure to him, passing beyond life to a new form of evolution. This issue is somewhat beyond the scope of our argument and certainly not easy to resolve with current concepts and data. The point is merely that man's chronic confusions over the spiritual reflect his transition to a new and higher stage of an almost cosmic consciousness. That this should sound like a theme of New Age mysticism is not inappropriate, but also a reminder that man's passage to the stage of Mind has left him vulnerable to many illusions of ill-perceived spirituality. Here the philosophy of Kant will serve as a reminder of man's propensity to metaphysical illusion in the phenomenal mechanics of his developing thought processes.

The questions of secularism and religion generate great confusion in the minds of many, and seem to produce an obsession of religious traditionalism in conflict with the seeming passage beyond religion that we see in modernity. That tension is in fact a healthy sign of our progression both through and beyond modernity. We saw the way in which the extraordinary passage through the Axial Age spawned a set of religious formations, and then we saw the rise of the modern age in almost eerie timing proceed to lead us beyond those traditions. But the issue is only the relation of the past and the future, and the renewal of human self-consciousness. The dilemma of religion and secularism is a false one, and the latent potential of modernity to recreate the essence of religion even as society moves beyond 'religion' so-called is as remarkable as anything we have seen in antiquity.

Distinctions of the sacred and the secular are thus very misleading. The questions of human freedom, emerging so powerfully in the modern transition, are the equal of anything that we see in the history of religion, and deserve as much the rubric of the sacred. The period of the Enlightenment can thus be seen ironically as the gestation period for the 'religion' of the future, something better than the sterile cults spawned in the Axial Age, as it shows the way to the critique and better understanding of tradition itself. We have seen also the need to be wary of what we mean by modernity, and the ambiguity, almost dialectical of its complexity, which far surpasses the false legacy of scientism that came into existence in the wake of the Scientific Revolution.

Despite the failures of revolution, we see that they are a distinctly modern phenomenon, implicit in all that came before in the eonic series, and that they pose the crucial question, still without answer, as to the nature of historical change, mechanical and free. And more specifically we see that the response to modernity taken as a staging

ground for a particular economic formation, capitalism, was swiftly challenged in the very triumphs of the idea of freedom so powerfully present in the birth of liberalism. This unresolved issue will return to haunt the outcome of modernity and its globalization, but at the same time we should see that, as with scientism, the crystallized ideologies of revolution have failed to grasp the larger dynamic of history.

The context of globalization is ambiguously cast as an economic drama of the spread of capitalist economies. But the projected endgame of this process, in the destruction of the biosphere, should remind us that the early critics of such economic ideologies and their fixation were prophets after their own fashion and that beyond their tragedies of revolutionary failure lies the simple futurism of man transcending the mesmerization of economic mechanics. It is difficult to see how this will play out, but surely the imitations of the political sequence embedded in the French Revolution have proven a false exemplar of what is needed. The gist of the issue is simply that a liberal society is a larger generalization than that of a capitalist economic society.

These issues trouble us with their sophisticated complexity, but a closer look shows their almost primitive character, and the failures of mechanized consciousness that lie behind them. We sense, as so many New Age figures and movements have suggested, that the issue is the mechanization of our mentalities, and the consequent sandbanking inside an ideology that results. The solution is thus the liberation of our self-consciousness and will as the heritage of human evolved consciousness. We are threatened with the inertia of our own unrealized potential. And yet we can see that while the loss of advance so evident in the wake of the Axial Age is certainly possible, the latent energy of the emergence of civilization in its totality will serve we must hope to bring about the challenge of the real future.

It is in any case not our task to resolve the problems of the future so much as to clear away the obstruction of false evolutionary theories that wish to seize that future with false teleological ideologies. The rising of Darwinism was only a moment in the development of science, and we see from the example of Wallace that it was only a brief moment in his thinking as he moved on. In the process of examining Darwinism we stumbled on something much more remarkable, taken as 'evolution' in what we suspect is the real sense of that term. And we become aware of it just at the moment when the passive evolution of organism begins to transform itself into the active self-evolution of free consciousness entering its own history. This 'idea for a universal history' is both the resolution of an evolutionary paradox and a fitting matrix for resolving the enigma of scientific history within the context of human freedom.

One of the most intriguing aspects of what we have called the 'eonic effect' is that we only become aware of it as we begin to exit from its action. As we pull away from the modern transition, and as the results of archaeology begin to enlarge our perceptions of human origins, the pattern of macrohistorical dynamics becomes visible like a photograph in fixer, and we are filled with the sense of something like a higher power operating in history. It is interesting that the philosopher Hegel expressed a similar thought by speaking of the 'cunning of reason', as if there were a kind of indirection to the thrust of becoming, a spell cast on man as evolution acts through him. At the end of this 'evolving of man' a new and greater beginning must jolt him from passivity as he begins to realize his evolved freedom in the creation of true history for the first time. In

fact, the passage from the eonic sequence might require a considerable interval of confusion as man confronts the immense challenge of his own self-evolution. And on that score the almost primitive character of current theories of evolution are a liability likely to degrade action. The idea of natural selection is simply a red herring that seems to justify the most limited version of how humans evolved and should behave. The implicit negation of ethics in the blind action thought to comprise evolution is the wrong lesson learned at the point where the self-evolution of real man into his real potential requires the highest standard of action. This confusion created by wrong theories is one of the liabilities of scientific development.

As we recede from the action of the eonic sequence, whose last visible interval of dynamism was the rise of the modern, we are left with a sense of the stupendous drama of the emergence of civilization, before the uncertainty, almost the suspense, of entering a future of our own creation, beside the mystery of evolutionary becoming that animates the ruins of past, and passing, civilizations.

End of Eonic Sequence? One of the strange mysteries of the eonic effect is the fact that we are outside of its action as we come to observe it. Our best estimate is that the modern transition is the last in the eonic sequence, for as we become aware of its action it could no longer act in the same way. The tremendous transformation since the Neolithic contains a still unrealized potential of tremendous scope. At the same time it is important to consider the dangers of decline and medievalization that can beset historical sequences outside of the eonic sequence.

The existential sense of our self-consciousness in freedom must leave us to wonder at both the opportunities and the dangers of the completed passage that has brought us from the Neolithic to the stage of civilization, thence to a more sophisticated combination, wherein the secular sphere as civil society matches the false sanctity of the State with a field open to the potential of human individuality. The most difficult challenge lies in the relationships of these entities, whose transformations over the course of history have resulted finally in the ambiguous legacies of revolution. Our distinction of System Action and Free Action warns us of the perilous passage through mideonic worlds where the mechanization of consciousness becomes fixated in socially constructed identities.

7.1.1 Transition and Divide: A New Perspective on Modernity

Our eonic data has uncovered a very remarkable result, and we have a very useful way of looking at modernity, as a transitional interval. The modern world is, in many ways, the key to antiquity. The detail of the modern transition shows us what is going on at the dawn of higher civilization and then in the Axial period. The Axial Age will suddenly become clear. In fact, this perspective on modernity is exactly what historians

have been using all along, so to speak, but without seeing the reason for it. Author after author has observed this pattern and attempted to understand it, but without placing modernity in the context of world history as whole the riddle proves elusive. In the next section we will uncover something still more remarkable, in the evolution of democracy.

Thus our data, now organized in a larger matrix, produces a very dramatically stylized yet appropriate interpretation of the rise of the modern. Beware, however, of theories, or even of our elaboration: the data speaks for itself, when it is not covered over by attempts to disguise the obvious. Our approach, beside a little fancy descriptive language, leaves the data completely alone, and yet enriches its interpretation. It makes explicit what has always been a part of the discussion of modernity by those not quite able to put their finger on what they meant by using the term at all. Nothing could be simpler, take the *interval* using the differential of two dates from 1500 to 1800 as a kind of transition in the eonic sequence, which, in the interpretation of a finite interval transition, concludes some time around 1800. That's a strange thing to do to the data, at first sight, but in fact the data conforms to this the simplest of periodization schemes almost perfectly. This approach highlights the obvious discontinuity in the rise of the modern, and connects it to a larger interpretation. There are undoubtedly factors of continuity, but it is the discontinuity that is of interest. There is no metaphysical contradiction, since we see that continuity and discontinuity both apply, without contradiction. Modernity proceeds from the medieval, but it also echoes the Axial Age of antiquity. The Euro-stream intersects with the eonic sequence, and we see all of a sudden why the rise of the modern has such a compelling resemblance to the Greek transition, almost like a restaging of the Ionian Enlightenment. One more secret lurks in our periodization, a direct connection to our findings on the questions raised by Kant.

Students of medievalism or the Renaissance will object, but in fact there is no contradiction, and once we see that the issue is one of relative changes of direction, these other periods will stop getting stuffed into 'pre-modern' lead up boxes, where they don't fit. Medieval Christendom was one of the great periods of world civilization, and it makes little sense to say that modernity evolved from that (apart from common parlance usage). The rise of the modern is a *change in direction*, not a continuous 'evolution' from antecedents, so says this new model. Looking at the eonic sequence we can see that its 'next step' echoes antiquity, not the period just before 1500. Such statements undoubtedly oversimplify, and this can be amended, complexified still further, to reintroduce, not continuity, but successiveness from the medieval period. But the streamlined version highlights the fact that modernity seems to echo the Axial era as much as anything else. And please note that we unconsciously take it this way, because we speak of the 'middle ages'. Middle of what?

Looking at the Axial Age, we see that the chronic confusions of historical theories trying to explain the sudden take-off of the 'West' are really confronted with exactly the same phenomenon that we see in antiquity, which seems suddenly to stand out as the next phase in our eonic sequence. The telling clue is the signature rebirth of democracy, a low probability event in the general stream of history. Another is the (second) birth of Science. Look carefully, the rise of the modern shows a remarkable resemblance to the

The rise of modernity is one of the most contentious of theoretical subjects, theory after theory, with attempts to explain its sudden rise invariably getting into a snafu over

discontinuity, the Renaissance, and secularist ideology. But the high-level perception of its placement in the direct mainline of the eonic sequence solves most, if not all, of all of the problems, at the price of clipping the data at both ends with discontinuities. One reason for confusion is the tendency toward an economic interpretation. The problem is that while capitalism seems to emerge in this period it doesn't characterize modernity in and of itself. Forget capitalism, for just one moment.

Axial Greece and Modernity One thing we can focus on is that there is an astonishing resemblance of the modern transition to the Greek. We almost have an identical set of emergents. We see the 'birth of science' twice. We see the birth of democracy twice. We see a philosophical spree echoing the Greek Ionian Enlightenment, another 'enlightenment' in fact. Most of the key emergents in the Greek case barely survived the mideonic period. We see a strange recursion of the ancient case. And this tends to create confusion because it seems like something to do with 'Western Civilization'. That is misleading. What we see is a frontier effect in the wake of the Roman Empire. And there is a difference in the modern case, in so far as the Indic, Israelite, and Greco-Roman diffusion fields sourcing in the Axial are blended in the final result.

The sudden partition created by the Protestant Reformation is the key discontinuity. Note that it is *not* the cultural evolution of 'Europe' that produces modernity. No, it is the divisive *partition* of Europe, at a frontier, that produces the modern phase transition, Europe cut in two in an unmistakable case of the frontier effect, and the defensive barrier for innovation. The sheer ferocity of that partition (due to the 'filling up' of world space, and the closure of frontiers) and the resistance to it should sink any illusions Europe was going through spontaneous cultural evolution due to superior anything. Not Christianity but the eonic relative transform of the same is what lays the groundwork. And it is not Protestantism but the partition itself, and the resulting flow of information from innovations created behind this partition that produces the modern phase. These innovations are not Protestant or religious and flow as well across the partition. However, it remains true that Protestant countries rapidly outstrip the rest in terms of their modernist transformation. Again it is not Europe, but the core zones behind the partition, in the frontier area, along with their diffusion fields and sidewinders, such as the new American continent, that produce the changes. It is a question of the partition and the flow of information, with much of the result in the sidewinders, that is important, not the future evolution of Europe. In any case, please note the fine grain of modernity, with the depth of its spectrum, and its many 'Enlightenments' behind the basic partition, Scottish, German, French (half and half, as to the partition).

The Modern Divide We have a way to put our idea to a simple test: if the phenomenon is not a continuous history (it is that too) but a transition, then its endpoint will show its hand. With that idea we discover the modern 'divide'. We can see it clearly just at the time of the French and Industrial Revolutions. Our transition climaxes and comes to an end, a new (mideonic) period underway. Many systems have such a property. A slingshot just at release point, a rocket at liftoff at the end of countdown, and so on.

We see that our ‘modernity’, the rise of the modern, is really two things, the transition and the period that starts after that transition. We are ready to dig deeper, in the next chapter. But, if we recall our ‘frequency deduction’, we note that our model faithfully reflects the paradox of ‘freedom evolving’ in producing a ‘something causes freedom contradiction’, and our data directly mirrors this unexpectedly significant piece of jargon. Finally, we should note the spectacular appearance of democracy, as a recurrence of the great Greek experiment.

Freedom Evolves? The Discrete Freedom Sequence Our periodization of the eonic effect uncovers one of the most remarkable mysteries of human history, and evolution, a windfall that leads us to the core of the Kantian philosophy of history. It is the only clue we have to the otherwise invisible action of the eonic sequence. On the surface the eonic effect is a transparent phenomenon, almost widget-like in its system action. But the basic dynamic never shows its hand. However, like a dropped handkerchief it does leave behind the traces of a bare something, reminiscent of the Kantian intimations of the noumenal.

Thus, to define terms, one of the most interesting things we can observe about this pattern is the *double appearance of democracy* in two successive turning points, in both cases near a divide. If only we had a longer sequence, more data, but this is unnerving. This is the *piece de resistance* of the eonic effect. We will call this the *discrete freedom sequence*, a subset of our eonic pattern.

Discrete Freedom Sequence Looking at the eerie and exact timing of our eonic sequence we suspect that the double emergentism of democracy is, however we might conceivably explain it, not chance. A look at the general backup in the deep modern emergent core shows this to be a more than reasonable guess, since the ‘evolution of the idea of freedom’ is itself a crucial component of the modern transition. The resemblance to questions raised by Kant is quite extraordinary, emboldening us to proceed. But our demonstration of a non-random pattern doesn’t require closing on some oversimplification as theory.

A Kantian antinomy Confronted with our black box we have few clues to its action behind the scenes. Its depth is locked and sealed. But in the discrete freedom sequence we get an inkling. On the one hand the eonic sequence generates a ‘causal nexus’, on the other hand the discrete freedom sequence is generated in the mainline in an opposing, yet embedded, trend. This, most remarkably, resembles the Third Antinomy of Kant. Our system is ‘evolving freedom’ over millennia, in some formal sense.

This sequence is the crux of the whole question of theory. Think in terms of a simple question, where does Freedom come from?

We simply point to a mystery. We have a modern divide. Backtracking 2400 years, we should have another, ca. -600. Right on schedule we see the rough comparison (as our later discussion of the Old Testament will make clear). So what do we find in the Greek case?

Solon The emergence of democracy in ancient Greece is a complex subject, and the slow progression from monarchies to city-states should, by any standard of

sociological analysis, be confined to local social causative explanations. Yet if we zoom out and adopt eonic periodization we see that the appearance and timing of Solon is non-random, occurs near a transitional divide, and becomes otherwise inexplicable by standard canons. To finish the question off, we jump 2400 hundred years to the next divide, and what do we find, another democratic take-off. Chance? Not likely, dumbfounded or not.²⁰⁷

We must be careful and distinguish two levels of evidence, the non-random pattern of the eonic effect, and the subpattern of the discrete freedom sequence, which might give us an inkling of what's going on in our black box, for here we discover some familiar issues of the philosophy of history dropping some historical hints. The issue of theory, teleology, and ideology will prove desperate in this case. The question of the emergence of freedom is taken here as an exercise in demonstrating a non-random pattern. Pointing to something is not as such an explanation. This is one of the most complicated problems in the whole of human knowledge. So we won't pretend to solve it via the fantastic.

But this example will show us the real complexity of historical theory, where reductionist scientism simply strikes out *ad infinitum*. We should note that Hegel attempted to exploit this situation for a theological approach. And Marx, moving to the opposite extreme, produced his historical materialism. We need to start over in ultra-cautious fashion and simply describe the full puzzle, which has a kind of Kantian simplicity and sublimity in its stark mystery.

7.2 The Eonic Effect as a Resolution of Kant's Challenge

We can now see that the eonic effect shows in elegant fashion the resolution of Kant's Challenge. A Kantian perspective can give a clearer indication on the question of the 'end of history', or lack of it, than the Hegelian philosophy of history. As we study world history with our 'eonic periodization', we suddenly see over the long range of the eonic sequence the resolution of Kant's challenge: a regular movement in the play of human freedom is almost instantly demonstrable from the eonic effect, and the result shows a cousin resemblance to Kant's Third Antinomy. Our data shows this at a glance: we notice our three turning points show precisely a movement in the play of freedom as the levels of System Action and Free Action alternate in degrees of freedom.

Idea of a Universal History Note that as we proceed from a provisional idea *for* a universal history to an idea *of* a universal history: the question is resolved. We can see that, contrary to expectation and the standard views of history, we can detect a 'regular movement' in the play of freedom of the human will. This is our eonic sequence, with its cyclical emergentism based on 'free action' under

²⁰⁷ W. J. Woodhouse, *Solon The Liberator* (New York, Octagon, 1965).

‘eonic determination’. We have created a terminology for a special subpattern, of the eonic sequence, the discrete freedom sequence, which throws especial light on the question. We can see that the eonic effect corresponds exactly to the implied question given in what we have called Kant’s Challenge. Our model resolves Kant’s Challenge, but that is not the same as ‘fully solved’. We are later, but not outside of history.

Our discrete-continuous sequence follows this ‘regular movement’ precisely in almost eerie fashion, with the (relative transform) evolution of the state, religion, science, philosophy, all major categories of civilization, in the cowcatcher mainline of the eonic sequence. Problem solved: world history shows directionality, purposive evolution, incremental progress toward ‘civil constitutions’, perfect or imperfect, and the unfolding of ‘nature’s secret plan’ (in quotation marks). It is highly unlikely there could be any other solution to this Challenge from Kant. This is a strong, because limited, result, one that uses only large-scale blocks of history, simple periodization, and metaphysical austerity, generic history by the book. No ‘theory’ is invoked or required for the result, which is therefore a form of direct ‘pointing to’. It is probably the case that the dynamic of this system relates to the category of the ‘noumenon’ and is forever beyond observation, which will provoke a review of various Hegelian issues, Hegel being one of the first to respond to Kant’s essay. Kant’s Challenge, however, only asks for a regular movement in the play of freedom. Hegel’s philosophy of history, his metaphysical system apart, doesn’t see the eonic effect, and kludges an argument by design to get his result.

History on one level is the field of free activity operating in open-ended fashion on the surface of a planet. Yet if we attend to this ‘play of freedom’ as global fields of free action we can easily detect a regular movement in it, the eonic effect, although only in a limited snapshot since the onset of higher civilization and the keeping of records. This regular movement is overlaid on the flat distribution of general history and is directly associated with the eonic generation of civil infrastructure, starting with the statist emergentism visible in Dynastic Sumer and Egypt, the birth of the great religions and democracy in the second, and the resurgence of democracy in the third. In general a far more complex description is required of the fuzzy term ‘democracy’ in terms of incipient republican conceptions and much else. Further we see that this regular movement tends to be in counterpoint to the mideonic fall off into empire taken by a failed ersatz construct between state and its defined boundaries in the context of globalization. This pattern clearly raises the issue of teleology, and is also complicated by the distinction between relative free action and system generation. Freedom generated by eonic determination cannot be purely free, and the jumpstart process visible in the regular movement can only assist but not determine the free action beset with the need to self-initiate its own freedom.

Kant’s essay contains more than the first paragraph we have allotted ourselves, e.g. the idea of ‘Nature’s Secret Plan’, and the ‘progress toward a perfect civil constitution. Wary of hypostatized language such as ‘Nature’s Secret Plan’ we nonetheless see the unfolding of a coherent evolutionary or ‘eonic directionality’, suspicious an alternation sequence produces an historically given representation of some teleological process. The resolution of Kant’s Challenge, as a political problem, can be seen directly in the discrete freedom sequence.

As to the progress toward a perfect civil constitution we see at once using periodization:

TP1 birth of the state, 'freedom' in the state

TP2 discrete freedom sequence, ecumenical religions

TP3 discrete freedom sequence, dialectic of state in contradiction, freedom from state

We don't associate the birth of the State with freedom, but *pace* Hegel, it is easily seen to join the list. The same problem seems to be the case with the great religions in the emergence of the perfect civil constitution, because a secular New Age is reacting against theocratic regimes, starting with Luther. In its original context, however, the connection is graphically obvious.

The plight of the Israelites, the source of a transcultural ecumenical religion, is a nationalistic one, and the Old Testament core is a state ideology which then flows into its mideonic field transforming into a universal religion, and then turning into an ideology of empire. In a model of the eonic type we don't need to claim this succeeded or that its emergence represents an 'end of history' solution. Compare the anti-statism of the Buddhist Sangha, in parallel, as a group (with decided political ambitions) of 'drop outs' at the fringes of the State.

Quite obviously the modern transition reacts against these, but that doesn't disqualify them from being 'evidence of the progression toward a perfect civil constitution'. Since they were imperfect, they appear to be in the process of being bypassed.

The ancient failure of democracy in the discrete freedom sequence, and its consequent reappearance on cue in the eonic mainline is, therefore, the strongest candidate with almost spectacular eonic structure, and Hegel springs into action defending it. Hegel's 'end of history' perception suffers an excessive sense of linear history. We see that he is championing the eonic emergence of liberal systems without realizing it. It is not the end of history as much as the reemergence of freedom at the dawn of a new era, at the 'end of a transition', and the need to maintain that freedom against mideonic retrogression. There the question of 'economic freedom' emerges to bedevil the whole mix.

7.2.1 Freedom's Causality, Teleology and Politics

The inherent power of our eonic model exposes at once the basic resolution of Kantian perplexity. Kant predicts a teleological process he can't find, but which we have clearly found: 'freedom's causality'. As Elizabeth Ellis notes in *Kant's Politics*,

What would "bridging nature and freedom" mean outside of politics? For Kant the big questions are nearly always epistemological: thus, bridging freedom and

nature might mean specifying the conditions under which investigators of the empirical world (scientists) are able to find evidence of spontaneity in the physical world (that is, of freedom's causality). Either freedom and nature are strictly alternative perspectives on the same set of empirical occurrences, or there are some things in the world that can only be explained according to freedom (in other words, the second alternative posits empirical evidence that some thing has no antecedent cause). I am not the first person to point out that it is not an easy thing to find empirical evidence of a lack of a cause. Kant himself assumes that a good scientist will operate under the presumption that absent natural causes may eventually be discovered.²⁰⁸

But this is just what we have found, with respect to macrohistory, at least. The author complains that Kant's teleology and the necessity of free political action are in conflict. This is the case, but we have resolved this also, by seeing teleology differently, as eonic directionality, and dispensing with the factor of asocial sociability, whatever its relevance as an actual description of human culture, as an intrinsic teleological process. Our eonic model produces an independent teleological factor, visible only as directionality, that conditions but does not restrict human free action. Teleology enters our discourse as a perception looking backward of the eonic sequence, but this cannot directly change the nature of our freedom in the present, save to change the self-consciousness we bring to current action. That is, looking backward, we can see a teleological directionality, applying to macro-action. Our micro-action in its wake may or may not reflect that. This is critical for the preservation of freedom in history, for, as we examine the discrete freedom sequence, we see, remarkably, direct macro association with the emergence of democracy and this should lead us to examine the match to micro-action. Already, the American system is under challenge on the grounds of imperialistic distortions. And the fate of the American Indian in this outcome is not something that can be legitimated on teleological grounds. Because of that factor of its realization as micro-action, the American system is likely to be in trouble down the road.

Kant is clearly dissatisfied with the premature data history is giving him, and clutches at the straw of the French Revolution, in the field of micro-action, quite on the right track as we can see, from a later perspective. If we stand back to take into account our entire eonic sequence, the strength and limits of taking the French Revolution in this way become clear, even as the larger data set completely confirms his basic intuition. For we have found in the eonic sequence the unmistakable instances sought for of 'freedom's causality', or, to put from the viewpoint of the historical stream, the absence of antecedent cause, empirical evidence of the lack of a cause. In the greater past, the point is unmistakable in the Axial phenomenon, thence by close examination of the overall character of the modern transition relative to world history.

Our eonic model has shown an ingenious way to resolve this paradox, and we can see that there is a simple way to mediate teleological questions even as we adopt the operational assumptions of a rational politics based on human autonomy. The riddle of teleology as seen in our system remains unsolved, yet it is detected via its representation in the pattern of directionality, seen looking backward. The constraint on our free power of choice, and political action, takes the form of the degree of our self-consciousness in the realization of the emergent system we find ourselves in. This is an elegant

reconciliation of the seeming contradiction, allowing us to adopt teleological considerations, without these foreclosing on our need to our freedom in history. There is no relief from the differentiations in the meanings of the term ‘freedom’ and its consequent divergences of realization.

The necessity of assumptions of free rational action to conduct politics, conflicting with Kant’s teleological thinking has been ‘fixed’ in our approach, by dropping the association of ‘asocial sociability’ with the driving action of evolution, and we can find the reconciliation of the contradiction, roughly speaking, in the way in which our two level system shifts gear between higher and lower degrees of freedom. This formulation allows us to free practical action from teleology, even as we allow this factor to remain in a larger system.

7.2.2 Free Will, Moral Action, and Self-consciousness

Our exploration has been of history. Our ‘Kantian’ perspective here was actually *sui generis*, the resemblance to Kant noticed after the fact. We never even derived the basics of representation that are the mainstay of Kant’s system. The simplification of Schopenhauer could even be taken in its place. But the relation of representation and ‘thing in itself’ arises automatically in our model, and we should reluctantly admit as good materialists that this puts a big plus next to so-called transcendental idealism, wretchedly named. We merely noticed the arising aspects of historical appearance and the way this didn’t quite add up, generating the characteristic turn toward transcendental idealism via the discovery of the uncaused historical intervals, ‘freedom’s causality’. Very crudely Kantian indeed, displaced into history. On the way we noticed also the cogency of Kant’s ethical theory, but nothing in our model has derived its basics. However, it is a natural companion study to the model of eonic history, keeping the two distinct in our minds, individuals and their representations, and macrohistory (and our representations of that).

Machivellian degenerates, politicians, et al Modern political/social thought has suffered a calamity of Machiavellian and/or Nietzschean disillusion with morality that threatens to undo the entire sense of historical action. Religions taken over by esoteric gangsters and politics by intelligence agencies are evidence of historical chaotification. We can recommend careful study of the ethics pioneered by Kant as a reminder that our understanding here is a work in progress, and that the great advances of civilization are the creations of idealists, too often undone by the cynicism of realists. Kant’s work points to a level of intelligence not yet stable in human evolution. Kant’s ethical thinking doesn’t enter our use of his thought (history is not a moral agent, and yet we must sometimes wonder!), and has a number of difficulties as a research project, but

is an important extension or further exploration, uniquely insightful and useful as a generalized framework of the psychology of the will.

We need something to tone up our discovery of ‘freedom raw’ in the enigma of what is clearly reflected in Kant’s Third Antinomy. Like off the shelf software Kant’s ethical thought, despite its immense complexity, foots the bill. The beautiful and elegant one-glimpse simplicity of our data/model of the eonic effect needs to raise its own complexity level beyond the fuzzy terrain survey of world history. Although our rubric of self-consciousness is open to many perspectives the formulation of Kant is the most classic and the clearest X-ray of the complications in the discourse of freedom. We can strongly recommend this approach. It is possible to do this without even considering the secondary phase of Kant’s thought, his ethical continuation of his first critique. But Kant’s ethical system is one of the greatest advances of modernity, yet suffers a faultline down its core, leading to a sort of gleeful Nietzschean reaction or spree pitting itself against morality, how could have Kant been so stupid. As the saying goes with all finger-waggers, ‘you’ll be sorry’. This reaction has played itself out, perhaps, and we can ask again for a reckoning of ethics, this time considering that what Kant calls ‘common ordinary morality’ is an evolutionary mystery, and a challenge to our own self-descriptions of who we are as evolving organisms. Kant’s system is an intelligent ‘toy’ for the childhood of our evolution. We should be wary of the false glamour of Nietzschean confusions, so suspected of Darwinian oversimplification.

Our chronicle has temporarily skirted the issue of free will as a practical question by adopting a generalized framework of self-consciousness, in the contrast of system action and free action. All our account required was a ‘self-conscious’ agent with relative degrees of freedom or ‘free action’ in an evolving system action. His self-consciousness is the field of the manifestation of will. This ‘free action’ was not necessarily free will. This allowed us to construct a model that was deliberately fuzzy, and here neutral, as *ersatz* compatibilism (not the philosophic kind, but a simple fuzziness that is compatible with a deterministic or freedom interpretation). We see that we can provide no proof of the existence of free will. Hence our retreat to the ambiguous idea of relative free action in a larger system. One complication of our eonic sequence is that it is ‘forcing freedom’, a slight constraint on the way to jumpstarting freedom. It can only nudge, and then stop. However, we are unconsciously adopting a variant of Kant’s strategy (or strategies, he changes his mind on this!) of deriving freedom from the fact of moral consciousness, and historical ‘moral action’, and/or the other way around, deriving moral considerations from the assumption of freedom.

Evolution and Ethics Kant speaks of the presence of ‘common ordinary morality’ as a human characteristic. His purpose is to try and clarify that moral consciousness. We can’t produce a theory of the evolution of ethics if we can’t resolve the question of what man’s ethical behavior really is.

Thus, we have ingeniously allowed ourselves a means to go both ways in our distinction of theories and action scripts, in the ambiguity of the will’s surrogate, self-consciousness. And this resembles Kant’s distinction of theoretical and practical reason. We can see that while our statements of theory were restricted to ‘self-consciousness’, we have a further option of taking this fluid consciousness as the basis for the evolution of higher degrees of freedom. In this context we see, remarkably, that Kant’s injunctions on

free will represent an eonic emergent, an action script, output of our system. Its theme, perhaps almost stilled, sets the autonomy of the rational agent to the fore as central. That's a job well-done by Kant, like a monument in the public square of the Enlightenment. Perfect. As we examine the eonic sequence, this sudden appearance near the Great Divide, of a fully formed ethical discourse in the context of Newton seems almost like predestination, stunning, a version upgrade appearing miraculously, as much Sinai as modern man gets. Kant proposes that we make postulates based on practical reason with respect to divinity, soul, and free will. As to divinity that will be problematical. We have already transposed 'divinity' into a broader understanding, stripped of degenerated 'god talk'. But the point is clear.

In our approach we can simply adopt an operational dialectic on these questions, mindful, however, that it is appropriate to posit free will for our own action scripts, even though we have made no assumptions on this question in constructing our model. There is nothing simple in this. Schopenhauer, for example, takes a slightly different approach to this question (and resembles the Buddhist in his negation of the will). And the issue remains, in the context of an immense obstacle course of religious, political, occult, Hegelian, Madison Avenue, and ideological entrapments of the 'will', as to the true nature and significance of this so-called 'will'. Occult hucksterism can be dangerous here, and Kant's humble Pietist background is both the best and the least of ways to enter a field infested with dragons. There is a famous story of a Zen teacher, asked the before and after of the great teachings, who responds, 'Attention, attention'. Our 'eonic sutra' can suffice with that, as to will, and attention. The intellectual presumption of will is not always the same as the 'deep emergence' of will which often manifests beyond awareness from the unconscious. Kant struggles mightily with this ambiguity of 'will' as phenomenon/noumenon. His discourse on practical reason is itself a bit theoretical. Translating that into action is not so simple. The truth of the matter, understanding, remains for the individual to discover from his own experience.

One aspect of the debates over free will lies in its timeless character. But we can see that our system might be evolving to the point where *homo sapiens* can begin to realize free will in action via his developing self-consciousness. In another sense, that potential was always latent in the potential of his evolved organism. In fact, we suspect, man always was, and is, 'ready' for this self-declaration. In any case, our model can easily do two things at once, and this corresponds to the distinction Kant makes between practical and theoretical reason. It is useful to stress this point since theories are not directly the basis for action. We should adopt the strategy that Kant urges on us, of making an operational assumption or postulate of the reality of free will, 'ought' implies 'can'.

7.3 Will Democracy Survive? Toward a Postdarwinian Liberalism

Our eonic sequence, and at first peculiar model, appropriately stage not the trumpet sounds of a Grand Narrative in our current moment, but the needed tonic of an anti-climax as we pass from the five centuries, three of transition, two past the Great Divide, of explosive modernity to a possible period of chaotification such as we see in the wake of the Axial Age. With an eerie exactitude of timing one and the same risk of discontinuance that beset the great democratic experiment of the Athenians, derailing into imperial hubris, threatens the classic recursion seen in the North American political experiment with democracy. We shall see if, this time, democracy can take root in human civilization, or pass away once more in the machinations of economic elites, authoritarian gurus, and Machiavellians of the State complex. Will the curse of empire overtake the emergent systems of freedom given in the field of micro-action?

A strange irony arises in the Darwin debate, as the context of evolution impinges on the confusions of ideology, seen in classical liberalism confused with Darwinian thinking. Armed with Darwinism the idealist tone of true liberalism degenerates into a Social Darwinism that might precipitate the failure of democracy to survive!

Darwinism was always a crypto-conservative ideology. What is needed is a genuine post-Darwinian liberalism as a broad social philosophy that is not forced into the kind of narrow reductionist scientism that can't support either a true progressive politics or a sound cultural worldview. Is it really the position of liberals that the universe is without purpose, that man has no soul, that survival of the fittest is the key to social evolution, that the mind-brain problem has been solved by computer geeks, that Darwin was the man who founded the science of evolution, noone else need apply?

In fact the politics of evolution goes back a long way, way before Darwin. And that shows the conservative cast of Darwinism, notwithstanding the seeming embrace of Darwin by the rising left of the late nineteenth century. Figures such as Lamarck and Erasmus Darwin show the early progressive character of evolutionary thought. As with Adam Smith, and Thomas Paine, their moment was brief, although Adam Smith survived quite well once house-trained by conservatives. The conservative reaction to the French Revolution then made the idea of evolution suspect for a whole generation, until Darwin, by giving it a sort of Whiggish cast, consolidated the triumph of the idea, but in a fashion that rendered the notion forever ambiguous, in its association with natural selection as a theory.

It is ironic that the left was consistently confused by Darwin's theory. We have forgotten that Marx's early reactions to Darwin's theory were negative, a suspicion of the connection between the theory and classical liberalism. And yet the later left, due to the influence of Engels, was unable to properly expose this ideological connection. We have seen the leftist challenge to sociobiology, but this has never been able to close the case with a challenge to Darwin's theory of natural selection.

But as S. J. Gould in his *The Structure of Evolutionary Theory* notes, the connection is direct, "I would advance the even stronger claim that the theory of natural selection is, in essence, Adam Smith's economics transferred to nature". The point should be obvious from the connection with Herbert Spencer, who is often blamed for the Social Darwinism latent in Darwin's theory. Spencer and Darwin both produced an evolutionary logic that made the confusion of biological and cultural evolution endemic.

It should be the job of liberals, and was with a figure such as William Jennings Bryan, to expose the ideological character of Darwinian theory and not get confused by this fancy footwork over intelligent design, with the cynical exploitation of this. Even a cursory glance at the politics of the American electorate shows the way conservatives must appeal simultaneously to religious conservatives and market fundamentalists, the neo-liberals. This double play is clever, and apparently beyond the understanding of those on the left still stuck on the confusion so evident in Engels, but not present in Marx who saw the whole game at a glance.

7.4.1 Modernism, Eurocentrism, Imperialism and ‘Western’ Civilization

Despite the easy sense of coherence generated by the perception of the eonic effect, we are nonetheless left with a model of history that requires care in its use, and we must move to remind ourselves of the limits of such models. Whatever else he was, Darwin was no sentimentalist and wished to confront what he thought, in part incorrectly, was the dark side of evolutionary emergence. But his views are misleadingly nihilist and threaten to blind us to the evolution toward the ideal that we see in the eonic sequence. Despite our critique of natural selection we can see that evolution of any kind is likely to be a tale full of sound and fury. But why is that? Precisely because man cannot respond to the injunction toward ethical action. Realist, Machiavellian politics, degeneration into imperialism, all at once the status of these strains is bankrupted by the perception of the ethical ideal latent in the eonic sequence. The result is ominous: most of history is degraded by human action. Our eonic sequence controls only the basics of eonic emergence, and then only up to a point, the rest is beyond its control. It rushes in with ‘religions’ of distributed ethical promulgation, but these also fall out of the mainline. We can see that most politics is a play of, at best, tragic heroes. Has not the tragic genre shown eonic determination in this regard? Beside a Kantian ethical enquiry, where is the deduction of principles for Machiavellian real politik? Nowhere to be found. Politicians have hijacked history, the inherent dilemma of the state. Wasn’t slavery necessary for man’s early development? Doubtful indeed. With the coming of abolition far more complex projects were managed properly without slavery! What about the Pyramids? In fact, the project was carried out with pampered artisans, no? Otherwise it was a mistake! Awaken from the nightmare of ape history, a complete waste! The eonic sequence is no part of human savagery. It waits just roundabout the zoo, then ‘new ages’ and forgets the past, starting over in a discrete series.

We have found something genuine that is broader, and that, to a first look, seems entirely benign in its action, if only because it expresses some ideal beyond the actual realization of its potential in historical action. Its keynote is compassion, and it almost seems to reflect a categorical imperative in action. But the fact must be faced that eonic evolution on the surface of a planet has its own liabilities and accidents. In fact, for this reason we have retreated altogether from the affirmations of theism/atheism into a kind of

neutrality about what seems the latent agency in our description of self-organization. Systems analysis is the only safe approach. At the same time we should note that in virtually all cases, despite seeming exceptions, the action of the eonic sequence stands beyond the actual outcomes of its progression, and always proceeds toward an upgrade from savage activities. This is embedded in the crucial distinction of macro-action and micro-action, and finally its source in the type of discrete-continuous model we have proposed. This allows us, most usefully, to cite teleological questions without ever committing ourselves to teleology as such. Like the man with the million pound note we are operating on credit with the idea of teleology. We take out small loans with the idea of ‘historical directionality’, whose historical givenness grants us intimations of a noumenal ‘teleology’, about which we can say nothing finally.

In the question of the modern transition, these dilemmas become especially acute in the way in which localization, as it proceeds toward globalization, finds our system almost crashing as the high octance of macroevolution, always in short supply, yields suddenly to a situation dependent on the individuals in place, micro-action. This is clearly reflected in our ambivalence towards the realization of modernism, clearly arising in the nineteenth century in the distortions of economy, rising imperialism, and the false implications of Eurocentrism. In fact our model resolves all these issues, but that is all too easy to say. In any case, we see that

1. Modernism is an expression of an eonic transition in a larger sequence, not the ‘evolution’ of the culture that expresses it,

2. Eurocentrism is therefore an illusion created by a system operating on the principle of a frontier effect,

3. Imperialism is an egregious side-effect of the eonic sequence, showing no good validations in the periods of transitions. Imperialisms arise as low octane jackbooters take over the ecumenization implied by the eonic sequence. Our eonic sequence always preps in advance the stages of diffusion with instruments of ethical action, but it cannot enforce these. It does not control its mideonic eras, or the zones beyond the fringes of transitional regions (indeed, not even its transition cores). The great religions, in their mysterious timing, prepare the ground for these interactions, but by the time they realize themselves in history they have passed into micro-action, with contradictory results.

4. One confusion in this situation is the illusion that something called ‘Western’ Civilization is in some fashion a superior manifestation of ‘historical destiny’, when in fact we see that this is largely a reflection of its place in the eonic sequence whose coin and currency is not the ‘civilization’. It is simply not helpful to think in terms of civilizations, since our eonic sequence does not honor this distinction.

The scale of the eonic sequence is dangerously beyond the generations of men and their imperfect records of history. Our sequence gives ample preparation for the stage of ecumenization as if to sound the chords of ‘moral urging’, the default task of religion, in the execution of micro-action, but a sermon at one epoch is hard-pressed to reach the ears of descendant rogues several millennia later. Where was the vision of Axial cultural integration at the discovery of the Americas and its holocaust of indigenous peoples. The eonic sequence is on a different time-scale.

7.4.2 Ecological Endgames: A Tyranny of Markets?

Having set up our model with an emphasis on the emergence of modernity from the early modern, with its characteristic generation of a liberal order we are left, after much trouble, with what Marx would consider ‘still another bourgeois ideology’, complete with a legitimation tactic in theory. Walking talking liberals appear from medieval cold storage into a New Age of Freedom. Manchester beckons, but what to do, altruism must wait on new mutations, we suppose, in a field of group selection, nay, kin selection. Brilliant work by the biologists.

A closer look shows the rightness of our framework, which endorses nothing that arises in the wake of the transition, but that political evolution becomes crystallized and almost frozen around the divide, leaving the future open, yet constricted in the prodigious outcome of modernity. It is essential to consider our distinction of macro-action and micro-action, and the downshifting to low octane ‘free action’. The field of micro-action is not given any endorsement by the facts of macro-action. The realization could fall into the hands of imperialist thieves and our system is indifferent to the outcome. Have a nice mideonic future fighting for a hot meal. Course corrections thus fall to the lot of those in the field of micro-action. Nothing is entailed as historical inevitability in either the outcome of the transition or its continuation beyond the factor of eonic determination. There is something peculiar about the outcome of modernity. Perhaps our eonic sequence indulges in an experiment, with system return in several millennia. In any case, a capitalist should take note: he doesn’t control that future in a system of markets.

After the great triumph of liberalism, the system starts into a miser’s paradise of Capital, soon a Darwinian hyena feast, a fine piece of Whiggish ‘science’, then jackknifing in the emergence of the far left, correctly pointing to the strangeness and contradictions in the resulting capitalist society that comes into existence. Marx and Engels, despite their botched theories, are two to reckon with and no sooner does our modernity take off than we are confronted with the instant appearance of a mideonic project. The disastrous outcome of the Bolshevism doesn’t really change the basic issues they raised (collating/codifying the basic work of many early proto-socialists and French Revolution stragglers). We should note their Janus-faced liberalism, and their one great success, among a field of working class agents, in igniting a labor movement, what to say of the chances of a revolution toward socialism. But some postmodern or leftist reconstruction of the modern transition in a socialist extension to democracy is so far beyond the powers of revolutionary leftists, and yet the potential to achieve a higher freedom in a new form of democracy remains open to the full. In any case there is no law of history entailing the inevitability of capitalism. It is a side effect of a larger system. The stage of modern capitalism makes sense on its own terms, an historic breakthrough, but the imposition of a fanatical precision in the spurious laws of a market order onto helpless populations is a sudden new form of tyranny and a paradoxical outcome of grand sequence of eonic productions.

The strange outcome of the modern transition is this sudden crystallization of a new market order, given unlimited license to exploit, based on the reign of capitalism. It is significant how little we have said about this! Our job was done without significantly addressing the questions of economics. For reasons very similar to those in our critique of Darwinism, we can see that the 'laws of markets' are an outcome, and ideology, not the framework for macrohistory. Adam Smith, with a skeptical and benign side, was an advisor suggesting how we should adopt a *policy* of economic organization. A policy recommendation is not a statement about laws of history. And yet this point, as Marx saw clearly, was lost in the alienation inside economic systems, taken to legitimation strategies as 'this is how things are, and must be'. The basic insight of Marx is exceedingly simple here. The laws of markets are human creations imposed on a system by the regime of capital. It has no long-range evolutionary force, but a tremendous momentum that will rise to overtake all other options. And this one is monstrous, able within two centuries of wrecking the entire biosphere. At least we can say that this is micro-action, and not demanded by any laws of history, and thus has no ultimate teleological force. We could expect no teleological system feedback, if any, for several millennia in the current shutdown of the eonic sequence. Such is the nature of a discrete-continuous model. A market order appears to fill the vacuum. Thus intervention at some point seems inevitable.

The confusing overlay of economic and eonic history is the source of much perplexity, but is in essence simple. Note the resemblance of the Ionian and modern Enlightenments. The first had no Industrial Revolution. Should we not suspect the independence of the different processes? Note the resemblance to Marx's thinking, but with the elements of theory transposed. We have repeatedly critiqued Marx, but his thinking tends to resurface, because his system is a disguised variant to the issues of Kant's Challenge. More basically, his critique, which was after all taken from the conservative Hegelian version, suggests the limits of the systems emerging at our divide. Look at the American sidewinder, after all the effort to produce a balanced set of checks and balances, the whole state falls into the hands of that 'fourth branch of government', the rising forces of the capitalist class, what to say of the inevitable course correction of the great Civil War. We might think Lincoln shrewder than the leftist. Our distinction of discrete freedom sequence and econostream corresponds to Marx's historical economism and 'leap into freedom'.

But the terms of the Marxist analysis are scrambled, the dangerous metaphor 'leap into freedom' requires the net equivalent of restaging the whole eonic sequence, as a new transition. But our system doesn't grant that. Marx was a frustrated transcendental idealist. We have produced the 'leap', but it is already past macro-action. The mideonic leap must limit itself to the phenomenonal realization of freedom, whatever that means. Nothing in what we have said forbids this, but the complexity of change is great indeed. We see, looking backward, the relation of revolution to emergent freedom, but it does not follow that revolution is the 'mechanism to be imitated', for the simple reason that total change, as seen in our transitions, is more than regime change. Our analysis is quite different, and more useful, but without a predictive conclusion. The discrete freedom sequence is seen looking backwards, through a glass darkly, detected marginally via periodization, and we cannot produce its extensions save as free action in the waning of eonic determination, a term we left mysterious, undefined for good Kantian reasons.

This jargon is odd, but reflects exactly what happened in the nineteenth century. Declared ‘bourgeois civilization’ and subject to entire negation, confusing eonic and economic sequences, the modern transition becomes an abstraction, its dynamic reduced to a plan for revolution, but this must be tantamount to staging a whole new transition. The result enters the fatal jackknifing confusion so tragically visible in the Bolshevik fiasco. Nothing, however, in our model preempts gestures to correct the flaws in liberal civilization. And the efforts of Abraham Lincoln fairly well prove the point. So that’s that.

We escape ideology because our model embraces a full spectrum, and we appropriately end our discussion with a leftist question mark, since that question is about the future, but even from a Marxist viewpoint a basic default viewpoint for our model is some suitably critical liberalism, subject to the proviso that no historical inevitability attends this in terms of its actual outcome, and that has nothing to do with endorsing so-called ‘market ideologies’ or capitalism. Such categories require independent justifications, as elements of econostream. Our subject is theories as laws or teleologies of history, and there are no such laws that justify economic domination. Capitalism is not a stage of history, but one possible outcome as an eonic emergent of the modern transition. It is not surprising that, given the clear warning in Kant’s Challenge, a teleological collision was the first born, and orphan, of our transition.

7.4 Ends and Beginnings

The discovery of evolution was one of the most revolutionary turning points in man’s perception of himself and the cosmos, but this breakthrough, by becoming the province of reductionist scientism, was immediately turned into a narrowed perspective of flatlanders. The formulation of Darwin was a severe contraction of the full shotgun spectrum of proto-evolutionary speculations that appeared, along with so much else, near the Great Divide. As so often with the eonic effect the first attempts show ‘System Action’ and had a quality that the later work lost. The insight of Lamarck despite its still inchoate form saw the essential structure of evolution, not unlike our ‘evolution formalism’. The attempt to produce ‘science’ in the age of Darwin and beyond succeeded in one way, but lost its contact with the full complexity of evolution.

This confusion over evolution has prompted the endless and intractable Darwin debate and the collision of science and religion that has made the correct application of evolutionary thinking a problematical struggle of ideologies. In addition the theory was a hostage to both Social Darwinist distortions and the ideology of market economics, inappropriate confusions that arose from the overfocus on natural selection. The confused misuse of theories, as seen in our depiction of the Oedipus Paradox, led to the absurd consideration of natural selection as a kind of ethical substitute in the appearance of Social Darwinism, hybridized, as with Spencer, with classical liberalism, and extreme forms of social conservatism.

Much debate has revolved around the fact and the theory of evolution. But, as we have seen, the question of theory is not trivial, and requires something far more than the technical methodology that has produced the triumphs of physics. The obstinate refusal of biology to yield to 'theory', even as the empirical basis expands with ever deeper discovery and insight, suggests the obvious right path: constructing chronicles of evolution as empirical 'histories', the same tactic we have adopted for the phenomenon of 'evolution' seen in the eonic effect. There is thus no constraint on a vigorous pursuit of biological knowledge. The question of evolution turns out to be something far more complex than selectionist fantasies of hard science. We should note our Kantian insight: the deeper dynamics of evolution has a noumenal aspect beyond observation, the probable reason for our chronic perplexity.

Lamarckian histories We noted how it was Lamarck who produced the first real framework for evolution, and the perception that evolution operated on two levels, one a drive toward complexity, the other an interaction to produce adaptation, was potentially superior to the one-level reductionism of later biologists, such as Darwin. This two-level analysis is powerfully present in our discussion of the eonic effect as evidence of macro and micro 'evolutions' in tandem.

Our resolution of this question was to adopt an empirical study of world history based on the realization arising in the wake of modern archaeology that the dynamic of evolution is visible there behind the flow of historical events in a fashion that is more than genetics. This stunning discovery of eonic effect where unexpected resolved at a stroke many of the obscurities of both evolutionary analysis and historical dynamics. This interpretation might seem controversial in its use of the term 'evolution', but in fact we may use the term in this way because we define it that way. That done, we discover to our surprise that this different definition, comprising the balanced totality of culture and individual, beyond the genetic, is probably the clue to the earlier stages of human evolution that have been so misinterpreted by Darwinian assumptions. We should suspect that a genetic component to this differing perspective awaits the future analysis of geneticists. Our use of the term 'evolution' is far superior, because it is not an abstraction of theory but a tracking sequence of historical chronicle and enforces the discipline of looking at the facts in detail. We discover further that this 'evolution' changes its direction and mode of action in successive stages, a fatal challenge to generalizations such as that of natural selection, applied sight unseen to all situations.

The eonic effect as an empirical pattern Our portrait of the eonic effect is a rock solid pattern in world history, whatever filters of perception our 'evolution formalism' creates for those facts. That formalism might be open to challenge, but the utterly simple and logical pattern of evidence in a non-random pattern is the essence of simplicity. The simple progression of three epochs with massive transitional beginnings, always in different starting points, but connected in a larger sequence, is a dead giveaway to a hidden system at work, one whose action we can intuit with the plainness of guessing the pattern in a partially completed puzzle. This empiricism shows us the trap of trying to generalize from the diversity of complex historical/evolutionary sequences, which change

gears, jump from one zone to another, and operate across the most complex, even esthetic, parameters of culture.

As we examined the data of the so-called Axial Age, for example, we were confronted with a spectacular display of global action across the whole of Eurasia in a display of synchronous action that defies the logic of ordinary sociological reasoning. The data shows us that an almost Gaian perspective is needed to address the issue of evolution, and the suspicion arises that the understanding of ecology in terms of Darwinian biology has produced an unbalanced style of reasoning about natural environments. We are left with the suspicion that the oversimplifications of Darwinism have produced a completely misleading view of the overall context of evolution.

There is no real way around this difficulty, and as we examine the earlier stages of the descent of humans, stretched over millions of years, we begin to realize that the imposition of Darwinian assumptions on the mostly absent data in such vast intervals is a methodological fallacy, and closer to magical thinking and wishfulfilment than science. This conclusion is highly undesirable to conventional science which seems to assume that human evolution is a simple mechanical problem like something from physics and solved by a law of evolution such as the selectionist scenario. But as the study of history shows clearly the problems of developmental emergence are staggering in their complexity and subtlety, and quite possible beyond simple human understanding. The evolution of language, of consciousness, and of ethical action, defy simple accounts on their own terms, their evolutionary career remaining quite simply unknown, and without data to conclude anything. The rote application of simplistic reasoning to these complexities is a discredit to science. We must face the possibility that these complexities are beyond the forms of science now known.

It is important to reiterate that our empirical approach, which resulted in the discovery of the 'eonic effect', can show us 'evolution in action', but prevents us from producing a general theory. This issue is the more significant in that we discover the way in which evolution is almost creatively infinite in its action, and that it changes its character at different periods, still another warning against the application of universal generalizations. The solution is to track evolutionary sequences empirically, at close range. We found that one of the few such sequences with data at the level of centuries, that is, virtually in real time, is that of world history itself.

Such findings seem almost to invite the conclusions of intelligent design at work in historical evolution. Our stance here was at all costs to steer clear of such design thinking on the grounds that, even if true, we would distort the meaning of such design with primitive theism, and thus would entirely distort the hard won gains of 'systems thinking' that have thrown a considerable light on historical dynamics. The question of design is quite simple: we don't know, and have no way to establish the proof for any such conclusion. What's more the data we have examined shows a suspiciously mechanical character in many instances, as a flourish on mechanics. Thus the clear symmetry of causality and freedom in a generalization beyond physics is suggestively

present in the system under examination, advising us that at this level of discovery the deeper discovery of nature is the probable outcome of our searches.

We should note the excellent premonition of such issues in the thinking of the philosopher of Kant, who prepared a considerable set of discourses on issues of teleology. If we feel drawn toward design thinking, like Odysseus tied to his mast, we should consider rather that an insight into natural teleology may be lurking in our data. But we have found only the elements of directionality in our examination of the so-called 'eonic sequence', and while this strongly suggests teleology, it is still short of any final conclusion on that score. Nonetheless, we can see from the eonic effect that something seems to be operating beyond space and time to reset systems over time, great intervals of time. We see this even in the comparatively short interval of five thousand years of world history.

We have used the idea of system analysis because it is a neutral generalization of science, and can bring the elements of analysis beyond the assumption of causality to a set of situations that are very general. If we must examine the elements of freedom in the context of causal environments (our example, before the example of history, was the ocean liner and its passengers) then the overall 'system', which embraces a dialectical contradiction, is something larger than a deterministic enclosure. And this approach, like a draught of water in a desert, produced instant clarity in our study of history which is too often condemned to scientific reductionism, even as the entire account demands the chronicle of human events, which are in mysterious hybrid of self-conscious action, between determinism and freedom.

This restriction to directionality is, in a way, a blessing, because it is based on empiricism, and frees us of the near-metaphysical quagmire of teleological speculations. But the fact remains that we have received a strong indication that the methodology of modern science is misleadingly anti-teleological, a possible reason for its confusions as the realm of physics yields to that of biology. The history of science can be misleading here, since the rejection of teleology in early modern science was a lesson hard learned and made scientists wary of the legacy of false reasoning here inherited from antiquity. But a closer look shows that a kind of dialectical clearing of the air swept away the forms of antiquated reasoning, leaving the field open to both the causal analyses of modern physics, and the possibility rediscovery of teleological thinking in that context.

We should face the fact that our account collides with the Biblical history of Axial Israel where a powerful design argument was injected into the historical record. But we should point out that the perception of historical action over many centuries, as with the Axial Age, would strike a person of pre-scientific perceptions as theistic action.

Documenting Evolution The issue of Biblical history has been missed. We see that the Old Testament is a priceless account of an evolutionary interval by the participants or immediate successors to its action. It is thus, theological issues aside, an important documentation of something we suspect of earlier phases of evolution, but absent to the empirical record. That high speed change can occur in a set of transitions, invisible prior to the invention of writing, is the insight bequeathed to us by this first fruit of the invention of alphabetic historical writing.

The problem here is that, first, the terms of divinity now current were nowhere present in the declarations of the Israelites, who were aware of the spurious conceptual confusions of polytheism, and equally aware that a monotheistic confusion was a likely outcome of the challenge to paganism. They thus left a warning about the very usage of theistic references, a warning lost to latter history, it seems. We should note that a design interpretation must now in our broader framework apply as well to the multiple fields of transitional action, and in this context the idea of a divinity plummets as the idea of a system comes to the fore. No divinity would act through a discrete-continuous system of the type we see, but if that entity did, then it would imply that its action was extremely minimal, and only active in marginal fashion during periods of transition, thus an entity never subject to the prayers of human beings.

Once again we see the rightness of the perspective of systems analysis, as a neutral descriptive portrait of an evolutionary sequence of stupendous potency and subtlety. We should nonetheless not feel overconfident as to explanation of the emergence of Judaic religion which contains many mysteries now unknown to us. The issue of cosmological divinity is so primitive in retrospect as to be unbelievable in an age period where the scale of the universe is so vast. All we can do is to hope that archaeology will provide us a closer look on the way to a finer-grained analysis of the interval of the Israelite religious phase. Any such account is challenged by the clarity and simplicity of the parallel instance of Archaic Greece, leaving us suspicious the two cases are isomorphic, less the mythological wrapper.

The contrast of sacred and secular is a misleading one. The birth of secularism in Greece in parallel with the emergence of monotheism in Israel suggests that we have created a division that is false, or limited. In fact, the context of ancient Israel was that of a state creating a cultic theocracy, which then set up a powerful literature that diffused into its oikoumene, there generating religions in its wake. That historical record does not suggest any absolute division. In fact, the emergence of monotheism in the chaos of decaying polytheism was an 'enlightenment' of reason, after its own fashion, and should caution us against the misinterpretations created by modern religious debates. In fact, as we examine the rise of modern secularism we note that the Protestant Reformation was one of its phases, and that the forms of religion appearing in its wake are as secular as any other modernist institutional outcome. We have pointed briefly to the many New Age movements arising in the wake of the modern transition as evidence of the 'religious sprawl' on the way to novel religion-formation in the new era. However, there is a powerful case to be made that secularism itself has all the elements of real religion in its powerful philosophies of freedom and liberal action. The transformation of consciousness as self-consciousness in a vertical dimension beyond the horizontal is a potentiality probably more fruitful to the secularist than the tradition-bound New Ager caught seemingly forever in a post he cannot recover.

This aspect of the eonic effect constitutes a truly surprising discovery, that the eonic sequence in its 'evolution' is fine-tuned down to the level of art, poetic genres, and philosophical universes. It is hardly chance that a stupendous flowering of philosophy occurs at the exact point of the Great Divide at the conclusion of the modern transition.

This baffling wonder is a sign that we are immersed in a larger mystery demanding our evolutionary progression to a higher understanding! These grand dramas of the Enlightenment have been filtered out of the culture of scientism that came to the fore in the wake of the Enlightenment climax and the result is a loss of the full dna of modernity. In many ways the rise of modernity is far more a spectacle of revelation than the mythological projections of ancient religion.

Our analysis of civilizations echoes yet surpasses the analysis of Toynbee and Spengler because we focus on the correct application of analysis to flux-like entities: our 'differential intervals' of eonic evolution show us that the civilization is not the real entity of dynamics. Rather there is a larger sequencing of progression beyond the 'streams of civilization' in the succession of 'axial-like' intervals, an elegant simplification of the analysis. The application of science to the amorphous and seemingly chaotic flux of civilizations would seem to be impossible but we have found precisely the way in which those irreconcilable opposites can be reconciled in practice.

The analysis of historical cycles that Toynbee and Spengler projected on the sequence of civilizations is better understood thus as a systematics that transcends those civilizations in a global system that integrates cultures beyond the level of civilization rise and fall. In fact, the almost cultic theme of declinism that appears in the wake of Spengler, pointing to the 'decline of the West', is a misreading on theory, whatever its superficial cogency as an attack on modernity. It is entirely possible that a decline might occur in the wake of the modern transition, even as a host of cultural factors are showing progression against the tide of antiquity.

Spengler's analysis has led to endless ideological charges of decline, often of the American 'Empire'. But this analogy is misleading and false. To be sure, we could compare the early stages of the Roman Republic in the early centuries after its appearance, or the appearance of Greek democracy after an earlier 'divide', to the case of the American Republic two centuries from the Great Divide (which shows the American Revolution!), and issue a warning against the decline of the American system of freedom, or its future degeneration into Empire (as opposed to its current phases of imperialism, distinct from empire). By that analogy, the onset of empire would be four centuries away, and the decline of that empire a full millennium in our future. Thus, assuming the analogy has any meaning at all, it is to a future of the modern system as it pulls away from the Great Divide and enters a mideonic interval of many millennia. But it is our assertion that perception of this system in action has come upon us suddenly as we pull away from the modern transition, with the result that its mechanical action is likely to dissolve before our conscious manipulations. Indeed, we must consider that the eonic sequence is complete, at least to the degree that our developing freedom will no longer need this evolutionary driver.

We cannot speculate safely about such things, but should be vigilant to preserve the gains of civilization that came with modernity. And we must be equally vigilant to see the rapid decay of quality, the distortions of Eurocentrism, economic globalization, and imperialistic pseudo-democracy. Our system is not about nations and cultures, or civilizations, or the West, but about the gestation of a global oikoumene in the wake of certain (here Euro-centered) temporary transition areas. Unfortunately the obsession with

economic ideology, and the downshifting of consciousness inside market systems, is clearly a distortion of the real meaning of modernity.

Those who preach Spenglerian decline (rooted in the Nietzschean attack on modernity) fail to grasp that these cultural manifestations are themselves evidence of decline. Indeed we can see that Darwinism is a decline for the original insights at the rebirth of evolutionism in the Enlightenment, that scientism is a decline from real science, and that in general the high octane fuel of the modern transition suddenly seems in short supply as the mechanization of consciousness threatens the hopes of steady advance. It is possible that, as with the end of the Axial Age, the steady decline into medievalism and social collapse could occur again over a time-frame of one to two thousand years. But as noted already our sudden realization of the system we have been in and are exiting will inform our better efforts to realize our freedom beyond 'System Action', to use our terminology from the 'evolution formalism'.

The talk of modernity is still forever mixed up with Eurocentric questions. But this localized factor of the progression of greater history will soon rapidly yield to the creation of an open space for the realization of dozens of global cultures entering the global oikoumene. It is essential therefore that the initial transitional regions not indulge in imperialistic distortions of the emerging system. We see in that respect the fallacy of the Roman Empire and its collision with the oikoumene integrator of the Judaic succession, e.g. Christianity. A close look at world history in light of the eonic effect shows that the eonic sequence never generates empires, and never polices its mideonic eras. Thus the appearance of imperialistic strains in the nationalistic sectors of the modern transition are thus more than arguably no part of System Action, instead the deviating field of Free Action that our system cannot police. Look to the emergence of democracy in antiquity even as the institution of slavery was amplifying from its late appearance in civilization. The eonic sequence operates on a minimum principle, it seems, and the parallel appearance of the seeds of freedom and expanding slavery is a good example of the kind of discrete-continuous system in action that we have described, and a reminder that without something like that systems analysis world history will prove confusing, and a source of a false lesson learned.

A kind of Machiavellian cynicism seems to overtake the powerful man witnessing the chronicle of the usual history, leading to a misunderstanding about the larger dimension of the ideal that appears so rarely yet so powerfully to change the course of history over the long term, and toward the more distant future. It is essential to understand therefore the possible falseness of judgment pronounced against history when the outcome in the end, as already visible from the short record available to us, counsels the hoped for realization of seeded ideals. And here the fallacies of Darwinism have done great harm because they have convinced too many that the riddle of the future lies, not in any ideal, but in the rough conflicts of competing organisms. Whatever else is the case, we can now see the false perspective in that.

In general the onset of positivism and Darwinism should better be seen as declines from the peak energy of the modern transition. The progression from the eonic

sequence beyond its last transition is a potential passage of peril, as the misunderstandings of modernity multiply and are replaced with artificial products, such as Darwinian scientism, or economic fundamentalism. Surely, despite its powerful insights into the malfunction or mechanization of economic ideology, the revolutionary left that arose in the nineteenth century is threatened with an analogous set of deviations, or declines. The replacement of revolutionary liberalism with its rich protocols of liberty and right into Leninist revolutionism is surely another instance of the 'instant decline' seen in the wake of the Great Divide. Nonetheless these issues of revolutionary change pose the dilemma of the future, which is beyond the sterile shibboleths of 'slow evolution', so much the religion of the conservative. We can at least discipline facile proponents of revolutionary futurism that, while their impulse might be correct, the real revolutions are visible in the eonic sequence and these are balanced and finally enigmatic stages of a larger evolutionary progression far beyond the denatured versions proposed by much of the left born in the revolutions of modernity. These revolutions are almost afterthoughts, and the real revolution is something more intangible, visible only in the greater eonic sequence itself.

We need to stand back from the perception of the eonic effect, with the realization that certain paradoxes of history require analysis and historical models, but in broader strokes theory can be a trap: we need to see that our 'model' is simply a set of facts, and that our response to those is not theoretical but practical, and historically informed by chronicles that don't require the study of abstractions. In other words, we act on the basis of the ordinary histories that are intuitive depictions of the incidents of civilization. As we attempt to come to an understanding of the larger issues or time-scales then the question of the eonic effect can be taken off the shelf to attempt to come to an understanding of what perplexes us. Thus the suggestion that a postmodern civilization will arise in the wake of a discarded modernity is a false one, one that ordinary chronicle history might leave us believing. But a larger perspective of the eonic sequence might suggest the fallacy of this reasoning.

The point here is that we don't need to dispense advice on the eonic effect in order to act. Our model is designed to never get in the way the practical facts that history produces for us as the agenda of action. But as we attempt to puzzle over the issues of a science of history, or theories of evolution, of the emergence of religion, of the many questions of history in the large, then the study of the eonic effect becomes less optional and a resource to free oneself from the mechanical thinking that overtakes ordinary. In any case, we see powerfully the way in which the emergence of values in the midst of facts is the essence of evolution, and this can help us to evade the misleading implications of wrong-headed theories such as Darwinism. In general all the elements of religion lurk in the background of our analysis, even as we portray a secular emergentism and future. That potential to religion might just as well be left in that background without the falseness that arises from its crystallization and cultification. The pieces of hundreds of religion lurk in our analysis as information to inform the realization of post-eonic history, the point being that the secular is as well the true ground of the religious, as the tenor of self-consciousness in action. Thus on the way to the realization of secularism, we see that it is an opportunity to realize religion for the first time beyond cultic formations in the immediate potential of human self-consciousness as the vehicle of freedom.

Notes

7.5 Critique of Historical Reason

Our new model of history has turned out to be a Critique of Historical Reason, that book aspired to by the philosopher Dilthey. Further, we see something remarkable, the correlation of the history of philosophy and our philosophy of history. Thus, it is remarkable that just at the modern divide appears German classical philosophy. Its philosophies of freedom are themselves a part of the discrete freedom sequence! Hegel first sensed this stunning fact, but we should evade his somewhat grandiose account for a somewhat humbler effort using simple systems theory, and a step backwards to Kant. The search for an historical critique became contorted with seeming complexities, but we can see that the issue is simple and lies at the core of the Kantian ‘dialectic’. For we see that the eonic effect contains an expression of Kant’s Third Antinomy in its actual structure, a remarkable discovery. The great critique requires nothing more than that antinomy. Kant’s system is quite difficult, but his essay expresses the crux of the philosophy of history, and the problems of almost all methodologies. Kant performs a kind of duet with Newton, and makes sense especially to a modeler, as the progression from mechanical to ethical, then esthetic/teleological modes arises from dealing with our data.²⁰⁹

A Science of History? What is the relation of our method to Kant’s actual system? There is a direct one in his so-called Third Antinomy.

“Causality according to laws of nature is not the only kind of causality from which the phenomenon of the world can be derived. It is necessary, in order to explain them, to assume a causality through freedom.” Its antithesis is: “There is no freedom: everything in the world takes place solely in accordance with laws of nature.”

We confront the enigma of the thesis, that freedom generation and physical causality somehow are both the case. The dilemma is immediate from the periodization of our model, remembering that this is only an empirical discovery, not a deduction.

Kant’s Third Antinomy is reflected in our pattern, but on such a large scale, and such a different mode, that we must proceed with caution. From the way we set up our model (for another purpose) we can see how the stream of history seems interrupted by a second different ‘causal initialization’ that has no continuous lead up or antecedents. Our transitions are formally analogous to the noumenon, but quite different. They stand in conjunction to the limits of historical representation.

Nature and freedom We need to be careful here since we are dealing with history. We have retreated from the use of the term ‘causality’, and, further, the term ‘causality of freedom’ might involve us in the famous ‘double affection’ problem that arose in the classic post-Kantian debate. This criticism denies the use of the term ‘causality’ to the different aspect of the noumenal. In our model, we need hardly worry about this confusing, yet apt, objection. We can replace ‘causality (of freedom)’ with ‘noumenal blank X’, temporalizing as, indeed, some sort of ‘causality’ of freedom in the phenomenal zone.

But, despite the many disputes on such issues, the general point is clear as crystal, in terms of our model, a remarkable concordance. Our finite transition intervals stage a ‘relative transform of freedom’ in some sense, the discontinuity aping an ‘uncaused cause’. The general resemblance of overall formalism is striking, and we see the glint of the noumenal through the fog of our fuzzy periodization. Our model was not designed to deal with these issues, but produces an out of focus version of the classic Third Antinomy. But this is an historical dataset, and not a psychological issue of representations.

Kant must have sensed that a new perspective was needed for history, and wrote his essay after his first Critique. In any case, we find this ‘antinomy’ in history itself. We cannot directly apply this antinomy to the discrete freedom sequence, but we are left to wonder. We see nature’s resolution of the question. Here’s our version of the thesis: Generalized causal determination (GCD) according to the laws of nature is not the only causality, it is also necessary to assume a GCD through the eonic emergence of (historically phenomenal) freedom, visible in discrete transitions. This is not an explanation, but the match is perfect, as the term ‘causality’ undergoes meltdown to show nature’s solution to the antinomy. Problems remain. Are we speaking of transcendence or immanence? In fact our model strongly suggests the latter, but its level of abstraction sets it prior to such a dualism. We could not determine such a question with the data we have. But we could hardly endorse any thought of ‘transcendence’ in such an obvious evolutionary schematic.

Thus, our prime objective, to demonstrate a non-random pattern, once complete, resolves Kant’s Challenge. But, with the status of scratchpad extensions, we suspect more, a suspicious resemblance to transcendental idealism. Although it is beyond the scope of our argument, which is empirical and can’t produce a deduction, the result has a cousin look to the noumenal/phenomenal distinction. We need to be wary of such statements, which will outstrip the simplicity of our prime objective. Later philosophy has done everything it can to abolish this distinction, but we see that it reappears at a stroke of the pen using our periodization. With a slight catch, however. We cannot say that our eonic mainline has any connection to the noumenal, or can we? We can see that this invokes a classic debate, the so-called double affection problem. We escape from this because we have started with ‘standard Newtonian causal language’, discovered it was nonsense, and then replaced this with a generalized causal matrix and a freedom emergentism (Here freedom is strictly the phenomenal traces of some purported noumenal aspect, not ‘transcendental freedom’). Our result is simply a phenomenological matrix of historical data, and suffers no contradiction. We see, however, that we are deprived of a solution as law in closed form.

Thus, our model was not designed to demonstrate this distinction of noumenon and phenomenon (it was not an historical construct), but stumbles on it, the concordance exact, and the discrete freedom sequence shows how there is not just a loose connection, but an exact macro-historical analog. The specter of transcendental idealism is a very undesirable result for both scientists and religionists (why?), but it is actually a very realistic and elegant approach that has a formal rightness to it. In any case, we can simply speak of a two-domain model that fits the emergence of freedom into a ‘generalized causal nexus’, thus crossing the tripwire of Kant’s Third Antinomy. All we can do is voice our suspicion here, keeping in mind that we are dealing with history, and that the Kantian formulation refers to the individual and his representations only. We would have to reconstruct a new version of Kant’s system for history, not a simple thing to do.

But the basic issue is extremely simple. Look at our eonic pattern. Where does freedom come from?

This noumenal aspect, or look-alike, arises because we see our general freedom emergentism *enclosed in a finite region bounded by our discrete-continuous periodization*, a strange gift of the data, a stroke of empirical mystery. That is a provocative hint indeed and a clue to what is obvious from the data, that we are seeing the appearance behind which something else remains hidden. It is remarkable indeed that nature should mimic this transcendental aspect.

It is important to remember that this is history, and what we see is not the noumenal/phenomenal distinction as such, but a mysterious cousin, in an artifice of periodization that (quite unwittingly) produces two kinds of history, a phenomenal region, and another kind of region, still quite in the region of the phenomenal, but with a connection of some kind with the ‘noumenal’. Since all history, everywhere and always is the same, we cannot divide history into two kinds based on such an idea, although the history of this mistake is considerable, ‘ages of revelation’. But all these have missed the point. Don’t make that mistake with the eonic effect. It is a problem that resembles what happens with Kant’s moral theory, which we won’t pursue. But in the final analysis, the Israelites were correct. Some intervals in history have something strange about them.

Finally, notice the resemblance of all Kant’s antinomies to each other and to the three great outcomes of the Axial Age, a religion of soul, a religion of divinity, and the birth of the idea of Freedom! We have an ace up our sleeve. Our eonic effect is some strange mechanical play on this ‘Dialectic’ of Kant.

Thus, a close look shows that divinity, soul, and free will, all revolve around some core Idea, e.g. ‘will’ (‘will of god’, ‘latent will as soul’, and ‘uncaused free will’). Note further that the eonic effect shows three civilizations specializing in each of these antinomies.

One of the strangest facts of our pattern is the appearance of Kant himself with his antinomies at the ‘slingshot maximum’, the divide, of the third ‘discontinuity’, or transition.

Kant's Question, Teleology, And Asocial Sociability Even as we examine Kant's essay on history we develop a critique of one aspect of Kant's thinking, which devolves, at least in the minds of some, into another conflict theory. Even as this happens Kant is proposing a new and brilliant method of dealing with teleological questions. Unfortunately the contradiction between the two creates a confusion, one instantly resolved by our eonic model. Kant seems stranded in the category of 'bourgeois ideologist', bestowing the curse of teleology on a dismal science of human conflict. Small wonder, then, that Marx categorically rejected the whole critical system. Another casualty of Adam Smith.

Kant is very strict in his separation of the phenomenon, and its mechanical causality, and the noumenal, associated with the complexities of freedom (until he arrives at his moral theory). But we have discovered a macroevolutionary link between the two! Let us be aggressive here, and wrest Kant's essay from its sockets with a demonstration that it is really asking a question, not proposing a conflict theory.

Constitutive vs. regulative judgments Kant distinguishes carefully between constitutive and regulative judgments, then again, in the Third Critique, between the determinative and reflective.²¹⁰

The 'As If' Sometimes Kant is interpreted as asking us to proceed 'as if' in the consideration of natural teleology or purpose.

Teleology as constitutive! The problem here is that we can see, with sledgehammer force, that directionality, hence a detected teleology, is genuinely *constitutive* of the data of the eonic effect, *in its representation as directionality*, seen looking backwards. Thus, although this seems incautious, and we have erected a severe failsafe against teleological presumption, we cannot easily conclude that teleology is to be seen only 'as if' through regulative judgments. After five thousand years of records the smoking gun of empirical data appears

²¹⁰ Consider the following from S. Körner's *Kant*: "Kant's resolution of the antinomy of reflective Judgment must be considered in the light of the first Critique. In that work, especially in the *Analytic of Principles*, he has expounded a system of theoretical *a priori* propositions, which constitute the fundamental conditions of Newtonian physics, and, in his view, of all science. The result of the first Critique is thus, among other things, a mechanistic metaphysics; and nothing in the *Critique of Judgment* indicates that Kant has in any way changed his view on this subject. ...The third Critique does not develop a teleological metaphysics. On the contrary, it shows that teleological principles are not constitutive of the empirical world, but can only be regulative, for our reflection upon the empirical world. While the first Critique justifies the mechanistic method on the basis of mechanistic metaphysic, the third Critique justifies the teleological method in spite of the impossibility of a teleological metaphysics. This impossibility is insisted upon time and again. Kant admits only a metaphysics of nature and a metaphysic of morals. There is no metaphysic of purpose, but only a *Critique of Teleological Judgment*. He shows that there is no conflict between the maxims of mechanistic and teleological method. There can be no conflict between mechanistic and teleological metaphysics because, according to the critical philosophy, there can be no teleological metaphysics." Stephen Körner, *Kant*, (New York: Penguin, 1974), p. 208-209.

out of the blue. You may fight a losing battle to say this is subjective, and indeed, such a judgment involves complex assessments, including moral and aesthetic iffy hunches. But the overall gestalt is devastatingly obvious. The mediating link between the noumenal and the phenomenal takes the form of the eonic sequence, itself we presume in the realm of phenomenon.

Teleological ideologies To call the teleological constitutive is a dangerous step, but our eonic method will spawn an instant failsafe. None of this is grounds for teleological ideologies projected on the future, unfortunately. Any such ideology will be micro-action in the wake of the eonic sequence, and history records an ‘antinomy of teleological judgment’ in action, e.g. as the collision between Kant the bourgeois ideologist and Marx, for example.

The noumenal approximation Our eonic sequence is nonetheless strictly an aspect of the phenomenal realm. Its noumenal lookalike character points to the limits of our knowledge and the noumenal mystery behind the evolutionary driver. Please note that we cannot divide history up into phenomenal and noumenal sections, never our point!

The Old Testament again This point is important because the ‘mistake’ we are pointing too is clearly one that haunted Jews and Christians as they tried to reckon with the concept of an ‘Age of Revelation’, and fumbled the ball most tragically. *There is no such age*, nor does it inherently impinge on the spiritual domain. All we see is the pseudo-noumenon pressed against history in the eonic sequence. We have thus a powerful and different interpretation in the eonic effect. And yet the Israelites were onto something, their eonic context, whatever the primitive character of their realizations as an upgraded Canaanite polytheism turned monotheism (almost) was ejected into the stream of history.

The data for historical directionality is powerful and conclusive, and we can see the problem that Kant had, and the reason he ends up entangled in the confusions of ‘asocial sociability’, even as his essay senses something that will resolve it, a ‘something’ that we have discovered. Let us dispense with ‘asocial sociability’ once and for all. One way to do that is to redefine it as the dynamic relationship of individual and society, and the tension between the two. In this interpretation there is no conflict with our different interpretation. But unfortunately the serpent has entered the garden, and the grounds for a pseudo-theory of the teleology of social conflict is ambiguously evident in Kant’s rendering. Kant may as well be a proto-Darwinist. Disaster! We must, if necessary, bail out from the Kantian connection and stick to our independently derived eonic model.

Asocial Sociability Even as we examine the issues of the Kantian philosophy of history, we should note that we depart radically from the conventional interpretation of Kant’s historical thinking in dislodging the focus on ‘asocial sociability’ as a teleological mechanism driving cultural progression. More Kantian than Kant we stumble on a solution to the teleological confusion that still lurks in his historical thinking. The meaning of the term ‘asocial sociability’ tends to drift between some idea of ‘social conflict’ and/or the basic descriptive

categories of ‘individual and society’. In any case to ascribe progress to social conflict is a clear mistake, and we can see that a now visible macro component voids the necessity of this ‘flat history’ thinking.

Discrete Freedom Sequence We can see at a glance that the emergence of a progression toward a ‘perfect civil constitution’ has two components, a macro factor and a micro factor. The emergence of democracy, for example, is perfectly timed in our eonic sequence. This macro aspect, even as Kant spoke, is then replaced by the micro-action of democratic realization. In general, the eonic sequence has its finger in all pies of human state formation and deliberation, from the early Pharaohs to the era of Solon to the French Revolution. While social agents are at each other’s throats, Greater Nature proceeds by eonic induction to produce democracy virtually on schedule.

Nature’s Secret Plan Kant’s asks us for ‘nature’s secret plan’. This language is too hypostatized for us, but we can see that the eonic sequence clearly draws the veil for one glimpse of this ‘plan’.

Kant’s essay has more than this paragraph, speaks of progress toward a perfect civil constitution, Nature’s Secret Plan, and creates an ambiguity over a proposed idea of ‘asocial sociability’, as its own resolution of the question implicit in the essay. We can see that Kant is just on the threshold of another conflict theory of the Smithian type, but senses that something is wrong and that there must be some larger process at work, possibly teleological, in the category of natural teleology. As it stands Kant produces an elegant general framework then is reduced to near proto-Darwinian thinking in the default collapse of historical motivation to ‘antagonism’. To ascribe this to ‘Nature’ in the large as teleological is a potential calamity and the moral individual is rendered irrelevant. Further, this is ambiguous. Is a ‘macro-teleological something’ ascribed to hypostatized ‘Nature’ doing historical progress, or is it the individual in his freedom? Kant never really resolved this problem. The eonic model resolves the question at one stroke. In our two level model, the answer to the paradox is that there are two components to historical progression, macro and micro. When they intersect in our transitions, the agent of history rises to the higher degree of relative freedom as his ‘self-consciousness’ and realizes the macro ‘telos’ as a micro result, however imperfect or incomplete.

In the age of Adam Smith, Kant’s problem is obvious, as is the reason he asks for someone in the future to help solve the problem he has solved in essence, or soon will solve in his later critiques, but whose complete solution requires more historical data to find this regular movement in the flow of historical action. History documents that puzzlement very accurately in Kant’s ambivalence toward the French Revolution, and his sense of some greater moral process in history. His essay, *What is Enlightenment?* shows that he is thinking implicitly in ‘eonic’ terms, of age periods. Kant was just on the verge of a solution, lacked the total perspective of our eonic transition, the carrier of teleology as directionality,

We need to rescue Kant from the ideological interpretations, a straight jacket, to which he has been subjected. Kant himself shows the way. A certain ambivalence arises in Kant’s essay, and he proposes a standard ‘flat history’ interpretation in terms of a concept of ‘asocial sociability’ to resolve historical dynamics. But a closer look shows

that he has created a framework for a new and better answer, one to be found in the future. This remarkable prescience is confirmed by the way in which the discoveries of archaeology in Kant's wake have shown his deeper intuition to be the right one. We need to show how the literature here, although often uncertain, does prefigure our statement that Kant's essay proposes, not a solution, but a question asked by Kant, Kant's Challenge. Kant's essay seems ambiguous, and we will end up in an argument with classical liberals who have annexed Kant using the idea of 'asocial sociability'. It seems to ask a question, and then produce 'asocial sociability' as the answer. But that, surely, is not the point. Kant senses correctly that he is not yet in a position to answer his own question. Thus *his question is projected into the future*. With the discovery of Sumer, and the Axial Age, the pot begins to boil.

A passage from Peter Fenves, *A Peculiar Fate*, might throw light on the question. "The '*Idea For A Universal History from a Cosmological Plan/intention Point of View*' is only a preliminary essay. Not only are its nine propositions thrown together in a seemingly unsystematic manner, reminiscent of Aristotle's treatment of the categories, Kant even emphasizes from the very outset that this little essay will be withdrawn in favor of a universal history written by an as yet unknown philosopher of the future. In the footnote added to the title Kant explains that the essay was undertaken on the occasion of certain rumor that happened to make its way into a journal; this rumor 'forces me to make a clarification, without which it would not make any sense'. Kant needs to show that one of his ideas and indeed a 'cherished idea' is not only founded on reason but even bound up with the very point of human rationality. This idea is cherished to the point of eroticism, the issues of priority and succession are thereby implicated in its general movement. Simply stated, the idea invites one to think that a 'philosophical writer of history' might one day appear and, after having established himself as a successor to Kant, compose a world-history that, since it is itself based on the 'final purpose of the human race', will be able to measure how far we have traveled with respect to our cherished goal. [Footnote below] To justify his remark, therefore, Kant will have to demonstrate that history in its entirety is not without sense, direction, and ultimate destination. *Footnote*: The remark attributed to Kant that happened to make its way into the *Gothaische gelehrte Zeitung* runs in part: 'A cherished idea of Professor Kant is that the ultimate purpose of the human race is to achieve the most perfect state-constitution, and he wishes that a philosophical writer of history might undertake to give us a history of humanity from this point of view, and to shows to what extent humanity in various ages has approached or drawn away from the final purpose and what remains to be done in order to reach it' ".²¹¹

Hegel, Marx, and The Legacy of Dialectic A first attempt to answer Kant's Challenge lies in Hegel (and the other post-Kantians), and his grand philosophic effort whose appearance, timing, and unfolding is itself 'eonicly significant', and almost spectacular, but our viewpoint is different, springing directly from Kant.

The issue of 'historical dialectic' never arises in our approach (although the oscillations in the degrees of freedom in our eonic sequence, by any measure, would seem some sort of dialectic), and we are left suspicious, since we can see that the eonic

mainline does not follow a dialectical logic. It is not our business to produce hasty judgments of Hegel, but we are going in another direction, and after the confusions of dialectic that follow Hegel, we should do well to be wary of the kind of dialectical thinking that haunts Marxists. The irony is that our system showing oscillations of degrees of freedom shows a rediscovered meaning of the idea of a ‘dialectic of freedom’, but our sense is quite different.

We should note that our approach sets straight the vexed question of ‘embedded rationality’ (we won’t use that phrase) that Hegel and Marx both struggled with, and keeping our distance is a better way to clarify a classic discourse that went awry, as seen in the confusions of the Hegelian ‘The rational is the real’, and the over-hypostatized concept of Reason in history. The relation of eonic determination to free action allows a decisive recasting in better form of that famous phrase that blew up on the launch pad.²¹²

We should let history do Hegel, rather than Hegel history, to reconstruct the spectacular moment to which he gave expression, next to his political and other discourse.²¹³

One always suspects something ‘behind the scenes’ with Hegel. He is really an early traveler in an early version of the current New Age movement. His dialectic is a version (quite sophisticated) of primordial involutory triadism, ‘something we’ve seen before’. Is there any indication in the literature? One casts about for some source. Whence does this come? The recent *Hegel and the Hermetic Tradition* has done our work for us. We see the exact correspondence to this occult tradition. So our wariness about dialectic is confirmed, and one can be a bit appalled Leftists are using ‘negation of the negation’ to plot against governments. Hegel’s system starts to seem suspicious thus. But then again Hegel, and this is significant, is far and away better at ‘involuntary triadism’ than those promoting the endless junk in this field. Later we will reference a *Samkhya* version of this. These traditions are sometimes very careful if they invoke the ‘spirit n’, where Hegel is content to construct a myth.

Schopenhauer After the Hegelian interlude, the philosopher Schopenhauer appears attempting to restore the Kantian perspective in a brilliant and streamlined form. Note how our post-divide branches into Hegel and Christianity and Schopenhauer, a closet ‘Buddhist’. We don’t take usually take him as a philosopher of history but that he is in an inverted sense. There are so few exemplars at this high caliber of the Kantian strain that we tend to be swept up in a Hegelian tide, oblivious to the secret entranceway into Kant’s views or convinced that ‘Kantian dualism’ has been superceded. Although this formulation (also with its open sesame of the Third Antinomy) is open to the charge of being a metaphysical idealism of the will in a fashion that is distinct from Kant, it is often a starting point for many baffled by the host of distracting issues, from the analytic/synthetic question, to the transcendental deduction, standing at the gateway to Kant’s formulation in his first critique. But Schopenhauer is often the way we take Kant, like it or not, i.e. our preoccupation with ‘causality’, but not the full set of twelve categories in Kant’s metaphysical deduction. And we can easily find ourselves in a subjective ‘appearance and reality’ philosophy as a watered down version of the full set of ideas in Kant’s or Schopenhauer’s thinking. Schopenhauer’s insight into the connection with Indian philosophy is highly instructive and revealing, and his perspective on history tends to reflect that. Actually, for our purposes, we can take up Schopenhauer’s offer to peek

into the Pandora's box, take his 'philosophy of the will' as a dangerous adventure, and slip away, enriched with a guided tour of the Kantian basics. The next stage after opening the Pandora's box seems to be Nietzsche and a torrent of 'demons unleashed'. But, genius though he is, Nietzsche's 'will to power' runs the risk of being Kantian pastiche, and simply does not live up to the Kantian formulation, however vexed the foundationalism that Nietzsche attacks head on.²¹⁴

7.5.1 Spengler, Toynbee, and Cyclical Theories

As we look at our three turning points, we begin to realize, or suspect, that we are observing a cyclical phenomenon whose structure sticks out like a dinosaur bone from the backdrop of history. Although our core pattern is secure as an empirical map, it remains mysterious, but makes instant sense if we posit a cyclical phenomenon.

Ideas of cyclical theories, often blended with eschatological thinking, have, historically, been notorious and created near bedlam, the most notorious example being the lore of cycles of the Great Year, but our data and analysis shows the beautiful and elegant solution to the riddle. Spengler and Toynbee with their ideas of 'cycles of civilization' have further muddled the question. Our eonic data shows us that the right approach is to see that the cyclical phenomenon proceeds independently of the civilizations it touches. Instead of Toynbean civilizations we will think in terms of 'streams' of culture, as these intersect and the 'eonic sequence'.

Ideas of cyclicity in relation to the historical process have a long history, as the infamous confusions of the Great Year make clear. The cyclical views of the ancients are ritually denounced, although the nature of these views, and their exact history, is not understood, because of the 'linear view of history' in the early forms of monotheism, or more accurately in the codification of Augustine, in reality the coin of Zarathustra, changing hands in many transactions.

It is not quite true that the Hebraic gave birth to the 'linear concept of time', although it could well be claimed that the idea was first honed to some implicit sharpness in the first period of Judaism. The linear view of history was probably already present or emerging very early in Mesopotamia, if not earlier, but certainly appears decisively in a remarkably sophisticated form in the teachings of Zarathustra, that on inspection is a blended cycle-linear conception, as is that of Vico. But their real appearance on the world stage began with their diffusion into the world of emerging Judaism and the Persian Empire after -600. This is a very confusing subject indeed, for the impression of telescoped history is that a cycle of religion gives birth to an anti-cyclical view of time.²¹⁵

Cyclical theories are also the Eldorado of those who search for the motor of history. It is not as foolish an idea, at root, as one might think. Indeed we have a found the key, empirically. We should start over with fresh terms. We are confronted with the recent, and actually less sophisticated idea of the 'cycle of civilization'. Even the

Augustinian idea is better, for it is in principle eonic. The idea of the ‘cycle of civilization’ was given new life in this century by the works of Spengler and Toynbee. In fact, cycles of time, as in the myths of the Great Year, are different from the ‘dynastic cycles’ of the many Ecclesiastes, and are inherently better than the ‘cycle of civilization’, which makes no sense, upon close examination.²¹⁶

Spengler and Toynbee are really ideologists of conservative postmodernism. In the closing period before the onset of the Great War, whose disillusioning scale of destruction had left an entire century of thought in a state of philosophic shell-shock, Spengler prophesied the ‘decline of the West’ and produced a theory of civilizations at the close of this war whose foundations were never successfully laid but whose cogent evocation of cycles drew attention to the large-scale structures of history. What then is World History? he asks at the beginning of his effort to understand the nature of civilization. The Nietzschean elements seem almost like a wished for cultural sabotage, and the idea of a Faustian civilization starting in the Year 1000 and entering decline in the Enlightenment must be a garbled version of this idea of Nietzschean decadence.

The point for our analysis is that we have a cyclical system that transcends the phenomenon of civilizations. Our eonic sequence proceeds independently of the individual civilizations that it touches. Our fundamental unit of analysis is not therefore the civilization. It is very doubtful if civilizations have the dynamic unity claimed by Spengler and Toynbee, as our eonic analysis makes clear.

Myths of the Great Year One value of our frequency hypothesis is to be done with the lore of speculations over the Great Year, based on a cyclical notion 2150 years in length. This phantom has haunted civilization long enough. We can see that intuitions of cyclical mythologists were onto something they could not have understood. Our frequency hypothesis, based on 2400 year intervals, explodes the hallucinations of the Great Year that have resurfaced in modern times in the various notions of the New Age.

Our cycles are more like simple tempo, a clocklike rhythm, and show us three periods of rapid advance, followed by medieval periods in the first two cases. Why do they stand out? They are not inherently different, their immense creativity apart, from any other periods, myths of revelation notwithstanding. Why does advance slow, create what we will call sequential dependency, even go in reverse, from Athens to Rome? They show a kind of sudden acceleration. It is a strange situation. A fragment of rich structure in a void, its suspected antecedents disappearing into preliterate fog.

As we pull away from the early modern, and archaeology discovers the sources of earliest civilization, we discover a pattern, and linear assumptions collapse. We feel a kind of ‘Hey wait a minute’ about random advance. As the dataset pulls across 5000 years, a different picture emerges. We have essentially all we need for a practical use of the eonic data, but it suggests something more that we can formulate as a frequency hypothesis, and a commentary on cyclical theories. An hypothesis is just that, and is open to falsification.

But the question then is, cycles of what? What is this frequency, barely above a whisper? How can whole cultures remorph themselves via relative transforms on a rough schedule? We don’t know, but it makes sense, as we have seen in our reverse-engineered

approach, to think that a system ‘evolving freedom’ in any sense would go into alternation. Alternation reconciles the information paradox of a deterministic system, and as the data shows, the net information or novelty of the system, rapidly increases at selected intervals. This system is so complex we will probably never know, and we can default to the idea of tempo. Observing tempo is the one thing we can analyze in a hyper-complex system. For what it is worth, the data corresponds perfectly to the idea of self-organization, transparently, but we cannot connect this with current theories along these lines. This isn’t thermodynamics.

The basic series that we suspect, then, is a simple extension in 2400 year intervals backward to the onset of the Neolithic. This assumes a kind of monotone sequence. Since we have a two beat sequence that is nearly a three beat sequence, it must be admitted that all sorts of other frequency possibilities exist.

Another frequent division of human cultural evolution attempts to grapple with the immensity of man’s past, and the acceleration of his more recent entry into civilization with a series of stages that map the entirety in a series of periods of unequal length. Thus, one frequent categorization is the division into ‘stages’ of cultural evolution, based on the idea of ‘transformation’, giving us

1. A Paleolithic transformation,
2. The Agricultural Revolution,
3. The Urban Revolution,
4. The Industrial Revolution.

These schemes are useful enough, but throw thinking off-track, and confuse ‘pure stages’ of unequal length with their labels, and quite understandably attempt to ‘glove’ a long rising curve punctuated by interrupts in its last three stages. The exponential and cyclical are blended, as is the technological, economic and cultural. They are mixing economics, technology, and cultural evolution in a spurious unity that wishes a bridge to the Paleolithic. Let us simply void the general rubric search and use our monotone sequence fragment empirically, as far as it goes. Then a great insight arises. Everything falls into place. But we must sacrifice absolute beginnings, and are left with an hypothesis of a monotone sequence.

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1. the ‘birth of civilization’,
2. the (relative) rise of the classical civilizations,
3. and the onset of the modern world,

???

This, at first, less desirable scheme is far more revealing, but comes with the price tag of renouncing beginning and ending. It is difficult to restrain the temptation to complete this sequence, backwards or (armed with basic Zarathustra) forwards, although we can suggest a Neolithic, and New World extension. But the relation of the New World

civilizations to TP1, 2, if any, needs to be sequestered due to the lack of evidence, although its place in relation to overall civilization is unlikely in the extreme to be an exception to the pattern, with apologies to the general case made for independent cultural evolution in the New World. This is quite heretical. It is tantamount to saying ‘our current system’ can’t be derived from antecedent histories. It is *really* evolving!

Thus theorists fail to consider a periodic rhythm of *unnamed* stages visible in historic times, reluctant to sacrifice absolute origins. Marx was hot on the trail of a discrete-continuous model, but he still wished to find named stages. Generally the influence of ‘historical economic materialism’ is pervasive and all parties agree not to see the Axial Age. Here the technological and economic theoretical constructs are forced to confront controversial ‘out of nowhere’ global synchronous evolution, as in the emergence of many religions. We are left with a fragment sequence, about which we can however reconstruct a great deal, and see the vague outlines of its source in the Neolithic.

Let us restate again the basic question, reverse engineered on the basis of the data. Does world history show signs of general sequence? The question is ambiguous. The pure flow of time is a sequence, and world history shows a host of sequences, but the results tend to disorganization, as cultures proliferate. What we really seem to mean is, does world history show signs of a sequence within a sequence, as intermittency, that can advance the whole through the part? The answer is immediate, yes indeed, however strange that may be. But we never see anything but the outcomes, the surface. Let us mention once more what we have been cautious in mentioning, a strange resemblance to noumenal/phenomenal distinction. We should be wary of such a claim, but the symptoms are there, to suggest why we never see the core mechanism. There is an unseen component in what the data is showing us. It even drops a provocative hint of its relation to a basic antinomy. Let us insert again our basic clue. This is not a ‘theory of freedom’, but a basic clue.

Notes: Economic cycles: Economics is one of the few subjects that studies cycles in the large in our sense. Our situation resembles that of the economist, who discovers ‘cycles’ through periodization, and whose models, discovered looking backwards, must end in the present. Predictions may be possible up to a point, but free action can always in principle falsify them. Note thus that a cyclical economic dynamic changes its character in the present. This is the exact situation we find ourselves in with our eonic model. However, it is not an economic question.

Looking backwards... Economies are observed by a free agent looking *backwards* toward the past. The agent is embedded in and subject to the cycles, and able to use his observations to change them. Thus the mechanics of this dynamic becomes unstable in the present. Momentum may overwhelm free choice, but in principle choice is there. The past is a ‘might have been’, but now fact. This is the right exemplar of our distinction of eonic determination and free action, here, economic cyclical action and free agency.

7.5.2 Is There a Postmodern Age?

The student of the eonic effect casts an ironic smile on the postmodern idea. Although the term has created considerable confusion and debate, its usage proves itself by the spontaneous sentiment with which it has come into existence. We note that it is a term of periodization, invokes an epoch or age, and indirectly asks us to define what it comes 'after', i.e. to define what we mean by the modern age. But the term 'postmodern' in many ways is a fine term suffering a botched definition. Instead of indicating a reasonable suggestion to stand back and look on modernism as a whole, it tends to be taken as indicating a rejection of the modern, and the too facile hope one will simply rewrite the whole of modernism with a new beginning. The critique of 'metanarratives' is nonetheless a powerful one, for, as we see, a directional system might reflect a deeper teleology, but the two are not the same. The question for us is one of periodization, not the content of 'postmodern' philosophizing as such (which might show dialectical cousinship with the Enlightenment).²¹⁷

In many ways a 'postmodern' work in a true sense would be, say, *The Communist Manifesto*, this irregardless of one's ideology, or stance on the controversial issue of private property, in its critique of the modern *transition* and a subsequent aspiration to redirect that transition as an ideology or universal history of freedom. That's a good idea, or a very bad one, but, whatever the case, nothing in our model forbids it. The modern should be distinguished from the threshold or transition that created it. And the term 'postmodern' really should be 'post-transitional'. That perspective neither affirms nor rejects the 'metanarrative' of the modern, but considers the relation of historical transformation and the free realization of that potential. The postmodern is taken to mean we sense a problematic with that realization. But the result should not lead to the rejection of the historical source, for, as with the Industrial Revolution, its ratchet effect on history is fixed. Our aim should be the disposition and realization of the given, without succumbing to the idea that it is fixed.

These questions in the debate are difficult to answer unless terms are defined over the course of world history. A simplistic postmodern gesture reacting against modernism will induce a kind of jackknife of a system with itself, and in fact we see that in the disastrous effects of the Bolshevik experiment. Our 'eonic' definition resolves the paradox, if you accept the definition suggested (which we might call 'eonic modernism' or 'eonic period modern'), and adopt a perspective on world history as a whole, and take 'modernism' as a transformation relative to world history, starting in 1500, with a divide at around 1800. Then, if you adopt a view concerning a dynamic of history for this definition of the modern, and if this dynamic is discontinuous, the 'postmodern' automatically arises with increasing distance from the dynamic era. It is stunning to see actual philosophers arising in this timing and, although our 'by the book' chronology seems to affirm the basic modern, we might tiptoe over to these postmoderns to see what they are up to. More eonic data! They are eonic observers, of a sort. Thus a postmodern gesture is both natural and yet open to chaotification in the sense of rudderless 'going off on a tangent'. A full postmodern agenda would be to assess world history as a whole, and there the perception of a metanarrative might as well be the right approach!

Postmodernists are really reacting the ideological teleologies that invariably bungle the job without something like our distinction of two levels.

We can adopt a simplified definition here, one that distinguishes

1. the modern transition, 1500 to 1800

2. a divide near 1800

3. a plain vanilla period starting in the nineteenth century. Note the postmodern is not defined here, but rises as you look backward toward the modern, i.e. transitional era, followed by the realization era of this modern transition. The 'modern' period is really two things.

In fact, noone owns the term 'postmodern', and Toynbee was one of the first to use it, so there is no ideology with a monopoly on the word. He is challenging the whole modern age, it seems, in a confusion of retrograde thinking. A rightist 'postmodernism' is surely fallacious, and is a warning the leftist ruminations on postmodernism will be cheated of their concept, *à la* the Toynbee declinist with his confusing mix that really still begrudges modernism its very existence. If you wish to decline, and erase the modern advance, noone is stopping you, except those who would rather not be on the other side of an impregnable boundary, e.g. the Thirty Years War, after which the secular as social pluralism became fixed. To do that right, you must renounce modern economy, no more rights of man, democracy. Check all the papal bulls between, say, 1524, and 1900. Toynbee was very confused, yet he got one thing right: the system is moving toward a greater global integration, beyond the local stepping of 'European' civilization, which might decline in some sense. There is only one civilization, that of man as man, a point quite clearly made in the Communist Manifesto, quintessentially modern and postmodern at once.

This, and much else, spills from a thimble of eonic analysis, with its powerful integration of period concepts in one rubric. There we see the exact analog of the 'postmodern' in its previous incarnations, e.g. the Hellenistic period coming after the flowering of Classical Greece, a grim reminder. It is worth remembering the Hellenistic example (forget Spengler). Within a few centuries ancient man lost everything, it would almost seem. In fact, although this analog is correct, it can be misleading. The modern world has the potential to create permanent advance, where antiquity was still too diffuse to maintain the stupendous level reached in a few centuries by the Greeks.

7.5.3 Evolution and The Idea of Progress

The idea of progress has fallen on hard times, but we can easily rescue the core concept as 'eonic progression' distinguished from the ideologies of progress that rise and falter in the wake of a transition. It is not surprising the idea creates problems, since it is a case, once again, of using the output of the system to explain its dynamics. But any process of evolution, *almost by definition*, is 'progressive' in some sense. Only the hopeless confusion of Darwinism could have obscured this issue.

The point is clear using the eonic data, as long as we are careful to see the problems involved in 'moral progress'. S. J. Gould in many works launches a near tirade against the idea. The case of evolutionary progress in deep time is beyond the scope of our data, as used here, so we will not speculate, but the thesis of random evolution is not proven by Darwinists either. The challenge to progress is par for the course, in one way, but it is a question of the facts, given a tracker-approximator. That we don't have for deep time, in the fine-grain of the eonic pattern. The objection is made, often using clichéd versions or images of unilinear progress (e.g. cartoon sequences from apes to man), that evolution shows many divergent sequences. But that is no objection to progression over the long term. As we can see from our eonic data there is a leapfrog process, and system return beyond divergent sequences. Darwinism allows no possibility of 'natural teleology' and the results are given over to paradox.

For us the idea of progress is a classic eonic emergent, almost a double emergent. As noted repeatedly, we can't use it, strictly speaking for theory. The 'eonic sequence' shows stepping progression, and 'ideas of progress' are action scripts and eonic emergents. These relationships allow us to apply a dialectical discourse to the idea as relative free action. That debate will simply reduce its theoretical usage to equivocation. Because of the correlation with the transition and divide, a postmodern or other critique of the idea is thus entirely apt, but misleading, while the recent diatribes against it by evolutionary theorists are off the mark (certainly as far as history is concerned). We have a complete method to illustrate how progress can (seemingly) stop and wane, e.g. in the medieval periods. Note how our terminology explains at once how the 'eonic determination' of the idea of progress turns into the idea taken as someone's 'free action' in a post-transition. That seemingly arcane statement is directly verified in modern times as the idea is championed and then turns into ideology, then suffers reversal. Between postmodernism and current versions of Darwinism, an immense literature on the subject of progress has fallen by the way side. But the idea of progress is a classic 'eonic emergent' and the classic case of an action script. Right on schedule as the modern transition wanes, the idea comes under attack. Like clockwork. Micro and macro teleology diverge.

The now 'antique' literature here will resurface sooner or later, enriched by a postmodern critique, and the biologists' demand for clarification. It is fascinating that J. B. Bury's classic *The Idea of Progress* sees fit to begin in the mysterious interval between the death of Machiavelli, and the philosopher Jean Bodin a generation later, as he casts off the 'cyclical theme and variations' of the idea of the Four Kingdoms and sees the three stage periodization of world history in a progressive mode, roughly corresponding to the Mesopotamian, classical, Mediterranean, and European stages. This arrangement of Bury's account is altogether apt indeed, and proves one aspect of our thesis, that the appearance of historical ideas themselves often corresponds self-referentially to the pattern we wish to point out. The idea of progress was essential in the labor of birth struggling against the inertia of antiquity. Part of the difficulty is the use of the idea of progress for ideological purposes in 'banner of the regiment' meanings, thence to expect it to have theoretical standing unsullied by its history. The relation of slavery

and warfare, and other negative aspects of the modern transformation, to the idea of progress requires careful redefinition, in order to rescue the basic idea to the creative ferment of 'real progress in action.'²¹⁸

The idea of progress has deep roots in the Zoroastrian legacy. But Theodore Olson, in *Millennialism, Utopianism, and Progress*, criticizes the assumptions of the idea of progress, as the doctrine that "there is a blind force, uncontaminated by historical contingency, dedicated to the continued improvement of man [that] is the central affirmation of the notion of progress". This engages the issue perfectly. Defenders of progress often fail to answer to this sort of objection. He complains that the persistence of this idea can only be explained by its manifest convenience, and declares the notion to be at root a form of incoherence, a variant of Fisher's lament. The problem is that we have found, not a blind force, but at least an evolutionary process that resolves its paradoxes. Although it is certainly true that proponents of the idea of progress do not often realize the difficulties of their position, use the idea ideologically or in a *salto morale*, and suffer the confusions of this fact, Olson's statement is as open to challenge as the view under fire, for its assumption is that there is nothing to drive progress. If we suspect that there is, the argument fails immediately.²¹⁹

The eonic effect reveals the evidence that there is. 'Progress' as eonic progression shows itself clustered around three great turning points of history, the last of which gave birth finally to the idea itself. But as we begin to realize the existence of an historical patterning, we can easily misapply the idea of progress to its explanation, but to deny completely the progression as progress of civilization from the time of Sumer would be almost absurd. That issue is not the same as 'moral progress', quite another question.

Eonic Progression and the Idea of Progress We must distinguish eonic progression, from the idea of progress, as this confuses the idea of a 'law of history' with the potential of 'free action', as indeed these are entwined during the period of acceleration. The idea of progress is a joyride emergentist free action script caught in metonymy of part and whole. Further, the idea of progress is a preeminent exemplar of what we call an eonic emergent, appearing, in direct correlation, during the rise of the modern transformation. Suddenly we see that the idea is suffering a level confusion, and might suffer it in our account. Keeping straight the ironic meaning of 'eonic evolution' and one of its emergents, if this is applied self-referentially to itself must require some unknown new form of 'escher-hand' theory. And thus the issue of progress is indeterminate, for we are ourselves are creating our progressive means, even as the process of history moves through one of its great progressions. We can see progress without its idea. In antiquity we see the idea arriving at the threshold of being born during the time of the Greeks.

Progress, Postmodernism, The Holocaust Our data throws a new light on the enigma of the Holocaust. We need to make one important observation: note that the Holocaust is well outside the eonic sequence, and falls into the rubric of 'potential chaotification' as 'free action' in the wake of eonic determination. Nothing in our eonic account can either justify or explain this psychotic episode. The question of Jews and Christians has already been displaced in emergence of secularization. It is hard to think of a people better adapted to the modern transition than Jews.

It is not too hard to see what is going wrong. Let us recall that Hitler was an extreme anti-modernist. One of the most incomprehensible aspects of modernity is the sudden appearance of the Holocaust, an unprecedented historical fiasco whose causation is, and remains, an historical mystery. In general the sudden nose-diving of modernity in the period starting with the First World War is taken as grounds for postmodern rejections of the whole modern transition, a counterproductive assessment that will only make matters worse.

Even a cursory glance at our eonic pattern would suggest that it never triggers destruction of this type, and the Judaic stream is a major one. An immense evolutionary substream was almost destroyed in the passage. In general, the twentieth century is taken in evidence, often by reactionary thought, as grounds for rejection of modern civilization. The charge is off target, and we must suspect that it is only reactionaries who are obsessed enough with the Judaic issue to foment destruction of a whole people. Whatever explanation we bring to this enigma, Big History is not at fault here. The Holocaust was a counter-evolutionary fiasco, and symptomatic of a system out of control.

To indict modernity for the Holocaust is altogether a recipe for still further train wrecks. Modernity is a *fait accompli* and the only way past that is to transcend it, a difficult task, rather than to undo it. Our system has done its part, and is done. We cannot indict it for the outcome of ‘free action’ as this falls blindly into the black hole of ‘radical evil’.²²⁰

Note: Radical evil One of the later developments of Kantian thought is the thematic of ‘radical evil’ in relation to his moral theory. This legacy has a number of problems associated with it, and is the object of a considerable commentary by figures such as Hannah Arendt. We tend, justifiably or not, to use the term stripped from its Kantian context, which requires a considerable groundwork. In our terms, given the matrix of eonic determination and the ambiguity of freedom as an evolving process, we can take ‘radical evil’ as a problematic for such a system as a ‘starting point’ for emended commentary. We can see the issue very simply in terms of the obvious potential for unexpected derailment of the ‘will’. Here again, confusion of ‘will’ discourse can enter our separate discourse on history. But this reminds us that our eonic sequence, by hypothesis, has recently gone into shutdown, which means the future is not locally subject to determination, except via carrier eonic emergents subject to antinomies of teleological judgment, and the situation is like a ‘bad pointer’ in a computer program. The system’s future is suddenly undefined.²²¹

7.5.4 The Case of the Missing Centuries

We notice from our examination of world history the double appearance of Scientific Revolutions, and in clear correlation with our cyclical enigma. This example give us a perfect example of the stream and sequence effect that ratchets science up to its real place in world history, in the process preempting its dying out!

Over and over again we find in the accounts of an historical process the need to work around or explain the existence of the eonic effect as if in disguise, in the form of a consideration of the cyclical nature of the long-term emergence of a process or cultural evolute. The case of science and democracy are two examples. More specifically, author after author is forced to begin his discussion of origins in the period of the early Greeks, continue his account for the duration of this period, and then, without notice, jump to the modern world to complete the 'evolutionary' account of this process or historical sequence. We should note, having invoked the Darwin debate, that the 'evolution of evolutionism' also shows this double emergentism, witness the birth of the idea of evolution, not first with Darwin, but with the Greeks. Notice the timing of all of this.²²²

In general, the most striking example of this perception, finally explicit, and one that is driven to an attempt to wrestle with a 'law of evolution', whether successfully or not, is Arthur Koestler's *The Sleepwalkers*, an account of the rise of science, or more particularly, the physical and cosmological sciences, whose history fits over the eonic effect like a glove. It is a fact that every history of science must reckon with. Less frequent than it used to be, denigration of the Middle Ages explains nothing, indeed omits the not inconsiderable developments in this deep source. But there is a clear discontinuity in any account of the rise of science.²²³

Koestler's account, notwithstanding its 'debunking of medieval darkness', is interesting for its extremely stylized outline of this pattern, and one whose particulars we do not necessarily need to accept, as it begins with the 'heroic age' of the Ionian Greeks, finds a 'dark interlude' in the period of the Middle Ages, and resumes its discussion in the sixteenth century with Copernicus and the 'watershed' era on its heels in the seventeenth century with Kepler, Galileo, and finally Newton. This pattern is evident in almost any history of science, and is not contradicted by the tremendously important alternate view that there were important prior developments in the Middle Ages. But it is useful to accept the broad pattern to see it for what it is, the more so as its obvious correlation with so many other parallel developments in the rise of modernism show that the phenomenon is not a fluke, *and has nothing to do with science*.

The pattern can be extended backwards, in this as in so many other cases, to include the period of the rise of proto-science in the Mesopotamian and Egyptian periods, although here we do not see the critical period near the beginning, ca. -3300 onward, and cannot distinguish the earlier and later growth of this pre-science. But we can easily find the fall-off and gap in other aspects of culture in the period -2000 to -900. But the sudden discontinuity occurs twice, first among the Greeks, most notably, and then in modern Europe, both fringe areas for their time. The overall suggestion is of a recurrent emergence phenomenon.

This cyclical structure in the history of science itself is only one, but one of the most notable, examples of the actual discrete evolutionary process in action in the realm of human civilization, and its artifacts of science, philosophy and art. As Koestler notes, the creative rise of Greek science that had started ca. -600 as a 'Promethean venture', had, by the end of the third century BC, completed its most creative phase, losing its reputation as it began to fall into decline, to the point of being almost forgotten, for a millennium and a half. In his words, there is only one step from Archimedes to Galileo. He gives the image of a destroyed bridge with rafters jutting out from both ends, with a

void in between. His explanation of this distressing gap is partisan, quite understandably and quite forgivably, to the viewpoint of the rise of science, and sees the cause in the 'breakdown of civilization' in the Middle Ages, and in the distinction of spiritual and material as such, the retreat from material considerations in the religious medievalism whose dominant outcome seems so surprising after the brief surge of progressive culture in the transitional era of the classical Greeks.

One difficulty with Koestler's account is the thesis, so frequent in the many accounts of medievalism, of a 'breakdown of civilization' where there was none to break down, the fringe area of Gaul, Germania, and northern Europe having been relatively marginal throughout the classical era. It is the breakdown of the classical period in its own area that cannot be confused with the fringe growth emergence of the European. The history of science allows no geographical component, and yet tempts us to avail of its implicit assumptions, in seeing the rise of science from medieval technology, or such. In fact, we see a process that is periodic, and not only this, but in different places, at different periods. This point may seem debatable, but the fact is that the zone of the first advance and the resumption of advance are two completely different cultural geographical zones that we connect with an abstraction: 'Western Civilization', a strange entity with no easy map, for it refers to a tradition, or temporal baton effect, that passes through the Islamic world to maintain its continuity.

The second comment one can make is that the distinction of the material and the spiritual is not really the issue. We will see that this distinction applies reasonably well to the Greeks, but not to the creative period of the Persians and the Israelites, nearby, to say nothing of the Indian and Chinese Enlightenments occurring simultaneously. The issue of the decline of science is seen to be far more complex than the passage from worldliness to otherworldliness, although these express very well 'symptoms', to the partisan, of the phenomenon. For the same phenomenon of falloff is evident in what would be considered spiritual phenomena also. If we compare the period of Buddhism and Jainism at their birth with that of the Vedantic Hinduism of the Indian medieval period, we could well wonder what is going on. What *is* a middle age?

It is in the epilogue to *The Sleepwalkers*, that Koestler, a well-known Darwinian critic, begins to really consider, somewhat more cogently, what is really involved in this long cyclicity of the 'spiral, or jump-start emergence' of science. Seeing that the model of continuous progress in the development of scientific knowledge will not work, he notes, "There occur in biological evolution periods of crisis and transition when there is a rapid, almost explosive branching out in all directions, often resulting in a radical change in the dominant trend of development." And then he notes that this process seems evident in the evolution of thought in the period near the sixth century BC and the seventeenth AD. This perception of two steps in a sequence should of course drive us to consider the question, for which we do not have sufficient data to really answer, of the early period of Sumerian civilization in relation to the rise of 'proto-science'. It is there, but we do not perhaps recognize it for what it was, not yet recognizably the form of science as we know it, with elements of writing, commercial reckoning, astronomy, socio-religious politics, and divination mixed together as the political mythology of the first forms of the state.

7.6 Beyond Darwinism: A Theoretical Self-Defense

Darwinian thinking has caused great confusion in the study of history. Our result grants a self-defense against claims of science in the confusions of Darwinism applied to history. History with its rich concert of values must be the standard of evolutionary interpretation, not the reductionist programs of stripping evolution of all significance in the mechanization of all processes.

The use of the term 'evolution' might prove a stumbling block. Nothing in our data requires the use of this term, but by a process of elimination that's all we are left with. Slowly it dawns on us that this is the right concept, taken descriptively. The discovery of this pattern must confound us, in its magnificence, and stealth action, and induces a kind of double take, what are we seeing? An unnamable Something operating globally over tens of millennia, able to remorph whole time slices of culture in one evolutionary eye blink. What *are* we seeing? We can ascribe no agency to this X. It seems impossible. Yet the evidence is overwhelming, whatever its interpretation, once we have focused our perceptions with organized periodization. Short of such interpretation, our method is beyond reproach, the opinionated foibles of an eonic observer apart. These could be replaced with volumes of precise tracking data, and a project of 'dialectic' to unify, perhaps, the contradictory productions of eonic emergence. But we can merely point to these contradictions, and still make our case. And we are done without indulging in the distinction of 'spiritual and material', set aside as a species of pidgin talk, often with reference to the nth god name sequence. Set aside, but never replaced. We can hardly hope to reform the linguistic habits of millennia. A Kantian tune-up, or the formulation of a Schopenhauer, at least allows us to slip away from the distinction. We tried hard, but a Cartesian dualism seems destined to persist as a basic human confusion.

Armed with nothing more than simple periodization, pointing to, we have detected a system rich in structure and almost fantastic subtlety. Propaganda and a failure to examine history as a whole has blinded us to the obvious, once seen. Our eonic model gives us the means to stand up to the misleading claims of Darwinists, and expose the social agenda this represents. The same can be said for the accretions of mythology arising around the emergence of monotheism. This theoretical self-defense allows us to challenge claims for science in the promotion of Social Darwinism by the violent gangs of flat history, given a free gift of theory in the presumptive teleologies of social conflict.

This elegant outer simplicity gives us at least a powerful sense of the coherence of history, and a transparent clue to the meaning of evolution. What's more the significance of the Old Testament falls into our lap in something like its real meaning. Although incomplete our perception of this awesome driver climbing Mt. Improbable shows us the unmistakable evidence of something larger than the temporal happenstance of the historical chronicle. As the pieces of a puzzle come together to show a fragment of meaningful significance we suddenly detect with the most ordinary sense of widget-recognition the operation of a dynamic of prodigious scope and nothing short of Gaian range. An overwhelming sense of design arises spontaneously, and yet, oddly, any design

argument fails, as we are left with a bare systems analysis of an 'evolution of some kind' that fulfills exactly, yet outstrips, the category of 'self-organization'. No designer would operate with a discrete-continuous method, but pursue the emergent clusters to mideoic completion.

This result must stand as the severest challenge to conventional Darwinian assumptions, both as to history and the emergent evolution of earliest man. Armed with the data of the eonic effect, and the eonic model, one can free oneself from the misperception of history created by Darwin's theory of natural selection. The most we can find is the 'selection' of evolutionary advance regions, but these are immediately balanced by generated instruments of explicit ecumenization, in some cases these were actually religious formations. The long-range action of our system clearly moves to bypass the down-shifting outcomes of the 'survival of the fittest'. 'Evolution' is about a whole species, and beyond that a stream of primates, not a privileged subset.

We have discovered the factor of directionality, hence teleology, but this is balanced with the factor of realization. The abuse of teleological ideology that overrides ethical considerations has no place in this type of model with its discrete series, and distinction of macro-action and micro-action. The latter cannot fulfill some phantom of teleological futurism via the voiding of ethical judgments.

In any case, a theory of evolution in closed form is probably impossible: the limits to our perceptions, in this case at least, are built-in. We can't concoct universal generalizations and then impose them on history in the name of theory. All we can do is approximate evolution in action over observed intervals of time. The suspicious appearance of a formal schematic roughly isomorphic to elementary 'transcendental idealism' should give us pause on that score. We have produced no 'deduction' of this 'ism', but we do have a gestalt that matches its requirements at a stroke. And we have wasted no time on futile discussions of idealism vs materialism, a basic 'material' phenomenology being sufficient, whatever its basis. The eonic model, despite its accretion of a few extra assumptions, delivers us from the contradictions of continuity and discontinuity notions, however useful heuristically, and allows us to adopt an empirical approach based on a schema of periodization, one of exceptional stability, in a short range. Since we are confined to this short range, we adopted a stance of relative motions, relative beginnings, and relative free action in that context. We don't have to derive anything from string theory or prior stages of evolution. Darwinists may not interrupt this island of significance with sophisticated pseudo-arguments about deep time, which they have not observed to this degree. There is no mystery to our success with simple means: the mechanical and the value domain must intersect and resolve their contradiction, and we see the remarkable result in practice. Our brand of 'methodological naturalism' saw no need for a rigorous separation of facts and values, save only the critical dualism of causality and freedom, which we abstracted in a two-level model that bypassed any claims for a transcendent plane.

Contemporary historiography frequently dismisses such projects of universal history with a distinction of 'empirical' and 'speculative' history in the aspiration to a

science of history beginning with the 'empirical'. And it would be quite natural at first to consider the eonic effect a speculative venture bordering on the metaphysical. But in fact we have turned the tables on the proponents of flat history, outsmarting in the process the usual ideologies that grow around this natural belief of flatlanders. For, if we review our method, we see that our basis has been empirical, cataloguing a series of breaking fronts of innovation, suspecting their interconnection. We merely claimed that if we lay down a grid or timeline, we see a clear and overwhelming correlation of clustered data, data we called 'eonic emergents'. This non-random pattern becomes almost self-explanatory, as we form a complex gestalt of a system operating, we suspect, in a frequency. It is the flat history assumption that is speculative. The facts show something else. The result is to see the chugging cycles of a locomotive driving the emergence of civilization in an alternating rhythm of epochs.

And it prompts us to consider the issue of causality directly, over the whole of history, and this in the context of the idea of freedom itself. The result was the discovery of macro-historical directionality, that can only mean a teleology we suspect, but do not fully see, which transforms the very idea of an historical science into a larger framework. In the process we have discovered the subtle echo of that larger framework in the kludge of 'transcendental idealism', so perfectly suited as a companion to Newtonianism, and whose implication was that the dynamic of motion stood in a close analog to a phenomenal/noumenal distinction, and that the appearance of the eonic effect at the limits of our knowledge veiled that dynamic beyond those limits. We thus lost our science at the point of finding it, and defaulted to a time-and-motion model of transitions, operating in concert with the correlated manifestations of that hidden dynamic. The antinomy, that there must be, but that there cannot be, a science of history, is satisfied both ways by our schema. For we have found the causal line to have been directly implicated in the generation of freedom. Thus our system reproduces the contradiction, and uses it for its own mechanics. In a *tour de force* our system even offers one glimpse of freedom generation in the large, in the discrete freedom sequence, in a very precise timing, a striking confirmation of our method.

Taken just thus, the burden of proof falls on those who propose the flat history thesis, left with indigestible randomized incidents and isolated causal fragments, unmindful such a Newtonian analysis should require a 'force' analog. But that they cannot find, while in the eonic effect we have found just that, although the language of 'force' is one we should think to pass beyond. We can see that any 'science' (and we have made no claim to complete such a science) must therefore confront, and explain the eonic effect, venturing into the curious worlds of the 'science of freedom'. True, we have been forced to assess our data with complex forms of judgment, not just theoretical, but ethical, and aesthetic. But it stands to reason that this was always unavoidable, the hopes for a numerical parametrization as a prelude to model formation being what it always was, an idle fantasy.

Our starting point was the Darwin debate itself and its legacy of chronic equivocation over natural selection. Great confusion arises over the 'fact' and 'theory' of evolution. The evidence points strongly to the reality of evolution as seen in the fossil record, but the claim that natural selection completely explains its dynamic has always been subject to challenge. Darwin's theory arose in the tide of positivistic scientism, and

many significant issues are simply bypassed in the ambitions of reductionism. The factor of consciousness, and beyond that the evolution of ethics, or an ethical agent, is never properly addressed by anything more than plausibility arguments thrown at unobserved periods unknown to us in detail. And here Darwinism naïvely ignores the unforgiving ‘metaphysics of evolution’, the basic antinomies of divinity, self, and free will, exposed by philosophers such as Kant, which set limits to the possibilities of knowledge at the boundary of the unconditioned. The question of even defining an organism, let alone its evolution, is likely to defeat the early efforts of biologists to map out the space-time nexus of developing creatures.

The improbability of random mutation and natural selection performing the task of evolving complex organisms has always haunted Darwin’s theory, which can’t even define the organism to be evolved. The defensive claim by biologists such as Richard Dawkins that natural selection is actually non-random, shaped by its environment, misses the point, and changes the meaning of the terms. Non-random evolution, able to climb Mt. Improbable, should take the form of macroevolution in some sense, and we are left wondering if we are not missing something, the ‘missing force’ driving evolution. In the data of the eonic effect, we have found exactly that. Darwinism suspiciously resembles a misapplied ‘Newtonian’ science where the second law of motion is confused with the first. What we think is evolution might really be microevolution, the horizontal differentiation of forms under the regime of bare survival. The uphill of evolutionary advance might show the sudden appearance of some other process. This possibility is simply withdrawn from consideration because it raises the possibility of evolutionary directionality, or even teleology, and violates the canon of the four basic physical forces.

It is significant that the real founder of evolutionary theory, Lamarck, naturally posited two processes or levels to evolution, these being reduced to the single level of natural selection by Darwin. We are left to wonder if our observations of evolutionary emergence run true, and actually detect the process at all. Conjectures about punctuated equilibrium fall naturally into this uncertainty. The vistas of deep time are an almost unimaginable expanse, and it is all too easy to project backward a ‘likely explanation’ or ‘Just So Story’ based on the convenient inference of natural selection. But the fact remains that we have barely observed this realm of primordial time. We have enough evidence to detect the fact of evolution, but close range observations, sufficient to track the course of natural selection over many generations in designated geographical regions, is missing, and any theory demands this higher standard of evidence. In fact, the standard of historical chronicle suggests that ‘how things happen’, at least with respect to human evolution, requires a very high evidence density, ‘facts’ at the level of centuries or less.

We have virtually no data sets that match this requirement, with one exception, world history, the chronicle of the emergence of civilization, now seen in the light of the archaeological revolution, showing us a relatively detailed record since the invention of writing, and an incomplete but still usable history beginning with the Neolithic. Although we naturally distinguish in our minds the domains of history and evolution, there is an obvious relativity to the distinction, and we cannot exclude the possibility that evolution and history overlap, and that we can find evidence of evolution in historical times, or,

conversely, that the real 'beginning of history' lies in the earlier periods of the descent of humans. If we distinguish the two, then a paradox arises: how does evolution become history? There ought to be some sign of a transition between them. In fact, the evidence of the so-called Great Explosion is highly suggestive in this regard. But since this transition would by definition be a unique circumstance its evidence, if any, would show a change in direction, or an intermittency, as it interacted with the basic continuity of evolution. This would be visible as some kind of non-random patterning of evolutionary data, and, if we were lucky, alternation in a series. It would be worthwhile to subject world history to a careful randomness check, to see if our data shows any signs of a non-random pattern, or the tail end of this possibility.

We don't have far to look, and discover that our work has unwittingly been done for us by historians. World history always had a suspiciously clustered character to its chronicle, witness the clear perceptions of advancing and medieval periods. We have an immediate clue to a non-random pattern. And this can be seen from two perspectives. By trial and error, under the assumption of discrete alternation, we discover very easily a non-random sequencing based on an interval of about 2400 years. This can be calibrated around the years -3000, -600, and 1800, these dates taken as tokens of an interval of transition of some kind. Periods of strong innovation and seminal renewal occur around these intervals, with strangely sluggish intermediate periods. We cannot ascribe this to chance. From another angle, the second of our intervals begins with what scholars have come to call the 'Axial Age', the extraordinary pattern of synchronous emergence across the Eurasian land mass, from Rome to China in the interval from ca. -900 to -400. A spectacular period of simultaneous advances achieving a new order of civilization occurs in a very short period of time, and then, unexpectedly, shows a distinct fall-off in its creativity. Almost as significant as the phenomenon of the Axial Age is the history by contrast of what arises in its wake. It seems as if an age period has been set, and the advance slows, as the system realizes the potential in the period of its transition. It is in this context that we see the significance of the rise of the modern. It is, as it were, the 'next' Axial Age, the sudden emergence of a new stage of advance, in a precise timing, and generating a new phase of civilization, now as a global oikoumene. Suddenly the era leading up to the Axial Age becomes transparent as we move backwards to find the first of our 'axial' intervals at the birth of civilization, in reality, the first visible transition in a mysterious series. It is probable that we can keep on moving backwards, but we begin to reach the limits of close range observation required for our analysis.

We called this overall perception of general sequencing in world history the 'eonic effect', and it qualifies very easily as a non-random pattern. It is much more than that, but to a first approximation, we see that in the one interval of historical evolution for which we have centuries level data the thesis, and assumptions, of randomness fail completely, leaving us with the unsettling suspicion that missing something in the prior eras of the descent of humans. A phenomenon on this scale cannot sit easily with conventional assumptions about evolution. Indeed, the data confirms our hunch that the passage between evolution and history should take form as a series of transitions, in the alternation between 'evolution dominant' and 'history dominant', in a braiding of periods expressing a kind of 'evolution of freedom'. This 'eonic evolution' forces Darwinian thinking into a photo finish test, one that it fails, for the data effectively falsifies the basic claim of Darwinism, the efficacy of natural selection, as far as history is concerned. We

can see that the eonic effect shows the way that history is brought to bypass the horizontal outcomes of such a microevolutionary process.

7.6.1 The Meaning of Evolution

Even as we conclude our demonstration of this mystery we call the ‘eonic effect’, we must be wary of fixation in a simplistic conclusion among many conclusions or a stirring and enthusiastic introit to a new ideology. This arises because our perception of the eonic effect is out of focus and requires closing on the limits of observation, an immense task of study. At each stage of our description we have expressed a judgment or assessment of the meaning of our evidence, in the process selecting a path through a greater totality. Although the result is sufficient to describe, by pointing to, a system larger than ourselves, its potential is vastly greater than the outcome of our venture as eonic observers. Indeed, we have seen the way that the emergence of science shows the effects of macro-action as eonic determination. Since the activity of science is basically in the stream of micro-action, while its greater history shows the signature of macro-action, it would follow that the activity of scientists themselves is insufficient to set the directionality of the evolution of science itself.

This is a challenge to our objectivity in so far as the history of science itself is seen as a dependent process in the eonic sequence. The terms of our discourse are themselves output of our system, and therefore our knowledge itself is insufficient to produce a theory of the system’s action. This question, as we have seen already, haunts the conclusion of our eonic sequence as the ‘dialectic of freedom’ becomes a decidedly ideological conflict in the collision of emergent liberalism and the greater left that emerges in the nineteenth century. Thus, although we cannot claim the basis of our model to be free from ideological affirmations, we can say that our method is so comprehensive it forces us to summon up all the opposites in tandem. It is in this context that we have brought in the idea of an ‘eonic observer’. This observer, in the wake of the modern transition, is forced to select of strain of emergent themes in the overall manifestation of modernity, through which to assess the whole. Build ye not houses of straw, saith the philosopher Hegel, as he proceeds to concoct a system that will sublimate the history of philosophy into a unity of the Concept. We took due note, going our own way, mindful our eonic observer should transmogrify to the shifty-eyed eonic observations of the *sans-culottes*.

Our model is designed to not get in the way of ‘current action’: no theory with an Oedipus effect needs to be computed in the present. You have no contact with the eonic complex seen in the model! Your business, a set decision to do theory apart, is with the eonic emergents it indicates. We called these streams of ‘practical reason’ action scripts.

Liberalism A good example of this might be the emergent liberalism so directly associated with the modern transition, sourcing after the Thirty Years War in the seventeenth century, then cascading just at the point of our divide. A classic

eonic emergent, i.e. it shows correlated timing, and we can see how the general tone of modernity settles into this gear almost immediately. That this 'ism' has multiple shifting meanings, suffers challenge from the later left, and turns from radical to conservative ideology mixed with economic thinking is no contradiction to our perception of its eonic status, looking backward, mindful of normative affirmations about the future. This gives us a mainline default 'action script' for our modern transition, but watch out, this one is tricky: in our fuzzy eonic map Karl Marx is a curious sort of liberal, also. Or not. Two new kinds of crypto-teleological fallacy, the Hegelian end of history, and a sort of economic teleological myth of markets, haunts this script, while our model reduces it at once to 'eonic emergent', no more, no less. Marx and Hegel/Adam Smith with grim precision give expression to the antinomies of teleological judgment in this instance. After we complete our account, it will be your move. The liberal action script is not a stable outcome.

Tracing the post-transition We pick this example for its centrality, and as a reminder that, before we can use the eonic model, we need to trace the later history of eonic emergents in the wake of the post-transition. We need to see the paradox arising from the very fact of the eonic sequence: the possible mechanization of outcomes in the wake of the macro transitions. We can't just be 'liberals' we must be eonic observers bringing self-consciousness to the rapidly crystallizing forms of the post-transition. Our system is going to lapse into mechanized outcomes. We could restate a leftist perspective as the spontaneous need to produce a meta-liberal, as eonic observer, and agent in the wake of the eonic sequence, etc,...

We have brought 'evolution' into our near present, yet how do we perceive it? As a dialectical cloud of eonic emergents (already downshifted into micro-action) split into fragments. We have no direct perception of 'evolution' beyond this higher level analysis of historical emergentism, and it grants no ideological finality to our assumptions of action.

Our model is designed to fret the music of a universal history, but does not get in the way of the data. We don't start analyzing cultural categories to find their mechanics in a set of abstractions aiming at science. We simply see the contrast of the macro and the field of free action whose elements are predigested by the eonic sequence, quite user-friendly. The facts of the case in each cluster we call an eonic emergent require setting aside the model in order to study the details. The great ideological collision of liberalism and the far left in the nineteenth century simply enters our data set in toto, leaving us to zoom in and study its history. But our framework clearly exposes the claims of theory on universal history of false economic generalizations and/or the Marxist economic interpretation of history. Smithian laws of economics and Marxist theories of revolution both fail the test of our eonic sequence. Both are better off rewritten in terms of the eonic model. Strange circumstance! We end up embracing sets, or chords, of opposites.

Most of all our method should graduate to projects of study. Just tracking the fate of the eonic emergents arising in the early modern to our contemporary times is an immense task. Consider the biography of the term 'liberalism' in the period from the Enlightenment to our present. And this is a reminder that such projects are very difficult

for earlier periods. By the time we catch up with the 'eonic emergents' of our earlier eras, they have turned we can be sure into ideological complexes. The Old Testament emerges from disparate sagas almost fully formed as a complex package in the wake of the Exile, and we cannot easily produce the resolving power to see what forgotten but seminal sources it codifies in a new religious ideology. And the centuries between the appearance of Pharaoh Narmer and the Pyramid Age (our putative expression of a civilization called 'Egyptian') are nearly a void. The transformations, or reversals, possible in that lost sequence must caution any simplistic analyses. We can see from the modern transition that the character of system's expression really requires decade's level data, not just the centuries level standard we allowed ourselves to demonstrate a basic pattern.

It is also important to see that just as our 'New Age' is getting underway, our system transits from macro-action to micro-action in the conclusion of its transitional passage. It downshifts immediately to a lower octave, even as it begins its reversal from localization toward globalization in this mechanizing lower octave. The result might be that a gang of thugs becomes the agent for the critical passage from the era of seminal transition to the formation of its oikoumene generation. We can see why our modernity seems to get off on a wrong foot, and the way in which potential and result, easily seen in the sudden dominance of a new form of economic civilization, produces the turbulence of the new era.

Nonetheless our eonic model does indicate our precarious position with a useful abstraction in our concept of evolving freedom. Despite the contradictions and ideological histories of this idea, we are left armed with a practical insight into the nature of historical action in the context of the descent of humans. Our end is thus a beginning, and that is the self-evolution of man beyond the eonic sequence into history itself, in the wake of what would seem the probable shut down of a massive macro-evolutionary episode in the descent of *homo sapiens*, originating in the Neolithic. This abstraction crystallizes with empirical force and voids the dangers of thinking along the lines of 'historical inevitability', but, at the conclusion of its action our system goes into neutral and therefore our model says nothing further, leaving us to the uncertainties of our emerging post-eonic future. Great Nature becomes silent in the circumstance of our existential aloneness near the Voices of Silence, heard softly in the reckoning many millennia, now past.

There is something apt in the postmodern critique of metanarratives. At the same time we have discovered, or stumbled upon, the embedded coherence of a just such a master narrative, that category dismissed in the supposed implications of random evolution, or postmodern deconstruction. We have 'deconstructed' flat history. Something mysterious and wonderful animates the plodding scene changes of greater epochs, and bestows the gifts of realized self-consciousness on the moments of the eonic sequence. We detected this shadowy presence in the sudden perception of three turning points discovered almost as an afterthought in the accumulation of historical records, now achieved in our own time as a data set five thousand years in length. Crossing this threshold we can see empirically that a long-range dynamic rouses from latency in a timed interval to drive a progression of eras in succession.

This drumbeat sequence of transitions or punctuations, so reminiscent of what we should call 'punctuated equilibrium', leaves us with the fortunate circumstance in the match with special type of so-called 'discrete-continuous' model that can allow us to express the evolution of a larger system without hazarding a metaphysical generalization wishing to reify ultimates. Instead, we can devise a framework on two levels, macro and micro, whose interaction takes form as the eonic effect itself, a drama of successive ages in the emergence of civilization. The most basic evidence of this phenomenon in action was seen in the second of its visible progressions, the so-called Axial Age, whose discovery at once transformed our image of world history and left us with a question about its greater significance. That question could only be answered with the hypothesis of a system operating in a frequency pattern, and we were driven successfully to the discovery of the greater pattern behind the brief interval of the Axial transformations.

The appearance of synchrony in the manifestation of the Axial interval in the multiple realizations of culture across the field of Eurasia confronted us with the phenomenon of the discontinuous action interrupting the causal flow of history. There is no lead-up or causal runway to the sudden parallel upsurges of relative motion seen from East to West, from the age of Confucius in China and the Buddhas in India, to the Occidental concordance of religious emergence in Israel and the proto-secularism of the Archaic and Classical Greeks.

Despite the confusion possible with notions of discontinuity our evidence speaks for itself with a vivid example and gives us a clue to our mystery in the obvious connection to a classic antinomy of the philosophy of history. This Kantian paradox of causality and freedom unlocked the riddle of a system working on two levels and gave us an elegant interpretation of our data as the interplay of macro-action and micro-action in the oscillation of degrees of freedom. There are more aspects to our eonic series than that of the history of emergent freedom, the clue provided by the Kantian deliberations on divinity, self, and free will. We see, most remarkably, separate Axial windows on each of these mysteries in separate civilizations and should move to see this triplicity as a unity of triple perspectives.

This interplay of system action and free action, seen by analogy in many examples such as that of a ship and the relative motion of its passengers, resolves the confusion in our perceptions of antiquity, and more specifically the Axial Age, if we can see our system acting via the self-consciousness of its exemplars, and thus expressed in the elements of their time and place. Armed with this insight we can uncover the remarkable testimony of the Old Testament behind its primitive dross to the transformations of the Axial era. Seen through the lenses of a Canaanite people and a polytheism remorphing in marching time to an incipient monotheism at once progressing to a new phase of religion and a self-referential account of their own Axial saga. This kind of stripped-down account is far more remarkable than the original concoction of mythological history, and we see that the Old Testament puts its message in a bottle for a future time better able to detect the meaning of its riddle for a secular age.

Beside this transient episode in the evolution of religion the parallel instance of the Greeks surging from their Archaic period to the seminal achievements of their brief flowering in the Classical Age gave us as much the evidence for the birth of secularism in some broad sense, in an almost prophetic anticipation of the last of our Axial intervals the

rise of the modern. The sense of the Israelites of an 'age of revelation' is confounded by the parallel exemplars, isomorphic and analogous, in its parallel Axial synchronies. This must drive us to a broader interpretation than that of so-called 'sacred history'. Indeed, our age of revelation shows the emergence of both theistic and atheistic religions, leaving us confronted by the nature of our evidence to conclude that the revelations of the Axial Age were precisely of the progression of ages in the macro-action of greater history.

Although we can but see the worlds of antiquity through the lenses of secular modernity, we must refrain from any glib reduction of our evidence to a sausage of simplistic univalent explanation and do justice to the parallel play of opposites so obviously exploited in our Axial moment. If we see the emergence of Israelite monotheism we must transcend its primitive circumstance and yet do justice to its affirmation of divinity. We cannot really upset the balance between the atheist Buddhism and theistic monotheisms of the Occident if we are to do justice to the original chord of contradictions. In fact, we have created a framework to accomplish this at stroke, were we even the modern atheist sort, and can take the hint from the history of the Israelites themselves in their equivocations of divine names seen in the glyph of the Tetragrammaton, IHVH.

This is a powerful prophecy and warning of the abuse of 'god talk' as degenerated religious pidgin that overcomes the traditions arising in the wake of emergent monotheism. The problem is more cogently addressed in the quite synchronous Taoism of China, whose indication that the 'tao' that can be named is not the true 'tao' solves at once our difficulties with the imposition of theological mythologies on what we plainly see is the revolutionary insight of the Israelites that a higher power operates through history (but we should be wary of transposition of the diverse realizations of the Axial Age, the Old Testament was not a Taoist document). We have ourselves discovered such a power, inclined to a better terminology than that of the *ersatz* Axial remorphing of Canaanite temple religion. We must wrest the Old Testament to its proper secular heritage in the evolution of man, free of the mideonic distortions of theology have disguised its meaning.

The Israelites thus take their place in our account, not as the founders of some putative new category of religion, but as precursors to labors of the eonic observer, in the perception of the reality of macrohistorical evolution. To grasp the Old Testament we have to understand how the perceptions of the eonic observer, seeing the action of a greater power able to realize over great times and places, could so easily ascribe such a spectacle to the designs of a theistic agent. The end result was a calamity of theological confusions. But our view is larger now, and we can see that our data, however mysterious, responds better to an analysis of an evolutionary system.

If our insight that the triple metaphysical antinomies of the Kantian critique of reason, those of divinity, self, and free will, are explored in three separate phases of the eonic sequence, then we can easily see the unity beyond atheistic and theistic mindsets in the parallel world of Indic religion, spawning first the Upanishadic then the Buddhist versions of the evolutionary psychology of self. These classic yogas, almost primordial in

their antiquity, are recast as Axial updates of a perennial theme, and proclaim the latent potential of the species to be, man, and his alienation from the proper expression of his self-consciousness. The world of the Axial Greeks in concert with these manifestations thus sounds the first clear clarion of the Idea of Freedom, in the evanescent flowering as the staging area for the world's earliest democracy.

We have the clue to the rise of the modern in this early intimation of the category of freedom, and the spectacle of something almost like a recursion of the Greek transition in the fast passage, so seemingly discontinuous in its explosive generation from the sixteenth century, of the new era of secularism, whose effect is not so much the passage beyond religion as its attempted reabsorption into a new dialectic of universal concepts, at the moment of creative renewal. It is too facile a version of modernism to write off the revolutionary Protestant Reformation as anything but the prelude to the Enlightenment, and the endurance of this infrastructure into our own time leaves us with its ambiguity as the first-born of the New Age of Science. The problem we soon discover is the sudden crystallization of scientism in the wake of the modern transition, and this produces a social mindset unable to encompass the full complexity of religious evolution as seen in the greater spectacle of world history.

7.6.2 The Great Transition

Our resolve and project to examine the question of evolution empirically within the confines of world history is complete and has repaid itself ten-fold leaving us with the pattern of so-called 'eonic effect'. This phenomenon resolves the paradox of history and evolution in a simple and elegant way, and in the process shows how nature resolves the paradoxes of causality and freedom explored in the antinomies of reason by Kant, and which stand in the way of any reductionist attempt to construct a 'science of history'.

The biologist Dobzhansky made the well-known statement that nothing makes sense except in the light of evolution. How ironically that statement is! The problem is that nothing quite makes sense in terms of natural selection, and now we see why. We can extend this statement to the assertion that nothing in history makes sense except in the light of 'eonic evolution', in the evidence of the eonic effect. Suddenly the pieces of an immense puzzle fit together and we confront a spectacular, but subtle structure behind world history. This structure expresses an inherent or immanent dynamic of the evolutionary, and is awesome in its scope, its action giving meaning to our suspicion we should find a 'Mystery Force X' to accompany the hypothesis of macroevolution, 'evolution of some kind'. We see that the evidence of the Great Explosion suddenly takes on a new meaning in this light.

That the result should reveal, not laws of history, but an evolution of freedom, in a play on the determinations of free action as self-consciousness, in an oscillation of degrees of freedom, is an altogether elegant solution given to us by nature to the search for a science of history. This doesn't altogether tell us how to realize this freedom, as the idea proliferates in a dialectical field, but the keynote is clear. In a descant on a Kantian theme we confronted a contradiction: there must a science of history, and, there cannot be

such a science. Deftly, in a prodigious display of global action, nature resolves the paradox in the evidence we have found for the eonic sequence.

It is strange, at first, to consider that history and evolution could show a connection. Indeed, we have gone further to consider that evolution reaches into our present, and future, and yet, armed with our new type of model, this consideration allows us to carefully buffer our assertions about evolution from those about the free activity that constitutes the real core of the historical chronicle. We are left with a new answer to the question of the meaning of evolution. The persistence of Darwinian thinking lies in the impossibility of imagining how evolution could really occur. But the eonic effect shows us just how easy it is to miss the process, miss it altogether, without even suspecting how the seemingly impossible is accomplished in short bursts of directed action, able to leapfrog and play hopscotch on the surface of planet.

And this statement forces us to revisit the question of the descent of man with a strong suspicion we have found the missing clue to how the earlier emergence of man might have taken place. If we find discrepancies of periodization suggesting changes of direction, with creative flowerings in the most complex aspects of culture, from art to religion, then we can legitimately suspect that some earlier process resembling the eonic effect is at work, able to drive species level changes in ten thousand intervals. More we cannot safely conclude, save to enforce a similar caution on the presumptions of Darwinists, now seen to hold a very weak hand in their speculations turned dogma. Whatever the case with the earlier evolution of man, the facts of the eonic effect place a strong buffer in front of any attempted Darwinization of history. We require no account of absolute beginnings and have designed our model to be able to start as a series of relative beginnings un beholden to the project of reduction to prior evolutionary periods.

Our basic demonstration of a non-random pattern confounds the Darwinian perspective that emerges so confusingly from the ideology of classical liberalism and economic analogy grafted onto Darwinism. This pattern goes immediately into an evolutionary category, 'evolution of some kind', one that distinguishes two levels, in a contrast of micro and macro. Thus we can see that reductionist science ends up frozen in the fallacy of the micro as universal explanation. But the facts now speak for themselves. We cannot be making Darwinian claims on the descent of man, sight unseen, given such data for visible world history. The stock of Darwin's theory of natural selection plummets, and fails a photo finish test. Thus, if we look closely at this data, especially in the core Axial period, we see that this 'evolution of some kind' is global in its action, acting selectively on different regions. Its effects are local, and yet match a pattern in a global sequence. It seems to switch on and off and induce change on schedule over distributed regions. It acts directly on creative consciousness and is involved in the generation and transformation of religions.

This non-random pattern shows a dynamic acting at long range, signs of evolutionary progress, and ethical action built into this dynamic. We spot a mysterious system at work and it operates in parallel and (intermittent) sequence, therefore directionality and thence teleology become relevant. We cannot assess teleological issues

if we are immersed still in the system in question. But we can, looking backwards, assess changes of direction. This effect is clearly staging a kind of globalization. The three clusters or turning points in a sequence also show geographical patterning that follows a basic rule we will discover. They are like transitions driving this evolution, with massive innovations at the key times and places.

Overall it is clearly strategic, seems to start at a Eurasian center of gravity in the Middle East, and generates globalization, each area of transition seeding a field of diffusion. It never acts twice in the same area, reappearing each time in an adjacent prepared region. This 'evolution' is therefore able to somehow scan whole regions, or respond to parameters concealed to us, remember its tracks, and leapfrog to new starting zones. It never determines a whole, and leaves its trace in human activity, which executes all action as theme and variations. It acts through creative incidents and individuals. Its action is entirely different from 'natural selection' or survival of the fittest. Instead, if anything, we see a 'natural' selection of the less dominant and almost helpless innovators in fast development regions followed by a trend toward equalization and integration. It shows direct correlation to intensity of creative advance. Note this is not the evolution of creativity. Men at all periods are potentially creative. But the periods in our pattern show an especially strong relative intensity.

The only name for what we are seeing is 'evolution' in the dictionary sense, a process of 'rolling out' in a developmental fashion. Nothing in it contradicts the facts of variation, genetic drift, or genetic mutation, save that these ought reasonably to be taken as a side issue. We are left with several possibilities: this 'evolution' is an entirely new process, it was present all along, or else switches on at critical stages of development. It is clearly 'macroevolutionary' in some sense, and transcends or overlays genetic evolution.

More intuitively, instead of random evolution we see three waves of focalized advance in selected regions that feed the whole via diffusion, an obvious way to evolve something, plain vanilla evolution, but this Darwinian selectionism is not. Darwin's theory, in fact, was always a non-standard 'exotic' theory, a free lunch claim. The whole evolves through the part, and shows clear directionality, and correlated system response over millennia. The problem is that while we can describe it that way, we can't 'see' the mechanism, so to speak, nor account for the sudden jump in complexity that attends each step in our eonic series as new and complex 'information' flows into the system from nowhere. Whatever we call it, and the issue of what to call it is secondary (we can also dispense with or qualify the term 'evolution', e.g. 'eonic or stepping evolution'), we have some hard data here, observed at close range, relative to Paleolithic, which Darwinists have *not* observed at this close range.

Clearly, applying Darwinian thinking in this situation can lead to disastrous counter-evolutionary effects. Look closely at the middle periods, such as the falloff in the post-Axial. The 'fittest' do indeed survive better, and the trend toward decline and empire takes hold. A period of great innovation comes to an end. And many of those innovations do not make it. The Ionian Enlightenment is buried, democracy barely gets off the launch pad, emergent science fades away. We suspect our 'system' has to prompt these innovations, and then restore them after they fail a 'fitness test'. We must take the result as is, historically given and buffered from whatever other evolution in deep time our

speculative theories propose with limited evidence. Since this 'evolution' in history shows clear directional aspects, and is able to change direction, we might suppose it has changed direction from processes said to have occurred earlier in the descent of man. We can see that the Darwinist is going to lose history, hence also the Paleolithic descent of man. For we will see that 'history' in this sense must overlap with earlier phases of the descent of man.

Thus, what are we to say if Darwinists claim a horse of one color ran the race if we by the clear evidence of history see a horse of a different color cross the finish line? Darwinism flunks a reality test. And Darwin's theory has absolutely no prior status, due to its exceeding thin data record, as anything more than pure speculation about how evolution might have occurred in deep time. Even if we had, and we certainly don't have, closely tracked evidence for some key mutation in the emergence of man, we would still require a full account of the 'working out in practice' of such genetic change in terms of directly observed cultural evolution: there might have been a macro component we don't see. We are so obsessed with genetic reductionism we have lost the greater picture of overall change and evolution that is so clearly visible now in the record of world history. And the extraordinary elegance and scale of the stream and sequence dynamic shows us something very far from current thinking indeed.

We can reduce the critique to one line: the failure to include the domain of values puts standard Darwinism on the sidelines. The problem is that Darwin's theory is a metaphysical derivation of naturalistic assumptions, thus part hallucination, glaringly off the mark in many respects, the reason being the induced reductionist truncation of thought that besets otherwise intelligent men trying to bootstrap universal explanation from assumptions about physics. That creates a kind of blindness. All in all, our model thrives better, taken as naturalistic explanation, but 'naturalism' is undefined at its extensions, and the issues raised by such as Kant or Spinoza remain unsolved.

Our strategy was simple. Does history show signs of general sequence? All we have to do is point to a long sequence with enough data filling the blanks in short intervals on the order of centuries to see a non-random pattern in action. We can at least see that history shows non-random 'evolution'. But we suspect very strongly, with this reality check, that something similar must have existed in the earlier stages of man's emergence, and demanded that selectionist theory be put on hold. In addition, we extended the general sequence argument with a look at the discrete freedom sequence, which precipitates a classic antinomy. Another approach is to ask, when does evolution stop and history begin? We can see that the ambiguity must stretch into the past, and, indeed, into the future.

Selectionist theory, as Popper among others tried to point out, is a projection on unobserved times and places, hence a metaphysical construct, and history, at least, cannot be taken as a continuation of a Darwinian scenario without some really hard proof using evidence of the type we have found. Darwin and Wallace were both misled by Malthus, and the obvious factor of natural selection by default always visible in evolutionary contexts. Natural selection is tangible, and can be seen over a short range. But its

resemblance to economic competition is part of what misleads all theorists. We can see that social innovations are proceeding by an entirely independent evolutionary process. At no point was it demonstrated that survival of the fittest leads to major evolutionary changes. History shows the terrifying counterevidence. The 'fittest' have wasted most of history in empire building.

We also have something Darwinists, in search of the genetic basis of freedom (in any sense), a project of continuing interest, to be sure, cannot account for, and which cannot be seen to occur via natural selection. This is not due to some adaptational scenario. The eonic effect shows a genuine factor of macroevolutionary emergentist freedom. We have described this both in terms of our distinction of system and individual, and more specifically in terms of the emergence of political forms, such as democracy. There are many simpler examples that don't invoke this basic antinomy, but this case gives us a deeper clue.

History just doesn't have the look and feel of anything operating by natural selection, or survival of the fittest, although natural selection operates by default. Natural selection clears all claims in final advance, but that is the undertaker's business, always brisk, steady as it goes, but not evolution. If anything 'evolution' must compensate for selectionist modifications of populations, which must be at risk of dangerous declines. We should be on the look out therefore for such in any dataset available that will demonstrate what we suspect is obvious. History isn't the best, but it will do, and the eonic effect shows us the breathtaking 'counterevidence in principle'. We discover a very late and sophisticated evolution there, almost without trying. It has its finger in the pie of religion, art, science, and philosophy, as relative transformation, even seems have a sort of 'fondness' for the tragic genre, and re-induces lost chords of its previous action. But the evolutionist seems right on one crucial issue: by restricting ourselves to naturalistic fundamentals we have shown clear evidence of a type of mechanization we had not expected.

Although our use of the term 'evolution' is far superior, for our historical data, than the Darwinian, the term is likely to suffer confusions of redefinition, and a phrase 'coming forth from the Paleolithic' almost seems better. We have found Huxley's 'evolution #2' and nothing but confusion can arise from injecting selectionist thinking into a culture mix where it doesn't belong. Men struggle, compete, and suffer conflict. That's given. But this is not as such the mechanism of long-term evolution. This evolution arrives by a different process. We note the way we have designed 'theory' to stay away from present action, voiding its Oedipus effect. We must stick to the content of our 'tracker-approximator' to assess its action piecemeal, without letting it interfere with our action as a predictive theory. 'Evolution' in our sense is purely empirical in its usage and displaces into the background.

The point of Huxley's observations, and our own, was that we oppose Darwinian evolution in practice. Why is this? We now see the obvious answer, and just how far off Darwin's theory really is. We need to recast the basis of our cultural thinking in a secular fashion on the basis of our new insight into world system. We have indicated this in our model, which is designed to inform our present action, but at the same time to displace into the background as we go about the business of history without theories with bad Oedipus effects.

We would do well to forget Darwin applied to history, given this broader perspective, since the issue of ethical action is retabulated with great vigor and takes the immediate form of the question of qualitative action. Not the winner take all of survival of the fittest, but the high performance levels required to advance the system, is the key. We must take the gifts of nature and render them at the level of the highest motive, lest we degrade our chances in the spectacle of hallucinatory evolutions. We may not easily state the canon of this ethic, but it makes no difference to the fact that this is a system of generated potential, and it requires more than mechanized principles of predator/prey nonsense. The great irony is that the great religions were the fittest survivors, and our eonic system must leapfrog the Eurasian inertia to reseed political freedoms, and indeed a renewal of science, which did not survive the Darwinian thinning out of Axial antiquity.

We have an ingrained tendency to blame history for our own faults. We can see that the eonic sequence is operating on a minimum principle and is always benign, while the realizations in its wake rapidly turn into something else. If, for example, democracy is an eonic emergent, then anything less loses its status by comparison. As our emergent source areas proceed toward a new liberal civilization they also tend to imperialism in their exteriors, spoiling the outcome, one not benefited at all by wrong-headed theories of the Darwinists.

It never occurs to anyone that 'nature red in tooth and claw', as a depiction of nature, can be as anthropomorphic as anything from religion. Even a cursory glance at the eonic sequence shows an organized and benign process that is waiting on man to respond with something more than the usual carnivorous logic. It creates a potential for political freedom, for example, but man takes millennia to respond, and even then the realization is inadequate. Best to be forgetting Darwin at this point. It seems to be man that is 'red in tooth and claw', projecting his nature onto the universe.

We are left with the spectacle of evolution reaching our present, even as this is shifting to the realization of freedom in the emergence of history. This Great Transition is the still incomplete evolution of man as *homo sapiens* in a future disengaging from the evolutionary action, from the dawn of man to the present.

8. APPENDIX

8.1 An Outline of History

Looking back on the ever-expanding outline of history that archaeology and the human record present to our vision, we can isolate to observation an emerging pattern of two historical intervals or ‘eonic eras’, and the three transitions between them, visible as cycles of cultural and social innovation on a scale of millennia, roughly 2400 hundred years—emerging as a pattern in and of itself, and as the last visible aspect of an earlier structure originating in the Neolithic. It is the *transitions* themselves, as temporal intervals of localized and rapid cultural change, in their geographical focal areas, that are of first interest, for they constitute the prime generative sources, as periods, of the steps to higher cultural complexity we call ‘civilization’.

That the three periods indicated represent the three most fundamental, so-far visible, turning points, divides, or transitions, of the entire world system is easily demonstrable by reference to the facts of known history, to be clear that we are only seeing a subset of a greater process in which the New World and the Neolithic show connections, but no conclusive relation.

This non-random pattern is a challenge to more simplistic views of historical evolution. Any law of history, theory of cultural evolution, religious teleology, transcendental explanation, or political action script, or theory of economic determination ought to explain this pattern if it claims superstitious or pseudo-scientific authority. We can illustrate our model explicitly using an outline of world history. This framework can also serve as a kind of database to allow constant additions to our data.

Our short history of the world is simple. The eonic effect reduces to a Table of Contents and the whole tale to three chapters, with three transitions connecting them. Although our approach is designed to start anywhere, no absolute beginnings are required. We have nonetheless summoned up the idea of Big History, history since the Big Bang, a recent innovation of historiographers, as the ultimate context of our history. We see three massive periods of advance, what’s more, with obvious echoes and interconnections, clear evidence of three successive waves of fundamental advance, at equal intervals, and with significant mutual correlations:

Chapter 1: The rise of civilization ca. -3000

Chapter 2: The Axial Age, ca. -600

Chapter 3: The rise of the modern, ca. 1800

That’s it. Our world history, we’re done. A non-random pattern. These dates are really divide points for a set of intervals we call ‘eonic transitions’. The term ‘rise of civilization’ is inadequate: our sequence probably starts in the Neolithic. We called this the *eonic sequence*, and set a frequency hypothesis to fix this obviously incomplete series in the domain of non-speculative empirical verifications. That hypothesis is more a way

to preempt speculation than a practical part of our chronicle. It can also serve to silence at once the long history of speculative histories based on cyclical ideas. The eonic pattern is the only one that will work, whatever it means. But the history of cyclical viewpoints is a significant history in itself.

We have seen that the ‘Axial Age’ is really an interval, not an age, and that these demarcation labels cannot be instant turning points but must be transitions of some kind, *eonic transitions*. And these transitions show a characteristic divide as they conclude. We will see, looking at the modern period, that the transitions are about three centuries long. We aren’t sure, but three centuries is sure to enclose the phenomenon seen three times in a row, and five times in parallel in the Axial Age. Or, more accurately, a statistical region three centuries long appears to enclose the phenomenon. The term ‘Axial Age’ is really two things taken together, a transition, a rough divide point, and then a period just after that starting a new era.

The Old Testament embeds a confused account of such a transition, and comes into existence, in final form, just after the divide, around -600. In Greece, the great era occurs after the divide, in its perilous moment of freedom. But the gestation period comes before. So it seems that even the exceptions fulfill this dynamic of eonic transitions. But it is all a bit fuzzy, as it should be, and our model is a guide, but not a dogma. On the basis of this we will see that three centuries again, as with the modern transition, looks to be the rough interval. We should reserve the term ‘age’ for the periods or intervals between our transitions. It is not the Axial Age but the ‘axial’ interval in our sequence. This scheme, we should warn, is highly artificial. And yet it works. Why? It is completely OK to challenge this, but the trick is to try it as an exercise, and in some detail, then its rough approximation will show something remarkable. Like scaffolding for a building, the periodization matrix will fall away, and leave a spectacle of universal history in its wake. We can approach this model with confidence, after initial puzzlement, because it represents the simplest and most obvious solution to the failure of random evolution.

8.1.1 Eonic Grid Coordinates

Our historical database will invent a new terminology around this idea in which the eonic sequence is a set of eonic transitions, statistical regions about three centuries in length:

(Eonic) Transition 1:	-3300 to -3000
ET 2:	-900 to -600
ET 3:	1500 to 1800

Below, we will recalibrate this in order to start in the Neolithic because we suspect that is where this sequence starts.

The idea of a Table of Contents is apt. Like the Cheshire Cat the dynamics fades into the background behind a very simple structure. As example consider a well-known world history.

Cheshire Cat Cycles and a Table of Contents. Consider a world history taken at random, William MacNeill's TOC in his world history *The Rise of the West*:

Part I: The Era of Middle Eastern Dominance to 500 B.C.

Part II: Eurasian Cultural Balance, 500 B.C. to 1500 A.D.

Part III: The Era of Western Dominance, 1500 A.D. to the present.

Note how the TOC automatically reflects the eonic effect. The eonic effect is a Table of Contents. Note that our present is just outside the last transition. The question of the West, however, is problematical, until we see that the overall pattern is not about the West, but the frontier effect in the Western Eurasian sector. Since this 'civilization', the West, began in the agora of Miletus, Asia Minor, and hills of Canaan, it seems pointless to so name it. We can rewrite this TOC:

1. (Eonic) Transition 1,... era of the Mesopotamian/Egyptian *oikoumenes*
2. Transition 2,... era of the Axial interval, and *oikoumenes*
3. Transition 3, *the present*... ??? onset of first global *oikoumene*.
5. A new mideonic era...end of eonic sequence?

We detect what we have called the 'eonic evolution' of civilization. In fact our *first* transition is probably nothing of the kind, and we can compute backwards in 2400 year steps to posit some possible earlier transitions, but for now all we have is our *core eonic effect*. We could recalibrate our sequence with a different beginning. In the Appendix we will use a completely generalized terminology of 'eonic transitions' exclusively, expressing our frequency hypothesis:

'ET1,...' : ?????

'ET2,...' : ??-8100 to -7800

'ET3,...' : ?-5700 to -5400

'ET4,...' : **-3300 to -3000**

'ET5,...' : **-900 to -600**

'ET6,...' : **1500 to 1800**

These transitions are quite artificial statistical regions, and approximate the unknown dynamic we can detect. We will also use terms like 'ET5+', or 'ET6+' to refer to the point of the divide and after, and 'ET6++' to refer to the period about two centuries or later after the divide as the system moves into its middle or mideonic phase. The purpose of this terminology is to produce global coordinates, 'ET5, Greece', being the Greek Axial transition: an interval of historical time over a given geographical region, an immensely complex historical unit, yet one with a clear dynamical pattern, as we have seen. We won't use this terminology all that much, but it represents, in principle, a way to

move to a higher level of abstraction about differential evolution regions on the surface of a planet.

Be wary of course of this terminology. Why a matrix this crude could work so well is unclear, the mystery of the eonic effect, and a recipe for secondary deductions that might be false. These ‘transitions’ are *approximate statistical regions*, and there is no *a priori* reason why a monotone sequence should be the case here, and frequency patterns can do funny things, but maybe we detect a ticking clock. We need not decide to use our model, which allows us to act under a condition of ignorance, armed with the perspective of *relative beginnings*. The pattern indicated in its last three phases is a practical reality we always use, and can’t ignore, whatever its theoretical interpretation. The Neolithic is close to falling into our sequence, but without as yet sufficient data.

Thus, the inadequate, but useful terms ‘modernity’ or ‘Axial Age’ can be replaced by these ‘numerical coordinates’, for differential geo-time-slices on the surface of a planet, not a recipe, however, for intuitive history, so we invent this terminology to make a point, and won’t use it too much. This formulation, so far from being dogmatic, invokes a falsifiable hypothesis, and a reminder of how little we know, and will prevent, rather than encourage speculation, forcing us to keep examining the data.

The eonic effect will remind us that we can never safely make (dynamical-theoretical) generalizations about early evolution or history unless we are sure there are no earlier transitions. And we can’t be sure. These would be the decisive factor in any form of explanation. Loose talk about how the Neolithic arose is thus out the window. Having set up this terminology, we will barely use it, and relegate the scheme to the endnotes. Its purpose is to make a point.

What about the in-betweens, the mideonic periods, in our eonic sequence? We seem to have downplayed them, but in fact they are the crucial test points, where freedom is to be realized. We have created two, or multiple, universal histories, using the idea of cultural streams, and the eonic sequence. The first universal history proceeds along a mainline, the second is the set of cultural streams that make up the totality of human culture. We are always in the second, yet, *looking backward*, we can detect the action of the mainline, the eonic sequence. Note the schizophrenia in most world histories. They wish to be comprehensive and then end up retelling the history of Europe, apologizing about Eurocentrism, etc.,... All of these problems disappear in our approach.

The first order of business is to see that this pattern is not about the cultures invoked in the turning points, but the greater globalization to which they contribute. We must be careful of universalism, and the multiplicity of culture remains a stubborn source diversity. But willy-nilly this progression toward a universal global culture is the first fact of our eonic sequence, and our current history. We can critique the dangers of Darwinism, but we can’t change the difficulties that arise in a system using a minimum principle. We see the quite un-Darwinian ‘natural selection’ of temporary transitional regions. They are selected not for survival but to lead the way, and then yield to the greater oikoumene created. This system must exploit advance regions temporarily and this creates misleading perceptions, for example those of Eurocentrism. We can at least

plant the flag of universal history in its strength: it is a tale of universal sympathy, and its subject is one community of man. But how can we create that community? The eonic sequence gives us a lot of hints.

We have learned our lesson about the Oedipus Paradox, and our model refers only to the past. We are free to do as we please, in the present, even contradict our pattern, but as we look backwards, we discover that there was a factor of eonic determination, macro-action, behind our free activity, micro-action. So the first requirement is that the present, or recent past, must be outside of the pattern, and in fact it is. But this freedom was also present in the past. Much of history is about trying to transcend history. Ours is a model about human free action. Every moment of every willful and stubborn individual is a potential 'fourth turning point'. Consider the way such impulses are conditioned by the outcomes of our transitions. It is not so easy to step out of this eonic sequence. And we are left to wonder if our series is complete, or whether there will be a 'fourth turning point' in the future. We strongly suspect that we have reached the 'end of the eonic sequence', for reasons we will explore.

Floating 'fourth' turning points We can invent an exercise, consider 'floating fourth turning points' inside our sequence: every moment of will. The projected 'fourth turning point' can float timelessly through the sequence, as we examine alternate potentials in our sequence. This idea has no official status in our model, but it is amusingly apt at times as we observe attempts to 'escape' history. The mighty Islam was the most massive effort along those lines. Bolshevism another. This idea can help to see the tension inside history, as man both realizes his macro-evolutionary history and at the same time is moving beyond it. Even his emerging freedom shows macro-determination, a paradoxical restraint on that very freedom. Then, suddenly, he is alone to realize that freedom by himself. Connected to this we see the many times when a large-scale social movement, e.g. Christianity, Islam, Bolshevism, postmodernism, attempts, or mere wishes, to overtake the whole of history with a teleological or crypto-Zoroastrian theme, like the Hegelian 'end of history'. These 'floating fourth turning points' are massive historical interruptions, but can they transcend history or the eonic sequence. But they should be the individual's self-discovery of the 'will' that is his freedom. Very controversial yet important issues....

Falsifications This idea of fourth turning points gives us a model of falsification in practice! And we are free to try and contradict this pattern. But as we come to understand it, that will seem fruitless and wrong-headed. However note that 'falsification' is not theoretical, but an historical gesture with its own history!

Why do our transitions stand out? Because of the obvious correlation of major cultural innovations, which are relative transforms, or what we can call *eonic emergents*.

(Eonic) Transition 1: 3300 to 3000 BCE The birth of the state, appearance of writing, onset of Dynastic Egypt, and Sumer, first higher civilizations,...

ET2 900 to 600 BCE Onset of two world religions, multiple sources of philosophy, birth of science, Greek democracy,... The birth of secularism!

ET3 1500 to 1800 Onset of Reformation, secularism, English, French, American Revolutions, Enlightenment, another scientific revolution, another birth of democracy, Industrial Revolution,...

That's a very short list. An eonic emergent can be a person, cultural process, artifact, invention, book, or cluster of events. One eonic emergent can be inside another. These dates are rough approximations, statistical regions, and not hard and fast. Such a scheme is highly artificial but what is remarkable is how closely it reflects the data.

Each eonic emergent can be a zoom target, to zoom in on, and inside each are more eonic emergents. Pick any category, and follow it. The most remarkable eonic emergent is democracy. As analyzed in the last chapter, democracy appears twice in the pattern. Take science. It warbles on and (almost) off in this sequence. Why? Trace the history. What we include seems at first relatively arbitrary. The list grows much longer. This system is an arduous 'black box', but it gives us a windfall clue, the double appearances of several items. Democracy *starts* twice. We called this the 'discrete freedom sequence', and it might prove a clue to unlocking the riddle of history's 'black box'. It reproduces a classic Kantian paradox. In our terms, democracy shows eonic determination, macro-action, its realization free action. A surprising discovery, a new twist to the 'evolution of freedom'. Note the remarkable appearance of *double emergents*. The double birth of democracy, science, in the eonic mainline. That's very strong evidence for the type of model we will create, a discrete series inside a continuous flow, or a discrete-continuous model. It's like a feedback system. Something suddenly switches on, and interrupts continuous flow, or restarts processes that have died out, or slumped. The idea of feedback has problems, it's not quite the same situation, but the general idea is the same, a discrete interval or spike interrupts a continuous stream.

Myths of the End Times Note the amusing, or ominous way, in which the Zoroastrian theme enters into our terminology. Actually, that's useful because it defuses this potent and menacing ideology, even as it grants it formal status, by definition, like the idea of the Omega Point in physics. The end time myths are connected with our 'floating fourth turning points', and have produced a lot of confusion! The versions springing from the *Book Of Revelation* are exotic in their hysterical futurism, and yet they spring from the Axial Age cornucopia and are a part of that history. And these ideas resurface promptly in the early modern. But nothing that we see can 'beat the system' that we call the 'eonic sequence'. Thus, despite our historical respect for Zoroastrian thinking, we need to isolate this unconscious 'archetype' in the basis of our actions. It resurfaces very easily in secular thought. Note that end-time patterns are the counterpoint to cyclical patterns, and our model unites both.

We need a narrative that is 'meta', as an outline or database surveying the sudden simplicity we have found in the immense complexity of world history. We need to keep it relatively short, since each interpretation of secondary histories will prejudice the basic eonic outline. Research is progressing so fast that much material will be obsolete very quickly, the better then to stick with a generalized outline. But from the

arising of civilization onward, the basic framework of data is sufficient. But we need to posit multiple interpretations at each step, and leave the eonic outline in the background. At each step we can let a series of texts take over the task of narrative content.

Reachability: Two Universal Histories Historical narratives suffer the bane of selectivity. Ours is so selective it flies in reverse, a useful trick to solve the problem. Three small time slices are all we need. Having produced one universal history, we promptly create a vacuum and generate a second, as if one is trying to reach another. So our discussion, and the eonic effect, is really about the whole, with a strategy to reach that whole. Since this invokes some form of globalization, we note that it is not the same as the economic variety. Since the American continent was first globalized by the Indian his destruction by later European invaders could hardly be called globalization. We see that the planet is globalizing, but already globalized. The issue then is to do the job right. American civilization put itself at great risk from this botched foundation. Teleology again!

Species Evolution Our data clearly reflects the fact that evolution must be that of a whole species, and we see explicit mechanisms to connect the whole and part, a factor missing in Darwinian-style theories. Darwinism has divided everyone against everyone else and falsely labeled it 'evolution'. It is clearly not possible, save as a destructive deviation, for one small subset of humanity to declare itself the evolutionary future and by 'survival of the fittest' attempt to seize the future of that evolution. The first shall be last, and the last shall be first seems a better description of what is involved. But the fact remains that, so far, human civilization shows an unbalanced state, and history. We are not at the end of the story.

8.1.2 The Eonic Evolution of Civilization

Looking backward, our perception of greater antiquity seen through the lenses of the outcome of the modern transition, in our notation 'ET6++', we see the context of secular modernism as an eonic effect, and we are well into a new period in the 'downfield new aging' of a major transition. In the contemporary time frame the passage to a first global oikoumene is well underway, and the gross imbalance of eonic evolutionary process endures its sluggish globalization.

Once we set up the eonic sequence the resolution of Kant's Challenge is almost instantaneous, we see high correlation with political novelty, with the transitional eras, with the birth of the state in the first transition, and the most spectacular being the double emergentism of democracy, 'ET5, Greece' to 'ET6, Europe'.

'ET6++...: ca. 2000 A.D.

We are immersed in the unfolding structure we are attempting to describe, as the structure of 'modernity', i.e. the V-cone of 'ET6,...'. Our starting point is the current period of the onset of oikoumene creation, 'ET6++,...', in the wake of

‘ET6,...’, now proceeding globally in a fashion almost completely reminiscent of the first Sumerian, and later Hellenic, and other, oikoumenes. The Enlightenment prefigures the new era and seeds a universal global culture.

We are just emerging from...

‘ET6...’: 1500-1800

We see the unmistakable effect of relative beginning, notwithstanding small indications from the period of the late medieval, in the sixteenth century, as the parallel interactive emergence of religious Reformation, Scientific Revolution, pre-capitalist economic transformation, overseas expansion, rising nationalism, and the proliferation of seminal literatures, and the rapid appearance of the early political philosophers such as the seminal Hobbes and Locke at the birth of Liberalism. The trigger areas quickly concentrate on a Northern European fringe area, stretching from Germany through Holland to England, and France...

‘ET6+...’: ca. 1800

The transition moves toward a characteristic second stage with the appearance of the English Revolution, the real rise of modern science, and the birth of the Enlightenment, really in this seventeenth century, rather than the eighteenth. This is period of the real cascade of modern effects that will drive the system into its climactic period and passage across a divide. The transition is a divide, and the divide, relatively arbitrary therefore, nonetheless shows a very marked near ‘scene changing’ effect in the aftermath of the French Revolution. The age of Democracy and Steam is attended by such a host of eonic emergents that it is difficult to sort them out. There is no consistent theme, universal name or stage label that we can give to this new age effect as we examine the broad spectrum of eonic emergents. We see the Enlightenment, but we also see Rousseau, and Romanticism. We see the emergence of capitalism, but we also see the collision of liberalism and socialism. The great takeoff is not just a function of economic or other factors, but of action in the eonic mainline.²²⁴

It is from this vantage point therefore that we look backwards at the entire phenomenon of civilization, and thence to the Neolithic. The modern example is so complex that we can barely grasp what is happening, since we tend to be ship’s mate on one of its emergents.

1. Neolithic Beginnings

Just as we pass the world of the ziggurats and pyramids, at the ‘start’ of our pattern, we can flashback to the greater dawn of cultural history after the Ice Ages to consider the elements brought to the beginnings of civilization.²²⁵ To start in this period without the experience of the later transitions is likely to be confusing, for what we must find is very specific and beyond the resolving power of current archeological data, and it must show correct periodization, without stretching dates. Further, we are liable to make

the assumption that the pattern observed in the later eras logically requires an extension of identical structure to the previous periods. There is no *a priori* reason why it should. A long step-up from ca. -8000 or before to a higher take-off plateau of self-organization would seem more logical, but the evidence seems to be emerging for an extension to the cyclical version we see in historical times, starting after the end of the Ice Age. It is very hard to put such a long sequence of religious history in correct perspective. However, we know where to look for frontier effect antecedents to Sumer and right on schedule we find vague intimations of highland sources in the rough period, ca. -5500 to the North of the first visible transition.

Invisible transitions? Reflection on this long Neolithic era in relation to what we see later produces most devastating caution against Darwinian thinking. We are lucky to see ‘how religions work’, given the transitional data for ‘ET5, Israel’ for example. Yet such data is mostly absent even here, what to say of the Paleolithic. To generalize without being able to find the suspected invisible transitions would be misleading indeed.

As we look at the nature of our problem overall, and the emerging picture of the Near East from the earliest times, the broad rolls of at least two antecedent eonic cycles begin to become evident, but without the solid data for the transitional intervals themselves. Behind the first visible transition, then, so aptly symbolized by the unification of the Upper and Lower Kingdoms of Egypt under the aegis of Pharaonic theocracy and the emergence of the Sumerian city-states, increasing historical research is beginning to fix for us the emergence of two, perhaps three earlier periods before the point that we egregiously call the emergence of civilization, not the transitions, but broad humps of cultural advance, the ‘emergence from ground’ in each period, finally leading up to the great breakthrough around -3000, which is then, in fact, no more than the midpoint of organized human community. More conclusively, we catch the Ubaid culture rising from -5500 in the period after -5000. This is about the period of the Roman Empire in the later stage six hundred years from a transitional period.

Thus, our examination of the eonic effect begins with Egypt and Sumer, for this is simply when our fulsome data becomes available, and this because of the invention of writing, in the same fashion as an older view of history finds this period to be the ‘beginning’ of civilization. This should make us suspicious, for our pattern suggests, not the beginning of civilization, but simply the ‘next’ eonic interval initiated in a broad transition driving two zones that are ready ‘over the top’; and this forces us to ask, transitions from what? Let us keep in mind that from -5500 to -3000, from North to Southern Mesopotamia, is a period as long and probably as complex as that between Ancient Israel, the Medieval Cathedrals and the Protestant Reformation, disregarding the tremendous expansion of scale.

? ‘ET1,...ET2,...:

The rough correlation of the onset of the Neolithic in the Levant is unmistakable, as is the appearance of a first ‘city’ very early in the site of Jericho. The broad correlation is so vague however that we can only wonder at the nature of any transitional phase in such primitive circumstances. This period is too speculative to be included in our full dataset. First, during the period -10000 to -8000, there is the slow passage from earlier nomadic, hunter-gatherer,

existence to a mixed mode of proto-agricultural discovery and experimentation. Even this earlier stage is a discovery and a long learning process. And there is a strong suggestion that our 'cultural integration', that is the assembly into community, precedes and induces the Neolithic, rather than the other way around. Groups begin to settle down in communities, the harvesting of the wild grains and the domestication of animals precede the emergence of the Neolithic proper. This is the Natufian period with its traces in the Levant, when the exploration of seminal possibilities of agriculture is emerging.

During the period from -8000 to -5500, we enter the period of the Pre-Pottery Neolithic, visible in the broad focal band of the Levant, Western Asia, then later in the very advanced culture arising in Çatal Hüyük, followed by the full emergence of pottery technologies, and the first beginnings of copper use, and remarkably, strong suggestions of a religious mode associated with it. It is remarkable that the centuries near -8000 and -5500, occur over and over again in the delineation of many studies. The carbon dating of the first Neolithic levels of Jericho, at which we find evidence of a shrine, are in precisely the right time frame.²⁶ We must suspect a transition near -8000 starting in the Levant and the higher regions of Mesopotamia, slowly networking outward over the a period of two millennia into Northern Iraq, Egypt, South Europe, Crete, the Indus, creating a new type

² Norman Cohn, *Cosmos and Chaos and the World to Come* (New Haven: Yale University Press, 1993), *In Pursuit of the Millennium* (New York: Oxford, 1970), Theodore Olson, *Millennialism, Utopianism, and Progress* (Toronto: University of Toronto, 1982). Peter Clark, *Zoroastrianism*, Brighton: Sussex Academic Press, 1998. Albert Schweitzer, *The Quest for the Historical Jesus* (New York: Macmillan, 1948).

³ As Norman Cohn notes in *Cosmos, Chaos, and The World To Come* (New Haven: Yale University Press, 1993, p. 227), "Until around 1500 BC peoples as diverse as Egyptians, Sumerians, Babylonians, Indo-Iranians, and their Indian and Iranian descendants, Canaanites, pre-exilic Israelites, were all agreed that in the beginning the world had been organized, set in order, by a god or by several gods, and that in essentials it was immutable...Some time around 1500 and 1200 BC Zoroaster broke out of that static yet anxious world-view. He did so by reinterpreting, radically, the Iranian version of the combat myth."

⁴ Israel Finkelstein & Neil Silberman, *The Bible Unearthed* (New York: The Free Press, 2001), William Dever, *Who Were The Israelites and Where Did They Come From?* (Grand Rapids, Michigan: Eerdmans, 2003).

⁵ As Wellhausen suspected, it would seem that it was the period of the prophets that represents the real transformation that generates the emergence of monotheism. Cf. also, Giovanni Garbini, *History and Ideology in Ancient Israel* (London: SCM, 1988).

⁶ Francis Fukuyama, *The End of History and the Last Man* (New York: The Free Press, 1992).

⁷ Jacques Barzun, *From Dawn to Decadence: 1500 to the Present* (New York: HarperCollins, 2000).

of Neolithic culture, village life, a characteristic religious mode, that will show lingering signs persisting during the following millennia in the transition of Goddess images that begins with civilization.

? 'ET3,...:

We see the first instance of the frontier effect in the notable decline in the first area near the Levant, and the surge of a second stage of Neolithic further east in the Hassuna and Halaaf vicinity, and the rapid spread into southern Mesopotamia from this more northern source in the first third of the new period after ca. -5500. We can't quite pinpoint a transitional area, but the broad pattern is there.

⁹ Chalmers Johnson, *Nemesis: The Last Days Of The American Republic* (New York: Henry Holt, 2006).

¹⁰ From Karl Jaspers, *The Origin and Goal of History* (New Haven: Yale University Press, 1953), Part I, Ch. 1.

¹¹ Joseph Needham, *Science and Civilization in China* (Cambridge: Cambridge University Press, 1965), p. 99.

¹² From Karl Jaspers, *The Origin and Goal of History* (New Haven: Yale University Press, 1953), Part I, Chapter I, "The Axial Age".

¹³ Bertrand Russell, *A History of Western Philosophy* (New York: Simon & Schuster, 1945), p. 3.

¹⁴ Bruce Mazlish, *The Meaning of Karl Marx* (Oxford: Oxford University Press, 1984), p. 8.

¹⁵ Joseph Campbell, *Primitive Mythology, Masks of God*, (New York: Penguin, 1959), p. 404

¹⁶ Michael Hoffman, *Predynastic Egypt*, "In Search of Menes".

¹⁷ Philip Van Doren Stern, *Prehistoric Europe* (New York: Norton, 1969)

¹⁸ J. M. Roberts, *The Penguin History of the World* (New York: Penguin, 1990), p. 526. Cf. also, p. 529, for a discussion of the relativity of the term 'modern', which was once inclusive of the medieval, then distinguished from it, and now might be distinguished from the contemporary by a new term, the 'early modern'. L. S. Stavrianos, in *The World Since 1500* (Englewood Cliffs, New Jersey: Prentice-Hall, 1975), "Why should world history begin with the year 1500?"

It is significant the term 'medieval' was itself a child of this period, or that just after, when the German scholar Kellarius coined the term 'Medium Aevum' to distinguish the suddenly apparent new 'modernity' from the 'middle period' after the fall of the Roman Empire. This fact is another caution to those who use the term 'Renaissance', a concept created in the nineteenth century. Men of the sixteenth century did not use it, but were stunned by the sudden changes before them, as they expressed, not a rebirth, but the rise to an entirely new form of complex civilization.

William MacNeill, *The Rise of the West* (Chicago: University of Chicago Press, 1963), p. 567. William A. Green, *History, Historians, and the Dynamics of Change* (Westport:

In general, over the whole period from ca. -8000, we see one and the same process of social and technological integration, *village, town, city*, to be occurring in sequential rhythm.²²⁷

We would never claim anything but random slow evolution induced by demographic, climactic or material conditions for the developments of this period, *if we had not the evidence otherwise from the later periods of cultural evolution*. Even at the later stages when maturing historical awareness, and a more explicit creativity, effect the rate of change, we find the great periods of cultural foundation during the transitions. How much more likely this should be for the dispersed elements of hunter-gatherers groping during the early period moving toward the first techniques of agricultural existence.

Praeger, 1993. Jacques Barzun, *From Dawn to Decadence*, New York: HarperCollins, 2000, p. xvii. Geoffrey Barraclough, *Turning points in World History* (Great Britain: Thames and Hudson, 1979), p. 3.

¹⁹ Marshall Hodgson, *The Venture of Islam*, Chicago: Chicago University Press, 1974, 179. See also, *Rethinking World History* (Cambridge: Cambridge University Press, 1993), Marshall Hodgson, Edmund Burke III (ed.) (1993), Ch. 4, “The Great Western Transmutation”.

²⁰ Jacques Barzun, *From Dawn To Decadence* (New York: HarperCollins, 2000), p. xvii.

²¹ E. L. Jones, *The European Miracle* (New York: Cambridge University Press, 1961).

²³ Sean Carroll et al., *From DNA to Diversity* (New York: Blackwell, 2001), Rudolf Raff, *The Shape of Life* (Chicago: University of Chicago, 1996), J. Gerhart & M. Kirschner, *Cells, Embryos, and Evolution* (New York: Blackwell, 1997), Jeffrey Schwarz, *Sudden Origins* (New York: Wiley, 1999), G. Miller & S. Newman, *Origination of Organismic Form* (Cambridge: MIT Press, 2002).

²⁴ Arnold Brackman, *A Delicate Arrangement* (New York: Times Books, 1980), Michael Shermer, *Darwin's Shadow: The Life and Science of Alfred Russell Wallace* (Oxford: Oxford University Press, 2002). In *The Darwin Conspiracy*, Roy Davies corrects the critique of Brackman and presents strong case for the plagiarism of Wallace by Darwin from the set of letters he received from the unsuspecting naturalist. Roy Davies, *The Darwin Conspiracy: Origins Of A Scientific Crime* (London: Golden Square Books, 2008).

²⁵ Peter Bowler, *The Eclipse of Darwinism* (Baltimore: John Hopkins University Press, 1983). John Endler, *Natural Selection in the Wild* (Princeton: Princeton University Press, 1986), p. 31, D. Hartl & A. Clark, *Principles of Population Genetics* (Sunderland, Mass.: Sinauer Associates, 1997).

²⁶ W. S. Körner, *Kant* (London: Penguin, 1955), p. 197. Immanuel Kant, *Critique of Judgment*, trans. J. H. Bernhard (New York: Macmillan, 1951), p. 258. For the teleomechanists, see Timothy Lenoir, *The Strategy of Life* (Dordrecht: Reidel, 1982).

It is interesting to consider the evidence of earlier eonic structure from the indications of a mideonic plateau effect. As James Mellaart notes, in a description that almost implicitly maps out the period ET3++:

At the end of the Early Chalcolithic period, then, let us say ca. 5000 BC., we find that throughout the greater part of the Near East all the requirements for the birth of civilization were present...Nevertheless, the expected birth of civilization did not take place. It was delayed for nearly another millennium and a half and when it did come it was not in the areas which had hitherto been most prominent, but in the dismally flat lands of S. Iraq and a little later in Egypt, areas which until then had been of little or no importance. Why was this so? ²²⁸

²⁷ Philip Johnson, *Darwin on Trial* (Downers Grove, Ill.: InterVarsity, 1993), *Reason in the Balance* (Downers Grove, Ill.: InterVarsity, 1995), Norman Macbeth, *Darwin Retried* (Boston: Gambit, 1971). Larry Witham, *Where Darwin Meets the Bible* (Oxford: Oxford University Press, 2002). William Dembski, *Intelligent Design* (Downers Grove, Illinois: InterVarsity Press, 1999). Robert Pennock, *Intelligent Design Creationism and Its Critics* (Cambridge, Mass.: MIT Press, 2001), William Dembski (ed.), *Uncommon Dissent* (Wilmington: ISI, 2004), Mark Perakh, *Unintelligent Design* (Amherst, New York: Prometheus, 2004), Thomas Woodward, *Doubts About Darwin* (Grand Rapids, MI: Baker, 2003).

²⁸ I. Prigogine & I. Stengers, *Order Out of Chaos* (New York: Bantam, 1984), p. 79.

²⁹ Daniel Dennett, *Darwin's Dangerous Idea* (New York: Simon & Schuster, 1995), Michael Shermer, *The Science of Good and Evil* (New York: Henry Holt, 2004).

³⁰ Daniel Dennett, *Freedom Evolves* (New York: Viking, 2003).

³¹ David Stove, *Darwinian Fairytales* (Aldershot: Avebury, 1995).

³² Immanuel Kant, *Critique of Pure Reason* (New York: Cambridge University Press, 1998), Stephen Körner, *Kant* (New York: Penguin, 1960).

³³ Terry Pinkard, *Hegel* (New York: Oxford University Press, 2000), p. 122.

³⁴ Sherrie Lyons, *Thomas Henry Huxley* (New York: Prometheus, 1999), p. 231. Soren Lovtrup, *Darwinism: Refutation of a Myth* (New York: Croom Helm, 1987), Robert Reid, *Evolutionary Theory, The Unfinished Synthesis* (New York: Cornell, 1985), Robert Wesson, *Beyond Natural Selection* (Cambridge: MIT, 1991), Michael Denton, *Evolution: A Theory in Crisis* (New York: Adler & Adler, 1985), Kevin Kelly, *Out of Control* (New York: Addison-Wesley, 1994), Stephen J. Gould, *The Structure of Evolutionary Theory*, (Cambridge: Harvard University Press, 2002), Mark Kirschner & John Gerhart, *The Plausibility of Life* (New Haven: Yale University Press, 2005). Popper's essay, "Darwinism as a Metaphysical Research Program", can be found in his intellectual biography, *Unended Quest*, (New York: Open Court, 1976). A new wave of critics is emerging, Suzan Mazur, *The Altenberg 16: An Exposé of the Evolution Industry* (Wellington, New Zealand: Scoop Media, 2009). Jerry Fodor & Massimo Piatelli-Palmarini, *What Darwin Got Wrong* (New York: Farrar, Strauss and Giroux, 2010).

³⁵ Stuart Kauffman, *At Home in the Universe* (New York: Oxford University Press, 1995), p. 9.

Does this sound familiar? Once again we see an arrest after the sudden burst of change, the eonic falloff and downturn, given an interesting interpretation by Childe, with a clear suggestion of a two-step rise to civilization. The real beginning of civilization then would seem to be as well the emerging Ubaid culture springing from a likely transition to the North of the next zone of advance in the South, Sumer.

2. Egypt, Sumer, And The Rise Of Civilization

We begin *in medias res* with the Sumerian city-states and the founding of the great dynasties of the Pharaohs, the millennia since the Ice Ages behind us, and no detailed evidence for what we must at once suspect is only the midpoint of this history,

³⁶ Cf. F. Hoyle & N. Wickramasinghe, *Evolution From Space* (London: Dent, 1981), p. 148.

³⁷ Robert Wesson, *Beyond Natural Selection* (Cambridge: MIT, 1994), p. xii.

³⁸ Stuart Kauffman, *At Home in the Universe* (New York: Oxford: Oxford University Press, 1995), p. 8.

³⁹ Richard Dawkins, *Climbing Mount Improbable* (New York: Norton, 1996).

⁴⁰ Stephen J. Gould, *The Structure of Evolutionary Theory*, (Cambridge: Harvard University Press, 2002).

⁴¹ Gould, *op. cit.*, p.186.

⁴² Stuart Kauffman, *At Home in the Universe* (New York: Oxford University Press, 1995), p. 9.

⁴³ Karl Popper, *The Poverty of Historicism*, (New York: Routledge, 1991), p. 13.

⁴⁴ Immanuel Kant, *Critique of Pure Reason* (New York: Cambridge University Press, 1998), Stephen Körner, *Kant* (New York: Penguin, 1960), Susan Shell, *The Embodiment of Reason* (Chicago: University of Chicago Press, 1996). Yirmiyahu Yovel, *Spinoza and Other Heretics* (Princeton: Princeton University Press, 1992).

⁴⁵ David Hildebrand, *Beyond Realism and Antirealism* (Nashville: Vanderbilt University Press, 2003).

⁴⁶ Dale Jacquette, *The Philosophy of Schopenhaur* (Kingston: Ontario: McGill-Queen's University Press, 2005).

⁴⁷ David Qammen, *The Reluctant Mr. Darwin* (New York: Norton, 2006), Deborah Blum, *Ghosthunters* (New York: Penguin, 2006), Roy Davies, *The Darwin Conspiracy: Origins Of A Scientific Crime* (London: Golden Square Books, 2008), Loren Eiseley, *Darwin and the Mysterious Mr. X* (New York: Dutton, 1979).

⁴⁸ Deborah Blum, *Ghost Hunters* (New York: Penguin, 2006).

⁴⁹ Arthur Koestler, *Janus*, (New York: Hutchinson, 1978), p. 174.

⁵⁰ Joseph Campbell, *Oriental Mythology* (New York: Penguin, 1976), p. 170.

starting at the point where we see the first eonic transition majestically evident in Egypt and Sumer, after ca. -3300, with probably the same false equivocation as elsewhere over -3600 to -3300.²²⁹ We come to the great beginning of the civilizational sequence, in reality, more like ‘step 2 or 3’. Sumer is in the ‘mainline’ like later Israel and, perhaps, Greece, while Egypt springs up in parallel like ‘ET5, China’.

‘ET4, Sumer,..., Egypt’:

This is the first preeminent case of parallel interacting emergence, with considerable evidence of Sumerian influences at the point of take-off. Egypt and Sumer are taken however as independent emergents during phase, with possibly a strong interaction between them, almost as though Egypt were also sequentially dependent on Sumer. During this first transition, the first urban

⁵¹ Richard Dawkins, *The God Delusion* (New York: Houghton-Mifflin, 2006).

⁵² Arthur Schopenhauer, *World as Will and Representation* (New York: Dover, 1969).

⁵³ R. L. Fox, *The Unauthorized Version* (New York: Knopf, 1992), Burton Mack, *Who Wrote the New Testament* (NY: Harper Collins, 1995), Richard Friedman, *Who Wrote the Bible?* (New York: Summit Books, 1987), Robert Price, *Deconstructing Jesus* (Amherst, New York: Prometheus, 2000).

⁵⁴ *Nietzsche and Modern German Thought* (New York: Routledge: 1991), Keith Ansell-Pearson (ed.), George Stack, “Kant, Lange, and Nietzsche: critique of knowledge”, Steven E. Aschheim, *The Nietzsche Legacy in Germany 1890-1990* (Berkeley: University of California Press, 1994), Michael Gillespie, *Nihilism Before Nietzsche* (Chicago: University of Chicago Press, 1995), Jean-Marie Schaeffer, *Art of the Modern Age* (Princeton: Princeton University Press, 2000), James Porter, *The Invention of Dionysus* (Stanford: Stanford University Press, 2000), Gregory Moore, *Nietzsche, Biology and Metaphor* (New York: Cambridge University Press, 2002), Peter Levine, *Nietzsche and the Modern Crisis of the Humanities* (Albany, New York: State University of New York Press, 1995), Keith Ansell-Pearson, *An Introduction to Nietzsche as Political Thinker* (New York: Cambridge University Press, 1994), Abir Taha, *Nietzsche, The Prophet of Nazism: The Cult Of The Superman* (Bloomington, Indiana: Authorhouse, 2005).

⁵⁵ Adrian Desmond and James Moore, *Darwin, Life of a Tormented Evolutionist* (New York: Warner, 1991). For Marx on Darwinism, cf. John Bellamy, *Marx's Ecology* (New York: Monthly Review Press, 2000).

⁵⁶ Stephen J. Gould, *The Structure of Evolutionary Theory* (Cambridge: Harvard University Press, 2002).

⁵⁷ Michael Perelman, *Classical Political Economy* (London: Rowman and Allanheld, 1983), p. vii, and p. 171.

⁵⁸ Pietro Corsi, *The Age of Lamarck: Evolutionary Theories in France, 1790-1830*, (Berkeley: University of California Press, 1988). Loren Eiseley, *Darwin's Century* (New York: Doubleday, 1958), Edward Larson, *Evolution* (New York: The Modern Library, 2004), Michael Ruse, *The Darwinian Revolution* (Chicago: University of Chicago Press, 1999), Peter Bowler, *Evolution: History of an Idea* (Berkeley: University of California Press, 2003).

scale of human settlement, theocratic kingship, the technological organization of agriculture, the embryonic gestation of industrialism, writing, bookkeeping and the maintenance of records, a religious 're-formation' or theocratic neo-formation (and hints of a brief primitive democracy), a managerial revolution with a scribal technocracy, and an information economy, all make their first glorious appearance, as does the first emergence of the dilemmas of hierarchical society, the disposition of the agricultural surplus becoming the determinant of social structure.

Leonard Woolley, attempting to find a Sumerian source behind Egyptian civilization, says of the Egyptian period of this transition that it is "not so complete as to

⁵⁹ Leon Harris, *Evolution: Genesis and Revelations, With Readings from Empedocles to Wilson*, C. (Albany: State University of New York Press, 1981).

⁶⁰ Peter McLaughlin, *Kant's Critique of Teleology in Biological Explanation* (Lewiston, New York: Edwin Mellen, 1990). As Timothy Lenoir notes in *The Strategy of Life* (Chicago: University of Chicago Press, 1989), "Teleological thinking has been steadfastly resisted by modern biology. And yet, in nearly every area of research biologists are hard pressed to find language that does not impute purposiveness to living forms. The life of the individual organism—if not life itself, seems to make use of a variety of stratagems in achieving its purposes. But in an age when physical models dominate our imagination and when physics itself has become accustomed to uncertainty relations and complementarity, biologists have learned to live with a kind of schizophrenic language, employing terms like 'selfish genes' and 'survival machines' to describe the behavior of organisms as if they were somehow purposive yet all the while intending that they are highly complicated mechanisms. The present study treats a period in the history of the life sciences when the imputation of purposiveness to biological organization was not regarded as an embarrassment but rather an accepted fact, and when the principal goal was to reap the benefits of mechanistic explanations by finding a means of incorporating them within the guidelines of a teleological framework. Whereas the history of German biology in the early nineteenth century is usually dismissed as an unfortunate era dominated by arid speculation, the present study aims to reverse that judgment by showing that a consistent, workable program of research was elaborated by a well-connected group of German biologists and that it was based squarely on the unification of teleological and mechanistic models of explanation." For another view, cf. Frederick Beiser, Chapter 9, "Kant and the Naturphilosophen", *The Romantic Imperative* (Cambridge: Harvard University Press, 2003). Also, Ernst Cassirer, *The Problem of Knowledge* (New Haven: Yale University Press, 1950).

⁶¹ A. Desmond & J. Moore, *Darwin: Life of a Tormented Evolutionist* (New York: Warner, 1991), p. 295, "The Atheists had already founded an illegal penny paper, the uncompromising *Oracle of Reason*, a year old and still selling in its thousands. It vilified rich priests and armed infidel missionaries with geological tidbits to use against them. One of the cadre, the working class printer William Chilton, fashioned a revolutionary Lamarckism, driven from below, pushing nature towards a higher, brighter, co-operative

amount to a breach of continuity but enough to mark an epoch; the changes are coming in towards the end of the Predynastic period and by the time of 'Menes' we have what is virtually a new culture."²³⁰

Dynasty 0 This period of transition produces the perfect symbolism of the emergent state in the Palette of Narmer. "The Naqada III phase c. 3200-3000 is the last phase of the Predynastic period...It was during this period that Egypt was first unified into a large territorial state..."²³¹

The sudden intensification of the late Uruk and the climax of the unification of Upper and Lower Egypt in the first Dynasty of the Pharaohs are tokens of the crucial

future (a meaningless concept to the port-swilling nobility). The hard-bitten editors were fitting evolution into their militant credo. Materialism was given revolutionary class overtones."

⁶² Desmond King-Hele, *Erasmus Darwin: Grandfather of Charles Darwin* (New York: Scribners, 1963).

⁶³ For a standard Darwinian view, see Michael Ruse, *The Evolution-Creation Struggle* (Cambridge: Harvard University Press, 2005).

⁶⁴ James Secord, *Victorian Sensation* (Chicago: University of Chicago Press, 2003).

⁶⁵ J. D. Peel, *Herbert Spencer: The Evolution of a Sociologist* (New York: Basic Books, 1971).

⁶⁶ Harold Boner, *Hungry Generations, The Nineteenth-Century Case Against Malthusianism*, (King's Crown Press, New York, 1955).

⁶⁷ Neal C. Gillespie, *Charles Darwin and the Problem of Creation* (Chicago: The University of Chicago Press, 1979).

⁶⁸ Peter McLaughlin, *Kant's Critique of Teleology in Biological Explanation* (Lewiston, New York: Edwin Mellen, 1990).

⁷⁰ For Social Darwinism, cf. Richard Hofstadter, *Social Darwinism in American Thought* (Philadelphia: University of Pennsylvania Press, 1945), Robert Bannister, *Social Darwinism: Science and Myth in Anglo-American Thought* (Philadelphia: Temple University Press, 1979), Edward Caudill, *Darwinian Myths: The Legends and Misuses of a Theory* (Knoxville: University of Tennessee Press, 1997), John Greene, *Science, Ideology, and World View* (Berkeley: University of California Press, 1981), Richard Lewontin, *The Dialectical Biologist* (Cambridge: Harvard University Press, 1985).

⁷¹ T. H. Huxley, *Evolution and Ethics* (Princeton: Princeton University Press, 1989).

⁷² Cf. J. Barrow and F. Tipler, *The Cosmological Anthropic Principle* (New York: Oxford University Press, 1988).

⁷³ Richard Klein and Blake Edgar, *The Dawn of Human Culture*, (New York: Wiley, 2002). Stephen Oppenheimer, *The Real Eve: Modern Man's Journey Out of Africa* (New York: Carrol & Graf, 2003).

⁷⁴ The philosopher, and critic of historicism, Karl Popper offered this quote as a challenge to Toynbee. H. L. Fisher, *History of Europe* (London: Eyre and Spottiswoode, 1935), vol.

period, followed by the emergence of the characteristic and classic forms and achievements of the Sumerian dynastic period and the Old Kingdom of the Pyramid builders.

Our model has recast the issue of ‘civilizations’ in terms of divides, phases, sequential dependency, and diffusion throughout oikoumenes. Instead of evolving civilization, we see an eonic sequence overlaid on these civilizations, as the transition creates a cone of diffusion. And it is here in the wake of Egypt and Sumer that we see the first great (double) oikoumene of antiquity take shape. These two, especially Sumer, will create the first great ‘modernism’ of world history, the point at which so much that we consider basic to our own forms of complex social existence came into being. The whole

I, p. vii. Fisher continues, “This is not a doctrine of cynicism and despair. The fact of progress is written plain and large on the page of history; but progress is not a law of nature.” It is the basis for Popper’s discussion of ‘historicism’, cf. Karl Popper, *The Open Society and Its Enemies* (Princeton: Princeton University Press, 1971), Vol. II, pp.269-80. Arnold Toynbee, *A Study of History* (New York: Oxford, 1957), abridged by D. Somervell, Vol. I, p. 445, Vol. II, p.266.

⁷⁵ On the philosophy of history, cf. Hans Meyerhoff (ed.), *The Philosophy of History in Our Time* (New York: Doubleday, 1959), William Dray, *Laws and Explanation in History* (New York: Oxford, 1957), W. Walsh, *An Introduction to Philosophy of History* (1951), Patrick Gardiner (ed), *The Philosophy of History* (1974), Geoffrey Barraclough, *Main Trends in History* (New York: Holmes and Meier, 1991), R.G. Collingwood, *The Idea of History* (1956), Mathew Nitecki et al. *History and Evolution* (Albany: State University of New York, 1992), Haskell Fain, *Between Philosophy and History* (Princeton: Princeton University Press, 1970), Trygve Tholfsen, *Ideology and Revolution in Modern Europe* (New York: Columbia, 1984).

⁷⁶ Hans Reiss, *Kant’s Political Writings* (New York: Cambridge University Press, 1971), p. 41.

⁷⁷ Theodore Platinga, *Historical Understanding in the Thought of Wilhelm Dilthey* (Toronto: University of Toronto Press, 1980), Thomas Powers et al. (ed.), *From Kant to Weber* (Malabar, Florida: Krieger, 1999)

⁷⁸ Isaiah Berlin, “Historical Inevitability”, *Four Essays on Liberty* (New York: Oxford University Press, 1969), Karl Popper, *The Poverty of Historicism*, (New York: Routledge, 1991), p. 3.

⁷⁹ Georg Iggers, *The German Conception of History* (Middletown, Conn.: Wesleyan University Press, 1983), R. Burns & H. Rayment-Pickard, *Philosophies of History* (New York: Blackwell, 2000), p. 57, ‘Classical Historicism’, Maurice Mandelbaum, *History, Man and Reason* (Baltimore: John Hopkins University Press, 1971), Charles Brambach, *Heidegger, Dilthey, and the Crisis of Historicism* (Ithaca: Cornell University Press, 1995). The term ‘historicism’ has a complex history and multiple strains of definition beyond that given by Popper. Robert D’Amico, *Historicism and Knowledge* (NY: Routledge, 1989).

⁸⁰ Loren Eiseley, *Darwin’s Century* (New York: Anchor Books, 1961), p. 349, “We have spoken of the brain of man as a sort of organ of indetermination”.

Toynbean confusion of searching for civilizations disappears, as the secondary constructs, e.g. Indus, arise in the mode of sequential dependency. By definition, only the phase is 'on time', the 'initial conditions' of mideonic civilization are contingent. If we cannot claim this effect of diffusion, our model is false. Our analysis sends out a challenge, to find exceptions to this sequential dependency effect in everything that arises after -3000 until the next phase after -1200. The only possible candidate, to the author, would be the New World civilizations. As to the New World we must either find, therefore, mideonic diffusion before 'ET5', or postulate the birth of a new V-cone.

3. The Axial Interval

⁸¹ Martin Lewis et al (ed.), *The Myth of Continents* (Berkeley: University of California Press, 1997).

⁸² **A frequency deduction** A system 'evolving freedom' cannot cause freedom directly, since the over-determination would be causally closed. But such a system cannot leave action alone, since under-determination would not evolve freedom. Therefore, to evolve freedom such a system might alternate between higher and lower degrees of freedom, in cycles of macro-action, and micro-action left to its own devices. All at once we see that this corresponds to the eonic pattern. Thus, for example, the Axial Age shows a higher degree of freedom, but under eonic determination, while the mideonic intervals show the potential for freedom without the action of the system, 'real freedom', or not. The frequency system might terminate at some point to allow the realization of this potential. At the end we will suspect that we are at the end of the eonic sequence since observing the eonic effect probably preempts its future action.

This use of the term 'deduction' is reminiscent of the Kantian usage, a sort of legal term about the right to use certain concepts, in his transcendental deduction, and is not necessarily a logical theorem or proof-deduction (our procedure is empirical, please note). For us the term 'hunch' might work as well as 'deduction'. The point is, what grounds do we have for makings statements about a 'frequency'? The answer is that this allows an 'evolution of freedom'. And what does that indicate about our data? Actually, our data falls like ripe fruit into a classic Kantian analysis of the noumenal and phenomenal, with a slight difference, which we will explore.

Chapter 4

⁸⁴ Paul Davies, *The Goldilocks Enigma: Why Is the Universe Just Right for Life?* (New York: Houghton Mifflin, 2006).

⁸⁵ Neil de Grasse Tyson, et al., *Origins: Fourteen Billion Years Of Cosmic Evolution* (New York: Norton, 2004).

⁸⁶ Paul Steinhardt, et al., *Endless Universe: Beyond the Big Bang* (New York: Doubleday, 2007).

⁸⁷ Christian de Duve, op. cit., p.7.

⁸⁸ Christian de Duve, op. cit., "The Biology of Ethical Values", p. 264.

⁸⁹ Richard Klein & Blake Edgar, *The Dawn Of Human Culture: A Bold New Theory On What Sparked The "Big Bang" Of Human Consciousness* (New York: Wiley, 2002),

We arrive once again at the onset of the ‘classical’ period, ‘ET5’, with a better perspective on the overall context of this parallel surge of advance, whose eonic structure is now seen to be almost identical with what has occurred in the case of Egypt and Sumer, in the sense of parallel interactive emergence. Suddenly five dispersed sources move against the trend of the long-term, and in the process regenerate a new constellation of civilizations. We see a complex cultural ‘economy’: it is one field of diffusion, and yet this field is moving as one into separate realizations, in a pattern independent parallel emergence.

In each transitional area, we see the characteristic stream and sequence effect: the Shang leads into the Chou, thence to the classical creative age of China. The Indus, a clear mideonic acorn in the field of Sumer, disappears as a civilization well before the

Nicholas Wade, *Before The Dawn: Recovering The Lost History Of Our Ancestors* (New York: Penguin, 2006), Stephen Oppenheimer, *The Real Eve: Modern Man’s Journey Out of Africa* (New York: Carroll and Graf, 2007), Steve Olson, *Mapping Human History* (New York: Houghton Mifflin, 2002).

⁹⁰ Kirkpatrick Sale, *After Eden: The Evolution of Human Domination* (Durham: Duke University Press, 2006).

⁹¹ Steven Mithen, *After The Ice* (Cambridge: Harvard University Press, 2003), p. 506, Alan Simmons, *The Neolithic Revolution in The Near East* (Tucson: University of Arizona Press, 2007), Hans Nissen, *The Early History of The Ancient Near East* (Chicago: University of Chicago Press, 1988), Donald Henry, *From Foraging to Agriculture: The Levant at the End of the Ice Age* (Philadelphia: University of Pennsylvania Press, 1989).

⁹² Michael Balter, *The Goddess And The Bull* (Walnut Creek: California, 2006), Ian Wilson, *Before The Flood* (New York: St. Martin’s, 2001).

⁹³ Stuart Piggott, *Dawn of Civilization* (New York: F. Ungar Pub Co, 1968), p. 62.

⁹⁴ George Roux, *Ancient Iraq* (New York: Penguin, 1992), p. 48.

⁹⁵ William Ryan & Walter Pitman, *Noah’s Flood: The New Scientific Discoveries About the Event That Changed History* (New York: Simon & Schuster, 1998).

⁹⁶ Cyrus Gordon, *Before Columbus* (New York: Crown, 1971), p. 35.

⁹⁷ Thor Heyerdahl, *Early Man and the Ocean* (New York: Doubleday, 1979), p. 70. Patrick Huyghe, *Columbus Was Last* (New York: Hyperion, 1992).

⁹⁸ Wade, op. cit., ‘The Greenberg Synthesis’, p. 218.

⁹⁹ Robert Pennock, *The Tower Of Babel* (Cambridge: The MIT press, 1999).

¹⁰⁰ Walter Emery, *Archaic Egypt* (NY: Penguin, 1962), p.192

¹⁰¹ Gordon Childe, *Man Makes Himself* (New York: New American Library, 1983), p. 107. Bernard Knapp, *The History and Culture of Ancient Western Asia* (Chicago: Dorsey, 1988), Marc Van De Mierop, *A History of The Ancient Near East* (Malden, MA: Blackwell, 2004). Susan Bauer, *The History Of The Ancient World* (New York: Norton, 2007), Michael Rice, *Egypt’s Making: The Origins of Ancient Egypt 5000-2000 BC* (New York: Routledge, 1990).

next era, and becomes a field blended with the arrival of the Vedic Aryans, the cousins of the Persians, whose cultural and religious forms will give the misleading appearance to later times of being the source of the ancient explorations of consciousness that will suddenly flower in the transitional age of the Upanishads. We cannot forget that the Persian t-stream entry contributes the most basic religious innovation in the form of its Zoroastrian theme, as this becomes a part of the Judaic manifestation, as this emerges in the most extraordinary of the classical transitions, whose effect, like Buddhism, dares the future without the instruments of state.

The collision and stubborn conservatism of outstanding ‘state constructs’, such as the Assyrians, seems to drive innovation to the boundary areas. As we contrast the

¹⁰² T. Jacobsen, ‘Primitive Democracy in Ancient Mesopotamia’, pp. 157-70 in W. L. Moran (ed.), *Towards The Image of Tammuz* (Cambridge, Harvard University Press, 1970).

¹⁰³ The existence of assemblies throughout the period succeeding Sumer is explored in John Keane, *The Life And Death Of Democracy* (New York: Norton, 2009).

¹⁰⁴ H. W. F. Saggs, *Civilization Before Greece And Rome* (New Haven: Yale University Press, 1989), p. 42.

¹⁰⁵ David Damrosch, *The Buried Book* (New York: Henry Holt, 2006), p. 241, A. R. George, *The Babylonian Gilgamesh Epic, Vol. I & II* (Oxford: Oxford University Press, 2003).

¹⁰⁶ Michael Hoffman, *Egypt Before The Pharaohs* (New York: Knopf, 1979), p. 15.

¹⁰⁷ Nicolas Grimal, *A History of Ancient Egypt* (Cambridge: Blackwell, 1992).

¹⁰⁸ Bob Brier & Jean Pierre Houdin, *The Secret of the Great Pyramid: How One Man’s Obsession Led to the Solution to Egypt’s Greatest Mystery* (New York: HarperCollins, 2008), Kevin Jackson & Jonathan Stamp, *Building The Great Pyramid* (Toronto: Firefly Books, 2003).

¹⁰⁹ Cyril Aldred, *Egypt to the End of the Old Kingdom* (New York: McGraw-Hill, 1965), p. 52.

¹¹⁰ Nicholas Wade, op. cit., Chapter 10, ‘Language’.

¹¹¹ Christopher Beckwith, *Empires Of The Silk Road: A History of Central Eurasia from the Bronze Age to the Present* (Princeton: Princeton University Press, 2009).

Chapter 5

¹¹³ **New World??** Seldom considered is the possibility that the New World civilizations, *in the Axial interval*, might show Axial influence, given the clear global character of eonic action in the Axial (and other) intervals. We should make no claims here since the New World civilizations show many indications of something different, but we should note the synchronous action. The Mayan civilization (we are not referring to the Olmec) arises in the Axial interval and experience collapse and mideonic dissolution ca. -600 in exact synchrony with the Old World system. We should simply note the facts without speculation. We should refrain from jumping to conclusions here since the isolation of the New World cultures creates hard-to-interpret evidence. We can’t analyze this case

Assyrians in transition with the Greeks in light of this view, we get a strange sense of *déjà vu*, and see the process in a nutshell, with a sense also that the mixture of phases in the old Mesopotamian world cannot truly regenerate itself. Thus there is a strong connection between our transition in Sumer and Greece, in terms of these city-states.

The Indian sequence seems to show Buddhism emerging from Vedism or Hinduism. But this is a false picture, a later layer of tradition. Later, we see the jackknife-splitting of the sources both in India and in the West. In India, the long reaction against early sources and the appearance of Hinduism in its late forms after the disappearance of Buddhism is a piece of history that makes sense only in an eonic interpretation.

Other theories of civilization attempt to find the civilization in the kingdom. In the case of Israel, we find an eonic generator emerging from a vanishing kingdom, and a people proceeding outward with no kingdom but with a legal code. During the period of the Exile, the kingdom vanishes (and the myth of the Exodus comes into existence). Bent like a pretzel the result is essentially double, a type of religious nationalism, and the seeds

without a new kind of historical model, and much more data. The New World civilizations often give the appearance of being 'one cycle behind' those of the New World. Our model can easily handle this kind of possibility.

¹¹⁴ Cf. Herbert J. Muller in *Freedom, Its History, Nature and Varieties* (1970), Dewey, R. et al. (ed.), "Freedom and Justice in History", an earlier essay version of *Freedom in the Ancient World* (1961). Muller's confusion over 'laws' and 'freedom' expresses the dilemma perfectly. Paul Woodruff, *First Democracy* (New York: Oxford University Press, 2005).

¹¹⁵ Jamie James, *The Music of the Spheres* (New York: Springer-Verlag, 1993), p. 21.

¹¹⁶ Karen Armstrong, *The Great Transformation: The Beginning of Our Religious Traditions* (New York: Knopf, 2006).

¹¹⁷ Trude Dothan & Moshe Dothan, *People Of the Sea: The Search for the Philistines* (New York: Macmillan, 1992), Michael Wood, *In Search of the Trojan War* (New York: Fact On File Publications, 1985).

¹¹⁸ Arnold Toynbee, *Mankind and Mother Earth* (1976), Chapter 25, "New Departures in Spiritual Life, c. 600-480 B.C."

¹¹⁹ Margaret Wertheim, *Pythagoras' Trousers* (New York: Random House, 1995).

¹²⁰ Hermann Frankel, *Early Greek Poetry and Philosophy* (New York: Harcourt Brace, 1975), p. 1.

¹²¹ Karen Armstrong, *The Great Transformation* (New York: Knopf, 2006), *A Short History of Myth* (New York: Canongate, 2005).

¹²² William McNeill, in *Keeping Together in Time* (Cambridge: Harvard University Press, 1995).

¹²³ Robert Pennock, *The Tower Of Babel* (Cambridge: The MIT press, 1999), Nicholas Wade, *Before the Dawn* (New York: Penguin 2006), Steve Olson, *Mapping Human History* (New York: Houghton Mifflin, 2002).

¹²⁴ C. G. Starr, *The Origins of Greek Civilization* (New York: Norton, 1981), p. viii.

of the oikoumene generator that will be spawned, in a fashion even this analysis finds elusive.

‘ET5, ...’ :

The onset of phase casts its net across the whole field of Eurasia as if to balance a new stage of advance as widely as possible across its sequential dependencies, to be followed by the obviously concentrated follow-up from a single source, during the next phase to come. Our three hundred year transition is open to some ambiguity, as in the modern case. After -1200, the faintest indications of the new dawn begin. But it is in reality the last two or three centuries before -600 that are crucial.

‘ET5+, ...’ : This would be the rough period of the ‘divide’, and we see the sudden convulsion in Israel, right on schedule as the system starts to generate its exteriorization. The period of Solon in Greece and emergent Buddhism in India would be comparable.

‘ET5++, ...’ : This classical phase especially shows the spectacular emergence of a bouquet of multiple oikoumenes, from China to the West, as separate yet intersecting cones of diffusion that fall short of global closure.

This second phase ignites areas that are ready or can respond in the field of sequential dependency stretching across Eurasia.

‘ET5, Assyria, Persia, ... Israel, ...’ :

As George Roux notes in *Ancient Iraq*, “Assyria awoke in 911 B.C,” referring to the recovery after the time of confusion in the Middle East created by the

¹²⁵ C. G. Starr, *The Economic and Social Growth of Early Greece: 800-500 B.C.* (New York: Oxford, 1977), p. 3. Starr also notes the same effect in the first phase of our sequence: in *A History of the Ancient World*, he traces the steady development from the Ubaid and Uruk and describes the sudden change in the period just before -3000 by noting that in history there are “revolutions as well as slow eons of evolution; one of the greatest explosions now took place and affected virtually all phases of life in an amazing, interconnected forward surge.”

¹²⁶ Israel Finkelstein and Neil Silberman, *The Bible Unearthed*, (New York: The Free Press, 2001).

¹²⁷ Alain Danielou, *Gods Of Love And Ecstasy: The Traditions of Shiva and Dionysus* (Rochester, Vermont: Inner Traditions, 1984). The works of Danielou contain a clue in plain sight to the confusions of Indian religious history, but must be taken with caution.

¹²⁸ Diana Eck, *Banaras: City of Light* (Princeton: Princeton University Press, 1982).

¹²⁹ Alain Danielou, *Shiva and the Primordial Tradition* (Rochester, Vermont: Inner Traditions, 2003), cf. Chapter 2, “The Shaivite Revival From the Third To the Tenth Centuries C.E.”.

¹³⁰ Alain Danielou, trans. Kenneth Hurry, *A Brief History Of India* (Rochester, Vermont: Inner Traditions, 2003).

¹³¹ Danielou, op. cit., pp. 32-35.

movements of peoples, Semitic and Indo-European, and generally the breakdown of the whole system created in the cones of diffusion of Sumer and Egypt. As Roux notes further, "When the light against comes in about 900 B.C.," Western Asia has a new substrate of Aramean culture, the Philistines share Canaan with the Israelites, the Phoenicians enter a period of prosperity, the Medes and the Persians are entering the stage, ready to burst into the old oikoumene after the sudden precipitous fall of the Assyrians in -612. We would be hard put, at first, to find signs of anything in the way of evidence of transition too near the older area, but we can see from the distillation of the Old Testament one unwitting record of how one group of the participants experienced it, and saw the extraordinary changes that were taking place, and found themselves attempt to divinize the law of historical change.

It is interesting that the Assyrians made an effort to preserve the ancient tradition of Mesopotamia in the building of great libraries. The tradition is thus frozen in place, and much of what we know about the earlier period is in fact derived from this Assyrian record.²³²

'ET5, ...Israel...':

We should expect great changes from great forces. But here in the study of the eonic effect we see in the Canaanite 'Israel' (Israel/Judah) the issue of great changes from point sources. Israel will serve as a vehicle of diffusion for a transformed version of the ancient tradition, in the emergence of monotheism and eschatology, evident in the bobbing to the surface of the underground stream in the Book of Daniel, and the final Qumranic, and Christological,

¹³³ Prem Nath Bazaz, *The Role of the Bhagavad Gita in Indian History* (New Delhi: Sterling, 1975), p. 82.

¹³⁴ *Classical Samkhya, An Interpretation of its History and Meaning* (1979), Gerald Larson.

¹³⁵ Kwang-Chih Kwang, *The Archaeology of Ancient China* (New Haven: Yale University Press, 1977), p. 386. A developmental history of the *Analects*, Bruce Brooks & A. Taeko Brooks, *The Original Analects* (New York: Columbia University Press, 1988).

¹³⁶ Robin Waterfield, *The First Philosophers* (New York: Oxford University Press, 2000), p. xliii).

¹³⁷ Peter Gay, *The Enlightenment: An Interpretation* (New York: Norton, 1977), Chapter 2, "The First Enlightenment".

¹³⁸ Eric Robinson (ed.), *Ancient Greek Democracy*, New York: Blackwell, 2004). Max Pohlenz, *Freedom in Greek Life and Thought* (New York: Humanities Press, 1966).

¹³⁹ Josef Chytrý, *The Aesthetic State* (Berkeley: University of California Press, 1989), p. xi.

¹⁴⁰ Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Random House: 1988).

¹⁴¹ H. Kitto, *The Greeks* (New York: Penguin, 1958), p. 159.

injection of the theme into the great oikoumene construction, of which the Judaic, in the Mediterranean world, is the counterpoint to the Roman.

The Israelite transition is confusing, but the symbolism speaks for itself, as a kingdom disappears, the essence of a kingdom spreads into the new oikoumene, complete with a legal code, celestial courts of law, but no government, and a state abstraction, 'israel'. The transition that produced monotheism does not show a monotheistic society, until after the Exile as far as can be seen. A close consideration of and placement beside the Greek transition will suggest that it is the crucial period from -900 to -600 that is the sudden discontinuous source, and enough time for the full launching and remorphing of the prior Israelite-Canaanite stream.²³³

¹⁴² F. E. Peters, *The Harvest of Hellenism* (New York: Simon & Schuster, 1970), p.18.

¹⁴³ *The Liberal Temper in Greek Politics* (New Haven: Yale University Press, 1957), by Eric Havelock.

¹⁴⁴ Krishan Kumar, *Prophecy and Progress* (New York: Penguin, 1978), p. 14.

¹⁴⁵ James O'Donnell, *The Ruin of The Roman Empire* (New York: HarperCollins, 2008), Adrian Galsworth, *How Rome Fell* (New Haven: Yale University Press, 2009)..

¹⁴⁶ Aldo Schiavone, in *The End of the Past* (Cambridge: Harvard University Press, 2000), notes the way the Roman system reaches its climax in the early empire, as seen in the famous oration of Aristides (second century A.D.), *To Rome*, celebrating the Roman achievement, even as a sense of its impasse emerges as the anxious dread before a terminal system.

¹⁸³ Simon Schama, *Citizens* (New York: Knopf, 1989), p. xiii.

¹⁸⁴ W. Doyle, *The French Revolution: Bibliography of Works in English*. (1988). R.R. Palmer, *The Age of Democratic Revolutions* (Princeton: Princeton University Press, 1964) Geoffrey Best (ed.), *Permanent Revolution* (Chicago: Chicago, 1989), Norman Hampson, *A Social History of the French Revolution* (1963), Francois Furet, *Interpreting the French Revolution* (Cambridge: Cambridge University Press, 1981), and *Marx and the French Revolution* (Chicago: University of Chicago Press, 1988), "Practical Reason in the Revolution: Kant's Dialogue with the Revolution", in Ferenc Feher, *The French Revolution and the Birth of Modernity* (Berkeley: University of California Press, 1990).

Chapter 7

² Oscar Hammen, *The Red '48ers* (New York: Charles Scribner's, 1969), Alan Gilbert, *Marx's Politics* (New Brunswick, New Jersey: Rutgers University Press, 1981), Eric Hobsbawm, *The Age of Revolution, 1789-1848* (New York: New American Library, 1962), Christopher Hill, *The Experience of Defeat* (New York: Viking, 1984), M. Hardt & A. Negri, *Multitude* (New York: Penguin, 2004).

¹⁸⁶ Stephane Courtois et al., *The Black Book of Communism* (Cambridge: Harvard University Press, 1999), Andrzej Walicki, *Marxism and the Leap to the Kingdom of Freedom* (Stanford: Stanford University Press, 1995), George Lichtheim, *Marxism: An Historical and Critical Study* (New York: Praeger, 1961), August Nimitz, *Marx and Engels: Their Contribution to Democratic Emergence* (Albany: State University of New

‘ET5,...Greece,...’:

Emerging from the period of its Dark Ages into which it had passed after the collapse of the Mycenaean world, the great transition of the Greeks, in many ways a premonition of our own ‘modernity’, moves very quickly to establish the foundations of philosophy, science, new forms of political organization, the tragic drama, and a resplendent art.

The entire transition is clocked by the change in pottery styles, beginning with the austere geometric style ca. -900, followed by the sudden elaboration and flowering, from the eighth century, of the classic styles that run in parallel with full period of transition.

York, 2000), Alan Gilbert, *Marx's Politics* (New Brunswick, N.J.: Rutgers University Press, 1981), Richard Hunt, *The Political Ideas of Marx and Engels: Marxism and Totalitarian Democracy 1818-1850* (Pittsburgh: University of Pittsburgh Press, 1974), David Steele, *From Marx to Mises* (La Salle, Ill.: Open Court, 1992).

¹⁸⁷ Melvin Krantzberg (ed.), *1848: A Turning Point?*, (Boston: D. C. Heath, 1959). L. B. Namier calls the year a ‘seed-plot of history’, one that survived its own failure and the moral revulsion of revolutionary disorder, Trevelyan calls 1848 “the turning point at which modern history failed to turn”, *In the Beginning: The Advent of the Modern Age* (New York: Macmillan, 1994) by Jerome Blum. Peter Stearns, *1848: The Revolutionary Tide in Europe* (New York: Norton, 1974).

¹⁸⁸ W. G. Forrest, *The Emergence of Greek Democracy: 800-400 B.C.* (New York: Macgraw-Hill, 1966), H.W.F. Saggs, *Civilization Before Greece and Rome* (New Haven: Yale University Press Univ Press, 1989), p. 34, a consideration of the issue of ‘democracy’ in the early period of the Sumerian city-states before the rise of kingship after the first creative period of the beginning of civilization. The original suggestion springs from Theodore Jacobsen’s “Primitive Democracy in Ancient Mesopotamia”, pp. 167-70 in W. L. Moran (ed.), *Towards the Image of Tammuz* (1970). Cf. also Jennifer Roberts, *Athens on Trial* (Princeton: Princeton University Press, 1994).

¹⁹⁰ Hal Draper, *‘Dictatorship of the Proletariat’ from Marx to Lenin* (New York: Monthly Review Press, 1987), Michael Harrington’s *Socialism* (New York: Saturday Review Press, 1972). That the virulence of the Communist Left sprang in part from the virulence of the Tsarist reactionary right and the disastrous conservatism of the Russian nineteenth century is brought home in *The Shadow of the Winter Place: Moscow's Drift to Revolution, 1825-1917* (New York: Viking, 1976). For an account of the Decembrists, cf. Adam Ulam, *The Bolsheviks* (New York: Macmillan, 1965).

¹⁹¹ Shlomo Avineri, *Hegel's Theory of the Modern State* (Cambridge: Cambridge University Press, 1972), “Poverty and the limits of Civil Society”, p. 147. Steven Smith, *Hegel's Critique of Liberalism* (Chicago: University of Chicago Press, 1989).

¹⁹² Harold Mah, *The End of Philosophy, the Origin of ‘Ideology’* (Berkeley: University of California Press, 1987). James White, *Karl Marx and the Intellectual Origins of Dialectical Materialism* (New York: St. Martin's, 1996). Steven Marcus, *Engels,*

The first date, -776, for the Olympic Games, indicates the beginning of the visible effects emerging of the acceleration. The reappearance of writing and the works of Homer by the middle of the century remind us, that even as overseas colonization and an economic Boom get underway, the effects of information technology are as fundamental, and that art at the highest level seems to precede all other manifestations.

That a portion of our transitional period is hiding behind this label called ‘The Dark Ages’ is evident by comparison with its parallel cousins, and by the sudden appearance of the many fully developed cultural forms in the eighth century, such as the *Iliad*, as if without any development at all. The history of Greece is invaluable because it shows two separate civilizations built from the same stream, one in the sequential state of

Manchester and the Working Class (New York: Norton, 1974), Martin Jay, *Marxism and Totality* (Berkeley: University of California Press, 1984), M. Steger & T. Carver, *Engels After Marx* (University Park, Pennsylvania: The Pennsylvania State University Press, 1999).

¹⁹³ Francis Fukuyama, *The End of History and the Last Man* (New York: The Free Press, 1992). Jon Stewart, *The Hegel Myths and Legends* (Evanston, Il.: Northwestern University Press, 1996). Fukuyama’s interpretation is influenced by the works of the philosopher Alexander Kojeve, *Introduction to the Reading of Hegel* (1969). Cf. also, Shadia Drury, *Alexander Kojeve, The Roots of Postmodern Politics* (New York: St. Martin’s, 1994). Cf. also *After History? Francis Fukuyama and his Critics*, Timothy Burns (ed), (Lanham, Md.: Rowman & Littlefield, 1994). Cf. “The Tower of Babel Rebuilt”, Peter Fenves traces the Kantian origins of the ‘end of history’ idea and the reservations of Kant in his “An Old Question Asked Anew”. George Kelly, *Idealism, Politics, and History* (New York: Cambridge University Press, 1969). For a discussion of Kojeve on Kant and Hegel, cf. Patrick Riley, *Kant’s Political Philosophy* (Totowa, New Jersey: Rowman and Allanheld, 1983), Bhikhu Parekh, *Marx’s Theory of Ideology* (Baltimore: The John Hopkins University Press, 1982).

¹⁹⁴ For all the efforts to debrief Hegel by the Left Hegelians, none can seem to match the acutely ‘demystified’ Schopenhauer. But Hegel, in ponderous magnificence, leaves a philosophic daguerrotype, ‘cliché’ with idealist flash, much better than Hollywood, of the surging moment of Napoleon riding through Jena. It is never noticed, that the ahistorical Schopenhauer has a potentially superior inverted philosophy of history hidden behind his rejection of progress and a science of history. Note quietly the hidden resemblance of ‘will’ and ‘geist’, then the many (inferior) involutory triadisms of ‘will’, and their concocted divinities.

¹⁹⁵ Cf. *The Problem of Slavery in Western Culture* (New York: Oxford, 1966), *Slavery and Human Progress* (1984), David Brion Davis.

¹⁹⁶ Page Smith, *A New Age Now Begins* (New York: McGraw-Hill, 1976), Vol I, Introduction, and Chapter 10, “What Then is the American, This New Man?”, John Robert, *Revolution and Improvement* (Berkeley: University of California, 1976), Chapter 7, “A New Age?”, Forrest MacDonald, *Novus Ordo Seclorum* (Lawrence, Kansas: University of Kansas Press, 1985). The world of the Young Hegelians was the classic of all seminal New Age Movements, the more convincing for its wild gyrations: Feuerbach, “...One who understands the language in which the spirit of the world speaks, cannot fail

the Mycenaean medievalism, and the interaction with the e-sequence, the classical Greece that we know. The sequence, Mycenaean, Archaic/Classical, Hellenistic, dramatizes the nature of one of the most extraordinary forms of periodic motion in nature.

Between 750 and 650, we see the end of the period that produced the *Iliad*, the rebirth of literate culture and the new literature that will exploit it, beginning with Hesiod, and then the seminal Archilochus. This is one of the most rapid periods of cultural evolution in history, and we can see, if only by hypothesis, that it is a global system transformation in the next phase of oikoumene generation. After -600, and the generation of Solon, the foundations are laid for the great sequences of the Classical era, in sculpture, architecture, philosophy, and politics. By -400 the falloff is evident and the world of the polis passes into the era of the first oikoumene, the Hellenistic empire of

to recognize that our present is the capstone of a whole period in the history of humanity and is precisely the starting point of a new life.' Quoted from Karl Lowith, *Martin Heidegger & European Nihilism* (New York: Columbia University Press, 1995). Alexander Macfie (ed.), *Eastern Influences on Western Philosophy* (Edinburgh: Edinburgh University Press, 2003), David Smith, *Hinduism and Modernity* (Malden, MA: Blackwell, 2003).

¹⁹⁷ Hugh Urban, *Tantra, Sex, Secrecy, and Power in the Study of Religion* (Berkeley: Univ of Ca, 2003).

²⁰⁰ Cf. Karl Lowith, *Meaning In History* (Chicago: Chicago University Press, 1957). Hans Blumenberg, *The Legitimacy of the Modern Age*, p. xiv.

²⁰¹ Consider the following formulation:

The eonic evolution of religion: macro-action: We begin to see that the history of religions shows two aspects, its continuous particulars of spiritual culture and the intersection with some larger sequencing on a higher scale. It is this that generates the illusion of an Age of Revelation (no illusion, in our terms). We have the seeds of an explanation for the Judaic myths, and the remarkable historical data that accompanies it in the 'history of Israel', now seen in a new light. We will begin to suspect a much earlier history to all this, even predating the rise of civilization, and going back to the Neolithic.

...vs. religion as mideonic free action: micro-action: The eonic effect reflects the distinction between our sense of sourcing religions and what comes in their wake, and the composers of the Christian Bible struggled with this obvious point in their own terms. They could see that the Old Testament period was somehow 'special' and their teleological confusions in relation to that are the stuff of some quite dangerous history. We will see that our eonic model faithfully reflects this aspect of eonic determination in the proto-Judaic generator, as compared with the 'sequential dependency' of Christianity and Islam. Let us not forget that the latter show 'free action' and were driven to construct their own mysteries of the supernatural. The mere existence of 'several' such reminds us indeed that they were arbitrary 'free action'. Note that the Axial period, by our hypothesis, comes on schedule, while the mideonic religions show relative contingency. We cannot give them eonic status. We don't have to, and they don't need it.

Alexander. The world of the *polis* does not lead so happily to the world of Cosmopolis. The Greek transition is evanescent, and soon bends out of shape.²³⁴

‘ET5++’: Athens to Rome

The history of Rome has for long been the victim of delegation to secondary status in relation to the Greece. Our outline gives a complete account of this fact, even as it moves to relieve the Roman unfoldment to some relief of this peculiar status. For the Roman emergence, zoned with the Etruscan, is ambiguous in our account in the sense that it is clear an independent parallel emergent in relation to ‘ET5’, and yet also, a fluid transformation of the ‘sequential dependencies’ of the Hellenic Mediterranean network of diffusion, the ‘Greeks overseas’ to use

²⁰² James Wellard’s *Babylon* (New York: Saturday Review Press, 1972).

²⁰³ *The Greeks and the Irrational* (Berkeley: University of California Press, 1951), E. R. Dodds.

²⁰⁴ The idea of the ‘failure of nerve’ comes from Gilbert Murray, *The Five Stages of Greek Religion* (Oxford: Clarendon, 1935). It is elaborated by E. R. Dodds, in his *The Greeks and the Irrational*. He describes the profound change of tone that occurred between the period of classical Athens and the world of the later Roman Empire. But the ‘failure of nerve’ suggests a psychological explanation for a more complex process related to the issue of our ‘turning points’, and the tremendous multicultural confusion that attended the expansion of the Hellenistic world. For the idea transposed, cf. Peter Gay’s *The Enlightenment* (New York: Norton, 1969), Volume II, “The Science of Freedom”, Chapter I, “The Recovery of Nerve”.

²⁰⁵ Will Durant, *Our Oriental Heritage* (New York: MJF Books, 1963), p. 417.

²⁰⁶ Giorgio de Santillana & Hertha Duchend, *Hamlet’s Mill* (Boston: Gambit, 1969), p. 8.

²⁰⁹ S. Körner, *Kant* (New York: Penguin, 1962), W. H. Werkmeister, *Kant* (La Salle, Ill.: Open Court, 1980), Karl Jaspers, *Kant [From The Greek Philosophers, Volume 1]* (New York: Harcourt Brace, 1962), H. J. Paton, *The Categorical Imperative* (Philadelphia: University of Pennsylvania Press, 1971), William Galston, *Kant and the Problem of History* (Chicago: University of Chicago, 1975), Hans Saner, *Kant’s Political Thought* (Chicago: University of Chicago Press, 1973), Yirmiyahu Yovel, *Kant and the Philosophy of History* (Princeton: Princeton University Press, 1980), Keith Ward, *The Development of Kant’s View of Ethics* (NY: Blackwell, 1972), George Armstrong Kelly, *Idealism, Politics, and History* (Cambridge: Cambridge University Press), J. D. McFarland, *Kant’s Concept of Teleology* (Edinburgh: University of Edinburgh Press, 1970), Frederick Beiser, *The Fate of Reason* (Cambridge: Harvard University Press, 1987), Bernard Carnois, *The Coherence of Kant’s Doctrine of Freedom* (Chicago: Chicago University Press, 1987), Peter McLaughlin, *Kant’s Critique of Teleology in Biological Explanation* (Lewiston, NY: Edwin Mellen, 1990), Thomas Wiley, *Back To Kant* (Detroit: Wayne State University Press, 1978), Jean-Marie Schaeffer, *Art of the Modern Age* (Princeton: Princeton University Press, 2000), Patrick Riley, *Kant’s Political Philosophy* (New York: Rowman & Allandheld, 1983), Harry Van der Linden, *Kantian Ethics and Socialism* (Indianapolis, Indiana: Hackett, 1988), Arthur Collins, *Possible Experience* (Berkeley: University of California Press, 1999), John Zammito, *The*

the phrase of the book by John Boardman. Nothing in our approach forbids this double aspect. Roman mythology clearly echoes its early transitional generation, whatever we are to conclude, in its account of the passage to a republic from the era of kingship.

‘ET5, ...India,...’:

The Indian transition is plainly visible from a distance in the contrast and sequence of the Vedic, Upanishadic, followed by the emergent Jainism and Buddhism and parallel proto-Hinduism, followed by the typical integration phase of Ashoka, in another variant of religion and empire, and the clear

Genesis of Kant's Critique of Judgement (Chicago: University of Chicago Press, 1992).

²¹¹ Peter Fenves, *A Peculiar Fate*, (Ithaca: Cornell, 1991), p. 85. Note also Fenves' remarks on the transition from an 'idea for a universal history' to 'idea of a universal history', at the point where the project of a world history is brought to fruition. Consider also this passage from Bruce Mazlish, *The Riddle of History*: "There is a certain irony in the fact that the little philosopher—Kant was only five foot tall—who never left Königsberg wrote a universal history from a cosmopolitan point of view. It corresponds perfectly, however, with Kant's abstracting mind as well as with the content of his philosophy. History, as he tells us, has to be looked at in its full, universal time sweep, for only in history as a whole is nature's purpose realized. And history has to be considered from a cosmopolitan point of view because its necessary goal is a 'perfect civic constitution of mankind', a point which Kant stresses not only in the Idea, but in *Eternal Peace*, where he defends 'the idea of a cosmopolitan world law' against the charge of utopianism. Kant begins the Idea by an assertion that human actions, like any other phenomena, are determined by general laws of nature. What appears accidental in the individual is determinate and predictable in the species. An example is marriage: although a marriage seems freely willed by the individual, yet the annual statistical tables exhibit a consistency which, according to Kant, show that marriages "occur according to stable natural laws". Such a social phenomenon can be compared the oscillation of the weather: while we cannot predict individual states of affairs, we can rely on a regular support of the growth of plants, the flow of streams, and so forth, 'at a uniform, uninterrupted pace'. The conclusion is one to warm the heart of Adam Smith. "Individual men," Kant tells us, "and even whole nations, little think, while they are pursuing their own purposes—each in his own way, and often one in direct opposition to another—that they are unintentionally promoting, as if it were their guide, an end of nature, which is unknown to them." Nevertheless, since man himself has neither instinct, like the animals, nor a rational plan of his own to guide him to a preconceived end, history, at first glance, seems pointless, like Shakespeare's 'tale told by an idiot'. Or, as Kant puts it in typical Enlightenment fashion, 'It is hard to suppress a certain disgust when contemplating men's actions upon the world stage.'

This disgust is relieved only by the discovery that "in this senseless march of human events" nature has a plan and an end. This discovery, however, is the philosopher's task,

emergence of the gesture toward oikoumene. Buddhism and Jainism are in the realization period, 'ET5+', analogous to Judaism in the wake of the prophetic era. The different character of Buddhism, for example, is always noted as odd but never quite accounted for. This is one and the same 'master key' sequence seen in the Occidental Israelite/Judaic sequence.

It is fascinating to compare the two, for the Buddhist glove slipped off the larger Indian t-stream by the time of the Gupta age. That later 'Hinduism' is a complex resurgence of entry t-stream absorbing the transitional shockwave as a complex flow around makes the correct interpretation of the outstanding traditions somewhat confusing. The exact cultural interpretation of the *Bhagavad Gita* alone is comparable with the

or rather Kant poses it as a problem for a future Kepler or Newton of the historical world. Kant himself will seek in the Idea only to provide a clue, or a guide, to this happy discovery. The whole point of Kant's attempt, however, is that he assumes from the beginning that man's random and free pursuits are to be considered as if they were subject to nature's laws--which Kant, as we shall see, equates with an aim or purpose of nature." Bruce Mazlish, *The Riddle of History* (Harper & Row, 1966), p. 103.

²¹² Alan Megill, *Karl Marx* (New York: Rowman & Littlefield, 2002), Chapter 1, "Marx's Rationalism: How the Dialectic Came from the History of Philosophy".

²¹³ Charles Taylor, *Hegel and Modern Society* (New York: Cambridge University Press, 1979), George O'Brien, *Hegel on Reason and History* (Chicago: Chicago, 1975). Robert Solomon's *In the Spirit of Hegel* (New York: Oxford, 1983). Burleigh Taylor Williams, *Hegel's Philosophy of History* (Ithaca, New York: Cornell, 1974), Howard Williams, *Hegel, Heraclitus and Marx's Dialectic* (New York: St. Martin's Press, 1989), Glenn Magee, *Hegel and the Hermetic Tradition* (Ithaca: Cornell University Press, 2001), Michael Gillespie, *Hegel, Heidegger, and the Ground of History* (Chicago: University of Chicago Press, 1984).

²¹⁴ Arthur Hübscher, *The Philosophy of Schopenhauer in its Intellectual Context* (Lewiston, New York: Edward Mellen, 1989), Christopher Janeway, *Self and World in Schopenhauer's Philosophy* (New York: Oxford University Press, 1989).

²¹⁵ G. J. Whitrow in *Time in History* (New York: Oxford, 1981) notes, p. 51, "It has for long been held that our modern idea of time derives from that of early Christianity, which in turn can be traced back to that of ancient Israel and Judaism. Instead of adopting the cyclical idea of time, the Jews are said to have believed in a linear concept, based in their case on a teleological idea of history as the gradual revelation of God's purpose. Although there is much to support this view of the origin of our modern idea of time, it is now realized that it can only be adhered to with some reservations." Nicholas Campion, in *The Great Year* (New York: Arkana, 1995), p. 16, is especially critical of the work of Mircea Eliade, in *The Myth of the Eternal Return* (New York: Pantheon, 1954), for spreading the idea that the Hebrews were the sole inventors of the 'linear idea of time', in contradistinction to all others who adopted cyclical ideas.

²¹⁷ Perry Anderson, *The Origins of Postmodernity* (New York: Verso, 1998), Terry Eagleton, *The Illusions of Postmodernism* (Blackwell, 1996), Jean-Francois Lyotard, *The Postmodern Condition* (Ann Arbor: University of Minnesota, 1985).

difficulties of the Occidental religious texts. The stream and sequence data for the Indian transition must take into account the double stream of the earlier Dravidian mixing with the Aryan entry field, and its blending and transposition of the spiritual that appears to emerge from the polytheistic world of Vedism. This preoccupation with religion must not let us forget that the Indian transition is a broad cultural matrix not so dissimilar from the Greek as a system of small kingdoms, an economic and political sequence, and the typical 'empire integration' in the last phase.²³⁵

'ET5, China,...':

At about the time of the institution of the Greek Olympic Games in -776, we enter the period of 550 years from -771 to -221, the Eastern Chou period, when

²¹⁹ Theodore Olson, in *Millennialism, Utopianism, and Progress* (1982), p. 265.

²²⁰ Leni Yahl, *The Holocaust* (New York: Oxford University Press, 1990), Yehuda Bauer, *Rethinking the Holocaust* (New Haven: Yale University Press, 2001).

²²¹ Immanuel Kant, trans. T. Green & H. Hudson, *Religion Within The Limits of Reason Alone* (New York: Harper & Row, 1960), Richard Bernstein, *Radical Evil* (Cambridge, UK: Polity, 2002).

²²³ Arthur Koestler, *The Sleepwalkers* (New York: MacMillan, 1968).

²²⁴**Appendix**

? R. Lerner & al., *Western Civilizations* (New York: Norton, 1993), Peter Gay, *The Enlightenment* (New York: Norton, 1966), Norman Hampson, *A Cultural History of the Enlightenment* (New York: Pantheon, 1968), Ernst Cassirer, *The Philosophy of the Enlightenment* (Boston: Beacon Press, 1955), Paul Hazard, *The European Mind* (New York: World Pub. Co., 1963), F. Nussbaum, *The Triumph of Science and Reason: 1660-1685* (New York: Harper & Row, 1953), Tom Sorrell (ed.), *The Rise of Modern Philosophy* (Oxford: Clarendon, 1993), Lester Crocker, *Nature and Culture* (Baltimore: John Hopkins, 1963), R.R. Palmer, *The Age of Democratic Revolutions*, Eric Hobsbawm, *The Age of Revolution: 1789-1848* (New York: New American Library, 1962), William Doyle, *Origins of the French Revolution* (New York: Oxford, 1980), Owen Chadwick, *The Secularization of the European Mind in the Nineteenth Century* (New York: Cambridge University Press, 1975), Louis Dumont, *From Mandeville to Marx* (Chicago, 1977), Frank E. Manuel, *Shapes of Philosophic History* (Stanford, 1965), David Landes, *The Unbound Prometheus* (New York: Cambridge University Press, 1969), E. Roll, *A History of Economic Thought* (London, 1973) Athol Fitzgibbons, *Adam Smith's System of Liberty Wealth and Virtue* (Oxford: Clarendon, 1995), John Plamenatz, *Man and Society* (London: Longmans, Green, 1973), James Miller, *Rousseau* (New Haven: Yale University Press, 1984), W. H. Weikmeister, *Kant* (Lasalle: Open Court, 1980), David Brion Davis, *The Problem of Slavery in Western Culture* (New York: Oxford, 1966), *Slavery and Human Progress* (1984), Pamela Pillbeam (ed.), *Themes in Modern European History* (London: Routledge, 1995), Ferenc Feher (ed.), *The French Revolution and the Birth of Modernity* (Berkeley: University of California, 1990).

a phenomenon resembling that of the Greek polis creates political turbulence, the inability of any one state to control China, and a period of ferment in which the gestation of the great Chinese civilization takes place. This whole period is often subdivided into a Spring and Autumn period (-722 to -481) and a Warring States period (-403 to -221).

The Chinese transitional period is of especial interest because of its 'Greeks of the East' theme and variations, its distance from the conventional 'cradle of civilization' in the Near East, the distinct character of its creative yet diffusionist beginnings in the early Shang period, and its rapid movement from these 'primitive' Shang beginnings to advanced civilization after a first period of eonic transition, like a student skipping a

²²⁵ *After The Ice: A Global Human History, 20,000 to 5000* (Cambridge: Harvard University Press, 2004), by Steven Mithen, *Ascent of Civilization: The Archaeology of Early Humans* (London: Collins, 1984), by John Gowlett. *Patterns in Prehistory: Humankind's First Three Million Years* (New York: Oxford University Press, 1984), by R.J. Wenke, *Farming in Prehistory* (New York: St. Martin's, 1975), by Barbara Bender, *From Foraging to Agriculture* (Philadelphia: University of Pennsylvania, 1989), by Donald Henry, James Mellaart, *Earliest Civilizations of the Near East, and Catal Huyuk* (New York: McGraw-Hill, 1965), James Mellaart, David Harris, *The Origins and Spread of Agriculture and Pastoralism in Eurasia* (1996), *The Early History of the Ancient Near East 9000-2000 B.C.* (Chicago: University of Chicago, 1988), Hans Nissen, *The Old World: Early Man to the Development of Agriculture*, ed. Robert Stigler, *The Emergence of Civilization* (New York: Routledge, 1990), by Charles Maisels, *The Ancient Near East* (New York: Harcourt Brace, 1971), by W. Hallo and W. Simpson, *Prehistory and the Beginnings of Civilization*, by J. Hawkes and L. Woolley, Charles Redman, *The Rise of Civilization* (San Francisco: W.H. Freeman, 1978).

²²⁶ James Mellaart, "The Beginning of Village and Urban Life" in *The Dawn of Civilization* (New York: Dawn of Civilization, 1961), p.55, Jacquetta Hawkes, in *History of Mankind*, p. 222. Cf. Also, K. Kenyon, *Digging up Jericho*, J. Mellaart, *Earliest Civilizations of the Near East*, H. Nissen, *The Early History of the Ancient Near East*.

²²⁷ For a discussion of the term 'civilization' in relation to the sequence 'village, town, city', cf. Sir Leonard Woolley, "The Beginnings of Civilization", p. 359, in *History of Mankind*, Volume I, Part II., 1963.

²²⁸ *Dawn of Civilization* (New York: F. Ungar Pub Co, 1968), Stuart Piggott, p. 62.

²³¹ Ian Shaw (ed.), *The Oxford History of Ancient Egypt* (New York: Oxford University Press).

¹⁵⁰ Christopher Hill, *The English Bible and the Seventeenth-Century Revolution* (New York: Penguin, 1993), p. 7-8. Christopher Hill, *The Century of Revolution, 1603-1714* (New York: Norton, 1961), p. 1.

¹⁴⁸ J. G. A. Pocock, *The Machiavellian Moment* (Princeton: Princeton University Press, 1975).

¹⁵¹ Christopher Hill, *The World Turned Upside Down* (New York: Penguin, 1991).

¹⁵² Tristram Stuart, *A Bloodless Revolution* (New York: Norton, 2006).

grade in school, and yet moving swiftly to make up the difference. The result is almost a kind of compression together of the most advanced forms of culture with a context that almost betrays traces of a more antiquated ‘oriental despotism’, with its elusive common denominator that shows its beguiling family resemblance to what occurs in the West. It is, incidentally, this possibility that two stages of growth can be blended that makes a refutation of most labeled conceptual sequences of evolutionary development and shows why the ‘eonic sequencing’ of ‘empty’ progressive cycles is the only solution to broad parallel development.²³⁶

4. The Modern Transition

¹⁵³ Craig Thomas, *From Here To There* (New York: HarperPerennial, 1991), Peter Schouls, *Reasoned Freedom: John Locke and Enlightenment* (Ithaca: Cornell University Press, 1992).

¹⁵⁴ Jonathan Israel, *Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750* (Oxford: Oxford University Press, 2002), Paul Hazard, *The European Mind* (New York: Penguin, 1964).

¹⁵⁵ Charles Witney, *Francis Bacon and Modernity* (New Haven: Yale University Press, 1986).

¹⁵⁶ “I have shown how, when the mainstream of modern philosophy ran up against transcendental idealism it ceased to flow along a single current and ramified into various channels.” Bryan Magee, *The Philosophy of Schopenhauer* (New York: Clarendon, 1997), p. 96.

¹⁵⁷ William Bluhm, *Force or Freedom?* (New Haven: Yale University Press, 1984), Jerrold Seigel, *The Idea Of The Self* (New York: Cambridge University Press, 2005).

¹⁵⁸ Garrett Thomson, *On Kant* (Belmont, Ca.: Wadsworth, 2000).

¹⁵⁹ Sadik Al-Azm, *The Origins of Kant’s Arguments in the Antinomies* (New York: Oxford University Press, 1972. John Randall, *The Career of Philosophy, Vol II* (New York: Columbia University Press, 1965).

¹⁶⁰ Joseph Levine, *The Battle of the Books: History and Literature in the Augustan Age* (Ithaca: Cornell University Press, 1994).

¹⁶¹ J. B. Schneewind, *The Invention of Autonomy* (Cambridge: Cambridge University Press, 1998).

¹⁶² Alex Bellamy, *Just Wars* (Malden, MA: Polity, 2006).

¹⁶³ Terry Pinkard, *German Philosophy 1760-1860* (Cambridge: Cambridge University Press, 2002).

¹⁶⁴ Frederick Beiser, *The Fate Of Reason* (Cambridge: Harvard University Press, 1987).

¹⁶⁵ Luc Ferry, *Homo Aestheticus, The Invention of Taste In The Democratic Age* (Chicago: Chicago University Press, 1990).

We are back at our starting point in the frontier zone of the Eurasian system. We see the clear ‘jump-start’ effect in the generation of Machiavelli and the explosion of the Reformation. From this point onwards, the acceleration is pronounced and unflagging until the beginning of the nineteenth century, and generates a revolutionary turbulence, from which emerges the new industrial society we call ‘modern’.

As in the ancient world, the first changes hug the proximity of the earlier age, visible as the (late) Italian Renaissance, and then appear in the outlying areas, moving in south/north direction. The clear appearance of focal intensity in a Northern band of Germany, France, Netherlands, England, is exactly to be expected, and passes immediately to the New World as a great extension of the effect. The overseas expansion and global connection, nationalism and new forms of warfare, the onset of early

¹⁶⁶ Eric Metaxas, *Amazing Grace* (San Francisco: HarperSanFrancisco, 2007).

¹⁶⁷ Lynn Hunt, *Inventing Human Rights* (New York: Norton, 2007).

¹⁶⁸ Paul Hyland et al., *The Enlightenment* (New York: Routledge, 2003), Roy Porter, *The Creation of The Modern World* (New York: Norton, 2000).

¹⁶⁹ Jonathan Israel, *Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750* (Oxford: Oxford University Press, 2002), J. B. Schneewind, *The Invention of Autonomy* (New York: Cambridge University Press, 1998). Roy Porter (ed.) et al., *The Enlightenment in National Context* (Cambridge: Cambridge University Press, 1981).

¹⁷⁰ Alexander MacFie (ed.), *Eastern Influences On Western Philosophy* (Edinburgh: Edinburgh University Press, 2003).

¹⁷¹ Carl Friedrich, *Kant's Moral and Political Writings* (New York: Modern Library, 1949), “What is Enlightenment”, p. 132

¹⁷² Graeme Garrard, *Counter-Enlightenments* (New York, Routledge, 2006).

¹⁷³ Jean Lyotard, *The Postmodern Condition* (Minneapolis: Minnesota, 1974), Alex Callinicos, *Against Postmodernism* (New York: St. Martin's, 1989), Daniel Gordon (ed.), *Postmodernism and the Enlightenment* (New York: Routledge, 2000).

¹⁷⁴ James Q. Wilson, *The Moral Sense* (New York: The Free Press, 1993).

¹⁷⁵ Immanuel Kant, “An Answer to the Question: ‘What is Enlightenment’”, *Kant's Political Writings* (New York: Cambridge University Press, 1971), Hans Reiss. F. Beiser, “The Enlightenment and Idealism”, in *The Cambridge Companion to German Idealism*, K. Ameriks (ed.) (NY: Cambridge University Press, 2000). James Schmidt (ed.), *What is Enlightenment?* (Berkeley: University of California Press, 1996), Peter Gay, in *The Enlightenment: The Rise of Modern Paganism* (New York: Norton, 1966), Vol I, Chapter 2, “The First Enlightenment”. Norman Hampson, *A Cultural History of the Enlightenment* (New York: Pantheon, 1968), Ernst Cassirer, *The Philosophy of the Enlightenment* (Boston: Beacon Press, 1955), Paul Hazard, *The European Mind* (New York: World Pub. Co., 1963), Frank Manuel, *The Eighteenth Century Confronts the Gods* (New York: Atheneum, 1967). Isaiah Berlin, *The Roots of Romanticism* (Princeton: Princeton University Press, 1999).

¹⁷⁶ Edward Wilson, *Consilience* (New York: Knopf, 1999), p. 38.

industrial transformation with a price revolution, a demographic surge, the scientific renewal, the first phases of social revolution, the Reformation as a religious evolutionary transform or 're-formation', the crystallization of the early forms of a new tradition in the rapid appearance of national literatures climax in the passage from a first to a second stage in the seventeenth century. Here in many ways we see the character of the changes begin to reveal the results of their random stirrings in the beginnings of *human* direction to the transformation: the beginning of the Enlightenment, the real Scientific Revolution, and the generation of the new forms of economy, culture and economy that will initiate a new pattern of world history in the passage through the cauldron of revolution and industrialization. Instead of the 'rise of the West' we now have:

¹⁷⁷ Judith Sklar, *Men and Citizens* (New York: Cambridge University Press, 1969), Ernst Cassirer, *The Question of Jean-Jacques Rousseau* (New Haven: Yale University Press, 1989), Lester Crocker, *Rousseau's Social Contract* (Cleveland: The Press of Case Western Reserve University Press, 1968), Jason Neidman, *The General Will Is Citizenship* (New York: Rowman and Littlefield, 2001). James Miller notes, in Rousseau, *Dreamer of Democracy* (New Haven: Yale University Press University Press), p. 202, "Before Rousseau, democracy was, at best, an admirable but obsolete pure form of government, generally of interest only to students of jurisprudence. After him, it became a name for popular sovereignty, extending to all the promise of a personally fulfilling freedom, exercised in cooperation with others."

¹⁷⁸ R. F. Teichgraber *Free Trade and Moral Philosophy* (Durham: Duke University, 1986), p.xiii, Athol Fitzgibbons, *Adam Smith's System of Liberty Wealth and Virtue* (New York: Oxford University Press, 1995), A. Arblaster, *The Rise and Decline of Western Liberalism* (New York: Basil Blackwell, 1984). The world of Adam Smith soon yields to neo-classical and marginalist economics. The claims for macroeconomic models, in general, or such by those with the nerve to cite the work of Arrow and Debreu, that capitalism is the best allocator of economic resources are propaganda at its best. So what? The most efficient system would be that of slavery. Cf. E. Screpanti & S. Zamagni, *An Outline of the History of Economic Thought* (Oxford: Clarendon, 1993), p. 341. For a critique of the application of the physics metaphor to economics, cf. Philip Mirowski, *Against Mechanism* (Totowa: Rowman & Littlefield, 1988). Daniel Fusfeld, *The Age of the Economist* (New York: William Morrow, 1968), Chapter 7, "Neo-Classical Economics". Mathematical models based the differential equation all fail the test of the Oedipus Paradox, and of the historical inevitability argument with which we began. Empirical maps of economic cycles with agent interaction in his present, as we have shown, conform to the right correction of deterministic thinking. The fatal conceit (cf. Hayek, *The Fatal Conceit, The Road to Serfdom*) is as much that of the unthinking market order libertarian ideologist as that of Hayek's villain socialist. Cf. Ben Seligman, *Main Currents in Modern Economics* (1963), Robert Kuttner, *Everything for Sale* (New York: Knopf, 1997). Karl Polanyi in his *The Great Transformation*, is pointing to the social construction of the market order, taken as the mystification of social laws. J. R. Stanfield, *The Economic Thought of Karl Polanyi* (New York: St. Martin's, 1986).

For Social Darwinism, cf. Richard Hofstadter, *Social Darwinism in American Thought* (Philadelphia: University of Pennsylvania, 1945), Robert Bannister, *Social Darwinism:*

‘ET6,...Atlantic sector : Western Eurasia,...’: After the onset of the Reformation in the sixteenth, the transformation clearly begins to show its truly new character from the middle of the seventeenth century, as if what came before were nothing more than the breaking of ground. The Reformation begins to yield to the Enlightenment, the age of Copernicus to the age of Newton, the forms of governance stir in the English Revolution to generate the forms of the new liberalism, with a ‘socialism’ hiding behind it, and quite underpowered. The final piece of the new world is rapidly taking form before the onset of industrialism in an earthquake of democratic revolution, globalization, and economic expansion.²³⁷

Science and Myth in Anglo-American Thought (Philadelphia: Temple, 1979), Edward Caudill, *Darwinian Myths: The Legends and Misuses of a Theory* (Knoxville: University of Tennessee, 1997), John Greene, *Science, Ideology, and World View*, (Berkeley: University of California, 1981). Marx on Darwin is the source of a number of myths. Terence Ball in *Reappraising Political Theory*, Chapter 10, "Reappraising Marx and Darwin".

¹⁷⁹ Adrian Desmond & James Moore, *Darwin, Darwin, Life of a Tormented Evolutionist* (New York: Warner, 1991) (with a companion volume by the co-author Adrian Desmond, *Huxley, From Devil's Disciple to Evolution's High Priest*), p. xxi.

¹⁸⁰ Cf. Gertrude Himmelfarb's discussion of a 'conservative revolution', in the development of Darwinian theory, in *Darwin and the Darwinian Revolution* (New York: Norton, 1959), and Michael Denton, in *Evolution: A Theory in Crisis* (New York: Adler & Adler, 1985) on Darwin's insistence that an evolutionary process be infinitely gradual, p. 60. Denton discusses Howard Gruber's *Darwin on Man* (Chicago: University of Chicago, 1981) where Darwin's early education led him to the assumption that to show something was of natural origin required showing it to have evolved gradually from its precursors, pp. 125-26. Cf. Jacques Barzun, *Darwin, Marx, Wagner* (Boston: Little, Brown, 1941), p. 40.

¹⁸¹ There are any number of good books on Malthus, as the founder of demography, but most are sanitized, try an old-fashioned leftist salvo and history of the part left out of most accounts, Harold Boner, *Hungry Generations, The Nineteenth-Century Case Against Malthusianism*, (King's Crown Press, New York, 1955).

¹⁸⁹ Herbert Butterfield, *The Whig Interpretation of History* (New York: Scribner, 1951). Craig Thomas, *There to Here: John Locke and His Influence on 300 Years of Political Theory* (New York: HarperPerennial, 1991).

¹⁹⁸ Cf. Peter Washington, *Madame Blavatsky's Baboon* (New York: Schocken Books, 1994) for this phrase in relation to Blavatsky's anti-Darwinism. In the United States, the 'new aging' process in its Orientalizing aspect comes as early as the Transcendentalists, already built into American tradition from the start. Cf. Raymond Schwab, *The Oriental Renaissance* (New York: Columbia, 1984), Carl Jackson, *The Oriental Religions and American Thought, Nineteenth Century Explorations* (Westport: Greenwood, 1981). A critical account is found in Robert Basil (ed.), *Not Necessarily The New Age* (New York: Prometheus, 1988). A manifesto, of sorts, for the movement was Marilyn Furguson's

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The Aquarian Conspiracy (New York: St. Martin's, 1978). Martin Green, *Prophets of a New Age* (New York; Scribner's, 1992).

¹⁹⁹ The issue is transparently clear if we look at the ambiguity (to some) of Kantian ethics. As Roger Sullivan notes apologetically at the beginning of *An Introduction to Kant's Ethics* (Cambridge: Cambridge University Press, 1994), p. 1, "Kant's moral philosophy has also often been read (and with good reason) as concerned mainly with the moral character of individuals and of their actions. But if we approach it from that point of view, we may not have much sympathy for many of his claims, especially his insistence that our fundamental moral rules may override our personal concerns and cares. If, however, we begin, with his political theory, we are better positioned to appreciate how his moral philosophy provides the underlying conceptual structure for a community life that can be shared by everyone."

²⁰⁸ Elizabeth Ellis, *Kant's Politics* (New Haven: Yale University Press, 2005).

²¹⁶ Oswald Spengler, *The Decline of the West* (New York: Knopf, 1926), Arnold Toynbee, *A Study of History* (New York: Oxford, 1957), abridgement by D.C. Somervell. For a series of critiques of Toynbee's theory, cf. *Toynbee and History* (Boston: Porter Sargeant, 1956), Ashley Montagu (ed.), Pieter Geyl, *Debates With Historians* (New Haven: Yale University Press, 1955), Marvin Perry, *Arnold Toynbee and the Western Tradition* (New York: Peter Lang, 1996). Stuart Hughes, *Oswald Spengler* (New York: Scribner, 1952). Arthur Herman, in *The Idea of Decline in Western Culture* (New York: The Free Press, 1996) traces the idea of cultural pessimism, and its relation to theories of decline.

²¹⁸ Cf. Herbert Butterfield, *The Origins of Modern Science* (1957), Chapter 12, "Ideas of Progress and Ideas of Evolution".

²²² Cf. C. Leon Harris, *Evolution: Genesis and Revelations*, Albany: State University of New York, 1981. For the historiography of the 'scientific revolution', cf. A. Rupert Hall, *The Revolution in Science, 1500-1750* (New York: Longman, 1983), I. Bernard Cohen, *Revolution in Science* (Cambridge: Harvard University Press, 1985), H. Floris Cohen, *The Scientific Revolution: A Historiographical Enquiry* (Chicago: University of Chicago Press, 1994).

²²⁹ H. J. Nissen, *The Early History of the Ancient Near East* (Chicago: University of Chicago, 1988) , Chapter 4, "The Period of Early High Civilization (ca. 3200—2800 B.C.), Harriet Crawford, *Sumer and Sumerians* (New York: Cambridge University Press,

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²³⁰ Leonard Woolley, *The Sumerians* (Oxford: Clarendon Press, 1928). Walter Emery notes: "At a period approximately 3400 years before Christ, a great change took place in Egypt, and the country passed rapidly from a state of Neolithic culture with a complex tribal character to one of well-organized monarchy...At the same time the art of writing appears, monumental architecture and the arts and crafts develop to an astonishing degree, and all the evidence points to the existence of luxurious civilization. All this was achieved within a comparatively short period of time for there appears to be little or no background to these fundamental developments in writing and architecture." W. Emery, *Archaic Egypt* (NY: Penguin, 1962), p.192.

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