



Kant's Challenge Resolved: Nature's Secret Plan

Kant on History and The Enigma of Teleology

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Preface

Kant's essay on history is a strange and serendipitous text that offers a challenge to the future to resolve the issue of a philosophy of history and/or an historical science. The question of history has remained obstinately unsolved by both philosophers and scientists. Isaiah Berlin in *Historical Inevitability* and Karl Popper in the *Poverty of Historicism* have indicated one aspect of that problematic, viz. the issue of choice in human action and its relation to claims for historical laws. These critiques would seem to have settled the question, but here a close look at Kant's essay shows that his reasoning had already addressed the objections of Popper and Berlin. Students of the subject are thus either determinists or else insist that history is the tale of men with free will. The result has been a void between two extremes that cannot be reconciled. Kant's essay points to a path between these opposites. The reason is that our dualistic thinking posits causality and free will antithetically while Kant puckishly asks a question about the 'causality of free will'. The result is an antinomial short circuit that might resolve to a new concept as an intermediate. We will consider a concept of 'free agency', i.e. a form of choice as possibly subject to some form of determination. For example, a free agent can be more or less creative and this may have an historical determination. Let's anticipate our discussion with a conclusion.

The questions of creativity and 'self-consciousness' enter our discussion' and this is important because human creative innovations, next to variable states of consciousness are a key to the solution of Kant's challenge. The issue of 'will' in relation to consciousness is very complex but we might note, to anticipate our result, that 'self-consciousness' (as consciousness of consciousness) can serve as a phenomenal 'mule' for a perhaps noumenal will. The point is that this is one way (there are any number of formulations) reconcile free will and mechanism in an historical account, and the issue here is that 'free will' cannot be free subject to causal influences, while some definable 'free agency' might well be subject to causal effects. We should note that Kant's psychology is in principle is perhaps the best venue to a resolution of idea of freedom in relation to historical agency.

Beside the confusion over historical laws, an equal judgement might attend theories of evolution. The question is perhaps not directly our concern but because students of Kant assume his pre-darwinian views are outdated and that his view of history cannot be salvaged we need to free ourselves from the dogma of theory that fixates evolutionism. Indeed, the opposite is true: in a field where Darwinism reigns supreme the literature on Kant's essay on history is almost completely worthless because Kant's teleological thinking is unacceptable. In reality, despite the hubristic claims of Darwinians the issue of evolution remains unsolved because the dogma of natural selection is pseudo-science. We must say this at the start and say goodbye to the dogmatic extremes of paradigm control that strangely haunt the evolution question. The issue of evolution has been turned into a set of claims for random evolution, in the context of natural selection. No example of a non-random pattern of 'evolution' (i.e. from 'evolvere', rolling out) is ever considered. Here Kant's challenge can be put in a nutshell:

For a preface, the issue of Kant's challenge is simple: find a non-random pattern in world history and a venue to the solution to his question may be found. History is important here because it allows the unique circumstance of data at close range, at the level of centuries. Although the measure at the level of centuries would be more fine-grain than the processes in deep time the same point is nonetheless relevant on a different scale. We must suspect that high-speed transformations in deep time are beyond observation, thoroughly muddling the question of evolutionary mechanism. The Cambrian, at a different demarcation considered as 'fast', comes to mind as a suspicious example. In general, we don't observe speciation directly in most instances: we only see the relative equilibrium after a period of punctuation. This situation has misled biologists throughout.

In any case times are changing and as the Darwin paradigm founders an insight into the issue of evolution from another angle can be explored. Although it is not our purpose to pursue evolutionary theories here our study of history leaves the suspicion that we have stumbled on one aspect of all theories of evolution and that this in some form will apply to evolution in deep time. We must consider how 'history emerges from evolution'. The term 'evolution' is misused by darwinists: its meaning should be that of 'development', and its action should be on two levels, a sort of macro/micro effect. That is an immense complication that makes a real theory of evolution problematical, but the difficulty must be faced. There are only two main possibilities, a trick like natural selection can explain everything and we are done, or evolution is hypercomplex, perhaps teleological, perhaps veiled in a noumenal unknown, and given to an unfortunate but obvious possibility: 'something' must construct evolutionary entities step by step according to some kind of blueprint, a dreadful state of affairs for those who thought selectionism the equivalent of 'god'. The issue of simultaneous mutations required to transform a given form factor, some organ for example, make the thesis of random evolution a mythological proposition, a point stated clearly by the physicist Fred Hoyle decades ago.

This threatens to become a design argument, but the issue of 'design', although harried by theologians and fundamentalists, is basic and an aspect of the natural world. The problem is not solved by theology and it remains unsolved by biologists because they cannot deal with teleological entities. Biologists, or more directly biochemists, are making tremendous progress at a base level of organismic structure but this is not the same as the question of evolution. Biologists remain stubbornly wedded to a doctrine of natural selection which, over and over again has been exposed as a fallacious theoretical construct. It is important to raise the issue of evolution It is important to consider how history emerges from evolution, a question which has remained enigmatic. In a way history is useful as an exercise to liberate thinking from the obsessive search for low level chemical solutions to their problem. History has no DNA and forces the issue of a more elusive form of explanation.

Here Kant's classic essay on history enters to propose, not so much a philosophy of history, as a question about how we might arrive at such a thing. We will propose, not a commentary on Kant's essay, but a solution to a related problem which is essentially the question asked by Kant and thrown into the future as challenge to be solved. The issue with Kant is to find how nature's secret plan operates with directionality as its core. The problem is solved empirically and with what we call a 'lasso' tool: a rope with a loop that will catch a creature. Our 'lasso' is what we called a discrete/continuous model: this is a kind of generalized 'punctuated equilibrium' and asks if history shows any discontinuities, any non-random clusters, any kind of cyclical periodization, sudden advances, declines and falls, punctuations and equilibria, anything that suggests, to use the phrase of one author, empirical evidence of the absence of a cause. This kind of model like a lasso is not necessarily exact but 'lassos' as a rough approximation to a sought for pattern. The tactic in this case is a spectacular success and uncovers a non-random process we can zoom in on in great detail, then zooming out to see a dynamic at work.

We thus find the first solution to Kant's question in the detection of a non-random pattern, and this turns out to be a transparent, almost self-explanatory historical process. The non-random is usually some unexpected causal factor or else more cogently some form of willed action that disturbs the normal perception of an equilibrium, like a rustling in the bushes which could be a breeze or a human in hiding. The non-random is something that catches our attention and we turn and 'look'. In history, we 'notice' some very peculiar derandomized intervals and periods. That raises the issue of will and thence 'design' and this is at the core of many controversies. If design is not the same as the question of 'god' then we are free of the theological issues that bedevil evolution. Out of earshot of the antagonists to such debates it is obvious from any text on biochemistry that design is universal in nature and that complicated machines are one exemplar. The issue of 'intelligent design' has confused the issue, because the term 'intelligent' is anthropomorphic. A biological machine remains a stubborn mystery and it confuses the issue to introduce the term 'intelligent' except as a metaphor. Anything more requires specifying an agent of design, and that is a metaphysical question, and in the range of Kantian critique. In any case the issue of design in history remains obscure until we discover the clear non-random character of 'universal' history. We must find new forms

of explanation there and Kant leads the way with a definite statement about historical laws, but in a different sense. Let us also note that in other writings he offered a speculation about a 'demiurge' but this, it should be noted, is not the same as 'god', and isn't the solution to a creationist fantasy, such an entity being a 'something, now someone' in the realm of nature. We cannot invoke that as a solution to 'design' issues, as far as we know. We will have nothing to say about that and our historical dynamic looks far more like a special kind of anti-entropic machine climbing Mt. Improbable than anything else. But the issue at hand is not so simple as our dilemma of 'willed action' because we may only speculate, without theology, about a factor in nature that we are ignorant of. It is here that our solution to Kant's challenge can be of help: we can study a teleological, or more plainly a directional, sequence at close range and the result is better than a volume of metaphysical musings about nature. Let us consider two deductions before we start!

1. History emerges from evolution. A trick question: when does evolution stop and history start? That would not be an instantaneous event: there must be a transition between the two. But we can apply this logic again to our transition: how long would this transition be? An 'instant' is relative and we would suspect that our transition is really a series of such transitions... We thus suspect that 'evolution' and 'history' overlap and that this takes the form of a discrete set of transitions.
2. If man has evolved 'free will' (or some form of free agency) then the 'evolution of freedom' is in principle a needed concept. But 'freedom' can't evolve instantaneously: it must transit we suspect via relative degrees of freedom. Further, 'evolving' is a determination that limits freedom in order to evolve freedom. That is, the evolution of freedom must involve a determination (a generalization of 'causality') as to free agency that limits its 'freedom' via induction in a transition to autonomy. Real freedom is thus tutored via a determination of partial freedom until that determination stops and real freedom becomes autonomous. It is like the third wheel on a child's first bike. The limit on the child's autonomy is transient and allows the development of a skill. Then the third wheel is withdrawn and the child rides autonomously. Again, we suspect in history a series of transitions in the alternation of constrained freedom evolving under some determination alternating with periods without determination as free agency. The periods of this transient phase would ultimately cease in the complete evolution of a free agent entering history at the end of evolution. This is somewhat artificial, but if the logic is valid history must show some evidence of these effects. Once we have the clue the search is short! And 'freedom' may still be potential relative to current or future transitions.

eneral Introduction

This is a short so-called 'net book' composed ca. 2008 as a short discussion of the solution to Kant's Challenge as this appeared in the text of *World History and the Eonic Effect*. It is accompanied by an additional such netbook, *History, Evolution and the Macro Effect*, to complement the first, along with a selection from WHEE, from "Fisher's Lament to Kant's Challenge". We have also included Kant's essay on history. However, our task here is not as such a commentary on that text as we deal only with the key ideas of that classic. We have often claimed the key ideas are contained in the first paragraph of that essay!? That, and few other passages. If WHEE was too long and needs this short account, this account is in fact too short and needs the longer account. In fact, this version needs, strictly speaking, only the first chapter called 'Kant's Challenge', the remaining chapters putting the issues in the context of the modern transition. We have included, as noted, an additional netbook, *History and Evolution and the Macro Effect* because we need to see that larger pattern beyond modernity: The Axial Age, the rise of higher civilization, etc... We focus our efforts on the Introduction to the essay, and the eighth and ninth theses. We can almost resolve the whole field of questions with nothing more than the first paragraph of the essay!

Introduction to Kant's essay:

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. Since the free will of man has obvious influence upon marriages, births, and deaths, they seem to be subject to no rule by which the number of them could be reckoned in advance. Yet the annual tables of them in the major countries prove that they occur according to laws as stable as [those of] the unstable weather, which we likewise cannot determine in advance, but which, in the large, maintain the growth of plants the flow of rivers, and other natural events in an unbroken uniform course. Individuals and even whole peoples think little on this. Each, according to his own inclination, follows his own purpose, often in opposition to others; yet each individual and people, as if following some guiding thread, go toward a natural but to each of them unknown goal; all work toward furthering it, even if they would set little store by it if they did know it.

Since men in their endeavors behave, on the whole, not just instinctively, like the brutes, nor yet like rational citizens of the world according to some agreed-on plan, no history of man conceived according to a plan seems to be possible, as it might be possible to have such a history of bees or beavers. One cannot suppress a certain indignation when one sees men's actions on the great world stage and finds, beside the wisdom that appears here and there among individuals, everything in the large woven together from folly, childish vanity, even from childish malice and destructiveness. In the end, one does not know what to think of the human race, so conceited in its gifts. Since the philosopher cannot presuppose any [conscious] individual purpose among men in their great drama, there is no other expedient for him except to try to see if he can discover a natural purpose in this idiotic course of things human. In keeping with this purpose, it might be possible to have a history with a definite natural plan for creatures who have no plan of their own.

We wish to see if we can succeed in finding a clue to such a history; we leave it to Nature to produce the man capable of composing it. Thus, Nature produced Kepler, who subjected, in an unexpected way, the eccentric paths of the planets to definite laws; and she produced Newton, who explained these laws by a universal natural cause.

EIGHTH THESIS

The history of mankind can be seen, in the large, as the realization of Nature's secret plan to bring forth a perfectly constituted state as the only condition in which the capacities of mankind can be fully developed, and also bring forth that external relation among states which is perfectly adequate to this end.

NINTH THESIS

A philosophical attempt to work out a universal history according to a natural plan directed to achieving the civic union of the human race must be regarded as possible and, indeed, as contributing to this end of Nature.

We can include the fifth thesis which impinges on our discussion as to the emergence of democracy:

FIFTH THESIS

The greatest problem for the human race, to the solution of which Nature drives man, is the achievement of a universal civic society which administers law among men.

Let us resume our discussion of what we are doing here in terms of the first thesis, which we note refers to Kepler. We should brag for the title of historical Kepler and demand a prize save only that our empirical substrate will prove incomplete and hence our detection of an historical pattern a fragment of a larger and still unknown historical saga. But it is likely we have found the key to the problem Kant poses. Kant lays down some stringent requirements, and if a fragment resolves the contradictions it is unlikely a larger pattern will follow a different rule. It is like a 'piece puzzle' which can begin to show recognizable subsets still short of the completion of the full puzzle.

Kant's classic *Critique of Pure Reason* we may take as the backdrop to this essay and its discussions of the antinomies in the *Dialectic*, in particular the Third Antinomy is key to the discussion. The issues of the first two chapters on space and the transcendental deduction are not discussed and these would constitute a fruitful subsequent, although difficult, continuation of our discussion. However, we strongly suspect that our suggested pattern evokes the question of

'transcendental idealism' directly as we suspect our discovered 'regular pattern' is a phenomenal aspect of a 'noumenal' unknown.

Note that Kepler discovered a pattern of orbital mechanics on the way to a Newtonian solution in terms of differential equations. The problem of history is far more difficult, but as per Kant's first paragraph we see that in principle the questions are analogs save only that Kant brilliantly restates the Third Antinomy in a clever recasting as causation applied to acts of will. This is clever move: we have left behind the science of history only to see it rise again with a new question about the causality of freedom. This is in fact an antinomial situation and yet here a genuine variant of 'dialectic' of some kind (without entering the quagmire of marxist dialectic) seeking a resolution in a third concept, perhaps. One way to consider that 'third concept' is in a distinction of 'free will' and 'free agency'. If the pattern of events shows some kind of causal determination that Kant asks for then 'free will' is compromised but that does not call for a purely causal explanation of the Newtonian brand: free agency can have 'free play' within certain limits in the same way that the operator of a computer mouse has free agency in the direction of an otherwise causal computer and this independently of any claim that he has free will. Free agency with a computer mouse requires no claim to violate the laws of physics. And yet the situation is very different from that of an autonomous causal machine. Free agency can input information with a mouse that will alter the computer's causal sequences. These situations are actually very frequent in human life, a driver and his car, would be another example. An economic system is another, although the use of differential equations in neo-classical economics seems to gainsay this: a closer look, and reference to numerous critics of such so-called 'sciences' suggests the obvious, that free agency is a key component of an economic system. Causality applied to free agency is visible in a host of situations, but one concern here is the state of consciousness we call creativity. A free agent can be creative and this may have a causal or other explanation of an unknown kind. Economists generally acknowledge this unwittingly as if to say the 'play of economic free agents in the large generates regularities' of some kind, e.g. developmental sequences. But our consideration here is far from the economic interpretation of history and detects a larger pattern or 'regular movement' in the evolution of civilization.

Let us recite one passage from the brilliant introduction to the essay, where Kant zeroes in on the key issue even as he demonstrates by his own admission that he has no real clue to the situation: he is asking a question, and for a Kepler to solve the problem. The crux is, "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.

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.

This passage is a direct statement of what we call Kant's Challenge to find a pattern of universal history, and we in fact detect a very specific 'regular movement' which we nickname the 'eonic effect' which is a kind of epochal cyclity in a system with a specific wavelength, a remarkable discovery and one that could only have been detected after the labors of archaeology in the nineteenth century began to push back the limits of historical knowledge from proximate to greater antiquity, thence the Neolithic, Paleolithic, and the realm of human evolution in deep time. The labors of the historians have discovered the realm of early Sumer and Dynastic Egypt and these seem to stage 'relative beginnings' in the period just before 3000 BCE. Beyond that we have the discovery of the Axial Age and its demonstration of synchronous discontinuity in parallel next to sequential discontinuity in the greater stream of world history.

Our pattern is therefore a definite yet equivocal three term sequence matched with a lateral set of effects at each interval. We are dealing with a system of considerable complexity whose character resembles a matrix, but we may indulge a partial simplification by considering a sequential system with directionality. It is helpful to consider first the sequential aspects of this pattern. It amounts to asking why we speak of the 'middle ages' (middle of what?), why we speak of the 'modern' period, or of the 'source of our traditions' (in the Greeks of the archaic (and thence classical period), and the onset of biblical monotheism in the parallel period of Israelitism. As we move backwards we find once again the same pattern and questions. Note that both these periods are discontinuous eruptions in the period ca. 900 to 600 BCE. Similar starting points are visible in India and China, relative starting points, we must note. This parallel effect completely falsifies any firm notion of continuous history since we see related correlations of innovative effects occurring in parallel in separated regions, a phenomenon that violates standard sociological 'causal antecedence' as an explanation. We see thus that Israel and archaic Greece in the given interval both innovate in parallel and this analog, while possibly coincidence to the skeptic attempting to falsify the eonic effect, defies explanations by chance, the more so as we zoom in on the many 'spooky' details of the concordance, which stretches across Eurasia, and even possibly to the New World (we make no claims for the latter). Note the issue of relative beginnings: consider a tree: the absolute beginning is the growth of the tree from seed, while relative beginnings are seen in the rings of annual growth cycles.

So, the net pattern is a chronicle of three epochs, or intervals, the third of which, the modern period, is only now getting underway. A three-term sequence, however limited, is the basic minimum to detect directionality and we see at once a high-level coherence in or still partial system. What is stupefying here is that Kant himself is part of the pattern and becomes a spectacular 'prophet' (i.e. 'speaking before') of the discovery of the significance of modernity (he saw perhaps only one aspect of that, the Enlightenment, taken not quite correctly as 'modernity') and of the answer to his cogent question whose resolution could not be completed in his time frame. Within a decade the discovery of the Rosetta Stone and its deciphering will trigger the explosion of archaeology that will produce a three-term sequence, with the discovery, oddly similar to the case of Greece and Israel, of early Sumer and Dynastic Egypt at their sources just before the onset of the third millennium BCE. As we pore over the details of this pattern, which in itself is not sufficient as a mere three-term sequence, we find so many correlated 'coincidences' that we are forced to conclude that we have a pattern that defies chance, i.e. that is non-random. For example, we have five parallel and synchronous 'transitions' in Greece to China, and two such in Sumer and Egypt. Everything follows the basic pattern, and, for example, the 'flash' of creative innovation is directly associated with the periods of transition. The odds here, and in numerous other details, are making the case of the skeptic marginal. But we will safely allow attempted falsification even as we begin to sense the fragment of the puzzle that we have is coherent on its own terms and answers to Kant's challenge. We have used the metaphor of a lasso, which does its job although it is 'too big' to really fit the object corralled. In the same way, we choose a 'discrete-continuous' model and this provides a rough fit with the transitions being discontinuous inside a continuous stream

of history (divided into epochs). This situation makes sense on its own terms: it demonstrates the developmental 'evolution of civilization' along a mainline with a larger determination of the whole in relation to that.

What is going on becomes obvious, and its elegant simplicity expresses the reality of a non-random evolutionary sequence.

This pattern, we should note, gives meaning to the term 'punctuated equilibrium' because its effects show a set of intervals or epochs which commence with 'punctuations' or transitional beginnings of dramatic innovation followed by an equilibrium phase (not strictly static, however) as the larger pattern yields to free agency as ordinary history. 'Punctuated equilibrium' is a metaphor for us: we cannot go beyond a descriptive usage, as yet. And we must note that the idea cannot encompass the added complexity of parallel effects. Without much trouble, a three-term pattern quickly yields the suspected 'wave length':

Again, here is our basic pattern:

3300 to 3000 BCE: Egypt and Sumer dramatically innovate and start new eras

900 to 600 BCE: Greece/Rome, Israel (Persia), India, China...

If we examine the interval here we see that it is 2400 years and applying this to the obvious continuation (given the medieval effect of 'equilibrium' in the Occidental middle ages) we arrive at

1500 to 1900 AD...

Presto, a dramatic continuation, all the pieces in place, of a third term in our sequence. We suddenly see what modernity is, if we distinguish carefully the 'early modern' from 'modernity' as such (the nineteenth century onwards?): the onset of a new phase or epoch in our suspected sequence.

We should proceed at once backwards to a hypothetical continuation, viz. 5400 and 7800 BCE, but unfortunately the periods prior to the invention of writing have insufficient data to detect intervals on the order of three centuries very clearly. However, anyone with a familiarity with the Neolithic has to wonder, indeed, chuckle, at the rightness of this periodization. And we should note that the period around the middle of the sixth millennium BCE is clearly the inchoate beginning of what we now call incorrectly the 'birth of civilization' in later Egypt and Sumer. And there is a clear zeroth term in the so-called Natufian, ca. 10K BCE onward. Or else we should move backwards further into the Paleolithic, had we any data: we are left to wonder if this sequential logic continues into the Paleolithic and whether it was present at the early evolution of *homo sapiens*. We must protect the spectacular data that we have from speculations about data that we don't have.

We make no claims, therefore, for this earlier period, and must wait on the discoveries of future historians, but we should definitely propose as hypothesis this larger pattern which we must set aside as we consider our short term 'eonic effect' as given in the records of history since the invention of writing, innovations, we note, of the 'first' epoch in our pattern. Let us, as noted, interject the idea of 'relative beginnings' as an essential concept here: history flows in a continuous stream, yet we see discontinuous 'relative beginnings' which we call transitions, or punctuations. Note that records at the level of centuries (with decades soon to follow) begin only with the invention of writing, and that such detailed data is essential to determine any kind of dynamic. We must therefore be wary of any generalizations about history prior to the invention of writing. The early eras of Sumer and Egypt just before 3000 BCE are barely adequate and yet even in the last decade or so we have confirmation with specific data about Pharaoh Narmer, the putative founder, we suspect, of Dynastic Egypt.

Let us note just how spectacularly right Kant's language is, save only that we would consider free will in the abstract in relation to 'free agency' which shows either the freedom or the semi-mechanization of choice, which we indeed call free agency:

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.

Kant clearly implies this, 'whatever view we may hold re: the freedom of the will', he equivocates, and yet applies the issue of causality to this situation, a clearly antinomial situation, but one that students of Kantian discourse are prepared to address without fainting spells in a way that buttoned-down Newtonians are not (exempting Newton himself, that wild mystic and physicist in his spare time).

Causality applied to 'free agency' would seem to be non-linear in the extreme but in fact the situation resolves to a 'garden variety' cyclical system, for obvious reasons. Let us look at one of our epochs, the second in our series:

900 to 600 BCE: system action/determination, induced creativity

600 to 400+ BCE no system action, creativity continues but...

400 to1500 no system action creative action wanes (but may continue sporadically)

The idea of creativity is but a partial rendering of this complex situation, but the induction of creative action gives us a tangible example of causality (or some determination) applied to free will, in our view 'free agency'. Note that creativity is not an act of will but some phenomenon with respect to the consciousness of the free agent. It is correlated with the larger pattern (but there is no reason why creativity can't appear spontaneous at other times for other reasons). We will later restate this in terms of 'self-consciousness' as a form of consciousness: there are many aspects to the induction of historical realization in free agents in the extraordinary and verifiable correlation with time periods.

As a punctuated equilibrium, considering the case of Greece, we see a spectacular 'transition' in the Greek Archaic, then an equally spectacular beginning to the new era underway (600 to 400) and then a sudden loss of innovation and a definite slowing of the 'dawn effect' and a slow but steady falling away of the era into medievalism, this takes centuries, and a failure to capture the original impulse short of the dawn of the next era after 1500... It is an extraordinary and almost frightening pattern given the slow but steady decline to follow. As we will suggest below, free agency changes its character in these different intervals, a solution to the paradox of freedom and causality: relative degrees of freedom alternate inside the system: macro determination raises free agency to a higher degree of freedom and yet thus a slight loss of freedom (man is by and large not 'free' to be creative), while the cessation of macro determination yields to a lower degree of freedom, and yet thus an increase in freedom, if only the freedom to decline into medieval period...It is remarkable to see how Kant's superior methodology adapts itself to this complex and tricky situation quite beyond the realm of a causal closed system. We should be careful here: out terms are just enough to make a point and give some idea about a situation of immense complexity.

Note the following consideration: we are looking at the 'play of human freedom in the large' which we have recast as the play of 'free agency' in the large, and have detected a regular pattern in that play of free agency. But what is the nature of free agency in the periods of transition? We have already suggested some answers. We have a uniform pattern of free agency, but its character changes: a factor of creativity enters into free agency and when this energy is spent, the punctuation lapses into a kind of equilibrium. Free agency of a more mechanical character, still with choice, free will or not, but not of the 'high octane' quality of the periods of innovative transition. So, let us note that the factor of free agency can show variability, as it must, to reconcile a system that is both creative and

mechanical: it does so by showing differing states of free agency. What are these? There are ways to refine this discussion and we may note we need a psychology that distinguishes a factor of will, and this 'will' be free will or free agency, or changing gears in between. How so? We might introduce the term 'self-consciousness', a sort of 'new age' bit of jargon about 'states of consciousness', which is simply an intensification of consciousness, e.g. with the power of attention in focus: we could posit, from the obvious facts of the case, that 'self-consciousness' rises or is able to a higher level of creative action, and does so in our periods of transition. That is an exceedingly crude model, but it 'works' quite well, enough to give us a rough sense of what is going on: self-consciousness (which is connected to but not the same as will) changes gear and fluctuates at different points in the historical sequence. By and large man cannot induce self-consciousness at will, save in fleeting moments of attention. However crude this is clearly the case as we examine history. The amount of innovation in the Greek archaic (thence the classical period) is almost stupendous and has been noted many times, the 'Greek miracle'. The point is that we see how cogent is Kant's basic formulation, whatever the case with our interpolation of 'self-consciousness' (which is one and the same yet counterpoint to mere consciousness). This is not necessarily mystical speculation: every man alive has experienced the difference and can replicate minimally this factor by applying the power of attention, thus causing momentary fluctuations of consciousness. The point is to clarify what Kant himself says, or implies, as to the dynamic interplay of a causal and a freedom factor. Let us note that discussions of consciousness and discussions of 'will' should be distinct, and this is implied in Kantian discussions of ethics, for example. But how do we pull the rabbit called 'will' out of a hat in a Newtonian context of determined reductionists? Everything in Kant cries out for a factor of will, and, *mirabile dictu*, that follower Sam Gamgee of the Frodo Kant clearly elucidated a factor 'will' as the 'thing in itself'. Let us merely note that we haven't really been using all the Kantian assets, here the distinctions of phenomenality and the noumenal, and that the issue of 'will' is implicit here and in the context of discussions of freedom in relation to causal sequences. Let us note that Schopenhauer cuts the Gordian knot and brings the factor of 'will' into association with the noumenal, or his 'thing in itself'. We may not be ready to amend Kant here, but the point is clear: the Kantian school is on the verge of a psychology of 'will', where the Newtonians are tinkering with Frankenstein. There is hope for a psychology of 'will' which is not a mental faculty or an organ of physiology (as far as we know).

We may have made the discussion too complex and we should simplify by suggesting that Kant issues a challenge and we find its resolution in the clear perception of regular movement in world history. If the analysis is incomplete it remains the case that an immense amount of secondary evidence shows the coherence of this interpretation. And let us note that Kant appears just at the end of the modern period as a sort of prophetic voice about the nature of the historical. Let us offer the caveat that this is a descriptive explanation, but a theoretical account of a causal system. And its full action is not visible.

We must finally consider the issue of teleology: clearly, we have some kind of teleological system here and yet we must be wary of a system in which we are immersed and whose endpoint we cannot see. Further the factor of free agency would seem to contradict the factor of teleology. In fact, there is no canonical definition of 'teleology' and what we see here is a way to reconcile the contradiction: the teleological factor is strongly present in the transitional phases of an epoch, while the factor of free agency takes over in its wake. Men are thus given a momentum to realize the innovations provided in the directing sequence but may well fail to realize that potential as time goes on, and in fact history often shows a loss of direction. Our system must switch off to allow free agents to exercise their autonomy, but this may result in chaotification of the larger pattern, which can resume direction only after several millennia. Proponents of the idea of progress are often stumped by the issue of the 'middle ages' and its decline, but we see the reason for this and can see that progress in such a short sequence cannot be as yet evaluated even as we see directly many indications of progressive action.

The situation is not far from an analog of a feedback device: there is no contraction with free agency which executes the action but may change course given the indications by feedback. The historical situation is more complex, but we can see that free agency and teleology or the simpler directionality which makes no claims as to a

'telos', are not in absolute contradiction. We must nonetheless be very careful when dealing with teleology: it is implied in our solution to the challenge laid by Kant but it doesn't follow that we can specify exactly what that means beyond a very high-level generalization such as 'the evolution of civilization' and so forth. We should note that sequential teleology is complexified in our system by a lateral effect of synchrony and this does, does not, contradict teleology. In fact, here is no such contradiction: if the 'goal' of a system is the creation of a global community then the 'goal' must be attained through a balance of lateral integrations and sequential redirections, a much more complex yet entirely obvious, once seen, version of the teleological. And a system that is evolving freedom, whose goal is to evolve freedom, if that is what we see, would have to terminate its macro action and release man to his own free agency, hopefully able to begin to realize the factor of free will as the outcome of free agency.

Issues of teleology can be given a huge variety of descriptions and definitions. We tend to think of a teleological system as moving in a straight line toward a goal. But if our goal is to integrate cultural variety our 'straight' system will only touch a main line. In fact, to integrate over a region it must move in a series of parallel actions, touching a discrete sampling of a larger region. And this at once is a clue to the Axial Age: our system touches in parallel a vast geographical region, Eurasia, and initiates synchronous lines of civilization. Thus, the goal, 'integrate' a region, is teleological in a different sense than the conventional 'reach an endpoint or goal in the future'. O

Let us conclude with two issues. First, to quote from the netbook, as Elizabeth Ellis so cogently 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 something has no antecedent cause). I am not the first person to point out that it is not an easy thing 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.

This passage shows a clear elucidation of the first paragraph of Kant's essay and the antinomial character of the 'causality of freedom' Our solution to Kant's challenge shows a clear set of examples of the 'empirical evidence of a lack of a cause'. Consider again the case of the Axial Age and specifically the case of Archaic Greece, as compared with Mycenaean Greece. The case of Archaic Greece cannot be explained on the basis of its antecedent sociological causes: it is as noted many times a mysteriously spontaneous interval, and one matched by a set of parallel Axial Age correlates in parallel. We are clearly confronted with empirical evidence of a lack of a cause.

Let us note that while we are not strictly speaking elucidating the Kantian system, only the solution to Kant's challenge, we nonetheless are sorely tempted to avail ourselves of the concepts of 'transcendental idealism' for they provide a fulsome potential to resolve, as noted all along, the harried contradictions of the Newtonian time-plodder. Invoking the noumenal is convenient, perhaps too convenient, but we must consider at least that we see the light at the end of the tunnel wherein the Newtonian is a pilgrim lost in the world, subject to the plight so well depicted by the tale of Plato's cave.

Finally, we should note the way our discussion resolves the issue of the progress toward a perfect civil constitution: the netbook contains a discussion of what it calls the 'discrete freedom sequence', which refers specifically (with other possible interpretations) to the mysterious double appearance of democracy inside of two of our transitions, viz. the case of classic Athens and the modern democratic revolution.

Here we should note that our transitions will show a divide point at which they conclude and the nature of free agency will change in the wake: this point is precisely the era of Solon, bull's eye on the divide, and the onset of the remarkable birth, so brief, of democracy within a century, in the period of Cleisthenes, et al. and the onset of so many democracies in the period ca. 1800 (with gestations in English Civil war) in the period around 1800. As we can see this is no coincidence, And stunning uncovering of 'regular motion'. Let us note the appearance of Kant himself at just his point where the question of the 'republic of ends' comes to the fore in the epochal tide that will produce modern democracy (and the related socialism). Note again that 'induced freedom' is less free yet can gestate freedom at a lower degree of freedom, while the onset of free agency has in principle a higher degree of freedom, but in practice may fail to realize that freedom. This shift in degrees of freedom can be confusing and we adjourn to the simple questions raised in the basic solution to Kant's challenge that we have indicated, leaving the more difficult issues to a later study once the basic issues clarify themselves.

Again, the netbook on Kant focusses on modernity to show the way Kant (and Schopenhauer, Hegel) are embedded self referentially in the pattern in question, just at the divide, a spectacular effect and no coincidence.

We will leave it at that but suggest a look at Appendix 1 for the larger pattern, and WHEE itself for the larger discussion. Breeze through the netbook and then consider our introduction here as a rough equivalent.

This pattern is a field of riches and we can suggest there is a lot more to discover as a motivator to its study. *Homo keplernsis futurus*, and that should be 'you', will arise and that may occur when a larger pattern arises, first for the Neolithic, and the result may be an introduction to a real theory of human evolution. We have left many issues undiscussed, e.g. the issue of 'asocial sociability', and completing the discussion of the whole essay might be a good exercise, but, proceed with caution.

Short sequences (ten thousand years or so) of intermittent on/off punctuations able to act globally and in sequence sound right as the dynamic to evolve man, and in particular to evolve mechanism into free agency and self-conscious free agency into free and the 'realization of the will' as free. The tale of 'last and first men'.

Kant and the Philosophy of History

Introduction

As we move to study the eonic effect and construct the eonic model we make a strange discovery: the relationship to the issue of the philosophy of history raised by Kant. And we also uncover a curious and elegant secret behind the enigma of the eonic effect itself. The idea of a model is to bring home the project of science applied to history, but on the way, we are forced to consider the issue of freedom in the context of causality and this summons up the classic discourse of the philosophers of history, most especially that of the philosopher Kant whose sudden, almost mysterious, appearance at the climax of the Enlightenment both fulfilled and challenged or deepened that movement. The irony, and strange secret uncovered, is that the philosophy of history, or the idea of a science of history, shows strong correlation with the eonic sequence itself. This point is elusive and will dawn on one gradually, to show an extraordinarily deep side to the pattern of universal history the eonic sequence uncovers.

The question of a science of history is paradoxical, it won't go away, and yet we can't resolve its basic contradiction. There must be such a science, since we attempt to apply causal analysis to the whole of reality, and have the spectacular successes of physics to show for this, and yet there can't be such a science, since the issue of freedom must except itself from causal analysis. Standard scientism is either oblivious or indifferent to this eternal paradox and wishes to produce a causal account of the factor of freedom. That's a bold step, but success has proven elusive. As has the effort to model the idea of freedom within science. In many ways, the latter is precisely what Kant did, with brilliant, if controversial, and still debatable, effects. The result is the discovery of so-called 'transcendental idealism' which is a dubious candidate for an idealism and not 'transcendental' in the usual sense (i.e. transcendent). Be that as it may as to the misleading character of the terminology the apparatus of transcendental idealism is a uniquely powerful way to model our basic philosophical perplexities.

The remarkable thing is that as we stumble on the eonic effect, we discover in the process nature's way of resolving the paradox, in the context of 'universal history'. And in the process, we can harmonize our concepts of historical dynamics with those of evolution, an elegant solution to our demand for a science of history.

This series of mini-essays will be an introduction to the treatment in World History and The Eonic Effect, and will try to survey the pieces of the puzzle without too much detail. The result will be a useful tool for understanding the eonic model in a deeper way.

We should also point out that Kant's own formulation should demand a critique, and his theme of asocial sociability is a limited or problematical attempt by Kant to solve a problem that his philosophy raises, in the context of history. We will note the way Kant is really asking a question, and correctly formulating the requirement for a philosophy/science of history, but that his attempted solution needs revision in light of the findings of the eonic effect. Thus, strangely, our eonic model is more 'Kantian' than Kant at a certain point.

There have been essentially two discoveries and examinations of transcendental idealism, that of Kant, and then Schopenhauer. The discovery of the eonic effect and its model gives us a third, a fast and elegant backdoor entrance, and it does this by indirection, in a streamlined fashion that can bypass the complexities of Kantian discourse to show us the whole issue in a unified gestalt.

1. Kant's Challenge

1.1 Kant's Challenge

In a famous essay on history the philosopher Kant, in the wake of the appearance of his famous Critique of Pure Reason, gave birth to a new perspective on the philosophy of history. This essay, Idea for A Universal History from a Cosmopolitan Point of View, opens with the following implicit question:

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.

Kant's significance lies in the way he responds to and yet challenges the new physics and the legacy of Newton. This essay is the grandfather to much later discussion of the question of historical laws, from Isaiah Berlin and his discussion of historical inevitability to Karl Popper and his critique of historicism. His classic discourse on the limits of metaphysics balanced with the forced march passage through the metaphysics of free will constituted a revolution in philosophy and a practical effort to consider the implications of science just short of the crystallization into scientism that will come to be such a notable feature of the modern scientific continuation of the seventeenth century 'Scientific Revolution'. Kant's essay after proposing brilliantly in this paragraph the crux of the question of history, in the search for a science of its 'laws', moves uncertainly into a discussion of what Kant calls 'asocial sociability' and the nature of conflict in the generation of historical forms. Thus, in a canonical example, the legacy of warfare might sustain nonetheless the uncertain hope that initiatives of peace might be generated from the extremes of historical warfare itself. This perspective on historical dynamics is a close cousin to many other such themes, e.g. the tenets of Adam Smith as to the relationship of altruism to economic development, to say nothing of the soon to arrive bastard child of Adam Smith, the 'naked conflict' theory of Charles Darwin.

But a close look at Kant's essay shows that he is moving uncertainly in this direction, and that he is really proposing a question, and a challenge to the future. In fact, the first paragraph of his essay stumbles on the answer in the form of a question. Can we detect a play of the human will in the large to discern a regular movement in it?

In fact, we can. And we can examine world history 'in the large' to show the exact correspondence of a pattern of universal history to this rumination on freedom and causality.

Note that, as it were, Kant stumbles on the answer, too inchoately in probing vagueness, by considering the terms as if some a priori derivation. But this can tell us nothing until we examine empirically the facts of the case, here 'world history', whatever that is. The point is that this unwitting deduction leaves us with the question as to how nature will satisfy or compute the dialectic of freedom and causality.

Kant's own attempts to solve the problem were not so cogent, for as he sensed he lived too early to be able to answer his own question. He threw the question into the future. And modern archaeological research has proceeded apace to vastly increase our data on the emergence of civilization. We find ourselves only within the last century with a reasonable minimum chronicle of world history to be able to really apply his implicit question to the facts that we have.

The result is a remarkable discovery that echoes Kant's unwitting anticipatory solution to the problem, that flows spontaneously from his pen in the wisp of opening rhetoric of his classic essay.

1.2 The Eonic Effect

As we move to discover and map out the basic pattern of the eonic effect we notice the strange way in which it fulfills the requirement, made almost in passing, embedded in the introduction to Kant's essay. As we examine world history we discover, if we attend to the play of human freedom in the large, a regular movement in it.

The eonic effect itself is simply the realization that there is a non-random pattern embedded in it, that this pattern is one of discrete alternation, in a sequence of transitional periods operating in a definite mainline. The whole and part are connected via an 'eonic sequence' whose action gives the indication of a dynamic driving a series of major turning points in a series, the birth of civilization, the Axial Age, and the rise of modernity.

Described at great length in *World History and The Eonic Effect*, these transitions map out an organized evolutionary grid whose action is visible in the sudden breaking fronts of cultural renewal that fret virtually the whole of the large-scale emergence of world civilization. And this dynamic

shows evidence of definite regularity, that is, a kind of cyclical interpretation is called for. Strange as this is, the evidence speaks for itself, and, especially, in the second or Axial phase of this sequence, we see the clear indications of a 'universal history' coherent in its outline and explicit in its directional impetus applied to the stream of world history.

The connection to the idea of freedom appears on several levels, but at the most basic level, we can note that the question of 'causality' is by definition bound up with the question of the free activity that generates historical fact. That is, our large-scale driving motion is a 'causal' factor in the emergence of civilizations. Another way of putting it lies in the seemingly paradoxical question, what 'causes the Axial Age?', or any of the other stages of the eonic sequence. This question arises spontaneously as we posit by definition some explanation for any kind of regular movement. But in this case, and as we examine the phenomenon more closely, we see that at each stage human agents spontaneously act out the drama of innovation. But they do so in a larger pattern of dynamic regularity. Their actions seem, on the one hand, timed according to a rule, yet distinctly personalized according to time and place. These are 'free' innovations. And yet they seem caused.

If we reread the paragraph from Kant's essay, we see that the apparent contradiction is directly stated. We wish to find 'laws' to describe the motions of history. And yet we wish at the same time to find a regular movement in the play of freedom. The phrasing corresponds to our situation. And what is remarkable is that we have found an empirical analog, and one on a stupendous scale.

But there is more to this. As we map out our eonic sequence we find more to the 'play of freedom', we find what we can call the 'discrete freedom sequence', a more explicit example of the 'dynamic of freedom'.

First, we need to see the rise of modernity in this larger context.

1.3 The Modern Transition

One of the surprising implications of our perception of the eonic series is the new significance seen in the rise of modernity. The eonic model, once developed in detail, suggests a basic distinction here of the 'early modern' and the period that follows, with the concept of a transition leading to a divide period at its conclusion when the 'modern age' period gets underway. This transition, clearly visible in the rough three century interval from 1500 to 1800 is packed with the seminal innovations we characteristically assign to the concept of the 'modern', and encompasses a full set of so-called 'eonic emergent' factors from the Protestant Reformation to the Scientific Revolution and Enlightenment, and much else. It is these emergent processes that make this period stand out against the backdrop of world history, and whose suddenness and depth draw comparison with the Axial Age. The depth of this transformation is seen in the multitude of innovative effects across the spectrum of culture, from philosophy to science, to religion and the arts. Seen rightly it is a spectacular integrated transformation that gives expression to our intuitive sense of modernity passing beyond the Middle Ages.

One key point for us to notice here is the phenomenon of the so-called 'Great Divide'. As we observe the eonic effect, and construct our model, we are availing ourselves of the idea of a 'discrete' series of transformations, the eonic

sequence. This interplay of the continuous and discontinuous yields an implication: that the period of transition is a finite interval and comes to a close, even as it ignites the stable period of 'modernity' as such.

What is remarkable is the way this model, with its simple derivation of a 'divide', is reflected remarkably in the facts, and we can see the reason why the period near the end of the 'modern transition', that is the period of the divide, is so massively packed with emergent beginnings of things, major innovations, revolutions, new cultural starts, such as to create a genuinely new age period, one starting first in a localized transition zone (characteristic of the eonic effect) and then proceeding rapidly to a stage of globalization.

That the Enlightenment period should be the climax of the transition at the point of the divide orients our sense of this turning point inside a turning point and shows its significance in a broader context. The Enlightenment is a complex multidimensional spectrum, not just the reduced scientism with which it is later associated. There are really several Enlightenments, including various counter-enlightenments, like chords of descanting meaning playing theme and variations on the whole.

And one of these is the phase, almost eerily timed to the Great Divide, of German Classical philosophy initiated by the philosopher Kant. There is something strange about this. We are zooming in on the philosophy of history, only to find its self-referential placement, and its sudden flowering, in the same periodization we have assigned to the eonic sequence itself.

1.4 The Discrete Freedom Sequence

We can extract one surprising property from our emerging conception of the 'evolution of freedom', a specific instance of a 'freedom effect' embedded in our eonic series: the discrete freedom sequence, that is, the double birth of democracy in a precise timing. We have seen the sequence of transitions and their divides. What we notice is that twice in row we see the birth of democracy timed to the divide period of our transitions, first in the Greek transition, precisely indicated by the appearance of Solon and his generation, and then at the Great Divide in the modern period. Most remarkable! We don't suspect that the massive wave of democratic revolutions in the modern period, around the period of the French Revolution and after, correlates with a larger pattern of effects. To be sure, the modern transition is associated with a whole series of revolutions, the Protestant Reformation being the first, the English Civil War being the seminal generator of much that will come later.

But it is the period of the Enlightenment and its immediate aftermath that sees the massive transition toward democratic enfoldment. For reasons we don't at first understand this is not chance! It beggars belief, at first, but with careful study we can begin to see the logic in all of this.

The issue is simple: the eonic series seems to induce change, here corresponds to a 'causal' principle. Yet if we 'induce freedom' there is a paradox that this freedom will be less than free. In fact, the evolution of freedom might require an assisting evolutionary process, yet freedom must also be spontaneous. Our eonic system resolves this as best as is possible by a hybrid method: we see that it seems to confine induction to the transitional series, triggering a 'freedom emergence' phenomenon at the point of its conclusion, i.e. the divide period. How strange, yet compellingly simple the logic!

1.5 Freedom's Causality

The discovery of the eonic effect has stumbled on something that Kantian philosophy of history predicts or assumes must exist, without actually showing an example.

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 something has no antecedent cause). I am not the first person to point out that it is not an easy thing 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. Elizabeth Ellis, Kant's Politics

We have actually discovered such a phenomenon. It is implicit in the very way we address the question of, first, the Axial Age, thence of the eonic sequence. A finite interval formally satisfies the rubric of a spontaneous, hence 'uncaused' or without an antecedent cause. Of course, our language was deliberately designed to show a different, not antecedent 'cause' on another level. But this cannot be truly causality in the standard sense, and in fact we have seen its association with, among other things, the discrete freedom sequence. It is as if a 'freedom effect' appeared spontaneously in the midst of a causal stream. This is not an abstraction. We can measure the phenomenon down to the century level to see a precisely timed effect satisfying the category of 'absent natural causes'!

2. Reformation to Enlightenment

2.1 Protestantism and Secularism

Conceptions of modernity frequently adopt a narrow view of scientism to characterize secularism, so-called. The resulting lack of a philosophy of history leaves the secular in a chronic, and misleading, conflict with religion, so visible in the Darwin debate. But in fact, the study of the modern transition in light of the eonic effect shows us something deeper and much richer as a perspective on the question of ideological modernism. Our eonic model posits an integrated transformation we have called a 'transition' in a eonic sequence. If we take this idea for what it shows us we see that the question of religion is left ambiguous by the nature of the case, and we can see that the Protestant Reformation, a complex remorphing of one of the religions issuing in the wake of the Axial Age, is, along with the scientific revolution, one of the crucial steps on the way to the climax of the Enlightenment. The point here is merely that our definition of secularism must reflect, not just an ideological 'ism', but the change in epochs created by the transition itself. The result is a 'secular' age, to be sure, but one that allows the elements of science, philosophy, and religion to indulge a fruitful dialectic with themselves on the way to creative renewal. The 'secular' is thus really a token for the modern transition itself, indeed, that is the original sense of the term.

Thus, we see that, like the first stage of rocket, the Reformation, yielding to the Enlightenment, nonetheless seems to proceed with its own momentum in parallel to modernity. And that is what we see to be the case. However, we interpret this, the point for us is to examine the modern transition more closely, to see that the Enlightenment is more than just the triumph of 'rational scientism', and spawns a considerable dialectic of potential outcomes. The rise of German classical philosophy, a prime candidate for such a dialectical description, itself seems to sow the seeds for a post-religious religiousness, so to speak. We have seen the crux of the issue in the discourse on freedom and causality in Kant. In many ways, the 'rebirth' of religion as secular philosophy is the hidden treasure behind the modern transformation, and we can see how its full depth truly gives meaning to the phrase the 'Axial Age'. We should note how the Reformation produces as its first born the world of liberal politics and action, an outcome obviously visible in the spectacle of the seminal English Civil War. This parallelism of rising science representing the causal line and the world of liberal action representing the realization of freedom leaves us with a more balanced and perspective on what we mean by the 'secular'. And this duality was perfectly addressed in the critiques of the philosopher Kant and his successors, themselves, in a true sense, the last exemplars of the Reformation on its way to modern era.

2.2 Scientific Revolutions

Our large-scale analysis of the eonic sequence uncovers something we often notice without realizing its significance, the seeming double birth of science. We see the spectacular change in the course of world history with the onset of the scientific revolution in the sixteenth and seventeenth centuries, clear correlates of the modern transition. But we often forget that this is really a rebirth and that there was a 'scientific revolution' in the earlier Axial period, especially in the era of the Greek Axial. This, we can see now, is hardly an accident! And we notice with some suspense for the future that it is as if the first birth was stillborn, science seeming to virtually die out in the middle, or mideonic, interval of our eonic

sequence. This characteristic outcome in relation to the eonic sequence, along with the strong eonic correlation, leads us to a larger perspective on the history of science, with the realization that there is an element of historical dynamics to its appearance and gestation, and that this factor may reflect significantly on the way we come to understand the place of science in culture. In a word, there is a larger historical process involved, something more than merely the steady pace of scientific research. The part cannot, as some would have, overtake the whole. This factor should remind us that the emergence of scientism in the wake of the Enlightenment is suspicious just on these grounds. We have derived a question about science by no other means than simple inspection of its historical periodization! And we have already seen that the larger Enlightenment has as it were already anticipated this problematic and issued forth its correction, prior even to the emergence of scientism. We need to adopt the full scope of modernity as the matrix of future action, prepared to restore the balance of the deeper secularism we discover, and an example of that balance we have already indicated in the elegant symmetry of the causal and freedom poles of a secular dialectic.

2.3 Transition and Divide

We have already noted the way in which the rise of secularism as we sense it is really the expression of the modern transition, and of the eonic effect itself. The strange, but suddenly obvious fit of the eonic model, as a 'discrete-continuous' phenomenon, unlocks the riddle of the so-called 'divide' point at the end of this transition, the period of the Enlightenment itself, and its immediate wake, so pregnant with new potential, and a prodigious number of cultural innovations, including the onset of a new form of economic capitalism. The point here is that the modern transition is indeed truly secular, and shows a decided tendency to move beyond the religions of antiquity toward a new stage of history, and of religion. A great deal of retrograde thinking wishes to indulge in a kind of postmodern reaction to this process in a false aspiration to move backwards. But the net effect of the transition is to generate a momentum that cannot be matched by ideological movements to erase the phase of secular society. A closer look, as we have already seen, suggests that there is no inherent opposition between the religious and the secular, save that the mechanized remnants of medievalism are going to be reevaluated as to their real status. We have already seen how the essence of religion is regenerated almost at once by the prodigious dialectical action of the new secular age, expressing the modern transition. A good example here is the rise of Biblical Criticism, a characteristic emergent strain of secularism. It is all very well to uphold religious traditionalism, but the 'action of reason' is a ferment that has already sown the seeds of renewal, willy-nilly. The very nature of the Old Testament we have already seen is that of an Axial history, and we must for the future reevaluate its significance on that basis. The point here, in any case, is that the point of the divide leaves a true division point, the onset of a new epoch, just as surely as the analogous period ca. -600 in antiquity tokened an irreversible transition to a new future. There is nothing utopian or fixed in such an outcome, but we do get a sense that the future, whatever it holds, will reflect the modern transition. This realization can forestall the immense waste of energy that can be applied to the negation of the modern transition. The results, if religious, can never succeed, since, as we have seen, the Protestant Reformation is itself already the first born of that transition.

Thus, the current reaction to the Enlightenment suggests an element of futility. In fact, the issue is not the fact of the Enlightenment, but the limits of our interpretations of that period, and the downshifting of those interpretations into narrowing perspectives. If we examine the period of the divide (e.g. from ca. 1750 to 1850) we discover a cornucopia of potential that has already before the case, so to speak, done the job, and completed that.

2.4 Enlightenments

We speak of the 'Enlightenment', but as we have already suggested, there is a complexity to the phenomenon that eludes later narrow definitions of its meaning. In fact, there are multiple Enlightenments. In the full examination of the eonic effect seen in World History and The Eonic Effect, the discussion is based on the phenomenon of the frontier effect, and the way the modern transition has nonrandom clustering in a sector of Eurasian Europe, correlated to some degree with the partition created by the Protestant Reformation. This helps us to see the way in which geographical polarization of the modern transition produces almost a separate Enlightenment in each of the zones of the frontier area.

In any case, we see multiple Enlightenments associated with the modern transition: the English, the German, the Dutch, the French, etc,... And the relatively late American version, appearing once again, just at the divide, with its great

democratic revolution, is a token of the future potential of those who are to receive the fruits of modernity in the process of globalization that will succeed the divide.

A useful point here is to reiterate the multidimensional nature of the

Enlightenment, and to, more specifically, consider the 'running commentary' on the Enlightenment given by the German Enlightenment as this proceeds from the era of Kant.

2.5 Out of Revolution

One of the most obvious correlates of the modern transition, and notably the period of the divide, is the phenomenon of revolution, and its confusions. The modern transition is clearly a revolutionary period, which is not the same as saying that it is a revolution, as such. The point for us is to see that the modern revolutions of freedom claim the mantle of innovation against the retrograde action of traditionalist religions. The Protestant Reformation is a partial exception to this, for the simple reason it was the first of the modern revolutions! The point here is that we forget the proto-revolutionary character of the religions of the Axial Age as these emerged in the wake of the Axial character. They were not champions of tradition for their times!

In general, confusion arises over the question of revolution, in part, because of the ambiguity of the American and French exemplars, and the consequent equation of capitalist dynamics with historical dynamics in general. The leftist surge seen in the far left of the nineteenth century is a secondary stage of revolutionary realization that became frozen in its own ideology of revolution, one that tended to misjudge the nature of the modern transition itself. Whatever the case, the point for us is that we cannot easily mimic the modern transition with an artificially induced 'revolution'. This illusory hope is fully in evidence in the late Russian revolution, which was plagued by a false estimate of nothing less than the eonic effect itself, which was not understood by its agents, to say the least. We see nonetheless that there is nothing final about the outcome of the modern transition, and that the trend toward equalization so characteristic of the period of the Great Divide will endure, and rise to challenge the first fruits of secularism itself. This can easily produce a calamity of confusion since simple revolutions are simply inadequate to produce the desired imitation of the immense scale of the transition. In any case, the point to see is that much of the thrust of religion was wrested by the left for a new disposition toward equality, a consideration fully confirmed if we examine the real dynamics of, for example, Christianity, in the wake of the Axial period. The trend toward equalization is a powerful correlate of the eonic sequence, and this can help us to sort out the classic dialectical confusion over religion, liberalism, and revolution that tends to blur our understanding of the simple dynamics of the new epoch of secularism issued forth by the modern transition.

3. Enlightenment and Divide

3.1 Crisis of the Enlightenment

The spectacle of the eonic sequence shows us a scale and depth of transformation that encompasses world history in its vastness and diversity. The significance of the modern transition must be seen in that context. And the result is a realization that modernity might be in danger of an excessively narrow focus in its realization of secular scientism, as a standard for the totality of culture. But we can see how our transition has already moved to compensate, to some degree, for this possibility. The breadth of the Enlightenment is one indication. Another clue lies in the so-called crisis of the Enlightenment clearly expressed in the 'dialectic of the Enlightenment' that appears with almost clocklike timing in the period of the Great Divide. In fact, the crisis of the Enlightenment is cogently expressed in the classic nexus leading from Rousseau to Kant. It is Rousseau who first produces that characteristic dialectic of critical modernity whose outcome will leave in its wake an enriched secularism that both expresses and potentially transcends the scientific revolution, whose gathering momentum will give first expression to modernity, yet remain dimensioned-down to a technological realization of secular culture. We can create a rubric for this 'crisis' very simply by looking at Newton himself, a man of diverse perspectives whose understanding of the limits of the new physics was implicit. This seed understanding gestates throughout the Enlightenment and finds expression most transparently in the writings of the philosopher of Kant who cogently both assumes and challenges the legacy of rising Newtonianism. This challenge takes

the simplest of forms: the stoking of the idea of freedom in the context of causal mechanics. From these elements, and little more, Kant is able to suggest a fuller realization of the scientific flood underway, along with a bridge between the realm of science, as knowledge, and freedom, as action (or ethics). The suggestiveness of this revolution in thought

3.2 Romantic Interlude

We can note in passing additional evidence of the complexity of the Enlightenment by noting that just as the nexus from Rousseau to Kant and onward produced a counterpoint to the standard chorus of Enlightenment rationalism, so synchronously and in direct correlation, despite its complexities of definition, the Romantic Movement arose in perfect correlation, and its own logic, as a dialectic of the Enlightenment, a parallel movement in the multi-dimensional symphony of secularism cascading from the divide. From a rubric of the arts to a celebration of nature in its fullest scope beyond the reductions of physicalism this surge at the cresting point of the secular tide played a descant on the thematic of the rational that is taking off in the forms and instruments of science. The phenomenon reminds us that our modern transition is almost mysterious in its logic of emergence, and yet its net outcome shows clearly an enrichment of potential peaking at the moment of the 'ship's departure' into a new age of world history. The Romantic movement is a vast subject, yet we can by simple eonic analysis manage a deft overview, to see at a glance its dialectical significance in the greater movement of the eonic series, and its latest manifestation, the modern transition.

3.3 Critiques of Reason

We are coming to an eye-popping realization of the structured complexity of the modern transition, where very little happens by accident. In that context we see the sudden, perfectly timed, appearance of German classical philosophy, initiated by the philosopher Kant whose gesture resulted in the net production of three classic critiques, a critique of reason, ethics, and the aesthetic, in a mysterious triad, perfectly expressing the potential completion of science beyond the realm of causal mastery given by the rising tide of research, limited we can see by the very nature of its questions against reality. The brilliance of the achievement of Kant lies in the way he both fulfills yet challenges the triumphs of reason with a critical examination of the limits of metaphysics, as this falls short of the standards of science. The result is both a framework for a more intelligible science, and at once a recreation of the potential for religion in the future. The limits of metaphysics so suggested express fully the crystallized remnants inherited from the Axial Age, and their immersion in a 'dialectic of illusion'. The complexity of Kant's thought is matched with a realization of the essential simplicity of the overall architecture of his majestic chord played at the Great Divide.

3.4 Ethics and Freedom

Kant's system of philosophy suffers from a seeming complexity of detail, yet proceeds with almost military precision to survey the gist of a new perspective on the nature of thought and action, visible in the classic, and profound, discovery of transcendental idealism, a perfectly conceived framework to stand as a superset to 'common sense realism'. In the wake of Kant's first critique of reason, Kant seemingly moves almost as if to contradict himself, in the emergence of a triad of philosophic discourses, and attempts to formalize a metaphysically cautioned discourse on ethics. We can grab the nature of case very simply by seeing his activities in the context of the Newtonian revolution of causal science. Kant is saying that this revolution must be complemented by 'additional axiom' of freedom, and that this requires a particular construct expressed by his scaffolding of transcendental idealism. In this framework, the nature of the 'self' is itself cut short on its hope of any simple empirical description. Given those limits the nature of ethical action must be understood in terms of a real human will, whose place in space-time must remain partially obscured, undoubtedly the reason his classic ethical discourse induces a double-take: it seems at once completely right, yet somehow a new metaphysical adventure, one subject to critique on its own terms. But if we stand back we can see the brilliance and simplicity of the gesture, and the cogency of its 'deductions' in the 'fact of moral consciousness'. We need not conclude that Kant has fully completed this project to see that it expresses the nature of the problem to be solved with unmatched clarity.

3.5 Teleology and Biology

One of the at first oddest aspects of Kant's critical system is the sudden appearance of a full-blown discourse on aesthetics at the conclusion of his critical enterprise. And yet if we stand back we can see the overall logic, imperfectly intuited by Kant himself, and in the context wherein his thinking is soon transformed by a variant of non-dual

metaphysics, visible in his successor Hegel. We should be wary of such thinking, but the point for us is that, to use an old-fashioned jargon never quite given any proper foundation, a dialectic will attempt to resolve itself in a triadic completion. Presto, we see the appearance of an enigmatic 'third critique' dealing with issues of aesthetics and teleology, this to perform the task of bridging the divide between his two prior critiques. The precision with which Kant 'carries out the calculations', unwittingly fulfilling a triadic logic, is matched only by the difficulty of assessing the final result. And yet, his point is brilliantly transparent in one sense, and overflows the boundaries of his own scientism into the realm of the biological. We should conclude with the hypothesis that scientific reductionism, matching Kant's thinking, should do well to seek its completion in the ethical and the aesthetical, and that this will involve the question of teleology.

The rise of science has perhaps produced confusion here. Its success almost presupposed a rejection of teleological thinking. And yet, while this produced a great breakthrough in physics, the nature of the biological remains elusively beyond this gesture of scientism. And this Kant brilliantly put forth as a renewed consideration just at the dawn of modern biology, which, unfortunately, has dimensioned-down into a rubric of reductionism that has imperfectly resolved the question of the nature of living organisms.

4. Reason and History

4.1 Revolutions Per Second

We can move relatively swiftly toward the conclusion of our brief overview of the gestation of the philosophy of history and that suggested by the discovery of the eonic effect by considering the developments in the wake of Kant. But first it is important to consider the issue of economic theory on the way toward a foundation for study of the immense ideological combat to come in the wake of the modern transition. It is no accident that the economic revolution of capitalism accompanies the modern transition, and produces a stunning take-off effect just at the Great Divide. This mystery is a spectacular concordance of cultural facts, but it has produced confusion on its own terms. Looking at the eonic effect we can see that the obsession with economic explanation is misplaced: the dynamics of largescale history transcend the economic. We summarize this very simply by looking at the two poles of economic freedom: the freedom of agents producing 'free markets' and the freedom of such agents to produce economic systems that satisfy a set of prescribed rules and behaviors (e.g. capitalist or socialist, etc...). We tune Adam Smith and Karl Marx to one definition by that definition. The point is that men are free to create economic systems of their own devising, this fact therefore contradicting the implications of economic determinism. In fact, we see that the eonic effect resolves the perplexities that confounding Marxists with their confusions over historical inevitability.

The point for us is that our Kantian rubric resolved into eonic periodization reminds us that ethical action and economic action must find a resolution in action. The de-ethicization of history through economic determination has proved a false form of reasoning. The immense simplicity of Kant's framework applies as well to the question of a leftist gesture in a liberal context, and this requires the deliberation on the 'categorical imperatives' that give foundation to the trend toward equalization that both fulfils and challenges capitalist realizations. The evidence is starkly clear in nineteenth century cultural politics for the parallel emergence and collision of these twin perspectives and their two revolutions.

4.2 Kant, Hegel, Schopenhauer

A very remarkable outcome of the Kantian revolution is visible in the brief flowering of philosophy in his wake. This flash of effects is an immense study in itself, but we can look at the sudden polarization of Hegel and Schopenhauer in the context of our thinking about religion and secularism. We see, remarkably, one philosopher try to reinvent Christianity, as it were, and the other, Buddhism. Particularly in the case of Schopenhauer we see an instant clarification of the nature of many ancient sutras from Indian religion in the renewed context of transcendental idealism. Schopenhauer produces an effective framework for the recasting these ancient perspectives in the context of the modern scientific world view.

Almost as mysterious as these divide-clustered effects is their sudden waning, and by the mid-century the onset of scientism will become the dominant cultural force, to the impoverishment of the meaning and significance of secularism.

4.3 The Rational the Real

The strange symmetry of Schopenhauer and Hegel is one of the notable characteristics of the Kantian aftermath. While the prospect for evading the confusions of Hegelianism might drive us to be wary of his post-Kantian exploration of the non-dual, so reminiscent of Indian religious metaphysics, there is a transparency to Hegel's overall system of thought, although we should claim a more cogent version visible in the implication of the eonic effect and its philosophy of history.

Whatever the case, a famous debate, and confusion, surrounds Hegel's pronouncements on reason in history, and his statements of the equation of the rational and the real. Unfortunately, Hegel's treatment of this issue resulted in an ideological implication that his insight did not deserve, and which caused that basic insight to be frittered away in false debate, thence to be rejected out of hand by the Darwinization of philosophic discourse.

We can easily restate the issue (avoiding Hegel's treacherous terminology) by observing how we have uncovered a 'logic of history', and that this mimics a form of rationality visible in the eonic sequence itself. And this insight is not subject to the ambiguity of Hegel's version, since our eonic model clearly distinguishes a macro-action of historical dynamics, and its realization as micro-action. There is a rational aspect to history, suddenly uncovered, but it is an evolutionary history crucially dependent on the actions of men, whose decisions might not fulfill the logic of that greater action, to wit, by conservatizing reactions to the inherent logic at hand in the greater field of development.

4.4 Antinomies of Teleology

Let us conclude by noting that while the eonic effect, and its sequence, give expression to issues of teleology, they do so in terms of a particular type of discrete logic of alternation, which is not teleology at all, as we see it, but historical directionality, visible looking toward the past. While this may be evidence of a teleological factor, it says nothing about the future, hence is unable to resolve the nature of the case as to some 'telos of history'. And in fact, a close look at Kant's architectonic of discourses shows us the precise appearance of an 'antinomy of teleological judgment'.

We should not be so surprised either at the grand gesture of Hegel's teleology of freedom, and its associated breakdown in the 'antinomy' so visible in the 'splitting liberalism' of the age of the Great Divide. As we examine history we see the majestic sweep of a teleological process, yet it is one matched to our own evolving actions and the divergence of potentials from the present we live does not indicate any mechanical computation of that future we must create as free individuals.

4.5 Kant's Challenge Resolved

We conclude our brief 'induction of a gestalt', visible as the eonic effect, and we can see in spectacular fashion the resolution of what we have called Kant's Challenge, and its opportunity to liberate Kant from the confusions in his essay over 'asocial sociability'. The majestic sweep of the eonic sequence fulfills exactly the subtle question expressed in the first paragraph of his essay.

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.

We have the basis to proceed to construct a philosophy of history, at once theoretical and practical, giving expression to both the scientific study of the causal stream and the realization of freedom in that context

Conclusion

We conclude our short series of essays covering the basic ground of the eonic effect, and the result generates a new sense of universal history, in a fashion that is adapted to a perspective of science, yet able to encompass the breadth of human emergence in the context of civilization, in all its complexity, including the diversity of religion, especially against the backdrop of the Axial phenomenon. Kant's acute analysis of the issues of causality and freedom matches our analysis

in the eonic model almost perfectly, and the result is a coherent outline of history that shows the direct action of evolutionary processes on human self-consciousness as this becomes the medium for the evolution of freedom. We are left with a question, has man's evolution completed? And we can see that the answer is that history is emerging from evolution, and that man's completed evolution must be his self-evolution as a free individual both within and beyond the matrix of evolutionary civilization.

Note: A Selection from WHEE:

Section 1.1.1: 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, largescale 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.

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.

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 Comptean 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.³

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.

³ Hans Reiss, *Kant's Political Writings* (New York: Cambridge University Press, 1971), p. 41.

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.⁴

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

⁴ 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)

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.

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.

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.

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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*.

Appendix 1

History Evolution and the Macro Effect

Introduction

The material in World History and the Eonic Effect is considerable and a short netbook summary came out in the year 2008. It can help to get a broader idea of the so-called 'eonic' or 'macro' effect.

The question of human origins remains as the great enigma of evolutionary biology. The findings of current Darwinism have obscured the issue with a reductionist dogmatism that has resulted in a truncated image of man and his history. The greatest obstacle to advance is the illusion that the problem has been solved. Biology has shown us the evolutionary emergence of man in deep time. But the onset of Darwinism produced its classic debate that has orphaned the meaning of evolution with the claims for Darwin's theory of natural selection. And yet this hypothesis, due to its reductionist character, has simply compounded the puzzle of man. All questions of consciousness, morality, and human freedom are dumbed down to a physicalism that is inadequate to the task of explanation. The debate has devolved to mostly futile discussions of the meaning of methodological naturalism, this challenged by equally futile claims for a spiritual dimension and the argument by design. The genetic definition of evolution is woefully incomplete, yet pressed into service as the key to a total explanation. Perhaps evolution transcends the genetic dimension. The failure to take into account the complexities of human culture is the fate of any positivistic attempt to oversimplify human nature in the successor sciences to classical physics. A stubbornness on this point has produced the pseudo-science of Darwinism. The result is the hopelessly inadequate recasting of human origins in terms of a Social Darwinist narrative of the survival of the fittest. This misperception of how man emerged in turn leads to a kind of blindness when confronted with the real questions of human nature. The problem lies in a confusion of horizontal and vertical evolution, and the collation of genetic microevolution with an unknown yet suspected macroevolution. The essence of the problem is one of scale. We take the visible aspects of natural selection on the short term as a Malthusian speculation applied to the long term. This is a kind of wish-fulfillment, since observing deep time is exceedingly difficult, with the result that the tangible and short term processes of natural selection and adaptation are taken to account for more than they able. If we examine

Darwinism in practice we notice the failure to properly document the incidents taken by assumption to fall under the sway of natural selection. The limits of observation have been breached to produce an evolutionary myth.

There is an ironic resolution to the problem of observation, the study of world history. The question of the emergence of man is bound up in the question of civilization itself. And the facts of world history constitute a falsification of Darwinism, showing us processes which won't fit into the dogmatic framework created by Darwinian biology. We discover that until we can examine evolution at close range we are likely to be misled by the microevolutionary constant of genetic evolution in the same. World history shows us something very simple, and at the same time very complex: a process of non-random evolution. This process shows its hand in what we can call the 'eonic effect', a non-random pattern that simply won't reduce to the assumption of randomness. We are driven to infer or detect some mysterious macro aspect to world history itself. There is nothing complex about the eonic effect:

The Eonic Effect: World history shows a striking sequential rhythm of fast and slow evolution in cycles of roughly 2400 years, taking the years -3000, -600, and +1800, as a rubric of periodization for this phenomenon. This pattern has been independently discovered under the term 'Axial Age', which is actually the second phase of our pattern.

It is significant, and unsettling, that this pattern becomes visible only with the invention of writing (in its first phase) and shows us the way in which an unsuspected macroevolution can interact with independently active populations, something we could never have guessed from the poorly sampled vistas of deep time. How can we apply the term 'evolution' to history? The answer is that we can and we can't, and that is the whole point. History emerges from evolution, and yet, speaking for man, the two overlap. It is finally a question of how we define evolution. The genetic definition (well documented for microevolution) posits a temporal/causal continuity to keep itself in tune with a methodology of classic science. But nature does not honor this oversimplification. And the eonic effect shows the remarkable way in which an independent higher-level evolution moves beyond the moment of populations to direct evolution on a larger scale, with definite indications of evolutionary directionality.

The revolution in archaeology has pushed back our perceptions of world history, in the process showing us a whole world of civilizations emerging from the Neolithic. This increase in our knowledge has suddenly crossed a threshold minimum allowing us to infer what has frequently been denied, a larger coherent pattern that is global, holistic, and directional, Darwinism turned upside down. This data has a further consequence of showing the emergence of modernity in its proper context of historical evolution and its dynamics. An issue condemned to Eurocentric ideology, retrograde Toynbean /Spenglerian speculations about civilization, and postmodern attacks on the Enlightenment, can be illuminated by resolving the complexities of globalization acting through transient localities, thus freeing the question of modernity from its many biases. In the process, the significance of the Old Testament comes to light in terms of its Axial context and we can review the issue of the evolution of religion in an intelligible fashion, one equally compatible with its secularist rendering. The relationship of 'evolution' to human history suddenly gels, and we have a two-aspect theoretical matrix for reconciling dynamics and human free activity. We find essentially two evolutions, a macro aspect visible in the eonic effect, and a micro aspect, as self-evolution, which we ordinarily called 'history', seen as an evolution of freedom in a formal sense. The final irony is to see that

our attempts to posit human evolution in the past producing the complete species, homo sapiens, are misleading, and require revision to establish the reality of the case, that man's evolution, braided in the self-action of history, is moving towards its own completion in the evolutionary narrative of first and last apes, and last and first men.

1. History and Evolution

The relationship of history and evolution is the object of a remarkable deduction as we introduce another perspective related to our framework of Kant's Challenge.

1.1 The Darwin Debate

The crux of evolutionary thought in modern times revolves around the theory of Darwinism, and its flaws, and finally falsification.

The discovery of evolution was one of the greatest turning points in the development of human thought. It changed man's perspective on himself as profoundly as any other breakthrough in the development of science. First appearing in early Greek and Indian thought during the Axial Age, the idea resurfaced powerfully during the Enlightenment. Then Darwin's seminal publication of his *Origin of Species* in 1859 more than anything else precipitated this revolution in thought.

And yet a tremendous controversy, one long argument, has from the beginning accompanied Darwin's achievement. This has produced the intractable and almost endless Darwin debate, which has become a central feature of modern culture itself. In part, this is the result of the renewed outbreak of the conflict of science and religion. The appearance of Darwin's theory of evolution became a defining moment in the emergence of secularism, and resulted in the twentieth century opposition of fundamentalist religious groups whose challenges to Darwin have grown into a series of skirmishes in a cultural war.

But the debate was always much broader than the religion-science divide, or even the question of evolution itself. It was the theory of natural selection, hence of random evolution, that Darwin brought to his data that caused many even of those who embraced the factual discovery of evolution to challenge Darwin's claims. And this has produced the many, often confused, discussions distinguishing the 'fact' and the 'theory' of evolution. The fact of evolution is really the discovery of 'deep time', the endless vistas of planetary eons stretching from the dawn of life. The crystallization of the fossil record in this progression of geological ages reached an evidentiary threshold that made the idea of development in time an inevitable conclusion. To project onto this almost stupendous temporal field a theory of how life evolved was an audacious step destined to oversimplifications.

Beyond Natural Selection From the onset the real issue of the Darwin debate has always been the status of the theory of natural selection. Many of the first reviewers of Darwin's *Origin* accepted the evidence of evolution, but had difficulty with his claims for the mechanism behind it. The strength of the evolutionary hypothesis tends to mask the weakness of the claims for natural selection. It is simply not true that Darwin provided voluminous and convincing evidence for his theory of natural selection. Frequent reference under challenge to the evidence of

bacterial samples, where Darwinian thinking seems confirmed, does not give us grounds for the universal generalization of natural selection. It is a confusing circumstance in so far as the visible aspect nature shows the struggle for existence, the teeming ecologies of competing lifeforms. Natural selection is the bottom line, the test of survival. But does it generate 'evolution'? Verifying that it does so, and does so in all cases without exception, is immensely difficult, perhaps impossible, leaving the claims of theory, and the ambitions of social ideologists, in limbo. Darwin observed these innumerable cases of natural selection, through Malthusian lenses, but none of these conclusively established a true theory of evolution. The theory of natural selection was also the linchpin for the claims of non-random evolution, and denials of directionality or progress in evolution.

Evolution and Ethics There is nothing mysterious about the limitations of Darwinian explanation: 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. 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? Darwin and his successors, making natural selection the fundamental axiom of explanation, have attempted considerable ad hoc extensions of great ingenuity to make selfishness the source of morality. This dramatic play of opposites has produced some exotic attempts to 'save the paradigm' in the theories of group and kin selection. These theories are essentially logical phantoms attempting to puzzle through the paradox of making selfishness the basis for its opposite. But none of this answers to the real issue, which is to explicate, and show evidence for, the emergence of an 'ethical' agent.

Evolution of Consciousness The issue of ethics is really one of the freedom or potential freedom to act according to an 'ought', and it is almost by definition not going to be explained by the mechanization of valuation via natural selection. This issue gives us a hint that Darwinian style explanation is wrong in principle and wildly off the mark in practice. We must see if we can find any actual data that will give us a hint as to what the evolution of ethics might be like. We don't have far to look. 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.

Metaphysics of Evolution 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 the preface to his famous first critique 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.

Ideology and economy Questions of ideology stalk Darwinian theory but are concealed by the relative sophistication of Darwinists in evading the fallacies of Social Darwinism. Darwin's confusion in this area is often shunted off to Spencer. We should note that the confusion of biological and social evolution arises at the beginning of Darwinism, and the work of Spencer is a giveaway clue to the suspicious resemblance of classical liberal and biological theory. Most especially the influence of classical liberal economics on Darwin's thinking is, or should be, transparent, along with the frequent metaphors of economic self-organization applied to evolutionary processes.

It was on the basis of this theory that the claims for a totality of scientific knowledge came to seem plausible. The theory of natural selection purported to resolve all the key metaphysical issues that block the way to a comprehensive scientific worldview. And yet here Darwin was open to challenge from the beginning, because of the failure to properly document the claims for his theory of natural selection. In some ways Darwin made it easy for his critics, because he attempted an overarching generalization that was simplistic and ideological rather than truly scientific. With hindsight, we can see that the true nature of a science of evolution is not easy to resolve. The problem lies in truly observing evolution. It is relatively easy to conclude that evolution has occurred. But there are degrees of observation. It is very difficult to track an evolutionary sequence over time in order to get a sense of its real dynamics.

A glimpse of evolution The problem with the theory of Darwin lies in the verification of its claims for natural selection, and random evolution. Properly documented sequences of evolution are rare to non-existent. The only intensively observed historical/evolutionary sequence, one with data at the level of centuries or less, is that of world history since the invention of writing. This unique data set, five thousand years in length, is just barely long enough to put the idea of natural selection to a test. The result suggests something entirely different from the mechanism claimed by Darwin. History itself, seen rightly, will give us a glimpse of evolution in the form of high-speed bursts or organized evolutionary transformation. The most notable aspect of this data is the so-called Axial Age phenomenon, an historically visible transformation far more complex than anything proposed by Darwinism. That this is not genetic evolution is no objection.

The relationship of history and evolution must remain a subtle one, but the fact remains that no final definition of what we mean by 'evolution' has proven satisfactory. The reductionist attempt to define 'evolution' in purely genetic terms does not solve the mystery.

The debate is biased by the attempts to define secularism using biological foundations. It can never succeed thus. Religious anti-modernism tends to be armed with a critique of the limits of scientism taken as a reaction to the Enlightenment. But the best critique of the Enlightenment lies in the Enlightenment itself, in its full scope. The rise of modernity is more than the Scientific Revolution. The emergence of modern freedom is an independent historical process emerging in parallel to the Scientific Revolution. There is an irony here in that the emergence of freedom is itself an evolutionary process, and its relation to the emergence of modernity shows the crux of this process very close to home. But this requires that we have the means to carefully distinguish what we mean by 'evolution' from free agency.

Secularism and freedom The prominence of fundamentalist religion in the Darwin debate makes us forget that the basis of modernity itself is more than the reductionist fundamentalism it has become in a positivistic age. The Protestant Reformation was itself the first stage of modernity. The very basis of the idea of freedom, at the core of all modern liberalisms, has a metaphysical character that would in principle be excluded by scientific explanation. These classic issues of the philosophy of history arose at dawn of modern biology but were filtered out in the tide of later Darwinian triumphs. The ambiguous 'transcendentalism' of the idea of freedom, as explored by a philosopher such as Kant, becomes a key foundation stone for secularism itself.

Thus, a disguised reverse metaphysics haunts Darwinism: it must derive the nexus of freedom issues from its selectionist assumptions. We need look no further for the difficulties of universal biology.

Related to this is the question of teleology, and/or evolutionary progress. Divorcing modern thought from the idea of progress, whatever its ideological liabilities, because of the presumed demonstration of random evolution by Darwin, has sown confusion in historiography and biology both. And now the current phase of the debate sees the so-called Intelligent Design movement at work attempting to revive the natural theology of William Paley. But the design argument, challenged by such figures as Kant and Hume, is as problematical as that for natural selection. The design argument is often a confused version of the issue of teleology.

Natural teleology The methodological naturalism of modern science, and of Darwin's theory, began with the challenge to Aristotle at the beginning of modern physics. But the questions of biology are not easily resolved in this fashion. These issues were unwittingly exposed by the philosopher Kant whose proposals to examine natural teleology extend our definition of naturalism. This, however, requires a careful 'critique' of metaphysics, and there is no easy resolution of teleological questions.

Paley's natural theology is the original context in which Darwin produced his theory, against which he reacted, claiming that he had superseded the claims for design in nature. And yet this tradition had already been powerfully challenged prior even to its nineteenth century reemergence.

The chronic intractability of the Darwin debate springs finally from the concealed metaphysical character of Darwin's theory as the claims for natural selection became the master key to unlock the enigmas of divinity, soul, and free will. The result is that the exact definition of even so basic a category as that of an organism is left unresolved by Darwin, who produced the imaginary solutions based on adaptationism to all these questions characteristic of positivistic reductionism. His work was a triumph of public acclaim, in the tide of a bestseller. The failure to properly document his claims indicates a series of misunderstandings about what a theory of evolution should be. One irony is that while the discovery of deep time immensely broadened the scope of our knowledge of the universe, it is history itself that can give us the clue to the riddle of human evolution. And yet, the question of science applied to history has no simple solution. What is a science of history? It is interesting that we should presume to have a science of evolution, given the difficulties that attend the development of a science of history. Why should the one be considered a fait accompli, while the other is considered a hope for the future?

Historical research has greatly expanded our understanding of the data of world history, and in the process transformed our knowledge of the emergence of civilization. As we proceed we will need to avail ourselves of immense ranges of this enlarged chronicle, which creates a considerable logistics of study. Part of the problem with such a study lies in the influence of Darwinism itself, which enforces a tacit set of assumptions about random evolution. This is often matched with a prejudice against any consideration of what has been called 'Big History', and any attempt using the philosophy of history to generalize about history in the large. A further critique of any idea of Big History comes from the postmodern rejection of 'metanarratives'. In this field, the status of a science of history is ambiguous, as the philosopher Karl Popper with his critique of historicism makes clear. And yet as the labors of archaeological research come to fruition a broad overall picture emerges, beginning with the Neolithic, followed by the rise of civilization, the Classical period, and finally the rise of the modern world.

The prejudice against Big History As the data of world history reaches critical mass the question of Big History arises spontaneously, limited only by our inability to produce theoretical tools to deal with such an entity, seen to be the all-time classic case of a mixed causal/freedom system.

Deconstructing flat history We can turn postmodern critiques of Big History against themselves by deconstructing the idea of flat, random history. Such histories are infested with fallacies of the Social Darwinist type, and reject teleology only to create unconscious teleologies of conflict.

We are ready to take a look at the evidence for non-random evolution in history itself, mindful of the distinctions we think we should or should not make between cultural and biological evolution. There is an irony in 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. The problem is that the historical record is relatively short compared with the immense vistas of the earlier stages of evolutionary emergence. But it is significant that in reviewing the history of the idea of evolution we have discovered an odd fact indeed: the evolution of the idea itself is closely bound up with the pattern of evolution itself that we are about to discover!

1.2 The Axial Age

Our discussion makes a dramatic turn in the direction of ideas of evolution on the way to a more general definition of the idea, and of its place in discussions of history.

We assume the flow of world history follows random logic, conditioned as we are by Darwinism. The rapid growth of archaeological knowledge since the nineteenth century has greatly expanded our views of world history 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. This data begins to show the unmistakable evidence of a non-random pattern in world history since the invention of writing. This pattern can be seen from two angles:

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.

2. The second, related to the first, is of the mysterious drumbeat pattern of turning points or transitions proceeding down a mainline of the diversity of civilizations. Looking at this Axial phenomenon we are forced to consider that it is really a step in a sequence, and moving backwards and forwards we suddenly discover the full pattern. Note that these turning points are equally spaced, with an interval of about 2400 years, clear evidence of a cyclical phenomenon.

TP1: the rise of advanced civilization in Egypt, Sumer, ca. -3000

TP2: the sudden synchronous effect of the Axial Age, ca.-600

TP3: the rise of modernity, ca. 1800

In one stroke, we discover what was said not to exist, a complete Universal History, rich in interior significance and meaning. We call this pattern the 'eonic effect', a superset of the core Axial Age phenomenon. This pattern is vast, and yet we can in this unique case get a better sense of it from a high-level view beyond the details, a stroke of good fortune.

The 'Axial Age' began to be observed in the nineteenth century. 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. This is not the evolution of cultures, but a series of time-slices of multiple cultures in parallel. Since this period produces a series of world religions a confusion has arisen over the idea of some kind of 'spiritual age', but a closer look shows that the full effect is multidimensional. For example, in the case of Greece we see the emergence of philosophy, science, democracy, and much else that doesn't fit into a religious framework. Behind Buddhism we see Upanishadic yogis, and these shade into a set of philosophers. Heraclitus is a philosopher, but he is a little bit like a sage-yogi. Pythagoras is an actual 'yoga philosopher', almost explicitly. Confucius is a philosopher, but his work produced a kind of semi-sacred, semi-secular 'culture philosophy' rather than a religion. Clearly our categories blend between themselves at this stage prior to differentiation into philosophy and science. We really have two patterns in one, the synchronous emergence of the Axial period, and the sequential series operating in a kind of drumbeat pattern. The connection between the two is at first not clear, until we grasp logic of the overall pattern.

Synchronous emergence What makes the Axial Age remarkable is the factor of synchronous emergence in independent regions stretched across Eurasia where the innovations occur so fast we cannot ascribe this to mutual diffusion.

Sequential directionality The Axial phenomenon is a subset of a larger 'eonic sequence' that generates a mainline of development.

The idea of the Axial Age was codified by the philosopher Karl Jaspers in his *The Origin and Goal of History*. We have 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. Karl Jaspers, *The Origin and Goal of History*, New Haven: Yale University Press, 1953, Part I, Ch. 1.

This statement says nothing about the birth of Greek science, or the birth of democracy in the Greek Axial period. We are confronted with an elusive synchrony, but must be wary of trying to reduce such diversity to a common denominator. We could also say the opposite. There ought to be some common denominator, for we do see striking resemblances between the different areas. But the essence of these Axial Age innovations must be at a high level of abstraction we have yet to find.

Archaic Greece: the clue We can become distracted by an emphasis on a series of creative individuals and sages. But these are merely shining lights in a far broader phenomenon at the level of whole cultures. The Axial phenomenon is the result of the actions of individuals, but these individuals generate a coherent outcome that surpasses their isolated contributions. This point, and the Axial phenomenon generally, can be seen at its clearest by studying the period of the Greek Archaic flowing into its Classical flowering: the period from the Greek Dark Ages to its period, from ca. -900 to -600, followed by two centuries of stunningly multifaceted innovation across an entire spectrum of culture. Because they are innocent of metaphysical historicism histories of the Greek Axial give unwitting testimony to the extraordinary character of this period. Armed with the periodization pattern of the Greek instance we can rapidly uncover the similar and isomorphic 'core Axial' significance of the other cultures in the spectrum: Israelite, Indic, Chinese, Roman. The Greek Axial shows how the phenomenon undergoes rapid fall-off after around -400, the onset of the Age of Alexander and the subsequent periods of empire being clear cases of decline from the peak period.

The Axial Age is defined by Jaspers as occurring in the interval from about -800 to -200, but a closer analysis suggests the need to modify and break up this interval. However, the basic point is clear. But the Axial phenomenon is evanescent and begins to wane rapidly by -400. By -200 the 'Axial' period would seem to be well over, and the core period of intensity would seem to center around -600. This is the period of Solon in Greece, and the Exile in the

case of the clearly correlated history of Israel recorded in the Old Testament. Solon seems to precede the great spectacle of Greek democracy and Athenian culture, but the transformations that make this possible are already complete in the Greek Archaic period, whose seminal foundations have created a new framework of advance. As we zoom in and study this data in detail, we will attempt to distinguish the generative period, from -900 at the outside, to -600, roughly, followed by a 'realization period', from about -600 onward. By -400 there is a sudden fall off, and the process is on the wane. But this division into transitions is not dogmatic and the five centuries from -900 to -400 enclose in each case the parallel developments of the Axial period from Greece to China. And a mysterious process it is. We see the generalized resemblance of all the exemplars, but each is also unique.

For the Axial Age period, we have at least five seminal areas suddenly showing characteristic 'pivotal' intervals in concert:

Archaic to Classical Greece The period from the Greek Dark Age to Alexander contains the great clue to world history. The period of Archaic Greece overflowing into the Classical period lays the foundation for a whole new order of civilization, and produces the beginnings of philosophy, science, and democracy.

Histories of Israel The phenomenon of 'Israel' in the Old Testament is a considerable enigma but its significance falls into place once we see that it simply reflects its place in the Axial phenomenon. This involves the period from about -900 to the Exile, and does not include the (mostly mythical) accounts of Abraham to Moses. No historical myth, theory of evolution, or universal history has ever produced a coherent account of this history. But the eonic effect will clarify its status at once, and in a very simple and elegant way, if we see that the key issue is the core period of the Prophets around which additional history is adjoined as epic prelude.

China: The period of Confucius One of the strangest cases of the eonic effect is the sudden transformation in medias res of the Axial period in China. This 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 our '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.

New World?? Seldom considered is the possibility that the New World civilizations might show Axial influence, given the clear global character of eonic action in the Axial (and other) intervals. A close look shows, remarkably, the Mayan generation period in sync with the overall pattern. That is, the Mayan, as a relative start in sync with the Axial Age, and thus not the earlier Olmec (analogous to the contrast of Mycenaean and Axial Greece). We should refrain from jumping to conclusions here since the isolation of the New World cultures creates hard-to-interpret evidence.

The question of the Axial Age has spawned a new historical myth of a semi-secular idea 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, stripped of all local associations with 'Hinduism' (a highly vexed term. Our historical dynamic thus transcends the content enclosed in the remarkable 'Axial interval'. Note that the Israelites said as much, and then fell into the crystallization of their historical realization short of the implied universalism of thought generated by the sense of 'Big History' in action. This religious interpretation, then, of the Axial Age fails on several grounds, among them, for example, the fact that Zarathustra may well have lived before the Axial interval (and Lao Tse is sometimes placed quite late). Monotheism was not invented in the Axial Age. What we see instead is a kind of elaboration, or repackaging of outstanding or prior

1.3 The Eonic Effect

The enigma of the Axial Age lies in seeing its place in a large system we call the eonic effect

Looking at this Axial phenomenon we are confronted with an inexplicable mystery. But the 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.

TP1: the rise of advanced civilization in Egypt, Sumer, ca. -3000

TP2: the sudden synchronous effect of the Axial Age, ca.-600

TP3: the rise of modernity, ca. 1800

The idea of a turning point, which we will replace with the term 'transition', means that there is a staging area and period for a major advance, which ratchets the overall development of civilization to a new level. In fact, starting with our second turning point, taken in isolation, we could ask, is this period unique? Once posed, the question answers itself: we can see three such periods, if we can see the unity behind them. This first turning point is by no means an absolute beginning. Clearly, we have only a fragment of a greater pattern. A three-beat sequence is difficult to analyze, the bare minimum needed to show sequentiality at all. Note the equal length of the interval between these points, about 2400 years. It seems like a frequency phenomenon, but our data thins out very quickly. We must have rich data for the Neolithic, and that we don't have.

Leapfrog and hopscotch As we examine the whole pattern, its logic becomes clear: the flow of world history lacks direction. To set direction it must either operate on the whole all at once, throughout history, which would be impossible, or else operate intermittently, and then in selected regions. As it returns on itself it cannot act twice on the same culture without creating an imbalance. Yet if it does not, it will be forced to start over in an undeveloped region. Our pattern shows the answers to these difficulties. Leapfrog and hopscotch between regions in short time-slices of action. Return to a frontier area near the previous zone of action. This requires seeing that the 'unit of action' is not the civilization or culture but short intervals in properly strategic regions.

One of the puzzles of the Axial Age is why the Mesopotamian and Egyptian civilizations don't show the effect. These were the prime staging areas for the emergence of civilization. Our answer is simple, and decisively explains one of the mysteries of the Axial period. Archaic Greece and Canaanite 'Israel/Canaan' are frontier or acorn regions outside, just outside, the previous transition zones. Then, remarkable, in a tour de force we see the rationale for the sudden rise of the modern at the frontier of the previous transition zones (or, as we will see, at the fringes of the net expansions as oikoumenes).

Applying a frequency hypothesis to the emergence of civilization is so strange that we can barely give sense to the idea. That is what the evidence shows. Why is it strange? Simple systems analysis makes complete sense of the facts, and so many facts that we are virtually into this conclusion, mindful to be wary of just what the conclusion is, simple we are dealing with a highly mysterious form of macro-historical action. As we consider the Axial phenomenon this interpretation of intermittency is almost unavoidable. A finite interval suddenly becomes active. We would be hard-pressed to call it unique. We swiftly infer other intervals analogous to the Axial Age, once we strip off their disguise. Inclusion of the modern period is also problematical, at first, but we can simply propose this as an extension, by our frequency hypothesis, to our Axial riddle. We see the rise of the modern (what does that mean?) at such close range that the whole phenomenon suddenly becomes transparent, like successive steps in a computer program. Including the modern period in an analysis based on dynamical thinking swiftly generates a series of paradoxes. What of our freedom to act in the present? We will soon find that this is a perfectly valid point but is no objection to our analysis, which will not be deterministic. We must be wary of this point. Universal histories have always tended to derail on questions of fatalism and historical inevitability. We will be forced to think in an entirely new way. The pattern itself will show us how.

Despite the logistics of correct study and observation, the general sense of this pattern, to a bird's eye view, is quite simple: it induces recognition, like the pieces of a puzzle falling together. We recognize a system operating in a kind of drumbeat alternation. Its action is transparent: we see three surges of several centuries, along a complex mainline of selected cultures, with 'medieval' periods in between. The Middle Ages never made any sense, and was always an obstacle to assertions about historical progress. But now we see the simple explanation. We sense that there is a strange driver behind the drama of civilizations. It switches on, advances a handful of regions, then switches off. The process behind this pattern seeds new cultural advance areas, which flow into oikoumenes, as it sets an overall direction. It always restarts in a new area at each step. It can operate both in parallel and in sequence. The most telling clue is the successive recursive action in the sequence of steps. And this periodization brings the question of historical dynamics into our recent past, rich in detail, and we must be careful about what we mean by modernity. We will soon find 'eonic data' at the level of decades, to remind us that even our first two turning points have a thin record.

This system, as it draws us into contradictions as we explore its 'causal' explanation, is an ingenious 'widget' operating on two levels, a clever way to balance diversity and unilinear advance. It is still not clear how the two aspects, sequential and parallel fit together. But we are in the presence of a clear historical dynamic, a point especially obvious from the data of the Axial Age. This system, by default, gives us a free gift: the key to a 'science of history' (but only after we call into question the idea of such a causal science). We have found our missing 'force', but it isn't a force, although the resemblance to a 'field' effect is remarkable. The reason we claim the pot for a 'science of history' is simple: no other phenomenon could compete with the comprehensive character of this pattern, whose action derandomizes the expected random occurrence of the historical chronicle. This pattern includes all the key advances of human civilization. The first alternate candidate to be challenged is the economic interpretation of history. Economic 'evolution', while braided with this pattern, is something, we will show, that is distinct from it. Causal statements about this pattern suffer immediate difficulties. We are in the presence of a phenomenon that apparently does nothing on its own, but only induces action in man, who performs an executive function in a sudden state of creativity. There is no other explanation for the diversity of realizations in the pattern, a good example being the synchronous emergence in the Axial interval of an atheist religion next to a theistic one.

The strongest evidence in our pattern is its demonstration of recursive action. Note the way democracy and science are born, reborn twice, in successive transitions. In a real sense the Greek Enlightenment is a first draft of the modern Enlightenment, and gives birth to all the essential characteristics of modern secularism. The resolution of the paradox of common denominator will turn out to be fairly simple, and will emerge as we go along. But the basic idea resembles the contrast of libertarian and collectivist perspectives: all the way through we see the dialectic of state and individual. We see the evolution of the state balanced by the evolution of the individual. Then the religions do the same thing. Note how the first eonic step creates the rise of the State, while the second starts to generate the freedom factor of the individual inside the state, Greek democracy. With this clue, we see that 'religions' are simply dialectical variants of the state/individual nexus, with the idea of the state found wanting before the possibility of a still larger transcultural aggregates. This play of collectivist aggregates and individuals is present throughout. The connecting point is the 'self-consciousness' of man as individual versus the mechanized consciousness of man as state person. The libertarian/collectivist paradox is especially clear in the religions generated in the wake of the Axial Age, and we see the way they talk to the self-consciousness of the individual, yet leave us (moderns) puzzled by their clear collectivist tendencies. But we see this is no paradox at all. The state/religion 'paradox' should be obvious from the at- time classic Axial transition phenomenon: the 'Israel/Judah'

transformation in the Old Testament, simultaneously a state history and the generation period of the materials for a series of later religions. It is worth remembering this point: the Axial interval shown by the Old Testament is the chronicle of a State history, not the creation of a world religion, which comes much later. We must constantly refine our top-level observations, and be wary of teleological assumptions.

This pattern, once seen, is highly coherent, and defies all odds of being random, not only because of its clustering, but also because of its interior significance. The pieces of the puzzle have sudden new meanings once conjoined, and make sense on their own terms. This system is evolving higher civilization, but only partially since the effect merely seeds new starts and leaves the result unfinished. Later we will elaborate on this with our distinction of 'system action' and 'free action'. We are almost helpless: the pattern forces itself on us, even though its complexity would seem to surpass our powers of comprehension. The pieces of this puzzle fall into place in the corner of a still larger puzzle and we can recognize what is going on without having the full data set or any understanding of what is driving this amazing process with independent branches that don't communicate and remorph so fast mutual diffusion could not explain them. And it is clear that our triple sequence is merely a fragment of a greater whole, probably encompassing the Neolithic and before. Later we will propose a frequency hypothesis for our sense that this intermittent series is a set of equally paced transitions with their intervals between them.

1.4 Descent of Man Revisited

The perception of the eonic effect leads to a consideration of its place in the context of evolution.

Since we have brought in the idea of evolution applied to history, we should consider the implications of what we have found for the question of human evolution and the descent of man. We have already indicated that something doesn't add up. We have the evidence for 'evolution of some kind' operating in history and we have already mentioned the question of the so-called Great Explosion, the evidence of a sudden crossing of a threshold in the emergence of modern man. Darwinism has offered no reliable account of this phenomenon, except as an additional instance, by prior assumption, of the action of natural selection. We are suspicious that something more complex is involved, something unfortunately without sufficient evidence to arrive at a definite conclusion.

The claims for the Great Explosion show a considerable uncertainty, with a date often centering around 50000 years ago. Behaviorally modern man appears from Africa armed with language begins to spread across the globe. This can be distinguished from the distinct claims for the emergence of anatomically modern man, which most probably occurred much earlier, ca. 200000 years ago, three more blocks of fifty thousand years.

50K blocks? Man has remained essentially man since the Great Explosion, issues of genetic drift alone being relevant to the differentiation we see in this 50K block since that point. And yet, by Darwinian thinking, we are to consider that three such 50K blocks prior to this were sufficient for natural selection to produce the defining character of homo sapiens. This includes the immensely complex phenomena of art and language, which seem to have appeared virtually on the spot.

These statements are quite vague, and we are in no position to close the argument, which could however be reformulated in several ways, depending on new data. But we can already see that the account of Darwinian stretches credulity, and, in any case, cannot be accepted without further data. The current assumptions about these blocks of fifty thousand years is not a consistent account, especially once we see that while a considerable genetic differentiation occurs in the last of the early blocks, there is no fundamental evolution after this putative 'great explosion'.

It is not our business to make any assumptions whatever on this issue. Instead we will buffer human history from the misapplication of Darwinian: we have our own defining concept of evolution for the emergence of civilization. But these two different sets of dates taken together already suggest something, the quality of relative emergence that we have already found in history and associated with a system acting on two levels. And this process can act globally at high speed over a five to ten thousand year interval, able to sequence its stages using leapfrog to encompass a dispersed species. We note that this is a prime candidate for a 'stream and sequence' argument, viz. the stream evolution of hominids compared to some unknown series or 'sequence' of distinct stages of man's transition to man. Since our emerging eonic model easily distinguishes two levels, the stream and the sequence, we could easily make some sense of the data as it is: there is obvious a series of relative beginnings, rather than an absolute origin of 'man'. And yet, just as with the eonic pattern, there may be a definite crossing of a threshold as some action, occurring at relative high speed, drives a stream 'over the top' into some new category. We see that with civilization, which is an order of magnitude advance on the Paleolithic itself. What makes us suspicious of the Great Explosion is precisely the high-level nature of the data, such as it is, i.e. the appearance of language, art, signs of religion and creative self-consciousness.

The point is that, still short of a solution, we suddenly have simple handle on this fuzzy picture of early man. We have adopted the term 'evolution', in and of itself a free definitional act, but now are forced to wonder if it isn't the real McCoy, and mutually exclusive with the Darwinian version (it is not clear what the Darwinian version is). If we see evolution in history (in no contradiction in our emerging model with the record of free action history) over five to ten thousand years, and the emergence of man is a mere fifty thousand years before that, something doesn't add up. The Darwinian arithmetic is a fudge here. What is more, we do see the effects of random genetic drift and the clear documentation of the genomic history of man suggests that the period since the Great Explosion shows a stable species, if not a fully stable genetic constitution. We can easily graft genetic drift onto our account, welcome. There is a possible differentiation into types, varieties, we won't say 'races', but the man we know as homo sapiens is the same throughout the contemporary world, and almost certainly the same man then that emerged sometime in the last hundred thousand years.

Put it to the test with any Paleolithic hunter-gatherer in the current historical world. We can map one to one the 'basics' of human preoccupation and behavior, more or less, as invariants, and we know in our gut the equal natures of such human types, differences of technological acumen being on the surface. We can't close the argument, but we must be left wondering that mere natural selection is too slow for the dates that are forced on us by research. The genetic scenario shows a stable 'man' for fifty thousand years, yet a sudden transformation at the beginning. Could this really be natural selection at work if fifty-thousand year increments are a drop in the bucket, yet a great

surge occurred at the beginning of one such interval? The last hope here is some lucky mutation to hox genes created a new developmental sequence in human embryology. Again this may be no contradiction to our argument. But it is hard to see how a few mutations could have so transformed man at one stroke.

We are stumbling into an inconsistency. And here is the point: if we are near a new way to look at the descent of man, but don't have the final evidence to decide, then we should expect the same from proponents of Darwinism who routinely and very dogmatically assume, with very little evidence, that Darwin's theory has explained a phenomenon of great complexity, sight unseen. We can see that that can't be right. Darwin's theory is mere guesswork on the descent of man. Furthermore, we can see the Darwinian thinking is suffering a reality check: we have unexpectedly discovered, even in history, a late stage of development, a distinct macro factor. A kind of 'Hey, wait a minute' pops up: if history does this and there is a fuzzy boundary to history and evolution, then we are seeing two different reality claims in conflict. The purely genetic scenario of random evolution, and the non-random 'rolling out' of history.

Photo finish contradiction Clearly Darwinian thinking is flunking a photo finish contradiction. They say a horse of one color started the race, but the eonic data tells us a horse of another color is present at the photo finish (i.e. the eonic evidence).

We are stuck with two accounts of evolution, and we can see that our version, in no contradiction to the findings of genetic drift, nonetheless is completely different from the operation of natural selection. And we find that this evolution is on two levels, one at the level of the eonic sequence, the other in the horizontal streams of cultural life. Here is our photo finish punchline: how could the emergence of earlier man be any different? We are surely missing something if history shows non-random evolution while we claim that earlier stages of human evolution are random. Darwinism is strong on genetics, weak on culture. We are strong on culture, and weak on genetics. The two versions are evenly matched, but ours, in search of a genetic connection, bids fair to overtake and make Darwinian evolution a special case of something more general.

To be more specific, we can propose an hypothesis to the effect that something like the eonic series might have accompanied the Great Explosion. Imagine a ten thousand year sequence of transitions driving man into his current state. This is as yet unconfirmed, obviously, but the stock of Darwinian natural selection plummets and is no better than our alternate conjecture. It makes no sense to claim that a sudden genetic change could produce language like a rabbit out of a hat. We have already seen that our macro factor is present to drive the art processes of already potentially creative human types in the Axial Age. This 'eonic evolution' assists in the realization of human art potential. We could hardly feel confident claiming one or a few genetic mutations suddenly produced great language and art 'just like that'. Man needs help at each step of the way. Darwinism is simply a blind man's muddle.

1.5 A New Model of History

Our new perspective on history and evolution leads to a new model of history

The discovery of the eonic pattern has forced us to reexamine the meaning of evolution itself, for we suspect that its current purely genetic interpretation is misleading, and fails to account for a broader component that we can only call 'macroevolution'. The term 'macroevolution' tends to refer to the process of speciation. But in the case of man we confront the ambiguity of that definition of man as man, the species Man. Perhaps that speciation is still incomplete, and history itself is an exhibit, evidence, in this process! It will turn on a question of 'evolution' becoming 'self-evolution', the passage from passive to active, as if it were an 'evolution of freedom'. It is time in any case to elaborate on our remarks about history and evolution. We have already produced the gist, and we should, at the risk of repetition, formalize our discussion. And this discussion began with a very simple question. If history and evolution are distinct, when did evolution stop and history begin? Clearly they could turn the one into the other in an instant. Thus it would seem that man 'evolved' toward 'history' but that something like history was coming into being while he was still evolving. And this still could be the case. So the two overlap. And this makes sense. Something that doesn't happen all at once has to happen in a transition, or a series of stages. On the one hand, the control of a passive process doesn't allow any freedom. But the total freedom to begin and continue is, at the beginning, an empty possibility. Chimpanzees are free to create civilization, but it won't happen. So between underdetermination and overdetermination we have some kind of overlapping evolution/history in which the balance is shifting toward freedom. One way to balance the under/overdetermination would be a series of 'transitions' of an intermittent character: strong direction, then a stop to see something actively emerge, then more direction, then stop again, and so on. But wait, that's what we see in the eonic sequence! A series of on-off transitions! Looks familiar.

It is peculiar to bring the term 'evolution' so close to home in our own history. We tend to have romantic image of wild and primordial evolution, and like to think that we evolved into free men in a jungle somewhere, tearing raw flesh off of wild beasts, the fourth chimpanzee cooking steaks on a fire, and then after some lucky mutation we just walked away with full-blown Kantian moral to greater things from then on. But the eonic effect is a cautionary tale. Its action seems to be still coaching man at the point where he is producing his own art, so what are we to think? We underestimated what it means to be man, perhaps. And in history we detect something that is not supposed to be there, something truly stupendous, a system leapfrogging millennia, able to morph whole cultures comprehensively in short time-slices. Most of all we see a process of directional evolution that can operate globally in selected localized regions, as seen in the ingenious placement of the zones of transition. Thus as we examine the eonic effect we are confronted with something that demands to be called 'evolution', although it seems paradoxical to apply this to history. But in fact Darwinists have no monopoly on the use of the term. We speak routinely of 'cosmic evolution', 'economic evolution', the evolution of technology or religion, even the evolution of science or, indeed, of evolution as an idea. The evolution of civilization as a concept poses no problem, save that unexpectedly we find it to be a genuine type of macroevolution in collision with Darwin's version. So let us ask, why the emphasis on Darwin's version? Scientific evidence? As we have seen the evidence of Darwin is not adequate and our different evidence indirectly suggests that he is in fact wrong about natural selection. So, as they say, 'we are free to go', and redefine the meaning of evolution by redefining our line of attack on its mechanism. The fact of evolution, however, is quite secure, and the overall research project of the biologists remains in place as a foundation for any use on our part of the term evolution.

Thus, there can be no objection, as such, to still another use of the term for our data, especially if we qualify it, so that we don't get in the way of perfectly sound genetic usages of the word, even if those usages, as we suspect, are quite inadequate. Looking at our three successive transitions we can simply define this as the 'eonic, or intermittent, evolution of civilization', calling our intermittent sequence of transitions the 'eonic sequence', keeping in mind that

this itself does not fully define the totality of the evolutionary components of world history, the economic evolution(s) of world history, for example, being something different, and an important component we will address separately. But then what is the status of everything happening in between our transitions? That's the interesting part. We suggested the possibility of defining this as some kind of 'microevolution', based on issues of self-consciousness. Actually, our main point was simply to call this history, in contradistinction to the macroevolution of the eonic driver. As crude as it is, this approach works beautifully, as a descriptive, please note, not more, not yet as a theory of evolution.

To conclude, the answer to the paradox of history and evolution is given to us empirically. We see a series of intermittent transitions. Clearly that's the form taken by our evolution-history. We can simply define the terms 'evolution' and 'history' to conform to that definition. We can speak of the Great Transition, broken into a series of smaller transitions, from evolution to history. This means that there is an overlap of the two. It is like a cornucopia, with a precession of things proceeded from a source but with a different character. The advantage of this approach is the relativity of the definition. We can say that early man in the Paleolithic was evolving, but that his history is beginning, and that the two are braided together. Furthermore, we have a natural interpretation of the distinction of macro and microevolution. We can formalize this as follows:

From evolution to history We can make the evidence of the type seen in the eonic effect the transition from evolution to history" explicit grounds for defining the overlap between evolution and history. We could call history the record of free activity rising in the wake of the passive evolution of volition.

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.

System action (or eonic determination)/free action The character of these definitions is that of a mixed 'causality/freedom' system, except that causality is no longer causality, and freedom may not be free will. So we will speak of mixed 'eonic determination/free action' system. Eonic determination would be whatever caused the Axial Age, or the other transitions, free action the relative degree of freedom, subject to fluctuations, exhibited in the transitions (more creative) or in the mideonic periods (hopefully still creative). We will say that system action shows 'eonic determination' while behavior outside of it is simply 'free action'.

The Great Transition Armed with these distinctions we can call the passage from evolution to history The Great Transition XE "Great Transition, The" , 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.

Our exploration of historical 'macroevolution' seems audacious, and yet there is a rightness to this approach, and furthermore it is non-dogmatically useful. And it can also give us a venue to reopen a long outstanding question, that of a science of history. And the question of such a science raises at once the issue of Big History, the many attempts to explicate some form of historical dynamics, in the search for laws of history. This has always been a controversial question, and even as the progress of science has advanced into the realm of culture and mind, the stubborn refusal of history to yield to the reductionist legacy of the hard sciences.

2. The Modern Transition

2.1 Transition and Modernity

The perspective of modernity as a transition makes sense of its intangible integrated character...

We come to conclusion of our survey of the eonic effect and the properties of our eonic model resolve in beautiful fashion at one stroke the paradoxes of the rise of the modern. Our eonic sequence with mathematical precision leapfrogs to the frontier area of one its prior oikoumenes. This is the clue to the sudden explosion of modernity at the fringes of its previous zones of action. The data of the eonic effect is at first very puzzling, but its suggestion is very direct on this point: the rise of modernity is an eonic transition, best seen as three centuries in length, 1500 to 1800, climaxed by the Great Divide in the generation of the Industrial Revolution, thence generating the rapidly expanding forms of modernist globalization. How can it be this way? A discrete-continuous model comes to the rescue by displacing the question onto the greater scale of world history since the first 'modernities' of Sumer and Egypt.

This issue has long been distracted by the seemingly Eurocentric implications of such a view. But the modern transition is only marginally a 'European' phenomenon. Every stage of our eonic sequence has suffered this entanglement of the staging area and its emergent oikoumene. The modern case is no exception, but we can see the rapid-fire attempts of the period of the Enlightenment to produce canons of universal culture under the aegis of Reason. Central to modernity is the rebirth of Science, but this should not distract us from the need to understand the greater spectrum of effects gestating in our transition. Consider the triggering effect of the Protestant Reformation: it partitions Europe into two sectors, and feeds a new future from behind this partition.

The clear suggestion that the Protestant Reformation, next to the parallel emergence of Science, is the first stage of a sequence leading to the Enlightenment ought, even at this late date, to give pause to religious traditionalists who wish to defy the momentum of the eonic sequence with postmodern retrogression. The rise of the modern has all the requirements for a Second Axial Age, and traditionalist attacks on its secular character have missed the point. The paradox is resolved in the German Enlightenment, whose descant on enlightenment rationality constitutes the conclusion of the Reformation, and its full potential reveals the false contradiction of the sacred and the secular. The stages of the modern transition resemble the Axial phenomenon of Axial Greece in the Archaic period onward, the seventeenth century being the pivot point whence emerges the cornucopia of effects so visible at the point of the divide.

Sixteenth century: Reformation, Copernican Revolution, German Revolution

Seventeenth century: Scientific Revolution, birth of Enlightenment, English Civil War, birth of liberalism

Eighteenth Century: Flowering of multiple Enlightenments, English, German, French, American. Industrial Revolution, French and American Revolutions

The Great Divide: the climactic conclusion of the modern transition

A New Age Begins The onset of a new era of world history rapidly shifting from its frontier jumpstart zone toward globalization

Five Centuries of Modernity Just as with the Axial Age where we saw an approximate three centuries of dynamic seeding, followed by two centuries of rapid realization and a heated flowering, so with the modern period we see the same two centuries after the Great Divide in a prolonged take-off. We must be wary of falling into the same slide of decline and chaotification that overtook the ancient world in the post-Axial period.

The amount of study required for this immensely complex transformation is immense, and yet we can suddenly see with a bird's eye view the whole transition, which has an overall unity and coherence, operates holistically on multiple aspects of culture, and generates a clear metanarrative of evolutionary action. The seeming contradiction between slow continuous development from medievalism and rapid emergence in the discontinuous action of the eonic sequence disappears in our formulation.

We should reiterate that we are not speaking of Western Civilization, nor is modernity a phenomenon of Christian culture. The effect echoes directly the eonic master sequence in regenerating the gains lost in the post-Axial chaotification of antiquity. In light of the eonic model, we see that at every stage a local cultural complex is the staging area for a renewed generation of a globalizing oikoumene. This is a very strange way to take the question, at first, but used with care, this idea will resolve the hopeless muddle of historical analysis stuck between continuity/discontinuity arguments with respect to the Middle Ages. We have even thrown light on the intractable difficulties of Eurocentrism, because we can see that the 'modern transition' is just that, a transition, following a frontier effect, that takes off right on schedule just at the fringes of the old Roman oikoumene. The effect thus has nothing as such to do with 'European civilization', a notion that will blind us to what is going on. We can then look at the phenomenon of the Great Divide, one of the most spectacular moments of world history, notwithstanding the considerable postmodern dialectic to which it has been subjected.

The Great Divide As noted, if we adopt the transition model for the eonic pattern, we indirectly imply that there is an end to the transitional interval and this gives us one of the great interior 'predictions' of the eonic model. We saw this in the case of Greece and Israel. 2400 years later to the decade, another example is evident. This means we should examine the period around 1800 (or, more roughly 1750 to 1850) to see if we can detect this effect. In fact, we have stumbled on the explanation for one of the most remarkable periods in world history, a generation of massive innovations encompassing all aspects of culture, from the Enlightenment to the birth of modern capitalism to the French Revolution and the rebirth of democracy. We can see now that the intensity of this period is no accident. We note also that much that was innovative in this period was clearly gestating from the time of sixteenth century.

Our transition very clearly ignites in the sixteenth century, with the Protestant Reformation, the first of the great modern revolutions, and parallel to this we see the rapid emergence of the Scientific Revolution. The conflicts of the Reformation yield to the real birth of modernity in the seventeenth century, and we witness the birth of the Enlightenment period. By the end of the eighteenth century the basic interval of the transition is complete, and we see the remarkable phenomenon of the Great Divide, at close hand. We suddenly have some accounting for the fact that the generation around 1800 is immensely fertile and packed with innovations in all fields. Then, just as clearly we can see the system changing gears, as it disengages from the eonic sequence into its mideonic New Age, in an explosion of novel developments in the nineteenth century. This is confusingly associated with the birth of modern capitalism, but the overall picture is more complex than simple economics. Capitalism can fuel economies, but it can't produce an Adam Smith, the source of its own software. The emergence of capitalist software (rapidly degenerating into ideology) clearly constitutes an eonic emergent, and belongs to the eonic sequence.

As we come close to home in our examination of eonic evolution, the issues of ideology become critical. The answer is simple, we make no claim to have transcended ideology. The affirmation of modernity, hence the eonic sequence, is itself ideological. But we have a failsafe: our eonic sequence forces us to examine all ideologies in all their combinations. As to the rise of the modern, it is a *fait accompli* by 1800, a 'very important turning point', a proposition difficult to refute. But our model allows the response of 'general TP4 exceptions' and this appear without fail almost at once, climaxing in a general postmodern reaction in our contemporary time-frame. We might counsel a close examination of the post-Axial period in antiquity and ask if the undoing of modernity in such a vein, with the loss once again of democracy and Science, would constitute a fourth great turning point in history, falsifying our eonic model. It is nonetheless critical, having summoned up an eonic model, to consider its implications. At the point of the Great Divide, we are done, and the eonic sequence shuts down. The effects of 'system action' are complete as the process shifts to 'free action'. Our analysis offers no guarantee that the agents of modernity are anything better than mechanized exemplars of a misunderstood secularism. A reactive process is inexorable, but in the travails of globalization, we can hope for some substance in the claims of eonic progression, progress or not.

The construction of our model didn't require the transcendence of ideology, since all we have done is employ periodization. To resolve the issue of ideology, we must find some way to define the observer of the system we are describing. In fact, we have already done so and called him an eonic observer. But this creature, so far, is no disembodied spectator of eternal history, but an agent performing the realizations of the eonic emergents in his local timeframe. The problem is that this observer is a creature of the very system he wishes to describe. But we can at least describe this whole eonic effect, leaving open its interpretation(s). In fact, we are all already 'eonic observers' and every time we use the term 'modern' we give expression to this fact. We have already noted the way we sense the eonic effect without quite seeing its overall scale or meaning, and this is a good example. We have a clear sense that a new era of history comes into existence, and our usage is independent of the content or geographical region in which this is to occur. We have a tendency to speak of 'Western Civilization', but as we can see already that this is misleading. Miletus, one of the prime sources of the Greek transition, would technically be considered 'Eastern', and the braiding of Athens and Jerusalem, to say nothing of concealed elements of Indian religion, make the term problematical. Not only that, but our usage of the term 'civilization' is conditioned by the focus on a different 'unit of analysis' instead of the civilization. Our focus as an alternate unit is on the transition and the oikoumene it creates.

It seems to make no local sense to cut history into pieces, but we can see that 'modernity' makes complete sense if we think of it in terms of a 'modern transition' of about three centuries from 1500 to 1800, at which point the system crosses its divide into the modern period proper. What about the year 1499? Is this pre-modern? We never really answered the question as to why we take a transition as three centuries in length, but the modern transition makes this especially clear, for the whole period has a greater unity that makes it plausible as an integrated transformation. Our model is some sort of approximation that answers to the issue of directionality directly by the scale of its analysis. There is no contradiction between continuous evolution from the Middle Ages and the discontinuous effect of the eonic sequence. Both require study.

That the Protestant Reformation seems to contradict the final theme of secularization misses the point entirely, and it is not hard to see how the climactic point of the Enlightenment springs from the revolutionary and implicit issue of freedom that the Reformation dramatizes so clearly in its 'revolution against theocracy' and emphasis on religious individuality. The sixteenth century is as innovative as it is convulsive, and its climax in the Thirty Years War initiates the sudden clearing of the air that produces the equally remarkable seventeenth century, the birth in seminal form of almost all the institutions of the modern world. The second half of our transition then produces the flowering of the Enlightenment, and we have noted this as the Great Divide. Thence we have the new world of science, democracy, liberalism, and capitalist economies by which we tend to define modernity. But it is important to note that our transition is a complete spectrum of possibilities, that it has several Enlightenments, and that it is not exclusively associated with capitalist economics. Capitalism is an outcome of the modern transition and not the other way around.

It is natural to try and find the causal antecedents of modernity in the middle ages, and there is nothing wrong with this. Our stream and sequence analysis suggests this double aspect. But now we have a larger model with some wallop and it suggests a deeper 'causality of another kind', on the level of the eonic sequence itself. But it never adds up. The Magna Carta doesn't really explain modern democratic revolutions. Not since the Axial period have we seen such a rapid fire transformation, and what is more this resembles the Greek transition in considerable detail, from the rebirths of democracy and science to the appearance of a period we call the Enlightenment.

The great master chord of modernity is the emergence of the idea of freedom and the nexus of ideas surrounding this. In this sense the emergence of liberalism has to be considered for what it is, an independent synchronous emergentism in parallel with the rise of science. It is important to consider this point since the sudden downshifting into positivism shows the attempts to construct a universal canon based on the successes of causal reasoning in physics. This will derail the whole system if allowed to proceed without challenge, and that challenge appeared almost immediately at the Great Divide, please note. Positivism is one of the first regressions in our system. It is important to consider this point since we tend, in an age of later scientism, to define modernity in narrow terms of a type of rationality based on scientific universalism. But the birth of the modern was more complex than this, and it is more accurate to say that 'causality and freedom' together form the 'dialectic' of modernity.

It is ironic therefore that the idea of freedom contains all the elements of the mystique of the sacred and yet expresses this in secular form. The modern transition wants nothing from a 'sacred age', and in any case creates a pluralistic stage of religious freedom in which the heritage of antiquity can find its place. And our transition spawns a virtual novelty, the revolution, whose effect is clear almost from the German Social Revolution in the early

sixteenth century in concert with the Reformation, itself certainly another revolution. The cascade of revolutions, to the English Civil War thence to the French Revolution, is characteristically symptomatic of modernity, but an endless controversy arises over their significance. It is too little noted that most of these revolutions fail, and that that modernity appears from a broader spectrum of causes than simple revolutions against traditional political forms.

And yet, willy nilly, these revolutions, almost symbols rather than causally constructive, are the omens of the emergence of the great early liberal age. This issue has been clouded by the great confusion that overtook the concept of revolution in the wake of Marxist thought. We can only conclude with Marx that these revolutions were 'bourgeois revolutions' that produce liberal success stories whose continuations as projected socialism occurred well outside the transition itself. The issue of some kind of post-capitalism, an important issue for the future, without a doubt, simply does not occur inside our modern transition, one reason no doubt that Marxists were unprepared for unexpected outcomes of trying to undo the modern transition as soon as it appeared. Clearly our eonic model, which doesn't really settle the question here, nonetheless accurately reflects the facts of what the modern transition does, and shows why ill-conceived models of revolution based on the misleading evidence of its embedded revolutions have gone awry. This is not a new form of legitimation of capitalism (in the sense of making it a teleological stage of history), only that its emergence in concert with liberalism is a prime eonic incident, where ad hoc revolutionary schemes were simply harebrained adventurism. That says nothing, again, about the future, and we must emphasize that injecting historical inevitability into the post-eonic future is most ill-advised. Our model comes to the end of its last transition and comes to a stop, a great advantage--or disadvantage of this kind of model.

One revolution that did succeed was that of abolitionism. We can listen respectfully to Christians attempting to explain why Christianity began the struggle against slavery, but we can only conclude in the end that the modern abolitionist movement appears like an apparition near the modern divide and gets the job done, where before it was mostly talk. That some of these abolitionists were Christians is hardly convincing. They show eonic determination as 'Christians in the eonic sequence' while Christians outside the sequence showed very little effort in this regard. It is nonetheless true that abolition is gestating from the Axial period (or before) and that the birth of freedom, however stillborn and partial, is also rightly taken as an achievement of that prior stage of the eonic series.

2.2 Revolutions Per Second

One of the most significant aspects of the modern transition is the appearance of the phenomenon of (political) revolution. The Reformation itself is a revolution. Behind the Reformation we see the German Revolution of 1625. The English Civil War essentially initiates modern politics, as its influence become clearly visible in the American and French Revolutions. And then our transition is complete and the era of the very different and disastrous Russian Revolution, which is strangely out of character with the revolutionary episodes of the early modern.

The character of these revolutions is clearly seen through his own lenses by Karl Marx, who codified them, rightly or not, as exemplars of 'bourgeois revolution', since the whole period is accompanied by an 'Industrial Revolution'. If ever there were a clear case of our distinction of 'system action' and 'free action' it is the contrast of the revolutions of the early modern which give birth to the world of liberal democracy and the superficially quite different and theoretically flawed revolutionary adventurism of the Russian revolution, whose net effect, however, with hindsight, is one and the same 'bourgeois revolution' that we find in the early modern. These theories of revolution did not correctly analyze the nature of the modern transformation. All in all, the insights of a figure such as Burke as

strangely confirmed and discredited at one and the same time. The pre-modern world was not slowly evolving toward anything, thank you very much. But then, as if on schedule, the eonic sequence produces a new order of society in three centuries, and comes to a stop. Constructivist efforts to imitate this phenomenon of nature by taking it one stage further produced disastrous results. And the system, its agents understanding nothing, settles back into its peculiar stage of dynamism and stasis that we see already by the nineteenth century.

The question of revolution can be very confusing due to its later leftist interpretations, which attempt, as if in a partial eonic analysis, to see the essence of historical dynamics in revolutionary terms. In many ways we have resolved this issue and done it right. As we examine the eonic sequence we can see that, while its transitions are certainly revolutionary, they are not the same as revolutions in the political sense. The eonic sequence changes its character in successive phases, and the first phase that we see shows the establishment of states, not revolutions against them. A close look at the Old Testament and the class struggles of the Greek city-states in the Axial period shows already the gestation of the modern phenomenon of revolution. Once again the distinction of our two levels illuminates the question by its immediate generation of a distinction between 'revolution as system action, almost a metaphor for the process of a transition, and 'revolution as free action', the actual incidents of revolutionary episodes, whose outcomes are all too often failures.

Our model thus faithfully reflects the way in which the early modern revolutions succeeded in spite of themselves. The spectacular rebirth of democracy, almost an historical miracle in itself, just at the modern divide is the great enigma to which we have already pointed. It is as if our eonic system goes just so far and stops, even as the reaction to its central outcome, the capitalist world of modernity, produces a demand for the 'true democracy' in the form of socialism/communism. In the light of our eonic analysis there is something completely transparent about all of this, and yet the actual history here has produced a thorough confusion. Part of the ambiguity is that we are immersed in a system whose outcome has not yet achieved a final state, and the terms of our analysis fall into ideological alternatives.

We have constructed our eonic model, we should note, on the classic critiques of revolutionary leftism seen in Karl Popper and Isaiah Berlin: the confusions of historical inevitability. But then an illusion of the historical inevitability of capitalism arises in its wake, and this, later matched with Darwinian thinking, produces a misleading picture of what is going on. There was nothing inevitable about the emergence of capitalism, even as it is clearly the first born of the modern transition. Part of the problem is that one can be over-exact about the nature of the eonic sequence. A prodigious upsurge of directed change has no precise outcome and frantic efforts to re-revolutionize the outcome in a better form appears in the general chaotification of the dynamic era, soon to become frozen in its new economic mode.

We note that our transitions succeed almost in spite of the revolutions they spawn. And yet over and over these failures are followed in successive generations by the at least partial realization of their aims. These transitions are a far broader integration of cultural renewal than the revolutionary gestures of radical groups. The confusion arises when we try to generalize these particular episodes as 'laws of history' in some sense. This confuses the different levels of our model, and the intractable nature of real social change became evident in the attempts to force the future via political action. This point is clear from the American Revolution whose appearance under frontier

conditions at the fringe of our eonic core area allows a more benign version of revolution to actually achieve a result. By comparison the French Revolution collides with an immense inertia and miscomputes itself into chaos.

An additional confusion arises from the failure to distinguish economic processes from the more complex transition to a new culture that we see in the modern transformation. The Industrial Revolution is a creature of the modern transition, and not the other way around. Karl Marx, with his acute insights, almost got it right, and then produced a reductionist economic interpretation of history that proposed a new stage of history considered as socialism/communism. The problem is that we have no real basis for such a prediction. That is, the attempt to mimic the dynamics of the French Revolution to initiate a new stage of culture beyond the outcome of the modern transition itself results in an ill-conceived expectation of what constitutes historical dynamics. This is not a justification of capitalist ideology, which in any case gives only limited definition to what we call 'modernity', but an observation that a 'transition to socialism' would have to operate at the level of the 'eonic sequence' itself, an operation several centuries in length, able to seed philosophy, art, science, religious reformations, and, indeed, revolutions of freedom! And yet the leftist perspective that arose just at the modern divide does indeed express a sense that our modern transition terminated before its full potential was complete, as if it ran out of time to complete its operation. But that, as we have seen, is characteristic of every stage of our eonic history whose dynamics are at once a strange mixture of the exact and the crude. And we are indeed left to complete its action, and yet this requires correct understanding of what is required, a difficult task by any definition. The simple resolution of this is to see that the terms 'socialism' and 'communism' arise almost in tandem with the definition of 'democracy' and express the nature of its potential, realized or not. The leftist efforts, beyond the ideologies of revolution, to defend the place of labor in the new economic systems were an indispensable contribution to their success.

As examine the modern transition we should consider the central correlation of abolitionism with the eonic sequence. Finally! one should think. Clearly this is no accident. We should keep vividly in the mind the sluggishness of historical development seen in world history, and the dangerous forms of social existence that arise and grow like a pathology of civilization. Only a system on two levels can obviate such dangers, and by the mysteries of emergent freedom in the eonic sequence a false evolutionary development is finally overcome. And there is no teleological innuendo in our eonic model that justifies the exploitations of slavery 'on the way' to higher development. All such teleologies disappear in a discrete-continuous analysis of the eonic type. Slavery could as well have been abolished in the age of the Pharaohs, and Gilgamesh. Instead a pathology slowly but surely grows on itself resulting in the terminal conditions of slave societies so visible in the Roman empire. There was no advance from that point. Everything simply collapsed, as if to wait on the passage to a new higher stage of civilization, waiting on abolition. If it took so long, and occurred only in the wake of the eonic sequence, then we have a judgment of men left to their own devices, and a caution is sounded against those who will arise in the mideonic worlds to take history into their own hands and undo the effects of historical macroevolution. The early exploitations of emergent capitalism give a reminder of the way the system left to itself can realize itself in a manifold of outcomes, and the demands of leftist action arose instantly at the moment of potential false crystallization to preempt the usual dismal outcome of man's chronic domination by the forms of state and economy.

2.3 The Great Divide The end of the transition...

We have already seen the way the phenomenon of a transition generates a divide, that is, the point at which its operation stops and a new period comes into existence expressing the results of the transformation. Since our model is only approximate we could hardly hope to detect this elusive moment, and yet it is clear from the facts given to us that history actually reflects this principle derived from abstract reasoning. The clearest example is the modern divide, but once we know what to look for we can begin to see the phenomenon during the Axial period. For example, the period just before the Exile, ca. -600 is a roughly indicated division point. The Judaic transition is remarkable in that it expresses the religious history of an area of Canaan, with respect to two kingdoms, Israel and Judah, and this becomes the history of their disappearance. The final fall of Judah unwittingly precipitates this strange 'universalization beyond kingdoms' of a new tradition soon codified in the Old Testament.

We should note that the Exile period creates a poorly documented blending effect with the also emerging Zoroastrian tradition. We see that just before the divide this text begins to take its final form, with additional redactions appearing to complete the material. But the era of the Prophets has already passed, and the perception of an interval of history in which something extraordinary happened begins to gel and become a new religious core. This rough division point of the decades to a half-century before and after -600, then, it is hard to be fully precise, clearly shows this divide phenomenon. A similar point is visible in India, and just barely in China. Note that the Indic transition is really about a period reminiscent of the Greek Archaic, one in which a spectrum of sages and philosophers appears, the Upanishadic era with its magnificent flowering of the yogic world. Just as with 'Israel/Judah' it is after the divide once again that a crystallization takes place, and we see the formation of Buddhism, a clear rendition of the essence of this yogic tradition, but in a remarkable, potentially universal form beyond the specifics of the 'Hindu' legacy from which it springs. It is significant that in China the figure of Lao Tse is ambiguously placed around -600, or else somewhat later, although the codification of the teaching this perhaps mythical figure represents is just a bit later.

In the case of Greece we see something uniquely different, yet directly related to this divide phenomenon. By calculation, this is the period of Solon, as the seminal Archaic concludes and spawns the magnificent flowering to come, for a chillingly exact two centuries. The Greek transition proper sets up a field rich in potential which then commences on a more autonomous realization of freedom, and it is this that we see is the source of Greek democracy, which appears during the first period after the divide period, clearly indicated by the transitional figure of Solon around -600. The whole effect is much deeper, and very comprehensive.

Democracy: system action/ free action This clustering of the freedom effect, seen with first in relation to system action, then as free action, is one of the most mysterious clues to the whole eonic sequence and as we jump to the modern transition we see almost the same phenomenon occurring once again with this clustering of democratic emergence just around the divide, which we take as being around 1800. It is a remarkable thing to discover that this effect is not coincidental and expresses the nature of freedom, constrained and unconstrained, that must accompany the passage from eonic evolution to free action taken beyond the divide. Our system might generate 'freedom' but its realization must be outside the eonic sequence. The data reflects this perfectly, as the emergence of democracy commences just after the divide. A truly mysterious wonder.

The modern transition is a complex and multidimensional interval, with a host of emergent effects, but it is the conclusion to this interval that surpasses wonder in the plenitude of its innovations all clustered in the period of the

Enlightenment, the French and American Revolutions, the Industrial take-off, another Revolution, the Romantic counterpoint to the Enlightenment, and the emergence of modern liberalism and democracy. We can see that this closely packed interval sets the foundations for modernity as we know it, and it is also remarkable that it gives birth to the idea of evolution which will become one of the basic mainline conceptions of the new era. We have already indicated, through a comparison of Lamarck and Darwin, that this idea swiftly becomes grafted onto the already late, post-divide appearance of positivism, and loses its clear association with progress and universal history with which it is born, and born not only in biology, but in the philosophy of history, which once again flowers in most eerie fashion in the decade before 1800. We have come full circle, to see that our keynote for the eonic model, an idea for a universal history, virtually christens our divide, and appears with an expression of the major chord of the divide music, the idea of freedom, whose expression in each of the areas of the modern transition is a chorus of realizations. One of these is clearly visible in the background to Kant's remarkable divide appearance, the brief explosion of German classical philosophy with its rapid fire flowering into the nineteenth century in such figures as Hegel, Marx, and Schopenhauer at the tail end of the transition.

The emergence of the classic philosophies of freedom in this period is therefore the new keynote for a new age, and later we will see how, via the antinomies of Kant, this contains not only the basis for a new political order, but the clue to the past and future of religion itself, as this enters into the domain of a secular age.

Discrete Freedom Sequence We should reiterate our remarks about the discrete freedom sequence, in the context of the Great Divide. Our eonic sequence shows, empirically, a succession of transitions. Suddenly we notice that inside this sequence we have a counterpoint sequence visible in the double eonic emergence of democracy. This can hardly be chance. Not only that we can see that in both cases our discrete freedom sequence initializes at the point of the divide, ca. -600, the time of Solon, and ca. 1800, the time of the American and French Revolutions. There is a beautiful logic to this: the evolution of freedom is not purely spontaneous, it is part of the generation of eonic evolution. But since freedom must be free of such generation, our system performs a beautiful, eerie, and dangerous trick: it generates 'freedom' as 'system action' during the transition, but towards the end, near the divide. As the system crosses the divide it switches from 'system action' to 'free action', ready or not, the roller coaster reaches the top and the ride starts.

2.4 Kant's Challenge

Our model is set up to provide a coherent outline of world history in the light of evolution, as a theory of evidence, and automatically subsumes dynamical questions as an empirical map of transitions in an eonic sequence. These transitions take the place of causal analysis, which, as we have seen, founders in the antinomy of freedom. Our exposition has been somewhat repetitive, to look at the eonic effect from several perspectives. But all these perspectives revolve around Kant's Third Antinomy, and we can summarize the whole question in a paragraph from an essay by Kant on history, where he confronts this antinomy in history, in the process showing how our idea for a science of history entered the realm of the philosophy of history. The advantage of this approach is that we produce a result without a 'theory'. Our connection to this system lies in the 'eonic emergents' themselves. We have no other options. There is no simple answer to the question of theory. Theories, and science itself, are sub-processes of our pattern!

We regress backwards into theories about the evolution of theories, and this invokes classic issues of philosophy. We can keep trying, of course, in so far as the coherence of this system is such as to be user-friendly, with a means still unknown to match the self-reference of our level of discourse to a deeper unknown. In the process of doing all this we found, in the form of our discussion of freedom and nature, the close relationship to one classic issue of the philosophy of history, which we have expressed already in terms of the previously cited Third Antinomy of Kant. We can develop this a bit further, but note at the onset the ambiguity of our terms of discourse: we are using the 'output' of the system, science or philosophy, to analyze our system, a probable source of paradox. We can proceed anyway since we are stumbling on something truly surprising, the correlation of the emergence of freedom, in some sense, with the eonic sequence. We will call this the Discrete Freedom Sequence, and consider its implications once we lay the groundwork. We find that nature itself reflects our model construct, most remarkably. This interior prediction or confirmation should give us confidence in the rightness of our approach, i.e. the use of discrete-continuous model, which is seen to actually reflect the facts.

The resemblance of our situation to a theme in an essay on history by Kant is remarkable, and even as we construct an 'eonic model' we should also attempt to consider an 'idea for a universal history', a phrase from the philosopher Kant who wrote a short essay, *Idea For A Universal History*, with this title. In this essay he proposes a challenge, which we can call Kant's Challenge.

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.

It is remarkable to see that we have already answered Kant's Challenge directly. Although Kant is still using the language of the 'laws of history', he sees clearly in a majestic premonition the crux of our 'mixed causality/freedom' system. He was still short, for obvious reasons due to his immersion in the eonic pattern, of seeing what he suspected: the eonic effect, and his thinking went off ambivalently along a tangent with the idea of 'asocial sociability', an issue we can discuss later. Note the resemblance of Kant's statement to his Third Antinomy.

Kant's 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."

This antinomy was first applied to psychological states. Now all of a sudden it is transposed into history! We say this to carefully distinguish concepts of personal freedom from this new extension, 'freedom in history', an undefined concept, save that, once again, we have already given it an expression in terms of our model, our transitions. Whether or not they produce 'freedom in history', these transitions certainly produce innovations.

One conclusion, however tentative, that we could draw from this is the resemblance of the two levels of our model, the stream and the sequence, to this distinction in Kant of what seems like two kinds of causality. This in turn resembles Kant's distinction of the noumenal and the phenomenal. There is a classic problem here: we can't apply 'causality' to the noumenal, but, for all intents and purposes, we see the point, and might consider that issue later. Let us not confuse heuristic suspicions with derived conclusions or, for that matter, transcendental deduction, but at least confess our suspicions: all we see is our sequence of transitions, as phenomenological appearances. Their dynamism is hidden from us. This situation is precisely like the ambiguity that arises in Kant's thinking.

This should not be misunderstood. We are just near the classic confusion of the Christians and Israelites: some history is an 'age of revelation', special, the theatre of the transcendent. We make no such claim. All of history is in the realm of the phenomenal, including the history of eonic transitions, but the interaction shown in the eonic effect in its mysterious correlation with a domain beyond our representations is the key both to its mystery, as beyond knowledge, and yet to its intelligibility as an expression of a familiar discourse in the philosophy of history. History is homogenous, all of a piece. No 'god in the gaps' argument will work on particular eras. But we see that the Axial interval does stand out. The paradox is resolved via the 'self-consciousness' of the people who appear in those intervals. Their creativity is both causal and free at the same time, in some sense.

2.5 The Discrete Freedom Sequence

We have set up our model to both express a dynamic of Big History, and yet at the same time to avoid the expression of false determinism in the sense of historical laws. This took the form of transmuting the poles of the antinomy of freedom and causality, as expressed in Kant's version of the Third Antinomy, into a dynamism of 'system action' and 'free action', in the alternation rhythm of the eonic sequence. We do not know the nature of this system action, although we can clearly see its phenomenological legacy in the eonic flowering of self-consciousness that we see in the sequence of transitions stretching over millennia. But we have a strange clue, and we now come to the beautiful result, and the final enigmatic climax of our eonic sequence, the embedded subsequence we have called the discrete freedom sequence, visible in the double emergence of democracy twice in a row at the point of the divide in our series. We could more generally cast the nature of our eonic evolution as an 'evolution of freedom'. And yet throughout we have confronted a mystery and in our analysis we have found only the phenomenological aspect of a set of transitions, never seeing the hidden or veiled dynamic behind them. The fact of the discrete freedom sequence gives us a clue to this deep structure in the way it resembles the keynote of the idea of freedom as this appears in the philosopher Kant.

Let us recall still again our previous citation of the Kantian antinomy, and to digest this stunning realization.

Kant's 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 should interject that the term 'causality of freedom' is problematical and the object of a famous historical debate over a perceived contradiction in the Kantian system (summarized by Schopenhauer). We can bypass that question, since in rough strokes the point is clear (and our model has summoned up causality to reformulate it,

hence the contradiction doesn't arise), and since we have replaced 'causality/freedom' with our fuzzy and neutral 'system action/free action'. We have made no commitments to historical causality of any kind, confined to phenomenological transitions. We can play both sides of the fence to make our point. We have no theory to suffer contradiction, remember, only an empirical pattern as a theory of the evidence, not of its causality.

We have made the discovery that this abstract expression of an antinomy, one resolved by Kant in terms of transcendental idealism, and more generally in the realization that both poles of the contradiction are in some fashion true, has an actual reflection in the dynamics of history, visible at the core of the eonic effect itself. This remarkable concordance can be seen from the terms of the antinomy itself, which on the one hand gives expression to the 'causal' aspect we have called the 'stream' and on the other to a 'second causality', that of freedom, which is directly expressed in the interleaved 'causality of freedom' that is seen in the discrete freedom sequence. Thus our expression, an 'evolution of freedom' is well chosen for it shows how in essence the evolution of man is an evolution of his freedom. There are a number of problems with the idea of the 'causality of freedom' and we have actually replaced the term with our expression of system action, 'eonic determination', which expresses the actual reconciliation of opposites behind the contradictions of causality and freedom. We see however that this antinomy, as it resolves itself historically, is much more exact than we could have expected.

The Discrete freedom sequence Not only does our system show an evolution of freedom, it shows more exactly in the example of the double (re)-birth of democracy in two successive transitions (just at what we call the 'divide') an exact match to the eonic sequence, and to the famous antinomy of Kant about freedom and causality. It is 'as if' there were two forms causality on two different levels. In fact, the 'causality of freedom' points to an unknown (what Kant called 'transcendental freedom', a dangerous term).

Furthermore, as we zoom in on both cases, we see, to our surprise, that the correspondence is exact to the decade: just in the generation of the divide (Solon, near -600, with the Exile about to start, thence to Rousseau, the French Revolution, Thomas Paine) the initialization starts, almost exactly 2400 years apart. And there is an obvious reason why this baffling coincidence ought to be so, which our model uncovers on spot with its distinction of 'system action' and 'free action'. The system action can only initialize a new potential, since its action, if this is about democracy, would deprive freedom of its own realization. Since democracy couldn't arise outside the eonic sequence, regrettably, the system generates it. And the way through this would be to put the system action inside the transition, and then ignite democracy just at the divide, as 'system action' turns into 'free activity'. If you read the history of this period you see at once and with new insight the strange concordance of a brilliantly emerging new order mixed with spastic idiocy that sets sail with an initial result achieved, at least in the American frontier region. We have a model of the thunderclap of the starting point, and the rough edges of the realization. And we also see why Greek democracy was so short lived.

An evolution of freedom This double action, as if there were a law of causality and a causality of freedom, gives us the hint we need to describe the overall character of our eonic sequence as, speaking formally, an 'evolution of freedom'. This is a descriptive statement, a sort of 'meta-description', not the statement of an evolutionary law. The contradiction in the antinomy is reconciled by our processes of 'system action' and 'free action', somewhere in between 'causality' and 'freedom': we see oscillations in degrees of freedom. The agent must step beyond this 'evolution' into history, history as the realization of freedom, in a sense he must define. The result can only be mapped out by our model. We never see the 'system' whose action we detect. It is like the distinction of the noumenal and the phenomenal in the Kantian system.

We should note in passing that the fine-grain structure we have found clearly distinguishes our version of the 'evolution of freedom' from the great precursor of this idea, the philosopher Hegel. We have annexed the question, in one major respect, to the field of system's theory, from its possible theological interpretations.

Thus our eonic system has left a strange clue in the double emergence of democracy in successive transitions. Such a high degree of 'eonic determination' over millennia is almost as bad as determinism and should make our hair stand on end confronted with the microprogramming of what we had thought our free creations). We are left wondering to what degree our freedom, so far, is but a kiddie ride in a carnival. We should also realize the difference of the democratic starting point (e.g. the American version, directly the first born of the modern transition), and the later democratic realization, less able to repair its dysfunction. This is ominous, since the 'system action' undergoes shutdown at its divide. That our model should correspond so closely to the actual facts of history in such a close match shows is as strong a result as confirmation by experiment, and shows a situation smarter than we realize, although still so mysterious we hardly know how to use it. We have preempted our chance to produce a predictive theory, but nonetheless we have produced 'interior inner-dictions as confirmation'. Thus we zoom in to discover that a timing that is eerily exact, (with no proof but the overwhelming suspicion this could not be chance) for a reason connected with the nature of our system: its discrete-continuous matches exactly the double action of the Kantian antinomy. This deep pattern of coherence uncovered by systematic periodization gives us a mysterious confirmation of the rightness of our model.

Kant considered that in this case both poles of the contradiction were reconciled in practice. We see that this is so, as reflected in our shift in terminology from 'causality/freedom' to 'system action/free action'. And this is true of history, save that unexpectedly the data shows so neatly the emergence of freedom associated with the eonic sequence. We have proceeded indirectly in the construction of our model by using periodization alone in an attempt to clock the action of a dynamic whose action we detect in the pattern of the eonic sequence. We never see this dynamic directly. The correspondence to Kant's phenomenal/noumenal distinction is exact, save that we are speaking of history, not the psychology of the individual and what are called his representations. We have thus produced, or stumbled on, a new concept, almost a phantom term, 'historical freedom', which has one and the same problematic as the Kantian version, as the actually realized freedom generator, beyond the action of individuals, this in time (phenomenal), a macro process of 'freedom evolution of some kind' whose action matches the eonic sequence. We cannot transcendentalize this in any logical manner. All we see is the varying degrees of temporal freedom. This is why modern revolutions (those inside the transition, please note, no others) generate their own dialectic of ambivalence. We should be wary of all this in that while our a priori concepts fall into perfect sync with 'reality', as predicted by Kant's transcendental deduction, their noumenal correspondences can at no point be known to us. Thus we get the result, and yet the deeper reality is beyond concepts, and we approach that with an 'idea of reason', in the well-qualified usage of Kant. But somehow we get lucky. And a model as crude as this eonic construct actually scores an easy bull's eye, to our uncomprehending amazement. Nature shows its hand and our discrete series catches the result. Because the crux of the process is that of intermittency, and this intermittency is associated with the relative entanglement of causality and freedom, its structure is suddenly seen to be a direct translation into historical terms of the Third Antinomy. We have stumbled without trying into the exact situation Kant describes. We can proceed to document this double action further by looking at what we have called the discrete freedom sequence inside the eonic sequence. And as Kant suggests, nature itself resolves the contradiction, and we see how the two aspects seem in some way to be both true.

3. Last and First Men

3.1 A New Age Begins Modernity as a new era in world history

As we close our analysis of the eonic effect we are left with a final mysterious question: have we reached the end of the eonic sequence? Note that our analysis has demonstrated that we have exited the modern transition in the period of the Great Divide, thence to enter a sort of New Age of modernity as a new stage of history given by the eonic sequence. But was this the last transition? We have no means to finally say. The character of the system has changed as the system action shuts down leaving 'free action to realize freedom' in its wake. Although it is appropriate to leave the issue open, the tentative answer to our question should be in the affirmative, that the spectacular driving motion of the eonic sequence has completed its action in what is probably a driving motion initiating in the Neolithic period. Now it is sink or swim. There is a very strong reason for thinking this: as we become aware of the eonic effect, its future action would be blocked by just that awareness. Let us note that 'suspicions turning into outlandish myths' arose very early in history concerning the cyclical character of history, and the blending of this with Zoroastrian eschatology has resulted in a 'world historical mental confusion' about the action of a system whose simple character could never have been deduced by those immersed in it. At least it can be said of this confusion that, while it did suspect the coming of a 'new age' in the future, based on glimmerings about the past, it was anticipating the wrong future, which accomplished itself by taking man by surprise. That must be the last time it could happen, as full knowledge of the past, and the implosion of globalization, makes any transitional staging area highly problematical.

Even as we say this we should consider that the real 'end of the eonic sequence' might have been precisely the Axial Age. All the elements that make up civilization as we know it made their appearance. However, as we can see that in the wake of the Axial transition everything fell to pieces, with democracy, a bare hint, engulfed in empire, science simply fading away barely kept alive in the medieval period by the Islamic world. In general the drift into empire and the inability to deal with slavery condemned the whole advance. Thus the resurgent modern period resembles a kind of spooky feedback process setting the system back on its course. Who could predict this kind of discombobulation won't happen again. Nonetheless, our eonic sequence, despite the appearance of some recursive action, never really repeats itself, and once having established a viable outcome is not likely to produce an unlimited set of repetitions. And we suspect that we are in a situation not unlike that at the end of the Great Explosion when a stable plateau had been reached and the consequences of that transition allowed themselves to unfold in a long period of working out its implications. We sense a similar character to our own times, as we seem to be looking backwards at the relatively brief impetus of development producing civilization, a mere ten thousand years. The issue is to avail ourselves of the immense fruits of this progress without getting stuck in the mechanization of social consciousness that is so evident from much of the evidence of history. And this leaves us with the question, not of revolution, but of the real means to social change. There is no simple answer here, and we seem left with the ambiguities of economic evolution as a substitute for the deliberate creation of future stages of change. We can no longer say that this possibility is utopian since the means to produce real revolutions is evident from the eonic effect: create three century transitions seeding innovations in all phases of social life: art, philosophy, science, and religion, and politics! Clearly we have reacted to, but not initiated, change on that scale, the fiascos of revolution being prime evidence of our incapacity. Thus the future remains unclear.

These remarks are the bare minimum restatement of the ideological issues that appear in the convulsions of the Great Divide, followed by the action of the nineteenth century left. The character of this period was ambiguous in so far as the realization of democracy and the achievement of some future social state beyond liberal modernity became collated producing the remarkable confusion that we see, including incorrect attempts to mimic the French Revolution's dynamics with a set of wrong assumptions. While this might be a premonition of the future, it has not been able to clearly establish a theoretical basis for action. But whatever the case, it could hardly be true that if we think we have reached the end of the eonic sequence we have also reached the end of development, or that the de facto outcome(s) of the modern transition have an eonic legitimation. The point is only that the eonic sequence rescues systems stuck in mud, and gets them moving again. The end of its action leaves the future open to man's self-development. This is not the same as, but in some ways resembles, the Hegelian 'end of history', in the sense that a process of self-conscious action is completed. It is remarkable that a figure such as Hegel should appear in this regard with such an idea. But our thesis is something quite different, and we mention Hegel in order to warn against a confusion of ideas. The 'end of the eonic sequence' is not the end of history, but its beginning. Hegel's philosophy has been given the interpretation of endorsing liberal capitalist societies as a final stage of development. But this is only true by comparison with what has occurred in the past with the gross inferiority of social forms from which we have awakened as if from a nightmare. Perhaps Hegel merely expresses the hope that a new plateau of development will not regress to primordial primitive statehood. But, in any case, his metaphysics is really a preposterous story about an evolving world spirit, an entity that has no definition in the framework of our thesis. The swift leftist attack on this misunderstood philosophy of history restored the potential of a free future of social innovation, a phraseology overly euphemistic if we consider the difficulties of actually trying to surpass the present. Our verdict should be left in neutral gear by reiterating our sense of the discrepancy between economic and eonic evolution, econosequence != eonic sequence. More we can't say, and, having reaped the benefits of a model that began with a critique of predictive historicisms, we should conclude without similar prophecies our model doesn't support. However, we are not at the end of our study, but at its beginning, armed with a highly practical form of historical analysis that reconciles the many pieces of the puzzle of human evolution for the first time.

3.2 Modern/Postmodern the fallacy...

One of the most significant movements of the last generation (roughly two centuries after the divide) is the rise of postmodernism as a reaction against and critique of the Enlightenment. Our view of this must be conditioned by the realization that our eonic model proceeds to describe the eonic sequence, its termination in the nineteenth century, and then stops. It makes no predictions about the future of the system. The dynamism of the eonic sequence is tremendous and no reactive philosophical initiative or revolutionary re-start is likely to succeed in overcoming the momentum of the modern transition. But what exactly does this mean? It is not possible to peg a simple ideological viewpoint to this immense and strangely balanced emergent era. We can see that this transition creates a net effect that stretches across all conceptual boundaries, showing its effects in every area of culture. To undo the total effect of this evolutionary era would be a catastrophe and throw civilization into retrograde confusion.

We can see that confusion has entered the postmodern viewpoint, even as it fulfills a critical task spawned in the very Enlightenment it would reject. There is nothing whatsoever wrong with a critique of modernity itself. But the typical postmodern rejection of histories or metanarratives of freedom, for example, flies in the face of our insight that the 'evolution of freedom' is at the core of the drama of man's historical emergence. We should note at once that criticisms of such 'metanarratives' are appropriate challenges to the ideological or teleological formulations of many modern philosophies of history, beside the equally false teleologies influenced by Darwinism. Our account is

indeed a metanarrative, truly 'meta' indeed, and yet it is ironically a kind of reversed postmodern perspective itself, because it contains its own critique of teleological ideology. Nothing in our account of the modern transition makes a final teleological claim on the far future, nor is it automatic grounds for the rote repetition of watered down imitations of its own dynamic.

Thus the real interpretation of postmodernism springs from our own eonic model which projects a 'post-transitional' period when the swiftly accomplished achievements of the early modern stabilize and seem to leave a vacuum of impotent efforts to replicate its action. The eonic model spawns its very definite but highly generalized prescription of the right course of action: history as Freedom is emerging from the evolution visible in the eonic sequence. We are both executing its own and moving to transcend the passivity it generates, and this leaves the ambiguous question of what constitutes true social change outside of the eonic series. The way to start is to be able to at least maintain the vigor of the innovations initiated in modernism, thence to study comprehensively its multiple aspects, wary of the downshifting 'flying off on a tangent' that begins to lay claim on the Enlightenment yet perpetuates a limited version of that mysterious moment. Here the philosophies of freedom castigated by postmodern critique must in fact be the source of right perspective, along with a correct disposition toward the powerful impetus of the Scientific Revolution, whose place is both crucial, yet limited, since it makes no definite contribution to the right understanding of cultural evolution. Our transition has already solved this problem via the independent parallel emergence of resonant opposites, e.g. the causal analysis of reality produced by science, and the thematic of emergent freedom produced by evolutionary liberalism.

3.3 The Meaning of Globalization

We can see that our eonic sequence is about globalization, but this is not the same thing as economic globalization. One of the most remarkable properties of our eonic model is the way that it allows us to clarify the question of economic in relation to cultural evolution. In fact, the concept of 'cultural evolution' is ambiguous, and we have replaced it with something more specific by creating the rubric of the 'eonic evolution of civilization', a very large-scale process indeed, without this obviating the consideration of other forms of 'evolution', speaking no doubt informally, in the proliferations of the term 'evolution'. This can be seen in our distinction of stream and sequence, which is conveniently flexible and demonstrates an overall 'master sequence' of macroevolution, inside of which we see many streams undergoing their own historical narratives or possibly even 'evolutions'. This idea of these streams can be taken in any number of ways. We spoke of the stream of Greek history, but we could isolate any set of factors as a stream: the science stream, the philosophy stream, the religion stream. The inherent power of our model can be seen in the way this distinguishes clearly the 'stream of religious history' from the 'eonic evolution of religion'. It is very hard to distinguish the character of early proto-Judaism, i.e. Israelite history in the Axial Age or transition, from the mideonic appearances of other religions. But we see at once that our model does just this and makes the point clear.

Thus we can take the 'stream of economic history' or what we can call with a specialized term, the 'econosequence' (this is the term from the first edition, but 'econostream' might have been better), and study this in relation to the eonic sequence. We could do the same thing with the history of technology, the 'technosequence'. We can then proceed to study the history of economic systems or technology, or anything else, independently or in relation to the eonic sequence. As we consider the eonic effect and the eonic sequence of transitions we notice that its prime character is cultural in the broadest sense, and only secondarily involved with the evolution of economies. The great and confusing exception is the place of capitalism in the modern transition. So to speak, the econosequence and the

eonic sequence come into conjunction and with a thunderclap effect modern capitalism springs into existence, and what's more just at the Great Divide. This tends to make us associate capitalism with modernity, which is misleading. It also makes us think that the tremendous momentum of this new economic formation can be generalized across history as a master dynamic. In fact, that confusion was in part our starting point as we examined the influence of economic ideology on the gestation of Darwinism.

In our approach, we are clearly able to see the limits of the so-called economic interpretation of history. Here the historical systematics of Marx tends to foist an incorrect generalization on the diversity of world history in the midst of trying to get the matter straight. In light of the eonic effect it is hard to maintain the suggestion that it is the economic means of production that drives the whole process of social evolution. The Axial Age shows the many exceptions. Religions are more than economic cover stories, quite obviously, and we see that the many innovations of our second transition take place in their great diversity against the backdrop of still, by modern standards, sluggishly indolent economies, unable to extricate themselves from slavery. We should be careful here, since, as a descriptive methodology, the economic interpretation is almost a tautology. In every case, a society will clearly reflect the context of the means of production. But that does not work as a master dynamic driving the whole.

Nevertheless, Marx makes a tremendous significant point, almost the same point we making, which is that social evolution is something greater than the question of its capitalist realization in modern times. Let us consider the point in terms of our model. The first issue is that modern capitalism doesn't really (depending, of course, on how you define it) come into existence prior to the abolition of slavery. But how does this occur? Once again, amazingly, we see that abolitionism appears in our modern transition, indeed, starts its great initiative just at the divide! In fact, we can see that this is just another aspect of our discrete freedom sequence. It is obviously no coincidence that it works out this way. But consider then the question in terms of the 'eonic sequence' with its interior discrete freedom sequence.

This is a process of evolution at a higher level than that of the emergence of economic systems. And just at the point of the achievement of this new freedom capitalism of the modern type begins its existence. This, we should note, is how the early generation of emerging liberalism took the matter. Capitalism, to Kant, Thomas Paine, and Adam Smith, was a question of economic freedom. We see how the whole disposition to a new form of economic organization is a definite 'eonic emergent' in our sense of some cultural factor showing transformation in relation to the eonic sequence. The distance between Adam Smith and Karl Marx is not so great, and the dialectical reversal arises instantly in the fluidity of the potential of freedom. We see how the crystallization of freedom bifurcates into libertarian and collectivist versions. We need to stand back a bit to see the remarkable way in which the potentiality of freedom at the Great Divide begins to issue into its realizations in dialectically diverging ways. It is a fairly straightforward question of the differing combinations possible in what we define as 'democracy' and this in the context of the new capitalist means of production.

The point, in this vast discussion (and our model can adapt itself easily to the many discourses here), is that capitalism is a sub-process in the larger system of the eonic evolution of civilization, and produces a highly efficient form of economic organization, without having the potential to be the master dynamic of historical evolution. It took millennia for social systems to mature to the point where modern capitalism was possible. But the immediate question arises if this is the case: if economic evolution is not the driving force behind Big History, then what is the

status of the capitalist system in relation to some future state. Thus neatly we have restated Marx's essential point, careful to keep it quite abstract, and short of the claims made about revolutionary socialism, the status of private property. There is a lot to say here, but for the moment this is enough. In a nutshell, we see that econosequence != eonic sequence. As to the future, the answer to our question is that we don't yet have the answer, but we are left with a final question to conclude the creation of our model: have we reached the end of the eonic sequence?

3.4 Progress and Evolution

One of the strongest tenets of proponents of Darwinian evolution is the denial of any form of evolutionary progress. But we can see clearly that the regime of theoretical natural selection has misled the analysis completely. Looking at the eonic sequence we can see that we would not have a difficult time putting the idea on a proper foundation. We can also highlight the difficulties that arise from the idea. But it is obvious that within the scope of the eonic sequence, which may or may not tell us anything about earlier evolution, there is a clear expression of progress in history. At the bare minimum, we are able to see that there is a definite series of progression, and these are clearly timed by the eonic sequence. Darwinism blinds us to the fact that almost any form of evolution is going to show a progressive aspect, and this will be associated with any inherent depiction of development. The question of progress in biological evolution is, as we can now suspect, muddled by the overlay of different processes, and the difficulty of seeing processes closeup.

We can suggest what we suspect, but we can't close the case with any ease. But the point is that a great of biological evolution is indeed relatively random or contingent. Here the suggestion of our eonic model is clear: any attempt to find directionality is going end up in speculations about teleology. We have completed our analysis of the eonic effect without such speculations because we had an evolutionary map allowing us to see directionality in the past, without extending this analysis to any teleological conclusion. Even our frequency hypothesis was left up in the air as our data falls out of range. But in the case of biological evolution we are unable to close in on the specifics of 'changes of direction', if any, that might be present in the record we get from deep time. But all at once, confined to the short run of the eonic sequence, we clearly see the progressive aspect of a developmental sequence, mixed with the far larger intervals of the mideonic periods, where the evidence of progress is mixed with obvious cases of retrograde decline. This combination of short-term progression and mideonic sluggishness ought to warn us of the dangers of jumping to conclusion about evolutionary progress in the emergence of biological life.

We should be clear of the limits of our own approach to this question. Where does the idea of progress come from? It is another child of the eonic sequence, an eonic emergent! The literature of the idea of progress is very extensive, with suggestions about the birth of the idea in the Old Testament history, or else the thinking of Zarathustra, with statements that the Greeks had no idea of progress, or else statements that idea did indeed appear among the Greeks. Clearly the idea is gestating in the course of world history. But it is most ironically the appearance of the idea in the modern transition in the debate over the Ancients and the Moderns that it is born in its sturdy secular form. This debate arose as the achievements of modernity began to dispel the perennial sense of looking backward at the creative heights of antiquity. The sudden sense of surpassing this legacy gave birth to the idea of the progressive aspect of history, still without the clarity given by seeing its relationship to the eonic effect, where 'eonic progression' is not continuous but intermittent. The inability to account for this mideonic aspect of the potential of progress has continually thrown the idea into confusion. But we can see that at a bare minimum the

eonic sequence sets a pace of overall progression, now for the first time visible in the larger picture of world history that archaeology has given us.

Notice how the fate of the idea of progress follows the contours of the modern transition. The idea is born, or reborn, in the core of the transition, turns into a philosophy of history, then suffers from ideological confusion in the wake of the transition, then suffers postmodern reversal in the sudden rejections of the idea. The match is exact, for the simple reason we can see that once the transition completes the nature of the future becomes an unknown once again. We cannot with total confidence say that the short term future and its longer range will coincide. Furthermore, as the modern system crystallizes the idea of progress turns from a revolutionary to an ideologically stabilizing idea. It can degenerate into propaganda, or become confused with the defense of an economic order.

It becomes obvious that while we can clarify the evidence of progress in world history, we are nonetheless extracting an 'eonic emergent' to describe the whole system of history in a presumption of meta-knowledge. Thus the idea will retain its controversial dialectical character. But the point is clear in broad strokes: we can account for the evidence history shows, that of an immense progression from simple beginnings to a greater complexity in a fashion that is obviously evolution. Our model does more, because it distinguishes system action and the free action of the mideonic intervals. The driving motion of the eonic system must be matched by the resulting mideonic free action able to fulfill the potential established without retrogression, a task not always visible in the history we have!

3.5 Last and First Men: End Of Eonic Sequence?

As we close our analysis of the eonic effect we are left with a final mysterious question: have we reached the end of the eonic sequence? Note that our analysis has demonstrated that we have exited the modern transition in the period of the Great Divide, thence to enter a sort of New Age of modernity as a new stage of history given by the eonic sequence. But was this the last transition? We have no means to finally say. The character of the system has changed as the system action shuts down leaving 'free action to realize freedom' in its wake. Although it is appropriate to leave the issue open, the tentative answer to our question should be in the affirmative, that the spectacular driving motion of the eonic sequence has completed its action in what is probably a driving motion initiating in the Neolithic period. Now it is sink or swim. There is a very strong reason for thinking this: as we become aware of the eonic effect, its future action would be blocked by just that awareness. Let us note that 'suspicions turning into outlandish myths' arose very early in history concerning the cyclical character of history, and the blending of this with Zoroastrian eschatology has resulted in a 'world historical mental confusion' about the action of a system whose simple character could never have been deduced by those immersed in it. At least it can be said of this confusion that, while it did suspect the coming of a 'new age' in the future, based on glimmerings about the past, it was anticipating the wrong future, which accomplished itself by taking man by surprise. That must be the last time it could happen, as full knowledge of the past, and the implosion of globalization, makes any transitional staging area highly problematical.

Even as we say this we should consider that the real 'end of the eonic sequence' might have been precisely the Axial Age. All the elements that make up civilization as we know it made their appearance. However, as we can see that in the wake of the Axial transition everything fell to pieces, with democracy, a bare hint, engulfed in empire, science

simply fading away barely kept alive in the medieval period by the Islamic world. In general the drift into empire and the inability to deal with slavery condemned the whole advance. Thus the resurgent modern period resembles a kind of spooky feedback process setting the system back on its course. Who could predict this kind of disconbulation won't happen again. Nonetheless, our eonic sequence, despite the appearance of some recursive action, never really repeats itself, and once having established a viable outcome is not likely to produce an unlimited set of repetitions. And we suspect that we are in a situation not unlike that at the end of the Great Explosion when a stable plateau had been reached and the consequences of that transition allowed themselves to unfold in a long period of working out its implications. We sense a similar character to our own times, as we seem to be looking backwards at the relatively brief impetus of development producing civilization, a mere ten thousand years. The issue is to avail ourselves of the immense fruits of this progress without getting stuck in the mechanization of social consciousness that is so evident from much of the evidence of history. And this leaves us with the question, not of revolution, but of the real means to social change. There is no simple answer here, and we seem left with the ambiguities of economic evolution as a substitute for the deliberate creation of future stages of change. We can no longer say that this possibility is utopian since the means to produce real revolutions is evident from the eonic effect: create three century transitions seeding innovations in all phases of social life: art, philosophy, science, and religion, and politics! Clearly we have reacted to, but not initiated, change on that scale, the fiascos of revolution being prime evidence of our incapacity. Thus the future remains unclear.

These remarks are the bare minimum restatement of the ideological issues that appear in the convulsions of the Great Divide, followed by the action of the nineteenth century left. The character of this period was ambiguous in so far as the realization of democracy and the achievement of some future social state beyond liberal modernity became collated producing the remarkable confusion that we see, including incorrect attempts to mimic the French Revolution's dynamics with a set of wrong assumptions. While this might be a premonition of the future, it has not been able to clearly establish a theoretical basis for action. But whatever the case, it could hardly be true that if we think we have reached the end of the eonic sequence we have also reached the end of development, or that the de facto outcome(s) of the modern transition have an eonic legitimation. The point is only that the eonic sequence rescues systems stuck in mud, and gets them moving again. The end of its action leaves the future open to man's self-development. This is not the same as, but in some ways resembles, the Hegelian 'end of history', in the sense that a process of self-conscious action is completed. It is remarkable that a figure such as Hegel should appear in this regard with such an idea. But our thesis is something quite different, and we mention Hegel in order to warn against a confusion of ideas. The 'end of the eonic sequence' is not the end of history, but its beginning. Hegel's philosophy has been given the interpretation of endorsing liberal capitalist societies as a final stage of development. But this is only true by comparison with what has occurred in the past with the gross inferiority of social forms from which we have awakened as if from a nightmare. Perhaps Hegel merely expresses the hope that a new plateau of development will not regress to primordial primitive statehood. But, in any case, his metaphysics is really a preposterous story about an evolving world spirit, an entity that has no definition in the framework of our thesis. The swift leftist attack on this misunderstood philosophy of history restored the potential of a free future of social innovation, a phraseology overly euphemistic if we consider the difficulties of actually trying to surpass the present. Our verdict should be left in neutral gear by reiterating our sense of the discrepancy between economic and eonic evolution, econosequence != eonic sequence. More we can't say, and, having reaped the benefits of a model that began with a critique of predictive historicisms, we should conclude without similar prophecies our model doesn't support. However, we are not at the end of our study, but at its beginning, armed with a highly practical form of historical analysis that reconciles the many pieces of the puzzle of human evolution for the first time.

Conclusion

Our short tour of the eonic effect is complete and we have discovered a truly spectacular, but subtle structure behind world history. That the result should reveal, not laws of history, but a play on the determinations of free action as self-consciousness, as if a dynamic of oscillations of degrees of freedom, is an altogether elegant solution given to us by nature to the search for a science of history. In a descant on a Kantian theme we confront a contradiction: there must be 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. And in the process we have found the close connection of this to the enigma of evolution. 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.

The biologist Dobzhansky made the well-known statement that nothing makes sense except in the light of evolution. The problem with that was that nothing quite made 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. 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 limits of our description, a task to whose further elaboration we should promptly adjourn, for we are at the beginning and not the end of our subject, the pattern we have discovered shows the highest degree of coherence, and this independently of the 'facts of the case', the immense sub-histories, we have deliberately stylized, of each sector our global pattern. We can proceed to initiate an expansion of our outline into an historical chronicle, mindful that our approach, while making no claim to be beyond ideological assumptions, can nonetheless catalog all that can be imagined. The result is not a 'theory' of evolution, for it is probably true to say that we never see the dynamic directly, but an 'evolutionary map' whose correct use lies in the lineage of our own 'action scripts' arising in the diffusion field of the transitions in our immediate past. To the presumed objectivity of the scientist observing evolution, our model gobbles up the 'action sequence of the Scientific Revolution' and makes it an eonic emergent in the very evolution in question. Bringing evolution into the present in this fashion shows at once the clumsy generation of Social Darwinist ideology to which current Darwinism is condemned without relief. This 'evolution' is to be distinguished by what represents it, the 'self-evolution' as free action that we have designated as 'history' in the braiding of these double aspects of one eonic sequence. This is a perfectly valid, and non-genetic, definition of the term 'evolution'. The further advantage of this approach is that 'free action' is quarantined from 'theory interacting with the present of action', with its concomitant Oedipus Effects. Thus, even as we have brought evolution into the present we have placed it out of range, for our proper business is not 'evolution' but to fulfill the emergent processes that are amplifications of our prior stream history.

We tend to displace 'evolution' into the distant past, but our analysis brings it into the present and future, even as it separates this from the particulars of realization that constitute our distinction of 'system action' and 'free action'. It is important to note this fact, since we are proceeding through a thicket of ideological questions whose mediation requires correct use of our eonic model. But the account is buffered from even the author's ideological viewpoint by the way each interpretation is forced to speak the language of the 'eonic emergents' of the modern (or other) transitions and these constitute complex zoom targets that enforce a discipline of multiple perspectives. By invoking a 'transition', we avoid the treacherous description of an unseen dynamic and indirectly summon up a 'dialectic' of, e.g. all the interpretations of the Scientific Revolution, seventeenth century sources of liberalism, or the various Enlightenments, French, English, German, etc,... Any one dimensional line of interpretation will immediately produce a tangential 'modernist realization', all to the good, but almost always short of the comprehensive shotgun spectrum by which the eonic sequence establishes its progression beyond reversal against antiquity. In this sense our modern transition truly produces a New Age.

There is an irony to eonic history, and its modern transition: it starts 'debriefing' its great ancestor, the universal history of the Old Testament. The first order of business is rapid religious change, the Protestant Reformation, and one of its side effects is the rapid emergence of Biblical Criticism. But as we have seen our eonic analysis by stripping the Old Testament of its mythological props leaves in place a distinctively new perspective on what constitutes its core thematic, and we can, to the consternation of religious traditionalists, produce a superior secular upgrade to what is manifestly the Bible's primitive yet beguiling 'eonic history'. This great text might finally come into its own as a secular document. Suddenly the account of divine revelation has turned into an eloquent testimony to man's evolution, and more directly the 'eonic evolution of religion', a complex subject we have not fully unraveled. Our account gives a powerful place to the history described in the Old Testament, but the nature of our model produces something different, and shows us the two levels on which to take this history. The mythological rendering of what we see is 'eonic history' constitutes the aspect of 'free action' giving expression to the system action of the eonic sequence, which must be in part reconstructed via archaeology, and cross comparison with the synchronous transitions, such as the Axial Greek, that it resembles.

Our prime objective was to demonstrate a non-random pattern, and this we have achieved. Its correct interpretation is second task. A broad general interpretation is relatively easy. A comprehensive description is a considerable undertaking. And through all of this we have produced a powerful challenge to standard accounts of the descent of man, albeit as an empirical pattern, and a theory of the evidence for that. We never 'see' evolution, we only see a coherent phenomenon taken together over millennia, expressed through human activity, and we only interact with and execute the 'action scripts' and eonic emergents that emerge from the transitions in the eonic sequence. The result can only be called 'evolution', and this is counterpointed by its emergent embedded history rising to overtake the eonic sequence itself.

Appendix 2

Idea for a Universal History from a Cosmopolitan Point of View

Source: *Idea for a Universal History from a Cosmopolitan Point of View* (1784). Translation by Lewis White Beck. From Immanuel Kant, "On History," The Bobbs-Merrill Co., 1963.

Introduction

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. Since the free will of man has obvious influence upon marriages, births, and deaths, they seem to be subject to no rule by which the number of them could be reckoned in advance. Yet the annual tables of them in the major countries prove that they occur according to laws as stable as [those of] the unstable weather, which we likewise cannot determine in advance, but which, in the large, maintain the growth of plants the flow of rivers, and other natural events in an unbroken uniform course. Individuals and even whole peoples think little on this. Each, according to his own inclination, follows his own purpose, often in opposition to others; yet each individual and people, as if following some guiding thread, go toward a natural but to each of them unknown goal; all work toward furthering it, even if they would set little store by it if they did know it.

Since men in their endeavors behave, on the whole, not just instinctively, like the brutes, nor yet like rational citizens of the world according to some agreed-on plan, no history of man conceived according to a plan seems to be possible, as it might be possible to have such a history of bees or beavers. One cannot suppress a certain indignation when one sees men's actions on the great world-stage and finds, beside the wisdom that appears here and there among individuals, everything in the large woven together from folly, childish vanity, even from childish malice and destructiveness. In the end, one does not know what to think of the human race, so conceited in its gifts. Since the philosopher cannot presuppose any [conscious] individual purpose among men in their great drama, there is no other expedient for him except to try to see if he can discover a natural purpose in this idiotic course of things human. In keeping with this purpose, it might be possible to have a history with a definite natural plan for creatures who have no plan of their own.

We wish to see if we can succeed in finding a clue to such a history; we leave it to Nature to produce the man capable of composing it. Thus Nature produced Kepler, who subjected, in an unexpected way, the eccentric paths of the planets to definite laws; and she produced Newton, who explained these laws by a universal natural cause.

FIRST THESIS

All natural capacities of a creature are destined to evolve completely to their natural end.

Observation of both the outward form and inward structure of all animals confirms this of them. An organ that is of no use, an arrangement that does not achieve its purpose, are contradictions in the teleological theory of nature. If we give up this fundamental principle, we no longer have a lawful but an aimless course of nature, and blind chance takes the place of the guiding thread of reason.

SECOND THESIS

In man (as the only rational creature on earth) those natural capacities which are directed to the use of his reason are to be fully developed only in the race, not in the individual.

Reason in a creature is a faculty of widening the rules and purposes of the use of all its powers far beyond natural instinct; it acknowledges no limits to its projects. Reason itself does not work instinctively, but requires trial, practice, and instruction in order gradually to progress from one level of insight to another. Therefore a single man would have to live excessively long in order to learn to make full use of all his natural capacities. Since Nature has set only a short period for his life, she needs a perhaps unreckonable series of generations, each of which passes its own enlightenment to its successor in order finally to bring the seeds of enlightenment to that degree of development in our race which is completely suitable to Nature's purpose. This point of time must be, at least as an ideal, the goal of man's efforts, for otherwise his natural capacities would have to be counted as for the most part vain and aimless. This would destroy all practical principles, and Nature, whose wisdom must serve as the fundamental principle in judging all her other offspring, would thereby make man alone a contemptible plaything.

THIRD THESIS

Nature has willed that man should, by himself, produce everything that goes beyond the mechanical ordering of his animal existence, and that he should partake of no other happiness or perfection than that which he himself, independently of instinct, has created by his own reason.

Nature does nothing in vain, and in the use of means to her goals she is not prodigal. Her giving to man reason and the freedom of the will which depends upon it is clear indication of her purpose. Man accordingly was not to be guided by instinct, not nurtured and instructed with ready-made knowledge; rather, he should bring forth everything out of his own resources. Securing his own food, shelter, safety and defense (for which Nature gave him neither the horns of the bull, nor the claws of the lion, nor the fangs of the dog, but hands only), all amusement which can make life pleasant, insight and intelligence, finally even goodness of heart—all this should be wholly his own work. In this, Nature seems to have moved with the strictest parsimony, and to have measured her animal gifts precisely to the most stringent needs of a beginning existence, just as if she had willed that, if man ever did advance from the lowest barbarity to the highest skill and mental perfection and thereby worked himself up to happiness (so far as it is possible on earth), he alone should have the credit and should have only himself to thank—exactly as if she aimed more at his rational self-esteem than at his well-being. For along this march of human affairs, there was a host of troubles awaiting him. But it seems not to have concerned Nature that he should live well, but only that he should work himself upward so as to make himself, through his own actions, worthy of life and of well-being.

It remains strange that the earlier generations appear to carry through their toilsome labor only for the sake of the later, to prepare for them a foundation on which the later generations could erect the higher edifice which was Nature's goal, and yet that only the latest of the generations should have the good fortune to inhabit the building

on which a long line of their ancestors had (unintentionally) labored without being permitted to partake of the fortune they had prepared. However puzzling this may be, it is necessary if one assumes that a species of animals should have reason, and, as a class of rational beings each of whom dies while the species is immortal, should develop their capacities to perfection.

FOURTH THESIS

The means employed by Nature to bring about the development of all the capacities of men is their antagonism in society, so far as this is, in the end, the cause of a lawful order among men.

By “antagonism” I mean the unsocial sociability of men, i.e., their propensity to enter into society, bound together with a mutual opposition which constantly threatens to break up the society. Man has an inclination to associate with others, because in society he feels himself to be more than man, i.e., as more than the developed form of his natural capacities. But he also has a strong propensity to isolate himself from others, because he finds in himself at the same time the unsocial characteristic of wishing to have everything go according to his own wish. Thus he expects opposition on all sides because, in knowing himself, he knows that he, on his own part, is inclined to oppose others. This opposition it is which awakens all his powers, brings him to conquer his inclination to laziness and, propelled by vainglory, lust for power, and avarice, to achieve a rank among his fellows whom he cannot tolerate but from whom he cannot withdraw. Thus are taken the first true steps from barbarism to culture, which consists in the social worth of man; thence gradually develop all talents, and taste is refined; through continued enlightenment the beginnings are laid for a way of thought which can in time convert the coarse, natural disposition for moral discrimination into definite practical principles, and thereby change a society of men driven together by their natural feelings into a moral whole. Without those in themselves unamiable characteristics of unsociability from whence opposition springs-characteristics each man must find in his own selfish pretensions-all talents would remain hidden, unborn in an Arcadian shepherd’s life, with all its concord, contentment, and mutual affection. Men, good-natured as the sheep they herd, would hardly reach a higher worth than their beasts; they would not fill the empty place in creation by achieving their end, which is rational nature. Thanks be to Nature, then, for the incompatibility, for heartless competitive vanity, for the insatiable desire to possess and to rule! Without them, all the excellent natural capacities of humanity would forever sleep, undeveloped. Man wishes concord; but Nature knows better what is good for the race; she wills discord. He wishes to live comfortably and pleasantly; Nature wills that he should be plunged from sloth and passive contentment into labor and trouble, in order that he may find means of extricating himself from them. The natural urges to this, the sources of unsociableness and mutual opposition from which so many evils arise, drive men to new exertions of their forces and thus to the manifold development of their capacities. They thereby perhaps show the ordering of a wise Creator and not the hand of an evil spirit, who bungled in his great work or spoiled it out of envy.

FIFTH THESIS

The greatest problem for the human race, to the solution of which Nature drives man, is the achievement of a universal civic society which administers law among men.

The highest purpose of Nature, which is the development of all the capacities which can be achieved by mankind, is attainable only in society, and more specifically in the society with the greatest freedom. Such a society is one in which there is mutual opposition among the members, together with the most exact definition of freedom and fixing of its limits so that it may be consistent with the freedom of others. Nature demands that humankind should itself achieve this goal like all its other destined goals. Thus a society in which freedom under external laws is associated in the highest degree with irresistible power, i.e., a perfectly just civic constitution, is the highest problem Nature assigns to the human race; for Nature can achieve her other purposes for mankind only upon the solution and completion of this assignment. Need forces men, so enamored otherwise of their boundless freedom, into this state of constraint. They are forced to it by the

greatest of all needs, a need they themselves occasion inasmuch as their passions keep them from living long together in wild freedom. Once in such a preserve as a civic union, these same passions subsequently do the most good. It is just the same with trees in a forest: each needs the others, since each in seeking to take the air and sunlight from others must strive upward, and thereby each realizes a beautiful, straight stature, while those that live in isolated freedom put out branches at random and grow stunted, crooked, and twisted. All culture, art which adorns mankind, and the finest social order are fruits of unsociableness, which forces itself to discipline itself and so, by a contrived art, to develop the natural seeds to perfection.

SIXTH THESIS

This problem is the most difficult and the last to be solved by mankind.

The difficulty which the mere thought of this problem puts before our eyes is this. Man is an animal which, if it lives among others of its kind, requires a master. For he certainly abuses his freedom with respect to other men, and although as, a reasonable being he wishes to have a law which limits the freedom of all, his selfish animal impulses tempt him, where possible, to exempt himself from them. He thus requires a master, who will break his will and force him to obey a will that is universally valid, under which each can be free. But whence does he get this master? Only from the human race. But then the master is himself an animal, and needs a master. Let him begin it as he will, it is not to be seen how he can procure a magistracy which can maintain public justice and which is itself just, whether it be a single person or a group of several elected persons. For each of them will always abuse his freedom if he has none above him to exercise force in accord with the laws. The highest master should be just in himself, and yet a man. This task is therefore the hardest of all; indeed, its complete solution is impossible, for from such crooked wood as man is made of, nothing perfectly straight can be built.^[2] That it is the last problem to be solved follows also from this: it requires that there be a correct conception of a possible constitution, great experience gained in many paths of life, and – far beyond these—a good will ready to accept such a constitution. Three such things are very hard, and if they are ever to be found together, it will be very late and after many vain attempts.

SEVENTH THESIS

The problem of establishing a perfect civic constitution is dependent upon the problem of a lawful external relation among states and cannot be solved without a solution of the latter problem.

What is the use of working toward a lawful civic constitution among individuals, i.e., toward the creation of a commonwealth? The same unsociability which drives man to this causes any single commonwealth to stand in unrestricted freedom in relation to others; consequently, each of them must expect from another precisely the evil which oppressed the individuals and forced them to enter into a lawful civic state. The friction among men, the inevitable antagonism, which is a mark of even the largest societies and political bodies, is used by Nature as a means to establish a condition of quiet and security. Through war, through the taxing and never-ending accumulation of armament, through the want which any state, even in peacetime, must suffer internally, Nature forces them to make at first inadequate and tentative attempts; finally, after devastations, revolutions, and even complete exhaustion, she brings them to that which reason could have told them at the beginning and with far less sad experience, to wit, to step from the lawless condition of savages into a league of nations. In a league of nations, even the smallest state could expect security and justice, not from its own power and by its own decrees, but only from this great league of nations (*Foedus Amphictyonum*^[3]), from a united power acting according to decisions reached under the laws of their united will. However fantastical this idea may seem—and it was laughed at as fantastical by the Abbé de St. Pierre^[4] and by Rousseau^[5], perhaps because they believed it was too near to realization – the necessary outcome of the destitution to which each man is brought by his fellows is to force the states to the same decision (hard though it be for them) that savage man also was reluctantly forced to take, namely, to give up their brutish freedom and to seek quiet and security under a lawful constitution.

All wars are accordingly so many attempts (not in the intention of man, but in the intention of Nature) to establish new relations among states, and through the destruction or at least the dismemberment of all of them to create new political bodies, which, again, either internally or externally, cannot maintain themselves and which must thus suffer like revolutions; until finally, through the best possible civic constitution and common agreement and legislation in external affairs, a state is created which, like a civic commonwealth, can maintain itself automatically.

[There are three questions here, which really come to one.] Would it be expected from an Epicurean concourse of efficient causes that states, like minute particles of matter in their chance contacts, should form all sorts of unions which in their turn are destroyed by new impacts, until once, finally, by chance a structure should arise which could maintain its existence – a fortunate accident that could hardly occur? Or are we not rather to suppose that Nature here follows a lawful course in gradually lifting our race from the lower levels of animality to the highest level of humanity, doing this by her own secret art, and developing in accord with her law all the original gifts of man in this apparently chaotic disorder? Or perhaps we should prefer to conclude that, from all these actions and counteractions of men in the large, absolutely nothing, at least nothing wise, is to issue? That everything should remain as it always was, that we cannot therefore tell but that discord, natural to our race, may not prepare for us a hell of evils, however civilized we may now be, by annihilating civilization and all cultural progress through barbarous devastation? (This is the fate we may well have to suffer under the rule of blind chance – which is in fact identical with lawless freedom – if there is no secret wise guidance in Nature.) These three questions, I say, mean about the same as this: Is it reasonable to assume a purposiveness in all the parts of nature and to deny it to the whole?

Purposeless savagery held back the development of the capacities of our race; but finally, through the evil into which it plunged mankind, it forced our race to renounce this condition and to enter into a civic order in which those capacities could be developed. The same is done by the barbaric freedom of established states. Through wasting the powers of the commonwealths in armaments to be used against each other, through devastation brought on by war, and even more by the necessity of holding themselves in constant readiness for war, they stunt the full development of human nature. But because of the evils which thus arise, our race is forced to find, above the (in itself healthy) opposition of states which is a consequence of their freedom, a law of equilibrium and a united power to give it effect. Thus it is forced to institute a cosmopolitan condition to secure the external safety of each state.

Such a condition is not unattended by the danger that the vitality of mankind may fall asleep; but it is at least not without a principle of balance among men's actions and counteractions, without which they might be altogether destroyed. Until this last step to a union of states is taken, which is the halfway mark in the development of mankind, human nature must suffer the cruelest hardships under the guise of external wellbeing; and Rousseau was not far wrong in preferring the state of savages, so long, that is, as the last stage to which the human race must climb is not attained.

To a high degree we are, through art and science, *cultured*. We are *civilized* – perhaps too much for our own good – in all sorts of social grace and decorum. But to consider ourselves as having reached *morality* – for that, much is lacking. The ideal of morality belongs to culture; its use for some simulacrum of morality in the love of honor and outward decorum constitutes mere civilization. So long as states waste their forces in vain and violent self-expansion, and thereby constantly thwart the slow efforts to improve the minds of their citizens by even withdrawing all support from them, nothing in the way of a moral order is to be expected. For such an end, a long internal working of each political body toward the education of its citizens is required. Everything good that is not based on a morally good disposition, however, is nothing but pretense and glittering misery. In such a condition the human species will no doubt remain until, in the way I have described, it works its way out of the chaotic conditions of its international relations.

EIGHTH THESIS

The history of mankind can be seen, in the large, as the realization of Nature's secret plan to bring forth a perfectly constituted state as the only condition in which the capacities of mankind can be fully developed, and also bring forth that external relation among states which is perfectly adequate to this end.

This is a corollary to the preceding. Everyone can see that philosophy can have her belief in a millennium, but her millennarianism is not Utopian, since the Idea can help, though only from afar, to bring the millennium to pass. The only question is: Does Nature reveal anything of a path to this end? And I say: She reveals something, but very little. This great revolution seems to require so long for its completion that the short period during which humanity has been following this course permits us to determine its path and the relation of the parts to the whole with as little certainty as we can determine, from all previous astronomical observation, the path of the sun and his host of satellites among the fixed stars. Yet, on the fundamental premise of the systematic structure of the cosmos and from the little that has been observed, we can confidently infer the reality of such a revolution.

Moreover, human nature is so constituted that we cannot be indifferent to the most remote epoch our race may come to, if only we may expect it with certainty. Such indifference is even less possible for us, since it seems that our own intelligent action may hasten this happy time for our posterity. For that reason, even faint indications of approach to it are very important to us. At present, states are in such an artificial relation to each other that none of them can neglect its internal cultural development without losing power and influence among the others. Therefore the preservation of this natural end [culture], if not progress in it, is fairly well assured by the ambitions of states. Furthermore, civic freedom can hardly be infringed without the evil consequences being felt in all walks of life, especially in commerce, where the effect is loss of power of the state in its foreign relations. But this freedom spreads by degrees. When the citizen is hindered in seeking his own welfare in his own way, so long as it is consistent with the freedom of others, the vitality of the entire enterprise is sapped, and therewith the powers of the whole are diminished. Therefore limitations on personal actions are step by step removed, and general religious freedom is permitted. Enlightenment comes gradually, with intermittent folly and caprice, as a great good which must finally save men from the selfish aggrandizement of their masters, always assuming that the latter know their own interest. This enlightenment, and with it a certain commitment of heart which the enlightened man cannot fail to make to the good he clearly understands, must step by step ascend the throne and influence the principles of government.

Although, for instance, our world rulers at present have no money left over for public education and for anything that concerns what is best in the world, since all they have is already committed to future wars, they will still find it to their own interest at least not to hinder the weak and slow, independent efforts of their peoples in this work. In the end, war itself will be seen as not only so artificial, in outcome so uncertain for both sides, in after-effects so painful in the form of an ever-growing war debt (a new invention) that cannot be met, that it will be regarded as a most dubious undertaking. The impact of any revolution on all states on our continent, so closely knit together through commerce, will be so obvious that the other states, driven by their own danger but without any legal basis, will offer themselves as arbiters, and thus they will prepare the way for a distant international government for which there is no precedent in world history. Although this government at present exists only as a rough outline, nevertheless in all the members there is rising a feeling which each has for the preservation of the whole. This gives hope finally that after many reformative revolutions, a universal cosmopolitan condition, which Nature has as her ultimate purpose, will come into being as the womb wherein all the original capacities of the human race can develop.

NINTH THESIS

A philosophical attempt to work out a universal history according to a natural plan directed to achieving the civic union of the human race must be regarded as possible and, indeed, as contributing to this end of Nature.

It is strange and apparently silly to wish to write a history in accordance with an Idea^[6] of how the course of the world must be if it is to lead to certain rational ends. It seems that with such an Idea only a romance could be written. Nevertheless, if one may assume that Nature, even in the play of human freedom, works not without plan or purpose, this Idea could still be of use. Even if we are too blind to see the secret mechanism of its workings, this Idea may still serve as a guiding thread for presenting as a system, at least in broad outlines, what would otherwise be a planless conglomeration of human actions. For if one starts with Greek history, through which every older or contemporaneous history has been handed down or at least certified^[7]; if one follows the influence of Greek history on the construction and misconstruction of the Roman state which swallowed up the Greek, then the Roman influence on the barbarians who in turn destroyed it, and so on down to our times; if one adds episodes from the national histories of other peoples insofar as they are known from the history of the enlightened nations, one will discover a regular progress in the constitution of states on our continent (which will probably give law, eventually, to all the others). If, further, one concentrates on the civic constitutions and their laws and on the relations among states, insofar as through the good they contained they served over long periods of time to elevate and adorn nations and their arts and sciences, while through the evil they contained they destroyed them, if only a germ of enlightenment was left to be further developed by this overthrow and a higher level was thus prepared – if, I say, one carries through this study, a guiding thread will be revealed. It can serve not only for clarifying the confused play of things human, and not only for the art of prophesying later political changes (a use which has already been made of history even when seen as the disconnected effect of lawless freedom), but for giving a consoling view of the future (which could not be reasonably hoped for without the presupposition of a natural plan) in which there will be exhibited in the distance how the human race finally achieves the condition in which all the seeds planted in it by Nature can fully develop and in which the destiny of the race can be fulfilled here on earth.

Such a justification of Nature – or, better, of Providence – is no unimportant reason for choosing a standpoint toward world history. For what is the good of esteeming the majesty and wisdom of Creation in the realm of brute nature and of recommending that we contemplate it, if that part of the great stage of supreme wisdom which contains the purpose of all the others – the history of mankind – must remain an unceasing reproach to it? If we are forced to turn our eyes from it in disgust, doubting that we can ever find a perfectly rational purpose in it and hoping for that only in another world?

That I would want to displace the work of practicing empirical historians with this Idea of world history, which is to some extent based upon an a priori principle, would be a misinterpretation of my intention. It is only a suggestion of what a philosophical mind (which would have to be well versed in history) could essay from another point of view. Otherwise the notorious complexity of a history of our time must naturally lead to serious doubt as to how our descendants will begin to grasp the burden of the history we shall leave to them after a few centuries. They will naturally value the history of earlier times, from which the documents may long since have disappeared, only from the point of view of what interests them, i.e., in answer to the question of what the various nations and governments have contributed to the goal of world citizenship, and what they have done to damage it. To consider this, so as to direct the ambitions of sovereigns and their agents to the only means by which their fame can be spread to later ages: this can be a minor motive for attempting such a philosophical history.
