

ISSUE 74 JULY 21

SHAPE JOURNAL

THE
INFINITE
RABBIT
HOLE

JIM SCHOFIELD





Issue 74 / March 2021

4. Wrong Turnings...
 11. Down the Infinite Rabbit Hole of Holist Complexity I
 15. Down the Infinite Rabbit Hole of Holist Complexity II
 19. Down the Infinite Rabbit Hole of Holist Complexity III
 25. Down the Infinite Rabbit Hole of Holist Complexity IV
 30. Down the Infinite Rabbit Hole of Holist Complexity V
 37. Down the Infinite Rabbit Hole of Holist Complexity VI
 41. Down the Infinite Rabbit Hole of Holist Complexity VII
- The Limits of Philosophy?

Art Director's note - Anselm Kiefer

For this issue we have chosen the dark, dense paintings and sculptures of Anselm Kiefer for the illustration. We are always looking for abstract art which invokes change in some way, and the complexity of evolving reality. With a keen interest in mathematics and science as well as mythology, Kiefer's work deals with concepts such as the passage of time, cosmogony, chaos and death. His most recent exhibition *Superstrings, Runes, the Norns, Gordian Knot*, is influenced directly by studies such as String Theory - but not without a pleasing degree of skepticism. Of the work he says:

"These advanced mathematicians are attempting to find a theory of everything, but each time they open a door, many other doors reveal themselves. It is all abstract mathematics, of course, so nothing is really yet proved. The more I read about it, the more I think they will never find the answer."

There is certainly abstraction and form in Kiefer's work, but also a very messy materiality. He is interested in and influenced by science, but unlike many mathematicians and artists alike, he is not seduced by beauty, simplicity and perfection. He knows that this would be Idealism, and the Real world is much more labyrinthine and impenetrable than we like to think.

Wrong Turnings...

by the Hopelessly-Divided

Critics of Current Philosophy

by

Jim Schofield

The colossally extended effort by Mankind to arrive at a consistent, comprehensive and always developable Philosophy, is NOT, and never could be, the seeking of an already in-existence Perfect System of Ideas. For, such cannot already exist, and, indeed, has never existed.

What actually is, must be found, somehow, and this is only ever achievable by the lessons learned entirely by our failures!

In seeing a young animal, such as a kitten, learning how to do things through Play - the importance of failure is very clearly evident, and taken exactly for what it is by the kitten! "Not that way, next time" - is the evident lesson! And, the skills gradually learned are remarkable.

The alternative of repeating what has worked before, is NEVER progressive: indeed, it is essentially conservative, and will always, in the end, lead to an untranscendable impasse - posing alternative and wholly-new solutions!

Indeed, in literally all of the separate Discipline areas of Human Knowledge and Understanding, we arrive at many such impasses, which are then initially conservatively taken to define the Final Limits of a particular body of experience and ideas. And such "Knowledge" then divides Reality into Subjects, which thereafter split even further into Specialisms, and most attempts at transcending the consequent boundaries fail, and are ceased to even be attempted.

The definition of such Localities, has become The Rule in all Supposedly Scientific Experiments, as rigid control of situations is considered to be the ONLY way of getting consistent results.

It, therefore, imposes Plurality upon those experiments, and our subsequent understanding, making all revealed Laws Permanently Fixed - which "works" within those controlled areas, but NOT outside them in ever-changing and interwoven Reality-as-is.

As a result, when it comes to attempting to define a universally applicable means of Reasoning - A Real Philosophy - we find ourselves very deep in the mire!

For, the consequent Universal Rules of Scientific Investigation, cut directly across such an objective. So, how do we develop a universally applicable Philosophy?

The answer is that we dont, and haven't!

How can we possibly do it?

It is imperative!

But, instead of attempting this, we have only attempted to reveal the Philosophies of all the *different* Disciplines separately and Pluralistically! But what can they possibly mean, when what they are supposed to encompass, are always divided into a countless number of fixed areas of study?





How can you ever relate things occurring in different areas?

They do it, primarily, based upon a certainly wholly wrong assumption: namely that the relations involved are always exactly the same, but that they are usually masked by a complexity, involving the Summing of many different processes, in most natural circumstances! The Laws consequently involved are the ones found in entirely Pluralist situations, but merely summed with many others in wider situations, to give different overall results, hiding the many contributions.

The age old method of simplifying the situation, as far as it remains consistent with a single outcome, was then implemented in order to “reveal the producing Law”! But, such would never be as would be delivered within Reality-as-is, but instead it would be the very different Pluralist Law, that alone could be consistently delivered by such means. This methodology, therefore, enabled a highly effective Technology, but, as such, could NEVER deliver an Explanatory Science.

For, all the usual algebraic substitutions between these unnatural laws, would always be illegitimate in Explanations of Reality (Theory), even if totally adequate in Production (Practice).

So, any subsequent production of Science as coherent, comprehensive and consistently correct “Theory” by such means, was obviously impossible. And, a successful productive undertaking had to be ONLY by a series of totally Pluralist and Separate Steps!

And, the absence of a Real Scientific Theory pressed practitioners to begun to wholly replace any Causal Explanatory Theories, by seeing the resultant Equations of wholly Pluralist methods as “the actual driving forces” of Causality.

“Science” then became increasingly Idealist!

The problem was, such an approach could NEVER deliver a set of mutually consistent, coherent Theories. The wholly cerebral theoretical developments were rendered IMPOSSIBLE. The tricky formal contortions produced by “self-proclaimed theorists” like Leonard Susskind, are typical of all that can be achieved by such means.

And, overall, such a dedication to Plurality could not but lead to Contradictions and Confusion within such “Theory of Parts”, and lead to anomalies and even illegitimate inventions in profusion, as attempts were made to develop Understanding with such totally compromised stuff.

While more generally, and particularly in Cosmology, as well as literally all aspects of Philosophy, not only by the proliferation of inadequate Theories, but, primarily, by the impossibility of performing both confirming or denying Experiments, which has consequently led to a profusion of what can only be termed Pure Speculation.

And, without that means of testing ideas, a new, and wholly illegitimate means were developed, which could be called “validation via prediction”, which initially sounds very reasonable, but, in fact, is ALWAYS impossible without the inclusion of Extra Free Parameters to enable them. You dream up what will deliver your required effect, then also dream up why it is present in the current area!

Indeed, such inclusions are imperative to give the appearance of an actual Explanation, but, in fact, just substitute one problem for another - as is evident from the inclusion of first Dark Matter, and then Dark Energy, into current Theories within Cosmology!

Indeed, this kind of “supposed solution” has become the Norm, as attempts to create a coherent overall Theory, continues to fail. And, as things haven’t got any better, the inclusion of ever more Extra New Parameters, still continues! But, clearly, such an approach could never succeed, as the problem is NOT due to the omission of such supposed Parameters, but due entirely to the Pluralist Nature of the general approach taken.

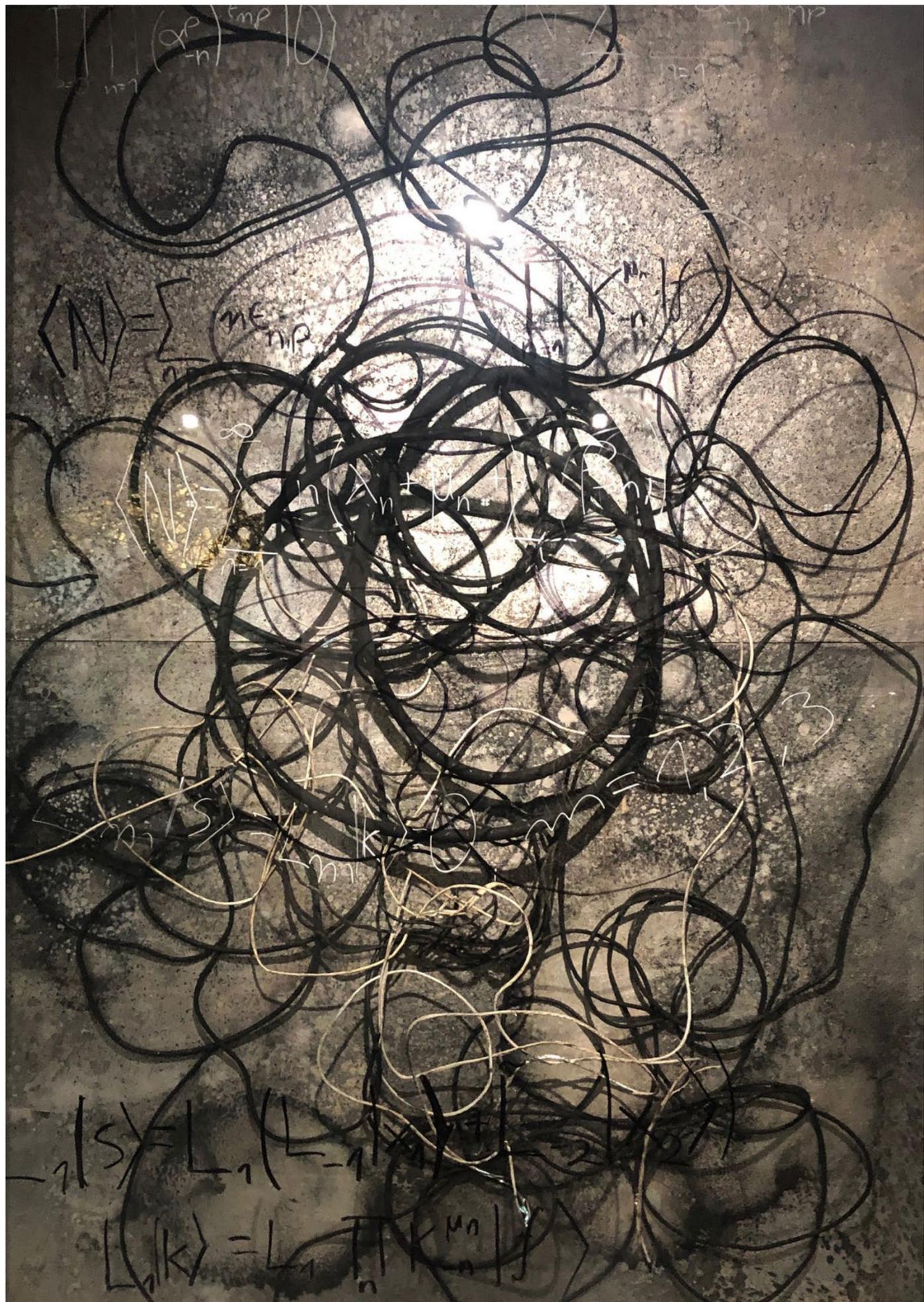
So, the question to be addressed, has to be, “What is it about the Real Holist World, that will enable us to get ever closer to the real Laws of Nature, which at present, are wholly due to our steadfastly Pluralist Stance, and which appears to be impossible?”

And, after an extended period of research into the Nature of our Holistic World, by this investigator, it is finally becoming clearer how Holistic Situations behave and develop, in ways that we can exploit to reveal, how Reality actually works!

The clue was suggested by, what has, in the past, enabled our current, though ineffectual methods - Wholly Natural Stabilities.

For they were never as we conceived of them - YET Real and Temporary Stabilities do indeed occur everywhere (some lasting many millions of years); and, an approach to using these, along with an Understanding of how simultaneous-active-elements actually affect one another, and undergo both Crises, and ultimately wholesale Collapses, of these Stabilities - involving whole linked sequences of many simultaneous processes, not only terminating the dominant stability (or "Law of Nature" perhaps), BUT actually completing the Whole Cataclysm, in what is termed an Emergence, with an opposite and successful construction of a Wholly New Situation (in Social History we call this a Revolution), but occurring in every single Qualitative Change, as Emergences of the Wholly New, in different orders of magnitude, and various relatively independent Levels, within a truly colossal Space-Encompassing Hierarchy!





Down the Infinite Rabbit Hole of Holist Complexity

Part I

On reading many diverse contributions to delivering an understandable, sufficient and effectively useable Theory of Reality, many attempts have in the past, and are still to this day being made, to hopefully cope with the sheer Complexity of the Holist World as we find it, as a commendable rejection of the usual prior (and still dominant) stance, which is based solely upon the reductionist Rationality of Mathematics.

For that Holistic World seems to be truly infinite, not only in Space, but also, and damagingly, in Time - as within it absolutely nothing can remain fixed forever: wait long enough and Reality always evolves.

BUT ALL OF THOSE WAYS are conceived of, without ever fully grasping the actual Evolving Nature of that Holism. It Changes and Grows constantly, and the way it Changes, Changes! And, such inadequacies of description cannot ever accurately-reflect the True Nature of those currently Actually Existing States: for they (all based upon the evident uniformities within that *moment* of Reality - as it is usually observed), actually cause observers to both simplify situations, in order to try to understand them, while still never addressing the full, multi-factor depth of Causal Complexities actually involved!

For, such unavoidably-partial approaches can never deliver ALL possible-and-changing diversions from their Always Curtailed Models!

Indeed, throughout the History of Mankind, the most effective means of achieving a useable measure of Control along with both appropriate-and-revealing investigative and Productive Successes, has been to forcibly both

physically restrict, and then rigidly maintain, situations to make-possible special solutions actually possible! And, as flaws, necessarily and unavoidably in time emerged, the physical restraints were instead replaced with theoretical restrains, to enable consequent "Laws," thereby involved, to be revealed.

But, there was another totally-disabling assumption, that firmly-installed yet another damaging adjustment to our view: and that was the institution of Mathematics as the apparent Language of Nature, and its unavoidable and unacknowledged restrictions of Reality, as the only "adequate" and even "infinitely applicable" and "always-correct Describer" of Reality - for that certainly isn't true either!

The situation thus presented to The Sciences, was consequently wholly impossible, so in spite of the success within the Greek Intellectual Revolution of defining the very first wholly consistent, coherent and comprehensive Rational Discipline, via Mathematics: it was also rigidly defined as ONLY applicable to Form and its Inter-relations, which Totally Excluded both all the Natural Sciences and All of General Reasoning too! But, it, nevertheless, could legitimately apply to artificially-restricted and controlled situations, that were kept that way throughout.

NOTE:

Now what confused and misled Mankind for many millennia, and still does to this day, is that similar situations abound within Reality-as-is, but they are totally-naturally achieved Stabilities due to multiple, mutually-affecting simultaneous factors, which form Temporary-but-long lasting Balanced Stabilities, which

Mankind misinterpreted as Naturally Permanent features - or the God-given Eternal Laws of Nature - but were, in fact, contingent upon complex Systems, of a self-maintaining nature, that would also finally dissociate, when the conditions for their maintenance subsided.

Now, as it happened, Mankind had long been doing precisely that, within many past generations of increasingly complex, yet rigidly arranged-for, and maintained-as wholly-artificial, *Technological* Situations! So, Mathematical Rationality actually worked very well inside the machines that we built, which were NEVER like Reality-as-is, but instead, were a whole series of separate mechanisms, and hence many situations wholly independant of one another, which could, therefore, NOT be inter-related to deliver any rationally integrated Science!

Science - which is an understanding of the Natural World or Natural Philosophy - was actually impossible to be derived from such Technology. Yet, that was precisely what they then attempted to do!

And, a wholly illegitimate "Science" was thereby created, and sets of supposedly-relating Equations were developed. which were claimed to constitute the Real Relations pertaining in Reality-as-is!

It wasn't true of course, but two things were instituted, which allowed a workable rig to be constructed!

First: all Investigative Experiments and Productive Arrangements were only carried out wholly-within those Arranged-for and Maintained-as Conditions.

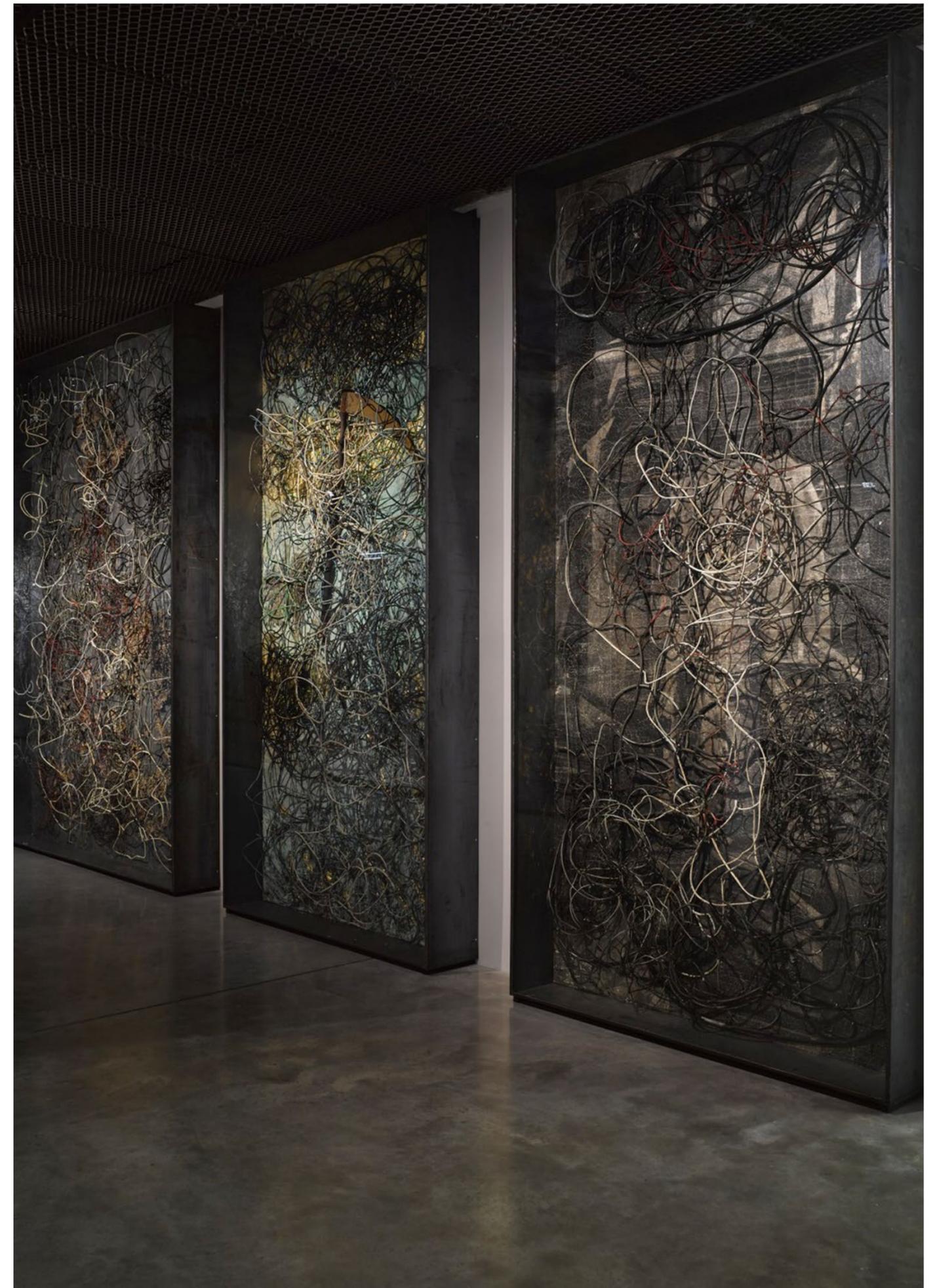
And Second: all so extracted properties from such means were assumed to remain exactly-the-same, whatever the conditions imposed - and this implied that the inter-relations discovered by those means were ALWAYS THE SAME... but they weren't!

So, those inter-relations were assumed to deliver an always-the-same, overall Legitimate, Science: which was untrue!

And Thirdly: The Idea of Theory in Science, became wrongly wholly legitimate as a purely cerebral exercise, using the Technologically derived Laws and their Purely-Mathematical Equations. And that is wholly incorrect too!

Note how a Mathematical Theorist such as Leonard Susskind, builds his overall theories without any recourse to the material world directly - and then compare that with the investigative methods of Holist Physicist Eric Lerner! For though, the former trusts technologically derived relations and substitutes between them, as entirely legitimate: the latter takes measurements directly from Reality-as-is, and primarily uses graphical representations to get meaningful relations between observed properties!

And those properties DO NOT involve the intermediary of inter-related Equations, but instead reveal them wholly Graphically, directly from Data, rather than Algebraically, indirectly via erroneous Equations!





Down the Infinite Rabbit Hole of Holist Complexity

Part II

Now, Part I of this extended contribution, though correct in dismissing the usual methods of obtaining Natural Laws to enable further changes to be made, it did not, and indeed, could not, as yet, deliver any workable solutions to this, so far, total failure.

But, nevertheless, it did clearly identify what had to be somehow changed, to achieve that objective effectively and well!

For the normally, universally applied means of achieving anything do not, and indeed cannot, address the actual active factors involved, because the now totally-standard-approach has been shown useless at directly addressing Reality-as-is, to be useless as the sole means, so far developed, to involve wholly-controllable and artificially arranged-for situations - for they are NOT what are the Naturally-delivered Contexts for Reality-as-is, but only highly-constrainable, artificial situations - usually set up in laboratories, factories and other environments we have meticulously created!

So, the key question is posed,

“How can we investigate Reality-as-is, in all its natural contexts and complexity, and then *intervene*, having clearly revealed both each involved Natural Law, throughout its Natural Contexts, and then directed things to deliver our required ends?

Now, from Part I, we have already identified the problems in doing this - for the usual methods do NOT even attempt to tackle such scenarios, but instead always:-

1. Greatly simplify the Contexts to allow a minimal set of allowed features to facilitate an adequate Control.

2. And, thereafter, step through a restricted range of completely separately-allowed-for factors, and their consequent effects!

Of course, such investigations NEVER reflect the naturally-given Reality-as-is, but only thereafter, a series of different reproduceable scenarios and their consequent results!

But, clearly, for all the reasons outlined in Part I, we need to know what actually happens naturally within Reality-as-is, and this is prohibited by the fact that absolutely ALL natural situations will absolutely never be so well defined as those we create - or even achievable as ALL natural cases involve both a multiplicity of different contributory Factors and Conditions, all of which both vary constantly, AND always affect one another causally!

For, that is the unavoidable Holistic Fact of Reality-as-is, and currently we cannot get anywhere near understanding such complex variabilities.

Now, with the usual technological methods of the past, we could absolutely never achieve a wholly understandable-and-manipulateable Reality-as-is! So instead we so drastically limited a situation that we could both deliver and investigate, and thereafter produce predictable outcomes - but only within the investigated cases! Now, though that was perfectly adequate in cases of Production, it was useless in the theoretical development of any real Situations, where inter-related General Theories were necessary.

We could build our own reality using Technology, but never access Reality-as-is!

And though this was certainly restricting, we could break down any productive process, into wholly separate individual steps - with a corresponding Production Process for each - we built amazing things!

And this was all possible, because the individual steps were always based upon achievable processes in separately Fixed environments: so Successful Productions were always based upon wholly predictable Fixed Steps. And the artificially-constrained Laws used were also unnaturally Fixed too: which was NOT the case in Reality-as-is.

So, was there anything in the Real Holist World that we could use in a similar way, in also helping to deliver the many sides of Reality?

And, the answer, though it wasn't generally sought for within any of the current Sciences, had gradually become evident in other areas of study, particularly, and profoundly, in the materialist philosophical approach of Karl Marx - to both Social Development and the trajectory of his Analyses of Capitalist Economics. Though, surprisingly, little or nothing had been done in that vane, within any of the Sciences.

And that was absolutely imperative, if the Holist Approach was to be applied generally: for the usual Pluralist Approach - assuming Fixed Laws and the Overall

use of Incorrect Mathematical Rationality, within both all the Sciences, and in General Reasoning too. Now this Major Mistake was wholly debilitating Modern Science to a tremendous degree, as it was in General Reasoning too!

Now, the effects in Modern Sub Atomic Physics (and in Cosmology) were so damaging that this researcher, originally a physicist, had been forced in all his diverse researches to attempt a wholesale retrieval, in order to address both the Copenhagen Interpretation of Quantum Theory, and the nonsense that was being increasingly constructed in Cosmology.

And these turned out to be totally unaddressable within the usual conceptions of Rationality, based exclusively upon Mathematics.

So a completely Fundamental Attack and Correction of that Rationality had to be undertaken from the Bottom Up!

And that will start to be defined in Part III...





Down the Infinite Rabbit Hole of Holist Complexity

Part III

Now, unusually, I must commence this section, with a brief-but-essential account of the Wholly Natural Systems Relations of Reality - usually termed Holistic - which are always-and-everywhere present within natural situations.

Both the current Means of Science and Technology consistently try to totally-destructively either remove or undermine this, solely in order to, be able, in any repeatable and reliable way, totally suppress all natural but always confusing System features, and thereby completely replace them with an achievable, and thereafter maintainable Static Conformity, which can both be extensively used to find achievable means to both Effectively Control and Productively Employ "as a kind of cut-down Reality", in various significant and always repeatable ways.

Of course, this major restructuring did NOT dispose of any of the underlying Natural Chemical Processes involved: it only and exclusively dealt with the "Systems Features" of Reality-as-is, and replaced them all with a convenient alternative, with Technology exclusively in mind! But, it also significantly transformed the Natural Holism of Reality-as-is, into a Wholly Pluralist alternative.

So, instead of a Varying and Evolving trajectory, as was the normal Nature of Reality: it was instead replaced with an Artificial and Dead World of unnaturally static Laws and an Unvarying Stability.

The Technological advantages were certainly obvious and consequently extensively implemented, wherever things were to be put to use!

But, the many consequent naturally transforming legions of Disadvantages regarding the Understanding of Real Holistic Reality were thereafter totally unable to be both revealed and addressed.

The necessary retrieval of that totally-lost normal Holistic State of Reality-as-is, simply MUST, therefore, be the Primary Task of Science today. For, without it, the whole Natural Dynamic Trajectory of Development, which has, in the past, and still now, existed ONLY within Reality-as-is, will continue to do so naturally, so it must now be re-established *experimentally* too, to enable ANY Real Understanding, which was, and still is, the original, natural and Current Purpose of Real Science.

So, we must commence, by revealing the usually hidden Effects of the Natural Holist State, upon all those Elements of Reality-as-is. For, these, quite naturally, both severely limit the possibilities of Qualitative Change, and yet also, contrastingly, totally dominate the Processes of that kind of Change, as the only way to deliver an Ascending, Evolving World too.

And, it is that contradictory, Pluralist definition which, on the one hand, dramatically slows the tempo of changes, to such an extent, as to also usually being invariably Dynamically wholly unobservable. While, on the other hand, simultaneously, vastly speeding-up veritable Avalanches of Change during cataclysmic interludes of what can only be called a Revolution.

And, all of this was made unaddressable by the imposed Pluralist limitations now regularly imposed both upon investigative experiments and Productive Processes.

The crucially important Explanatory Side of Science had been removed! And the unavoidable consequence of this was that Explanatory Causes were increasingly replaced by Pluralistically Extracted Mathematical Equations, manipulateable solely according to the entirely Pluralist Mathematical Rationality!

What had to be done, was to somehow apply Marx's revealed holistic methods, to the consequent Natural Systems of Reality-as-is - to reveal its natural effects and, thereby, attempt to build a Holistic descriptive alternative to the current straight-jacket delivered by Plurality.

And this wasn't as easily done as it is said. Engels certainly tried and failed to apply Dialectics to Nature.

To develop a Holistic Science, first requires a detailed Understanding of the Extended Natural Holist World - and that was by no means easy to achieve!

For, what had been totally lost, due to the Pluralist impositions, was the complex interconnected webs of the Natural Extended Systems involved. So, these would have to be clearly revealed as they then determined the various trajectories of development, and resultant qualities, due to the Relations only existing within the Systems-of-Things involved, rather than the individual properties of all the components, delivered by Purely Pluralist Methods and Means.

Now, it must be emphasized that Absolutely All the Qualities we experience were, every single one, originally totally produced naturally by the containing Systems of The Holist World - as it was - meaning that none of it was ever produced by any naturally occurring Plurality! It is, therefore, the Real nitty-gritty that we must seek, in order to ever understand the underlying processes of the Natural World, and their significant effects!

So, what are the Holistic System determinators that actually produced the now Current World?

What was the Trajectory of Changes that delivered our finally naturally observed Results?

Let us start with the Mode of Existence of all the Diverse Contents and, of course, their Conditions - when left entirely to themselves!

Reality-as-is.

What Naturally exists, everywhere, is NOT the same as what we now "scientifically" study, in our attempts at understanding exactly what actually goes on, and particularly, and necessarily, for our intended objectives. For, the overall Complexity of Reality is altogether far too much, to cope with, simultaneously - especially when we have particular individual objectives - for that Complexity could not be handled both simultaneously and-selectively-too! So, we attempt to simplify situations down to single processes, with only their required components present, and to thereby isolate them totally from everything else that they would naturally exist with.

Of course, this was never easy, but first craftsmen, and only very much later scientists, gradually learned how to achieve sufficient isolations, to effectively produce amenable-and-repeatable Pluralist Situations, BUT, of course, no longer within that prior self-modifying context! Neither was the single process any longer an integral part of a preceding and following Continuity - both supplying its necessary components, and carrying off its products.

So, what was actually achieved, was NEVER the same as what would happen in Reality-as-is, and hence no longer actually part of Reality, as both normally exists and as it develops. All technology, thereby, creates a kind of simulation of the Real, but with its core ability to evolve removed.

And, the multiplicity of simultaneous processes, both the same and very different, also dramatically multiplied the diverse affecting possibilities available, both now and consequently - thereby bringing in a veritable galaxy of possibilities, which, one way or another, influenced single processes in many very different (and as we will subsequently show) importantly productive ways.

For example, every single actually occurring process was made possible by the products of prior processes (the engine of all evolution), and all following consequent processes, would be made possible by it. Indeed, whole multiple sequences of consequent processes, would be made possible by every active, occurring process - forming either final products, or even sometimes re-enabling the very first step in the series - establishing a Constantly Repeating Cycle!

Now, in addition, most processes might also be affected by Diametrical Opposites, as, depending upon currently delivered Dominances, and reflected in the famed "if





/ then” clauses in models for re-directing a process onto another very different consequent branch of the process. And particularly with such direct opposites exactly equal possibilities of both options, would result in a total termination, as opposites in simultaneous processes would simply Cancel Out, thereby totally disabling both possible consequent sequences.

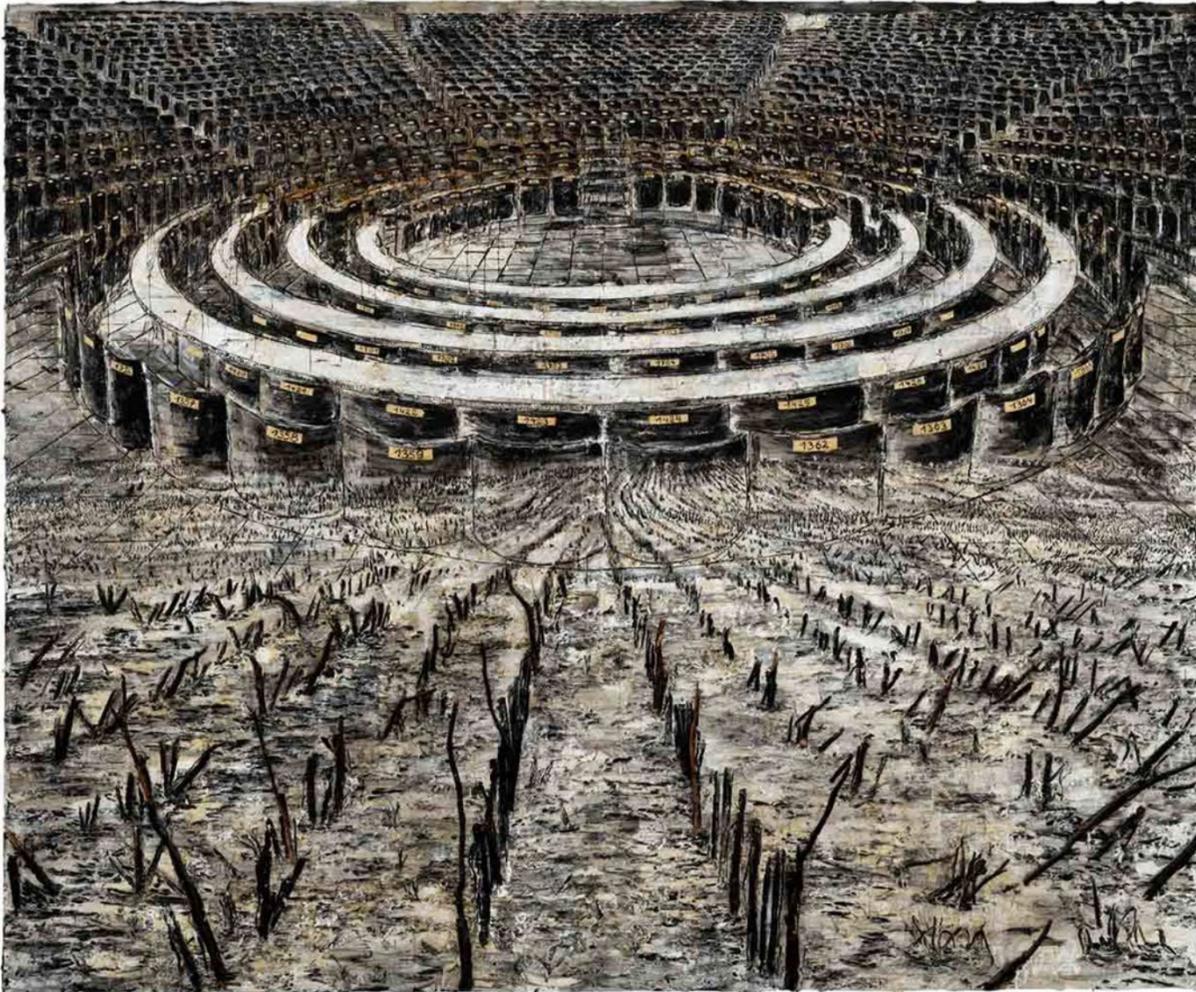
So even those usually explicable outcomes would no longer be possible.

Now, with literally an abundance of the same processes acting simultaneously, re-sustituting such a stopped process would be possible: but, on the other hand, rare interloper processes would have no chance, and would therefore be Selectively Eliminated - constantly increasing the homogeneity of the mix, and hence eliminating some of its once possible outcomes.

So very clearly, even these few instances, described here, have merely begun to be outlined, and this by NO means exhausts the Systems Effects within the very different Holistic World: it will be absolutely necessary to extend this aspect colossally, and its Revelations to further contributions.

Down the Infinite Rabbit Hole of Holist Complexity

Part IV



SYSTEMS EFFECTS ?



So, the key to dealing with all complexity must be to study the *Systems Effects* of the Real Holistic World.

A very brilliant start with this was certainly made by Karl Marx, in order to apply what he was able to reveal, to the biggest problem of his age - The Capitalist Economic System - to which he made a truly significant Explanation and subsequent Critique! But, the potential of his approach to material complexity was by no means limited only to that specific sphere, and he knew enough of its wider consequences, when he began to apply it to his Primary Intellectual Discipline, namely History. And, in so-doing, he also realised that the Tempos involved in different applicable areas, within those diverse areas of study, were surprisingly extremely wide-ranging. Indeed, his most profound discovery concerned Social Revolutions: for these Important and Transforming Events were exceedingly and necessarily very rare.

Yet, also, it was totally unlike literally all the other natural processes delivering the World as it has become! For it was these Social Features alone, that were solely-driven by the actions of Human Beings, and so, of all the many kinds of complex natural processes, ONLY THESE were at a Tempo congenially understandable by Mankind!

Indeed, human beings could discuss, investigate AND organise in co-operating, and even sometimes Revolutionary Organisations, and maybe even Understand Revolutionary Changes, and then organise to implement them.

For, with appropriate Study and Experience they could consciously intervene in complex changes as they were happening, in order to actually direct the Outcome of

such an Event! And that, of course, was the direction taken by opponents of currently established regimes, in order to fundamentally change things, in a directed and Revolutionary way.

But until Marx's necessary revelations, Mankind did not realise what could be done. Indeed just before Marx's contributions, the remarkable French Revolution had taken just 25 years to completely remove the Ancient Regime, but without a conscious realisation of what it had actually achieved. But, Marx had a recent and magnificent exemplar, with a detailed blow-by-blow account, by the Materialist Historian Michelet, to use as a concrete series of examples for study.

But, of course, there was a great deal more that could be applied elsewhere too: but with the difference of very contrasting, and even totally impossible to intervene-in Tempos! Now, absolutely NONE of these were, at that time, ever undertaken, and this was entirely because accessible Tempos were beyond any attempts by Mankind to either intervene-in, or to carry through to any kind of successful intended completion.

AND, significantly, it was also because, absolutely All Other Disciplines, due entirely to their totally inaccessible Tempos, and had been, instead, wedded to a severely cut-down and held-still approach to Reality - much later termed Plurality - which, because of its major simplifications, reductions and restrictions, had NO such tempos involved. It could be directly (if totally wrongly) applied *immediately!*

But, these were, indeed, incredibly damaging to our consequent Theories: for they were immediately relatable

only as Eternally Fixed Laws! Real Holistic Theory was at that time totally unknown.

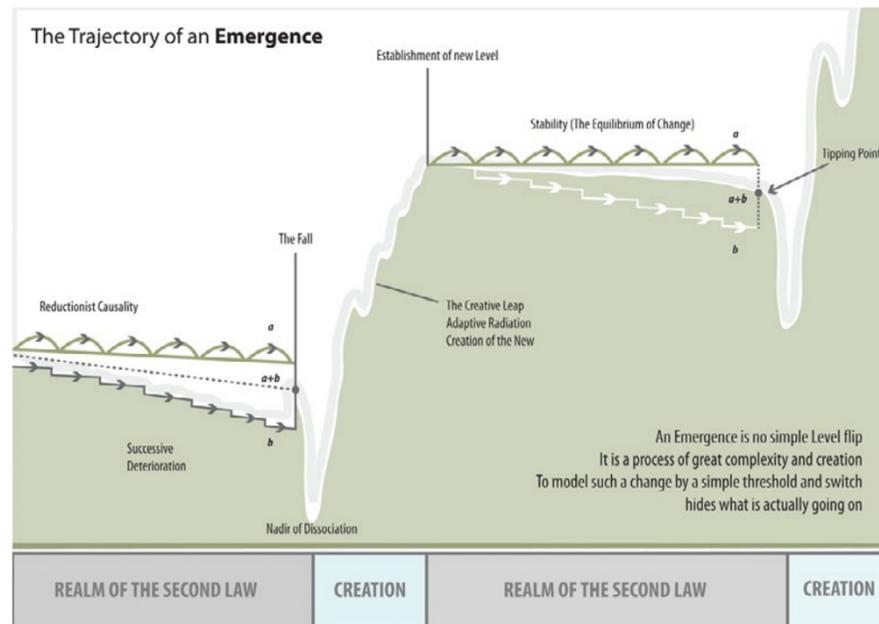
And all so-called-Theory was instead only available with those Pluralist Relations, to only distortingly deliver, both predictably and theoretically achievable, if wholly straight-jacketed, Conclusions - AND further, only within many separate, easily-controllable artificial compartments, which swapped their "too-difficult commonality" for many much easier local-and-controllable consistencies, in defined, achieved and maintained localities.

Now, this was NOT only a purely philosophical error! It was "seemingly-conformed", everyday-and-everywhere by the innumerable surrounding Temporary Stabilities, which looked, confusingly, very like their own simplifying and distorting conceptions! So they seemed to be "legitimately-confirmed" by these resonances, and could also be useable, as long as the essential physical controls to perpetuate that conformity, were maintained throughout.

But Marx had, if only historically, instead alighted upon a very different, and universally applicable conformity, which he discovered in detail ONLY within the Dramatic Transitions of Reality termed Revolutions: for they were clearly a Crucial Model for Complex Qualitative Changes, happening to Natural Systems. Wherever and whenever they occurred in Reality-as-is, they were never the Totally Inexplicable Explosions of Transforming Change, but, on the contrary, merely Massive Examples of the usual everyday means of implementing Qualitative Change, throughout all of Reality-as-is!

So, how could we, as theorists, possibly begin to involve doing precisely that?

Clearly, in addition to the Historical means already begun by Marx, and then, much later, carried through to a Successful Socialist Revolution in Russia by Lenin and his Bolsheviks: the still to be attempted tasks involved necessary extensions of Marx's Methods, to allow them to apply to Everything Else - commencing, of course, with The Sciences! But clearly, as The Successful Revolution was our Template for all such Changes, we must start with a study of The Trajectory of a Revolution!



SYSTEMS EFFECTS ?

REVOLUTIONS AND EMERGENCES



SYSTEMS EFFECTS ?

DESTRUCTION AND CREATION

Now, this picture, though by no means a final and complete image of everything that goes on within such an Emergence, does nevertheless highlight key repeating features - both the periods of persisting, if temporary, Stabilities, that always dominate the often long-lasting Interludes between Revolutions, and even their constant-but-failed, termination-threats, indicated by those regular-but-resolved Crises. And then, in addition, also shows the series of increasingly challenging versions of Crises, finally are terminated by a wholesale Collapse of the interregnum, with the following sweep downwards to the unavoidable Nadir of Dissociation, which is always then followed by a very different increasing series of this-time-Constructive Crises, culminating in the achievement of a Wholly New Stability - once again perpetuated by the same sequence of Temporary Stabilities - until the next major Cataclysm and New Revolution!

Now, this picture is included here, because it also delivers a model for all Qualitative Changes that we can study, at all possible Levels of Reality, though the factors involved will of course, all be very different, as will the respective Tempos involved!

Indeed, as Hammes Alven began to explain in his 1970 Nobel Prize-Winning research, he then went on to develop it further, well into the 1980s, with a very similar Scale Invariability Explanation of the comprehensive Theory of Cosmological Electro-Magnetic Plasmas, which enabled the very same explanations for Phenomena, not only in the Laboratory, but also in Space too!

Both Marx in Social History, and Alven in Cosmology, had revealed an important measure of Scale Invariance within their more detailed and consistent investigations, which boded exceedingly well for a major expansion of that Approach, across all the still extensive areas to yet be accorded the Holistic Treatment, as well as anticipating major general advances, enabling conformities both in Reality and in Experimental Investigations, to become evident too.

But, not yet!

First, a great deal of detailed Holistic reformulating would be absolutely necessary, to bring out the Real Causalities involved, and an intrinsic discarding of all the mistakes of Plurality, to finally deal with Reality-as-is, which should clearly show what is really going on and even allow the total re-assessment of important contributions in Biology, such as Miller's Experiments into the Origin of Life on Earth, to finally get the treatment it has always deserved, by an, until now, never-tried Holistic Approach!

NOTE: It is important to lay to rest the Myth of the Commonality of Mathematics to Everything within All of the Sciences, because it certainly is not only untrue, but also damagingly misleading Mathematics, as a solely Pluralist Discipline, is only about Forms alone, and their abstract interrelations. It does not, and indeed cannot, accurately describe, or causally explain, material Reality-as-is!

So, its usual uses within Science are wholly illegitimate! And Mathematical Equations, constructed from actual Data and General Mathematical Forms is totally illegitimate! While substitutions between such Equations to actually build a Science is totally wrong, so that the results obtained are nonsense!

Down the Infinite Rabbit Hole of Holist Complexity

Part V

Before we get lost too deeply in a Holistic Conception of Reality, we simply **MUST** demolish the prevailing Pluralist Myth, because it is at the heart of literally all our problems in Modern Science, as well as more generally in Philosophy. We can only set out a new path by establishing the flawed direction of the old one.

Elsewhere, I have given a detailed description of Mankind's trajectory in embracing this current stance, but that did not also reveal the full consequences of depending *solely* upon it. So, here, that is what must also now be done.

The problem is, of course, that our World is not Pluralist by nature, but entirely Holistic. And though that was realised, very early on in our philosophical development, by ancient Thinkers such as The Buddha, he was presented with a World that Mankind, at that time (circa 500 BC), was not able to cope with adequately. What we observed was mostly confusing, and actually completely incomprehensible, at the level of understanding that Mankind-in-general had then reached.

So, particularly in the West (while Holism still was favoured in the East), the famed Greek Intellectual Revolution (happening at approximately the same time as The Buddha), had alternatively established the very first Soundly Intellectual Discipline, namely that of Mathematics - by coherently, consistently and comprehensively, relating All Forms, within a wholly reliable System of Rationality (A Logic), but only as long as all the Forms-involved were Fixed, Qualitatively. Despite being untrue, this System of Rationality they developed, was highly successful, and thereby revolutionised appropriate areas of Thinking.

BUT, a truly vital set of mistakes were made, which, in the end, totally re-directed Mankind upon an extended set of wholly illegitimate paths within Reasoning - based upon that New Discovery! For they wrongly applied that inappropriate Mathematical Rationality to absolutely all forms of scientific investigation. And, that was certainly illegitimate, because all relations in most areas of Reasoning did NOT always have Fixed Relations between their Elements. They always, in fact, both varied and indeed developed, so any system which limited all relations to be forever Fixed, would always eventually turn out to be wrong - however logical and supported by evidence, they initially seemed.

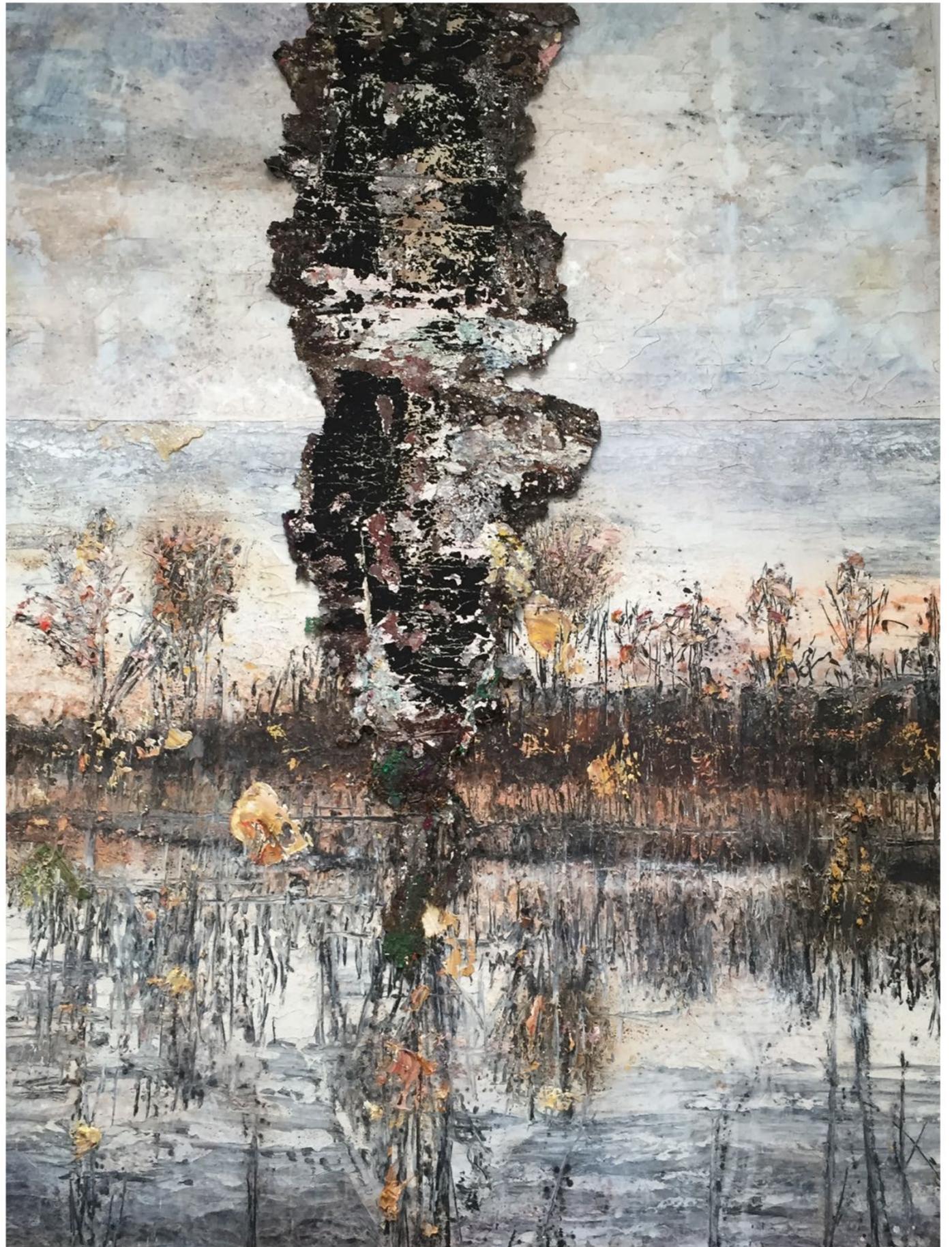
Nevertheless, that was what was always done, purely in order to effectively use the New Rationaliy, in all such situations that had to be studied, had also to be MADE TO CONFORM, 100%, to Mathematical Rationality, which was later correctly identified for what it really was, and termed Pluralistic! Reality could be made to conform to Mathenatical Rationality, but only by making all situations in which it is to be used, consistently and illegitimately Pluralistic.

All Rationalities outside of Form and Mathematics were never delivered correctly, but only pragmatically!

So, let us now briefly describe what kind of situation would be required to make all of these areas conform to their very different Required Rationalities?

They would have to be considered Holistically!

And that means NO Fixed Relations at all.





In other words, instead of conforming to Mathematics - as a wholly Pluralist Discipline, with all relations Qualitatively Fixed, they would require a Rationality concerned instead entirely with Qualitative Changes - a Logic of Change. And that Rationality, currently, Mankind does not yet possess!

Indeed, it would be solely about such changes, which appear absolutely nowhere within Mathematics, as it was defined at all! And it would apply everywhere that Mathematics doesn't apply.

Let us then begin!

Many years ago, when I was pre-occupied with the Origin of Life upon Planet Earth, I took a very basic look at the naturally occurring primitive components involved, and all the possible, transforming chemical processes, that were occurring upon a World that was, as yet, still totally devoid of all Life.

I did it, in order to investigate what would be the very first Naturally-Organising-Systems, within an initial mix of the chemical substances present, due ONLY to Non Living natural processes, and within many differently-endowed Localities. The main things involved would have to be those of the actual initial composition of the Planet, along with its then locally-possible processes, such as those of cooling-down, plus the Earth's spinning - with its consequent Day/Night alternations, and with continuous energy from the Sun, varying differently with the seasons, due to the Planet's tilt on its axis, and a consequent initial worldwide pattern of weather.

Clearly, with absolutely no Life to contribute its subsequently remarkable extra products, the Earth's Composition and weather Patterns, including Atmospheric Winds, Currents in the slowly accumulated seas, first imposed, and maintained by Cycles of Evaporation and Precipitation. The result would be an on-going Rolling and Varying Mix - driven by these ever-present Forces in regularly-repeating Cycles of a limited number of Changes.

But, what indeed would be ITS full Trajectory of Changes? And, how would it then actually develop into involving Wholly New and Creative Interludes? Because, if it doesn't do that, it would just endlessly repeat the exact same steps. And, once such a Cycles is established, it is hard to see how such a moving monolith could

be diverted to an alternative one! And, though I didn't realise it then, the problems I am having to address now in my research, point to the repeating Cycles ALSO, both removing straight-forward interlopers, BUT ALSO conversely, selectively supporting, and hence increasing novel-and-productive changes, as the bottommost contribution to actual Innovatory Development.

Clearly, THE most significant feature of these Mixes would be their unavoidably simultaneous multiplicities - both of identical versions of the very same processes, while also accompanied by many others. And soon, literally all the components present, would be the actual products of other different possible processes, along with the primitives coming directly from the Substances arising from those of the Containing Planet itself.

The main determinators of any consequent Innovative Development, though, would surely come from just Two Sources alone:

First, from any wholly new products now made possible from the active processes present:

And second, from any inter-process kinds of any Systems Effects, due to both the Multiplicities-and-Dominancies of the commonest components.

Indeed, also wholly without any co-ordinating forces, "The Actual Systems of Multiple Processes", themselves, also clearly began to very subtly move things into New Directions, NOT, it must be stressed, in any way caused by directing forces, but surprisingly, often by purely seemingly-Negative Effects - such as, what I have termed above as Selective Elimination - wherein rare interloper processes within the Mix, are successively eliminated, thereby removing any chance of any so-caused Emerging Qualitative Change: and having the surprising effect of turning the situation into a relatively self-maintaining, and hence a long-lasting, Temporary Stability - more and more stable, as ever more such events occur - thereby making necessary a major avalanche of simultaneous changes to terminate that situation.

And, several other somewhat similar "auto-edits" of the contents of a Mix, also gradually changed those mixes, which if productive enough, could include Directly Opposite Processes, sometimes actually majorly-eliminating all other involved processes, apart from these Opposites and their sets of consequences when dominant:

For these too could become Self-Maintaining Stabilities - achieved by flipping only to their exact opposites, and also leading to a terminal breakdown in that sequence of processes, caused by exactly equal numbers of each, which inevitably cancelled both options out, and hence terminated their subsequent following processes too.

Now, these may seem to be totally inexplicable at most accessible, and hence actually experienced Tempos, and with concepts of Causality, which are usually totally based upon Individual Processes (as is the norm in Pluralist Science) - but that is almost never how causality-actually-acts in Reality-as-is - for there the Rule is quite definitely with The Unavoidable Mix, where many other - both same and different simultaneous processes, are present all the time.

And, of course, the Pluralist Approach not only considers just a single process, but INSURES that it is also the ONLY ONE actually in action!

But, there is NO entirely Natural Pluralist World: it was only ever a convenient fiction, conceived of by illegitimately transferring Mathematics from the study of Forms alone, to somehow making it “the Rationality of Reality”. Mathematics is certainly not that! For if Reality has any rationality at all, it must be one centred on HOLISM!

And the closer you look at such Natural Holistic Multiplicities, you have clearly-revealed significant “Systems Processes”, which change the game completely! For example with constantly repeated Cycles of the very same Process, Selective Elimination, as described earlier, will gradually remove all “spoiling interlopers” - making the cycles entirely homogenous, and with less and less interlopers, ensuring NO sudden changes (even temporary) - just the same Cycle - interminably!

And, in Between-Revolution-Interludes, where no significant changes are ever allowed to challenge the extremely dominant Stabilities that arise, are explained by the failures of all challenging Crises that occur - thereby making that situation, the result of many Not-terminating Temporary Stabilities - ones that never succumb, except in a final Revolution (or upon lesser scales - in Natural Emergences of some kind)

BUT NOTE:

When “productive interlopers” become involved however: they don’t get successively removed, but instead GROW, and that could, with enough of them, precipitate an Emergence, or even a full Revolution, even in the most seemingly dominant of balanced and stable systems.





Down the Infinite Rabbit Hole of Holist Complexity

Part VI

The trajectories of all Change within the many Natural Systems of Processes, occurring therein, is always governed by their relative successes, within any overall mix, and, thereafter, its composition, and how that itself varies over Time.

And, those features will, in turn, be determined by what we call the local "Weather".

But, that too is also a variable feature of Reality, influenced by a whole series of causes, both local-and-generally physically produced, and, sometimes, even creating planet-wide varying structures, and even dramatically changing, in most areas, with both the Time-of-Day and the current Season of the locality. But, as with most Natural Processes, they also have within them local Systems' Factors contributing-to, or even opposing those more generally-imposed changes.

And, in certain parts of the Earth, these can co-operate to produce enormous periods of relatively Fixed Weather: whereas in others, that weather can literally be varying constantly!

Now, in any man-made system, with particular objectives in mind, those involved would always attempt to control the various processes inside, to eliminate any unwanted effects, which they achieve with a remarkable measure of success in key, limited localities- but, remarkably, many natural circumstances due to Overall Natural Systems' Effects, which can also do the same! And these, we are generally totally-unaware-of: and, in many of them, what we consider to be Wholly Natural Phenomena, are the solely dominant maintainers of all such naturally caused processes.

Hidden Systems Processes can-and-do play totally unnoticed roles upon ALL perceived Natural Phenomena, where currently such involved Systems' Processes are literally never encountered or considered! And, this becomes paramount within any continuing maintainance of Natural Processes, and the consequent Dynamics of their Trajectories of Change.

In particular, the very long-lasting Interludes between naturally-occurring Revolutions, are most certainly down to these Effects.

And, it is their unique Tempos that give them their dominances! For they, though clearly much Slower than most natural factors, actually approach the Tempos of Mankind's interventions, and within Revolutions, are regularly overcome by the Revolutionary actions of the Masses within such a Period of tumultuous Change!

So, it is literally only the Revolutionary Marxists, who are also aware of these Macro Systems Effects that can consciously overturn long-term maintainers of the Status Quo - everyone else being, to a large extent, totally unaware these Systems' Factors are involved, and why they occur.

Now, I have spent many years, attempting to address the mistakes of Modern Science, with initially a limited measure of success: but any really significant contribution has been limited to the last couple of years, wherein I have been forced to concentrate my efforts into just two crucial directions! First, into an ever more detailed study of The Physics of Plasmas, wherein the discovery of the generality of true Scale Invariance within the very same Laws, stretching undiminished between the truly

microscopic and the Universal Cosmos - for the first time, has enabled the establishment of a common comparable approach right across that colossal range.

And Second, the major turn to addressing the Unknown Meta Laws of Systems, which are generally completely unknown, but also being both widely and similarly applicable, and, hence, capable of allowing something approaching a Comprehensive Causality to finally reveal the Basic Truths of Reality-as-is!

These Meta Laws are not direct causes of Change, as such, but significantly Influence their Context, to actually remove contributory elements, that, if left in place, can, for example, undermine a current Stability, and which, with their removal, allows the Stability to persist! And these Laws also mean that Constantly Repeated Cycles always Selectively Eliminate their rarer inclusions, thereby forcing an increasing Homogeneity in the Composition of the Cycle over Time.

But these discoveries are only the first of what I expect to be many such effects: for the long-lasting Temporary Stabilities that maintain things very often, also require the existence of multiple Temporary stable bunches of related processes, which turn out to be vigorously self-maintaining: and these too must themselves be adequately maintained.

The Question is, How?

I am currently of the opinion that the self-maintaining feature is related to the same incursion, triggering Equal and Opposite Effects to bring about this constancy, as well as Opposites also cancelling-out each others' effect - to terminate usually on-going sequences of processes.





Down the Infinite Rabbit Hole of Holist Complexity

Part VII - The Limits of Philosophy?

I have been a dedicated Marxist for most of my adult life, philosophically and politically, I think Karl Marx has come closer than anyone to Understanding something intrinsic and profound about Reality - and, though I still and justifiably celebrate the great achievements of Marx - they cannot yet but still also reflect the unavoidable weaknesses, always involved within the very first conception in any field. It would be a miracle if any such were ever initially and immediately wholly correct.

Though colossal in their scope, and sound in their premises, Marx's contributions to Philosophy were then, and still are now, insufficient to be an all-embracing and wholly adequate Philosophy of Reality-as-is! For, they were based majorly upon the so far known and studied History of Mankind, and of course, it simply couldn't have been based upon anything else, for only that History had sufficient extension to cover its many radical twists and turns!

And also, because only that History covered enough ground to reveal most of the necessary Actual Development, Changes and Anomalies, to alone be capable of highlighting both the usually slow tempos involved, while at particular irresolvable Crises, also clearly revealing the rapid Revolutionary Changes, unavoidable at such an incomparably faster rate - compared with the more pedestrian ones occurring the rest of the time.

It has taken 170 years since Marx's initial revealing contribution, to totally reveal without any significant developments beyond those original bounds set by History itself alone.

And, these achievements have also NOT yet been extended, to any other important Disciplines in the same-and-necessary way as Marx has applied it to History and Economics.

My ongoing project in this journal, is to try and finish Marx's work and apply his materialist philosophy to the Sciences. It is a big job.

Intellectual Disciplines in General, not only each have their own Independent Philosophies, but, in addition, ALL contain separate subsections each, in turn, with their own separately defined Philosophies. Mankind has regularly found it impossible to reveal a Single All-embracing Philosophy that might cover absolutely Everything! There are now literally thousands of Specialisms, each with their own defined Philosophy, to match the unavoidable splits in original single philosophies, demanded by failures in prior attempts at explaining the evident insurmountable anomalies!

What, of course, they always reflect, are the illegitimate Pluralist, and therefore necessarily artificially limited, supposed contexts! And, of course, despite Marxism's extended range: its initial Form, too, would prove to be inadequate, as yet, in some important areas!

The whole means of explaining things needs a Comprehensive Review - starting with the more blatant and misleading assumptions of its supposed Logic! And, in Science, the whole basis, originally laid down in the Ancient Greek Intellectual Revolution - which lets face it was an extremely long time ago - needs upturning to the alternative Holistic Stance (though incomparably more developed and generally applicable than the original

version of The Buddha!) For, the rejection of Plurality, must do a great deal more than only reject the Fixity of Natural Laws!

It must also reveal just how the changes happen naturally, primarily when distorted by the imposed simplifications of the assumed Context - to instead bring in Reality-as-is, achieved via multiple simultaneous and differing contributions - all having very different effects.

Now, stated just like that, merely seems to infer an impossible-to-solve constantly varying task. But that turns out to NOT be the case at all!

For, the contributions are all of different weights, thereby making the lesser ones swamped by the most dominant ones: and only becoming relevant as the balance of contributions changes significantly. Yet, the usual Mathematical Logic treatment of such switch-overs (with "if / then" type clauses, and consequent flips to a new state) were, and still are, never explanatory at all - merely signalling WHEN but never WHY, and delivering absolutely nothing beyond the purely Quantitative-triggered flip, and NO necessary information about the current underlying and multiple changes to, in any way, reveal what happens next, and with what currently hidden consequences.

The causes for the current and following trajectories of changes are NEVER revealed!

But, in fact, there must be multiple simultaneous and affecting contributions constantly moving towards the next viewable change, but we have, at that point, no way of ever knowing anything about such events - before they actually occur!

Clearly, you either dramatically restrict, and then maintain Contexts, to allow them to be predictable, pluralistically, or alternatively you could "Give up Now, you'll never do it!"

But, Reality-as-is, left to itself, can, and indeed will, in its own time, deliver the real result of everything acting together, though with no restrictions at all of the context, the actual variation of everything involved, though they will all happen, at the right time, but that will be unknown, outside of the experiencing context itself!

And, exactly when changes occur, would not be known before they do!

Yet experiencing such overall events will still give an approximate suggestion of what will happen the next time it is run naturally!

But, of course, such "suck-it-and-see" methods, would never suffice in Productions for Sale!

However, the very most basic, and most general, of effects, could perhaps be predicted, but only if the causing Systems Relations, themselves were known, and included!

And, as has been established in recent papers in this series, these Systems Effects can surprisingly turn out to be very important indeed!

One recent development, which might signal a way forward, is due to physicist Eric Lerner. Equations-deriving directly from experimentally obtained data in the usual ways, has been abandoned, for cruder, but much more reliable "inter-variable" relationships, obtained over a very wide variety of detailed circumstances, which can be far more effectively relied upon, compared to the usual substitutions between fitted-up general Formulae, taken direct from Mathematics itself, which had been established there solely as a means of relating Pure and Unchanging Forms.



