



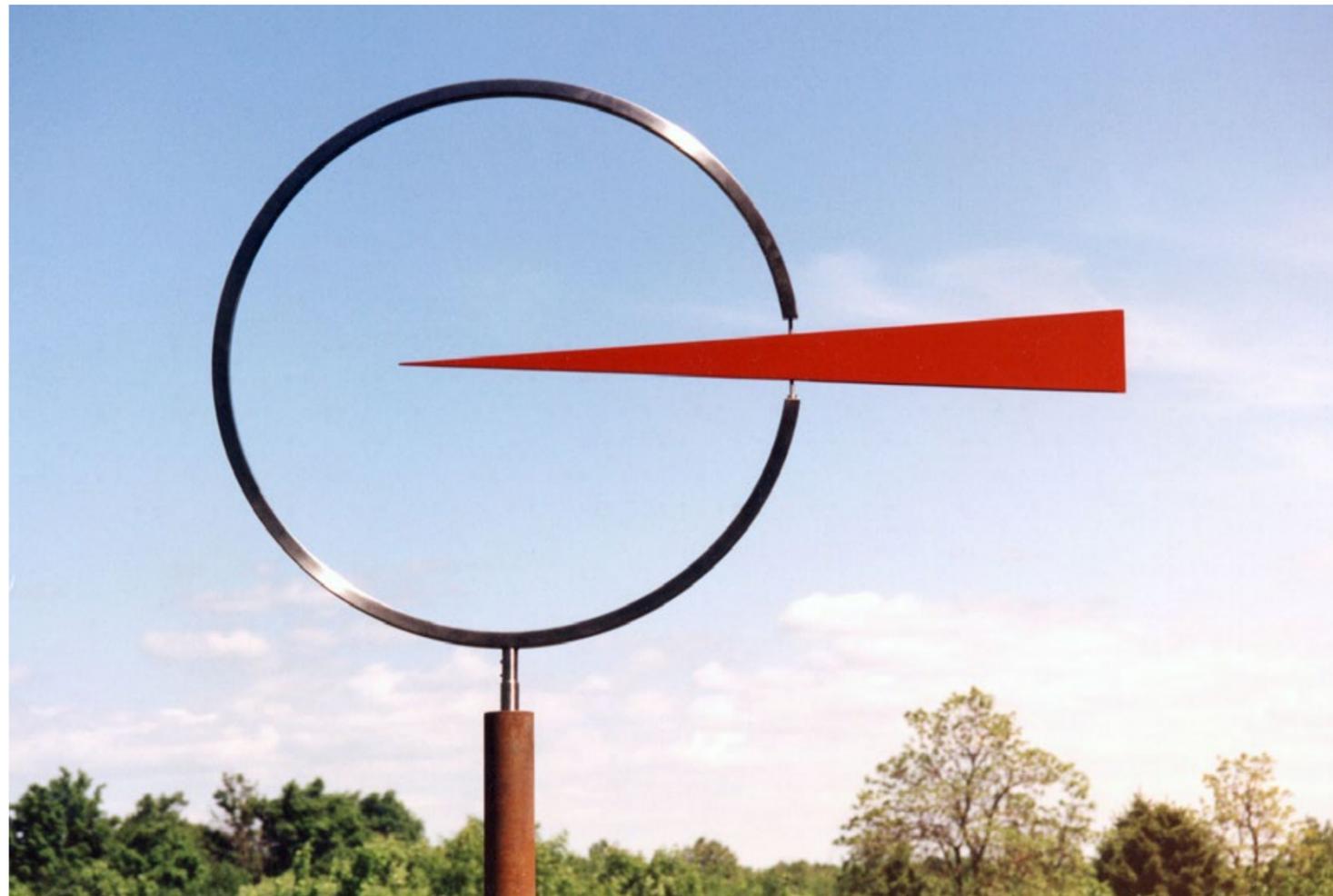
# SHAPE JOURNAL

CHANGING DIALECTICS

MARXIST MODELS / MATERIALIST DIALECTICS: BEYOND HEGEL, ENGELS AND EVEN MARX / PLURALIST OR HOLIST?  
META LAWS / TOTALLY INTERACTING REALITY / GENERALITY, PARTICULARITY AND SINGULARITY / EXPLANATION!

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## Changing Dialectics

Special Issue 63 / March 2019

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## Marxist Models

Simplified assumptions  
of the dialectical method  
and their necessary  
development

by

**Jim Schofield**



Welcome to Special Issue 63, a series of papers we have called *Changing Dialectics*. While the giant influence of Karl Marx's ideas and methods cannot be questioned, his most crucial work remains unfinished. My research seeks to finish what Marx started and finally bring Dialectics to Science.

In being able to make any sort of progress in Theory, however, we must never forget exactly who we are, and to what extent we are adequately equipped in this endeavour. And, most crucially of all, how we have to re-create our means intellectually-and-socially simultaneously, to make any real progress.

But, what theorists usually do instead, including supposed Marxists, is to rearrange the fixed pieces upon an unchanging "chessboard", and thereafter, sticking to the unspoken rules of the game, attempt a better strategy within those same constraints.

Now, this very abstract criticism, certainly won't equip anybody to do anything significant in this regard, so the most profound moment in the intellectual history of Mankind, which, when it happened, was totally unrecognised, will have to be revealed, in order to even begin to see how that transformed approach actually works.

You may well have guessed when it happened, but I am also certain that the crucial means employed will not have been recognised! It was, of course, the intellectual revolution instituted by the Ancient Greeks in the 5th century BC.

But, what they did, which remarkably happened in their study of *shapes*, was truly revolutionary, and precisely what that involved, is what I mean to describe.

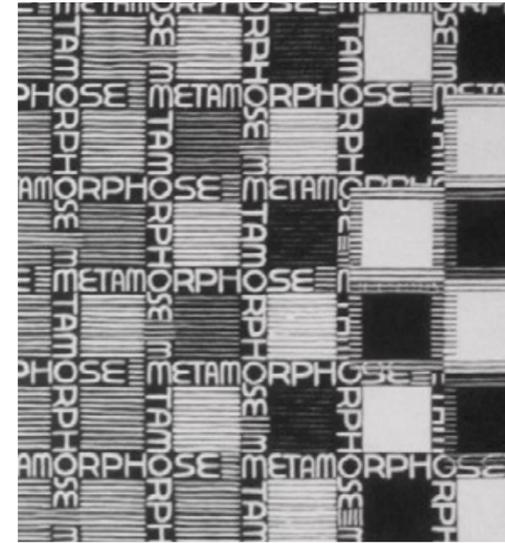
Via drawing, they abstracted from their diagrams certain features, which they then so thoroughly stripped of properties, that they were no longer separable physically in the Real World, but could still be represented inaccurately in such drawings, they could also be accurately related to one another *logically*.

This was revolutionary! Let me describe a few.

**The Point** - defining a position, but of zero extension.

**The Line** - defining the connection between points, without thickness.

**The Plane** - its extent defined by lines but again having no thickness.



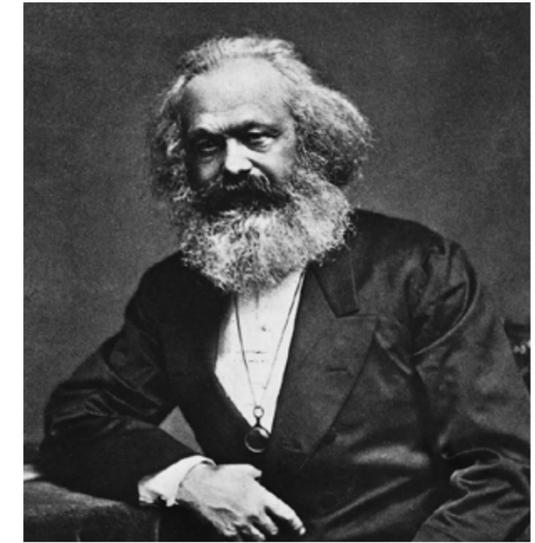
These were abstractions of a wholly new type. They were simplified relatable abstractions, they could NOT exist as such physically, but they could be soundly related to one another in defining a whole world of shapes. They enabled the whole discipline termed Euclidian Geometry, and ultimately, via logical Theorems and Proofs, the discipline of Mathematics.

Indeed, they had, with some understanding, to then *simplify* those extractions, in order to both use them effectively, and, in addition, reveal their consequent inadequacies: for, otherwise, no continuing progress would be possible.

The Greeks effectively did the former, but NOT the latter.

And that, though entirely legitimate in abstract Mathematics, was most certainly not so in most other areas of Thinking and analysis. For, to use that means, the area under study must abide by The Principle of Plurality - in which the elements to be manipulated-and-related MUST never change: they must remain forever fixed, qualitatively.

Now, as we have related above, this was OK in Mathematics, but certainly NOT OK in both Reasoning and in Science, yet its power in Mathematics had been



so empowering that the Greeks applied it illegitimately to both of these areas too. And consequently, they only built both pluralist Formal Logic, and pluralist Science as new disciplines.

How did they get away with it? Two reasons!

ONE: they used them only in stable situations, wherein things did NOT change qualitatively.

TWO: they found it possible to rigidly control certain situations to ensure that Plurality was artificially preserved.

Thus, these disciplines were NOT generally applicable, they only applied within key Stabilities, either naturally stable, or, much more frequently, in arranged-for stable situations, such as scientific experiments.

And, it took some 2.300 years for this to be effectively challenged philosophically, by the German idealist Hegel, in the early 19th Century. Where Hegel, starting with Dichotomous Pairs of contradictory concepts (that Zeno of Elea had long ago noticed in Movement), found the source of the problem to be in Plurality, and its effect upon the wrong, fixed premises usually defined for such concepts: for they were certainly NOT permanently fixed, but could indeed change into-one-another. And,



*Spatial Construction 12*, 1920, by Aleksandr Rodchenko

by adjusting the premises, Hegel found that he could transcend the impasses delivered by Pluralist Formal Logic. And, he went further, making Pairs of Opposites crucial in understanding Real Qualitatively Developing Situations.

But, his philosophy was profoundly limited by idealism. He dealt exclusively in Reasoning: philosophy was all about *Thinking*. So, his solutions were only about the consequent Rules of Thinking, and NOT about the concrete practice, from which the concepts had been extracted. So, his Dialectical Logic became an incessant juggling of conceptual Opposites, and sometimes the definitions of new ones. His modified Formal Logic we now know as Dialectics.

The Young Hegelian historian, Karl Marx, realised that Dialectics were relevant in concrete Reality too. This way of thinking, for the first time, made Social Developments in History understandable and explicable, particularly via major Social Revolutions and their causes.

To grasp its Real World significance, he undertook to reveal the true nature of Capitalist Economics, for which the French Revolution had been saluted as delivering Liberty, Equality and Brotherhood (Liberté, Egalité et Fraternité), but, clearly, it did not deliver these at all. For most of the population, one terrible situation was replaced by another, so Marx had to reveal the underlying mechanisms and possible outcomes, but to do even that he had to somehow devise a wholly different methodology, to that delivered by the current economic system, as well as the so far achieved pluralistic disciplines, and even Hegel's thought-only Dialectics.

So, as he addressed them one by one, he had to take something like the Greeks' simplified relatable abstractions, for doing a similar job, and only then reveal their inadequacies, via a much more developed form of Dialectics, which he also knew could never directly reveal the Absolute Truth of the situation, but could deliver something worthwhile, while also, inevitably (just as it had occurred with the Greeks and with Hegel's attempts), also contain other inhibitions to understanding, alongside its valuable advances.

So, in what way did Marx start to build such a General Dialectical Method? He consciously took a leaf out of the Greeks' unconsciously arrived-at simplifications, by, in everything he addressed, making such simplifications,

which he knew from his sound holistic, dialectical stance would NOT be the whole case, but would at least reflect a simplest version. Though, as it happened, it turned out to be nothing like the Greeks' single adjustment.

For, when dealing with such a complex system, he had to divide the overall Economy into separate parts, and within each carefully construct assumptions that would help in producing an initial model, but, always knowing, from the outset, that each part he addressed could only give him an incorrect, if approximate, baseline, even though it allowed some things to be partially, and informatively, addressed.

He soon learned that the Capitalist Economic System was a kind of vast cycle involving *Value* moving through various very different forms, and that the various Parts significantly affected one another.

NOTE: Remember Marx wrote three volumes of *Das Kapital*, and was still working upon the last two, and a projected fourth volume, when he died.

It was certainly NOT the final definitive version of what Capitalist Economics was, but it does, across the whole work, clarify, the necessary assumptions as well as their inadequacies, and the therefore consequent ways of dealing with them as they changed.

*Das Kapital* is, as the very best exemplar, the only-available Handbook of Marx's Dialectical Method.

NOTE: If this current paper doesn't explain this well enough, I can only suggest David Harvey's masterful description at the SOAS Conference at the University of London (available on Youtube).

Just as with the simplified relatable abstractions of the Greeks, all of Marx's basic assumptions have the very same character - that of being essential *fictions* to achieve certain partial truths (what I more generally term Objective Content), but always partially disposable (or alterable) at a later-and-deeper stage of the analysis.

The crucial assumptions of Volume I of *Kapital*, are shown to be significantly affected within the revelations of Volume II, and the same is true throughout the whole series of submissions that constitute *Das Kapital* as a whole.

Plurality, requiring a fixity of concepts, is necessarily replaced by Holism, involving the inevitable qualitative changes in concepts, due to changes in the determining contexts involved.

Now, the original assumptions were not “wrong”: they were necessary steps towards understanding, but also were wrongly assumed to be *fixed* (in order to reveal their most basic relations), though they were most certainly not fixed.

Clearly, the change from 2,500 years of pluralist Reasoning to Holist Dialectical Reasoning is a truly major Change: and some idea of just how big it is, is demonstrated by the fact that Science in general is still totally dominated by Plurality: for example Physics still earnestly seeks *eternal* Natural Laws!

Understanding isn't a ladder to Truth at all: it MUST involve a determined Recursion at the end of any achieved series of steps, back to its start, in order to criticise the applied reasoning, in the light of their own consequent conclusions (see the Buddha's Loka Sutta).

Let us be crystal clear what the assumption of Plurality did to the major Intellectual Disciplines of Mankind.

It froze all concepts and Laws into unchanging elements, so that stable situations could be accommodated, but Qualitative Development was impossible to explain.

Indeed, it was considerably worse than that!

For everything was reduced to *quantitative* changes, which were always happening incrementally, whereas all significant Qualitative Changes occur in very short, turbulent episodes termed Emergences, or even Revolutions. And, these can only ever be addressed with a Holist Stance rather than a Pluralist Stance.

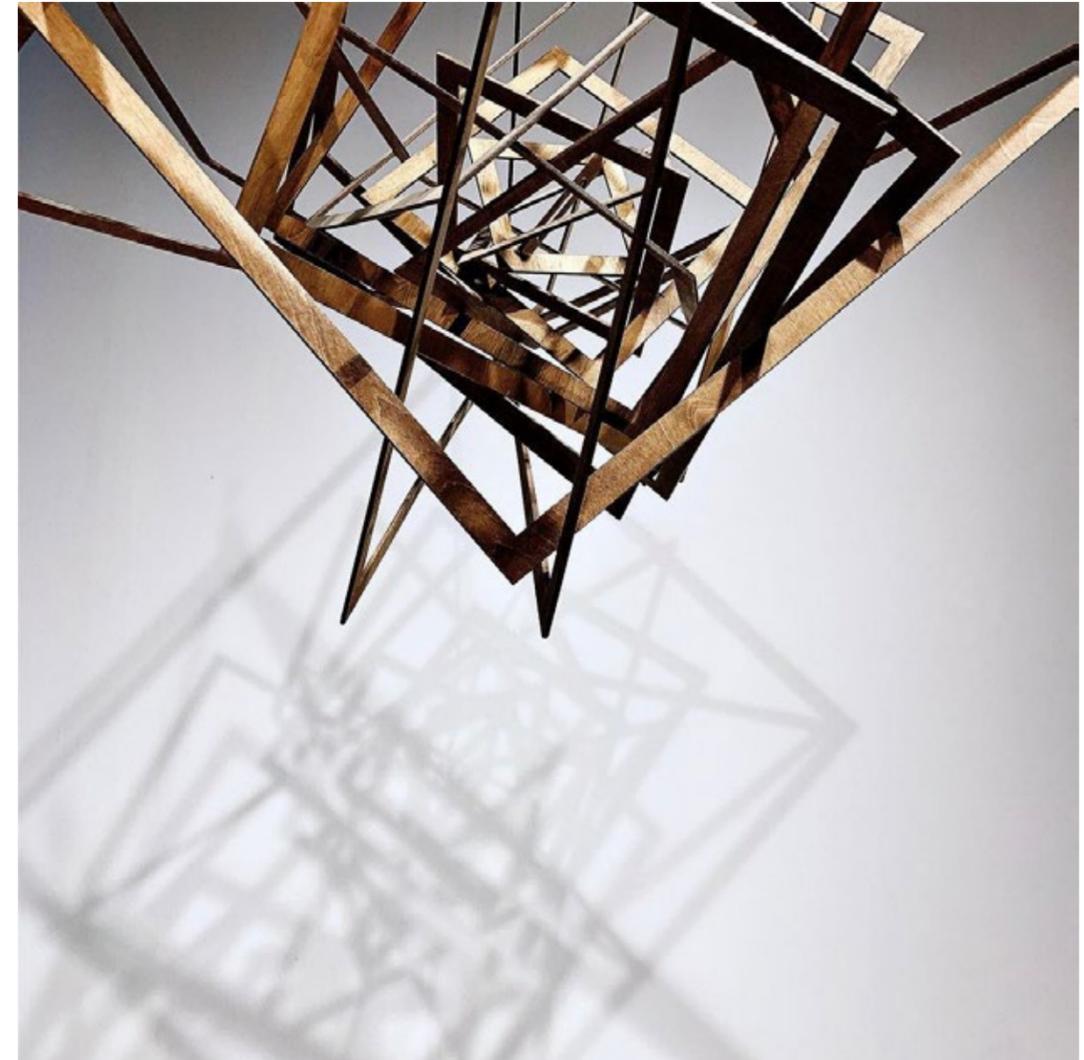
The proof?

All the most important developments in Reality have failed to be explained by the dominant Pluralist Stance:

- The Origin of Life
- The Origin of Species
- The Origin of Consciousness
- The Neolithic Revolution
- All subsequent Social Revolutions

And the current Crisis in Physics is the classic example: not only is it entirely pluralist in its stance, but in order to cope at all they have abandoned Explanatory methods, and resorted to the only discipline where Plurality really holds - Mathematics.

They have abandoned Reality for Ideality.



*Spatial Construction 11*, 1920, by Aleksandr Rodchenko

## Materialist Dialectics

### beyond Hegel, Engels and even Marx

This paper is important because it continues the crucial philosophical task which Marx initiated but never comprehensively completed. He became necessarily preoccupied with his analysis of the established economic system, with its concentrations of power and wealth, and how it might be overturned, once and for all.

So, even as he was in the midst of tackling the monolith of Capitalism, Marx had to significantly change his emphases, with each and every succeeding volume, and even within their subsidiary sections, for never was its actual execution entirely formulated as a totally pre-conceived plan.

The key was not his opposition to Capital! He was primarily a historian, and his chosen job was to make sense of the trajectory of development of Mankind. And, though the old ways of Reasoning were incapable of dealing with such a task, the new dialectical approach promised a solution.

It was a wholly new way of interpreting Reality, in which it was finally realised that it was not a rationally-ordered-system, built solely out of fixed-eternal-laws, but, on the contrary, an essentially contradictory process involving multiple, often-opposing factors, which were the engines of unavoidable change.

Indeed, he was forced to often recast his stance, as he actually addressed the various different, and often contradictory, categories, processes and phases involved. He was, therefore, continuing to devise his projected Materialist Dialectical Method, as he was in the very midst of attempting to use it!

The problem was the task's absolutely-necessary, but nevertheless essentially-contradictory, intrinsic nature.

It just couldn't be addressed in the old formal-logical, and pluralist way - for it was never a description, nor even an comprehensive explanation of a fixed coherent, consistent and comprehensively defined entity. It was, instead, a real, always-qualitatively-developing system.

But, it was also, very clearly, a dynamic, holistic super-system of many simultaneously contributing sub-systems, all of them with their own very different complement of component processes, which, in spite of their unmistakable contradictions, still, nevertheless, frequently came-together into an overall, self-adjusting super-system, with describable and explainable components that clearly required a great deal more than the usual, established means of Reasoning - namely, Formal Logic, to ever get near to coping with its mutually-affecting interactions, complex development phases and even multiple crises!

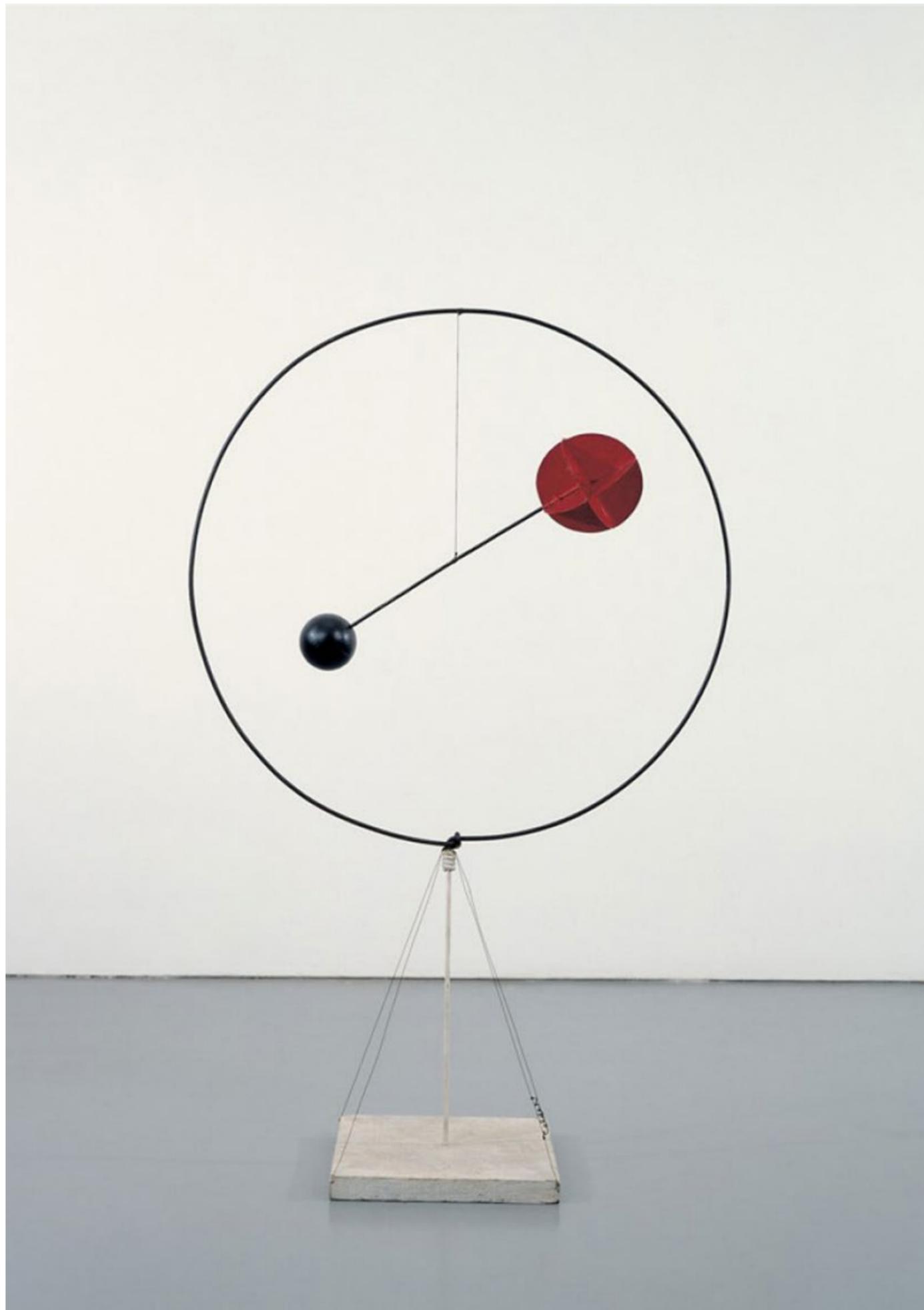
Mankind's initial attempt could only be to address those regularly-occurring periods of persisting Stability, but though unavoidable, that route alone could never cope with real Qualitative Change.

The new system would have to reach beyond its usual capabilities, and into the poorly-understood processes of Qualitative Development - where those stabilities break down, once the balance of forces are undermined.

Marx had taken the Dialectical View, from the idealist philosopher Hegel, who had clearly revealed the pluralistic inadequacies of traditional Formal Reasoning,



*Mobile*, 1932, by Alexander Calder



in dealing with a whole range of philosophical problems involving Qualitative Change.

But, Marx had, in addition, realised that it also was extremely relevant to social history, particularly in the developmental trajectories of past economic systems and even their ultimate demises in social revolutions.

But, this necessitated the wholesale transfer of Hegel's Dialectics, from its then use only in Human Thinking, to making sense of the whole material World: so he re-named it Dialectical *Materialism*, and realised its role as essential in all the Sciences too. It would be relevant everywhere that qualitative changes happened: it could revolutionise all fields of study.

Now, Hegel's Laws of Dialectics, derived in dealing solely with contradictions in Human Thinking, would most certainly never suffice in dealing effectively with explaining the development of a material World. So, the bringing in of that material World would inevitably also involve concrete Causes-and-Effects, so would also vastly complicate things well beyond Hegel's relations between only purely cerebral conceptions.

And crucially, when finally effectively applied to the mad Sub Atomic World, it would move into a wholly new territory, where the prior methods of Science were increasingly rapidly coming to grief!

But, though Marx did indeed address this new world dialectically, he did NOT merely do it by finding relatable-opposites as the idealists must, for that was all they could possibly access.

Marx, quite differently, had to match his abstractions, as a scientist certainly must, to explaining aspects of Reality, but, in addition, also effectively tackling Development, and all of its sequence of constituent phases - causally.

It could no longer be in the prior formal-logical way of explaining outcomes: he would have to also explain the evolution of contexts, via, for the first time, the modification of what were previously always conceived of as eternally-fixed-Laws producing only complication rather than Evolution.

And, in addition, Hegel's crude Dialectical Laws had to be turned into Revolutionary Emergences, wherein the outcomes are never predictable from the prior

circumstances, and only emerge from the complex interplay of multiple simultaneous relations - in wholly new ways.

For, they only ever find a temporarily persisting Stability, and they do it first via a series of dissolutionary Crises, and thereafter by another very different series, but this time of system-building Phases along with their inevitable Crises, and ultimate resolutions.

Indeed, the writer of this paper had to dedicate himself for many years to the development of *The Theory of Emergences*, and also to a physical explanation of the actual physical development of Opposites in nature; within mixes of divergent, simultaneous chemical processes, as in The Theory of Truly Natural Selection, occurring in collections of diverse simultaneous chemical processes, immediately prior to The Emergence of Life on Earth.

For most of my professional career. I was unable to effectively criticise the amalgam of contradictory stances involved in the whole current range of Intellectual disciplines, that I encountered, and perhaps I never would have, if it wasn't for my unusual range of extensively studied interests, ranging from Painting, Sculpture, and even Music and Dance, and from Biology and Archaeology to revolutionary politics - many of these arising out of my final professional designation as a Software Systems Designer, and resulting in a professorial level post within London University.

For, it was in diverse Computers-in-Control developments, that I finally grasped Dialectics in motion - as a common integrator of problems across that whole range.

## Pluralist or Holist?

### Are the Qualities of Reality Fixed or Varying?

Mankind has been changing its mind upon this question for many, many millennia.

Clearly, as Hunter/Gatherers, which Hominids were for most of their existence on Planet Earth, they could not but be aware of the variability of Nature: literally everything was in change wherever they looked, but, in contrast, many things didn't seem to change at all over extensive periods of time, particularly those things that weren't alive.

Common features of certain things could be identified, and thereafter continue to be useful to Man for truly vast periods of time. It wasn't by chance that one of the most important of these were the discovered properties of Flint - a hard, yet brittle, kind of rock. For, it didn't seem to change at all, and so it was reliably learned about. Over many millennia, Man learned of different ways to "knap" Flint - that is to strike it, in various ways, to reveal a very sharp edge, and by such means they slowly developed these shards into Knives, Spear tips and Arrow heads. Indeed, most of the prehistory of Mankind was registered only in the evident changing past Cultures of Flint Knapping, available literally everywhere.

So, clearly, they could employ things, with such reliable features, to enhance their own existence: so, from very early on, Man developed such *constant* things, while coping, as best he could, with the many variables.

But, they were always aware of both!

We must be cognisant of the early trajectory of our own species, Homo sapiens, for though genetically we have changed very little, we would not recognise them as such,

if we came across any today. Because for 97% of their-and-our time on earth, as an independent species, they were Flint using Hunter/Gatherers only. Yet, they became us! And in a very short space of time, comparatively.

At certain points in time, things began to develop prodigiously: we just have to know why, and also what thereafter determined the trajectory of both these developments, both in their Crises, and in their Revolutions - for clearly it was both a halting and often an aberrant rise.

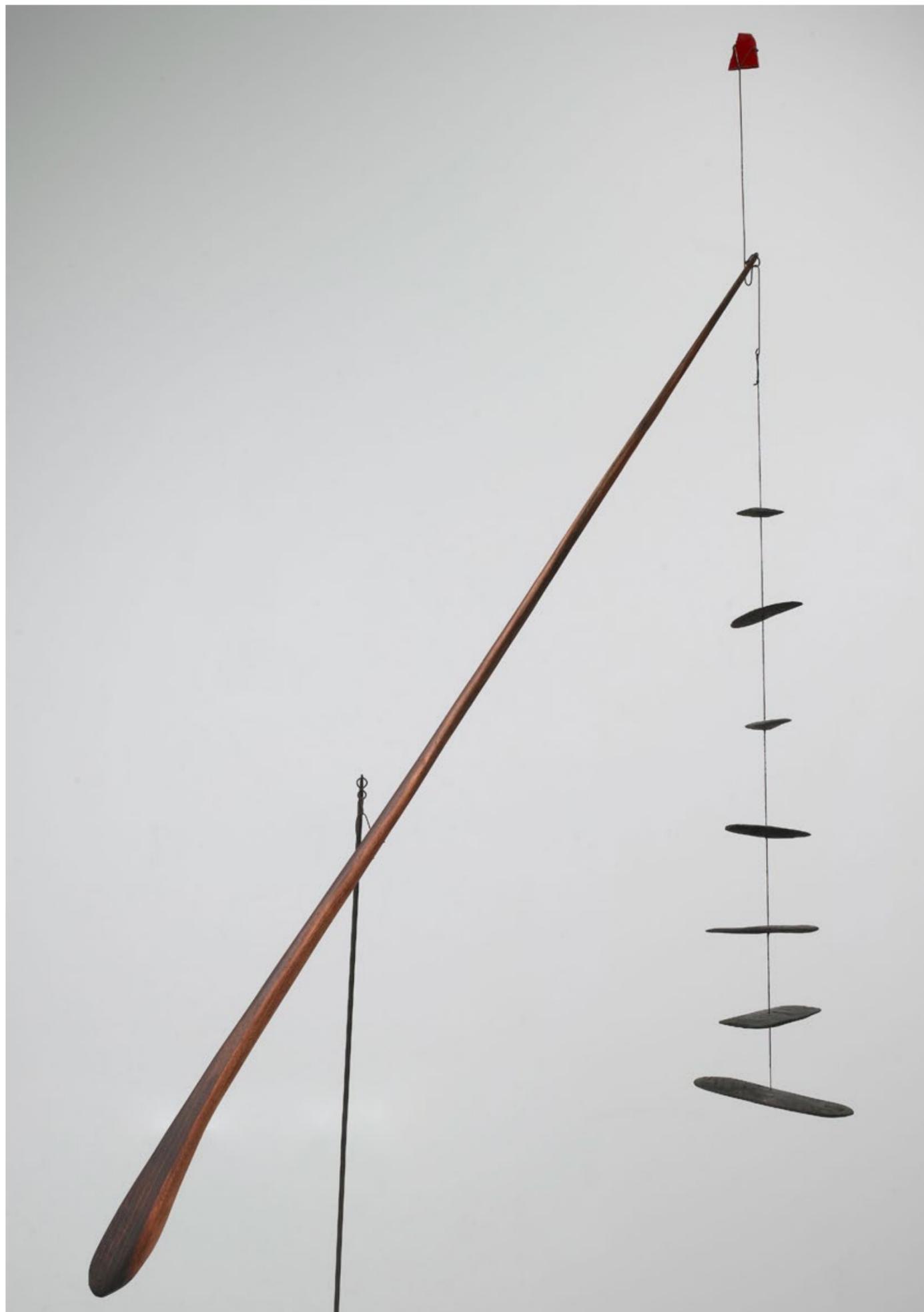
We were never *genetically* equipped to make those later developments. It was not Natural Selection acting upon genetic mutations at all, that drove this rapid change: these were certainly entirely social achievements, which means also that our children had to be *taught* to benefit from these gains - they didn't come pre-equipped for the kind of developments that happened.

And, Mankind, itself, is also not genetically rquipped to make the social changes either: we did not come pre-equipped to deal with Thinking in the way we now have to! And, our long, indeed interminable, commitment to Plurality proves it.

As V. Gordon Childe always said "Man makes himself!"

And, if the Greek Intellectual Revolution was the biggest in our history, then what confronts us now in converting to a Holistic philosophic stance is a great deal bigger still. The key areas that must be re-conquered are, without any doubt, necessary Emergent Interludes of significant Qualitative Changes. Indeed, it will be those, which will also involve a real understanding of the self-maintaining





periods of always occurring Stability - and including both how they arise, persist in a self-maintaining way for long periods, and ultimately undergo debilitating crises followed by inevitable total collapse.

For, in direct opposition to all current beliefs, the creative establishment of wholly new Stabilities, arose out of what appears to be Total Random Chaos, and so is the very opposite of what is now held dear, and which is supposed to inevitably lead, via the Second Law of Thermodynamics, to the world perpetually running down to a final oblivion.

The task facing us is truly enormous! Every single scientific experiment is now conducted only within dramatically, extensively and rigidly-controlled circumstances: it is a strictly Pluralist Science, carried out ONLY in situations where that Plurality has been effectively imposed.

Yet, Reality, left entirely to itself, doesn't swoop down to an irredeemable Nothingness, but actually builds new Stabilities, and via sequences of these creates ever-new-possibilities. How else can the current World be explained?

Some years ago, I re-designed Stanley Miller's entirely Holist Experiment, which produced Amino acids, in his attempts to reveal something of processes preceding the actual Origin of Life on Earth. And, by introducing changeable, inactive-yet-constraining channels in his apparatus, containing non-invasive, regularly-timed monitors, would receive enough evidence to repeatedly re-design that channelling and even the contents, and gradually reveal some of the component processes that on Earth gradually moved things towards the Origin of Life.

Indeed, what is ONLY POSSIBLE in Pluralist Science, is achieved by totally isolating individual "Laws" in separate experiments, and hence throwing away their actual Real World contexts, and will therefore have to be converted into Holistic alternatives, which simultaneously both temporarily separate, and then mix together, the processes involved in multiple, specially designed versions, to gradually have a real chance of conceiving of what actually happened in Reality. It is possible! But, of course, to have any real chance of making a success of such an undertaking, we must find ways of studying actually occurring Emergent Interludes in detail.

Too many are currently far too swift, too transient, and too multi-process to currently be effectively studied: they appear to us retrospectively only as step changes! But, even within such seemingly "instant steps", multiply acting factors, though never eternal, as is the pluralist assumption, can and do result in Dominances, wherein a modified version of one of them overpowers the rest for a time: so, tracking the sequence of such dominances may well be possible. NOTE: But that will be very different from the pluralist method of allowing one "Law" at a time, in separate experiments. For here each Dominance will be a modified, temporary version of the "eternal" Pluralist Law.

But, they do occur at all Levels of organisation within Reality, and the most revealing examples have always been in Social Revolutions, which in contrast to physical and chemical transitions are observably slow! But, of course, someone has to be there, in the thick of it, and reliably recording everything that happens. It was French historian Michelet's magnificent account of the French Revolution that stimulated Karl Marx in his determination to develop Dialectical Materialism and a Holistic Dialectical Method. And we also have Marxist Leon Trotsky's History of the Russian Revolution to study too!

In 2010, the writer of this paper, having solved the seemingly intransigent problem of interpreting recordings of complex, expressive Dance Movements via entirely new methods in Computer-controlled Multimedia, generalised both that research and Trotsky's book into his Theory of Emergences.

It is of course a very general analysis of studied cases, But even that was significant! As Marx himself proved, in *Das Kapital*, on his life's work upon Capitalist Economics, general and simplified particular models are not only possible, they are essential! There are NO eternal Natural Laws, as such, as they all modify one another when simultaneously present - BUT simplified models allow the revelation of crucial temporarily dominant features, which will be needed to be known when dealing with the interactions between them, and the modifications they incur.

## Sum Laws or Meta Laws

### How do wholly-new changes happen?

The old pluralist approach to extracting a “law” can never deliver the wholly new!

For, such a means deals exclusively in eternal natural laws, which, as such, can only simply sum in varying quantities, in any simultaneous, multi-law situation, so anything, which is clearly wholly new can never even occur!

You can get dominances however, when the quantity of a particular Law swamps the rest, due to a temporary abundance, but with the varying quantities of all simultaneous;y-acting laws, that dominance can be taken-over by another also present Law, suddenly occurring in greater quantity itself - and this is referred-to when attempting to explain otherwise inexplicable flips in certain circumstances, “as entirely due to changes in quantity of the components involved”.

But, such is really an example of an explanatory trick, as when a false, contrived explanatory mechanism, nevertheless appears similar to the real situation, and can be used as an approximation to it sometimes.

But, it isn't correct! For, if it was, the switches could be to any one of the simultaneously acting laws, as they are deemed eternal, and hence independent of one another.

But, in fact, that is not the case - most evidently in the phenomena of Dichotomous Pairs which deal only in Opposites. And, of course, even Dominances are extreme cases: with eternal Laws there should be a range of mixes evident, and because there aren't, such can never be taken as a general situation.

Reality is NOT pluralist, but Holistic.

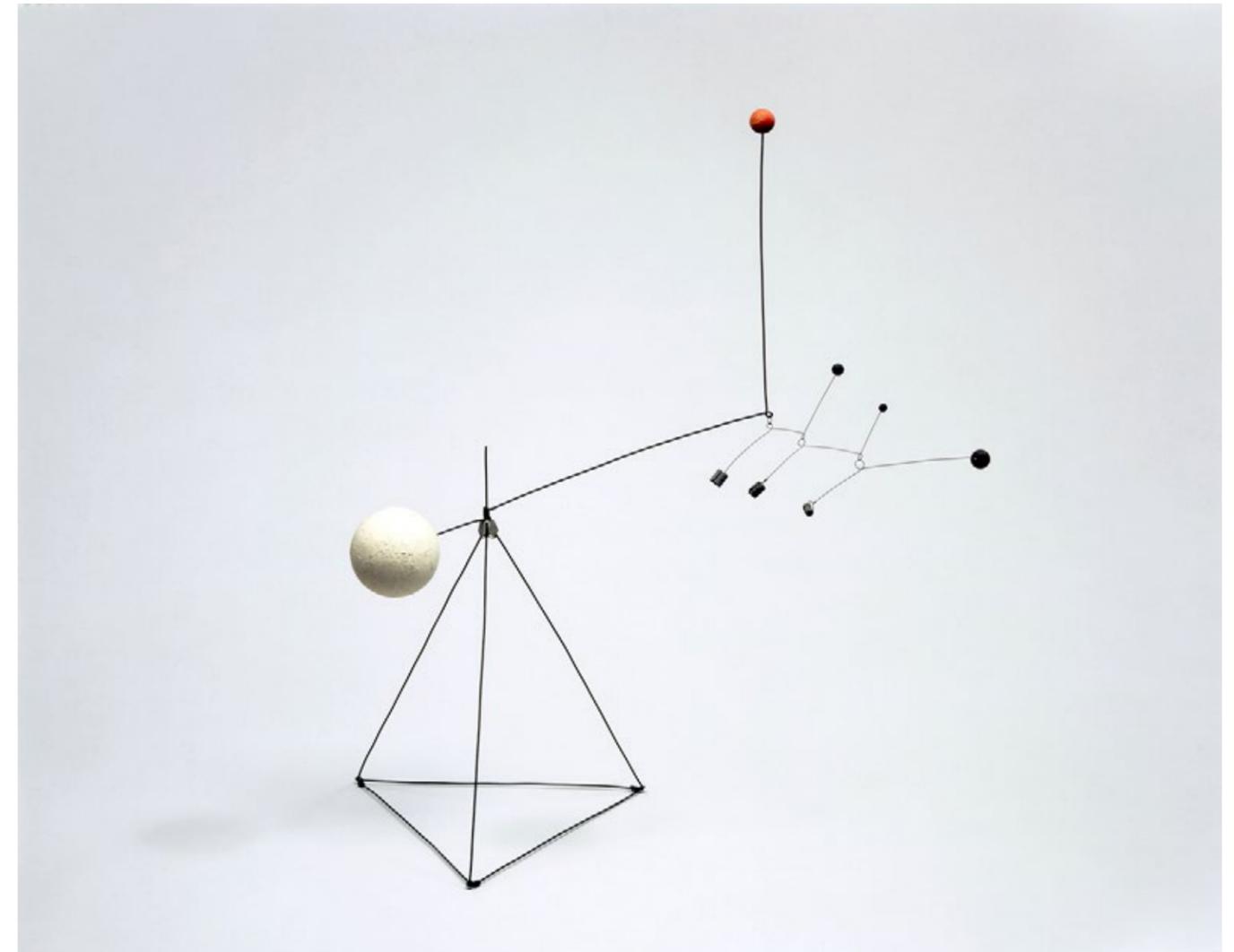
Laws affect one another to some degree, and this buries the assumptions of simple summing. Instead, the laws are indeed changed, by their mutual affects upon one another across the whole set. It certainly cannot be a simple one-way affect either. Indeed, the initial overall effects must produce something of an on-going turmoil, with “Everything affecting everything else” and vice versa - and recursions will be unavoidably rife!

With the old pluralist view, the Laws are assumed to be fixed, so some overall-summed effect would soon be reached. But, in Holism something very different must occur - for it matters exactly how they relate to one another physically, and how they, therefore, causally affect one another. They can be either supportive or opposing, accelerative or inhibitory, or even “diverting” - towards some new direction.

Indeed, in any population of simultaneously-acting, and mutually-affecting laws, the variety of outcomes could be extensive: but one-particular-result could be highly significant - that delivering a Balance of Effects to deliver NOT a Static Stability, but, instead an Active, Maintained-Stability!

Let us consider what an Active Stability would have to be. With many-component, mutually-affecting laws, it seems to imply an infinite process of changes, for any change will cascade through the whole set, and cause recursions everywhere and incessantly.

Yes!



Performing Sculpture. *Small Feathers*, 1931, by Alexander Calder

But, nevertheless, that incessant recursion can be either a descent to Random Chaos, OR a settling into a self-maintaining *Balance!*

[To get a feel for this, think about a convergent, iterative homing-in on a solution to a difficult equation!]

After all, there will also be an unavoidable Selection Process taking place, with the dissociative (Random Chaos) types vanishing, and the Active Stability types persisting.

And crucially, what will be the properties of such Active Stabilities - for that is surely what we require?

If you could monitor them incessantly, you would find that they would be constantly varying, But, overall, there would be a produced unchanging effect, which would be both different, and though mostly resilient, yet also temporarily undermine-able, and even ultimately, at some point, also dissociable!

But, most disturbing of all, they could never be derived from any underlying contributory supposedly-fixed laws! But, perhaps that description requires further elaboration? For, it involves consideration over its full range of possibilities, whereas our usual pluralist tradition only deals with single properties in particular, highly “farmed” or constrained circumstances. For, we are leaving that approach behind, in order to explain what is actually pluralistically totally inexplicable.

Indeed, may I go up multiple Levels to a General Description of an Emergence - the appearance of the wholly New possible at ALL Levels. In my *Theory of Emergences* (2010), using a “Stability” as my exemplar of something suffering a General Qualitative Change, I started with a seemingly permanent situation, which, nevertheless, began to experience a series of increasingly challenging Crises, that were usually retrieved, and stability re-established.

But, in fact, the seeds of its ultimate demise had already been sown, as the next Crisis suddenly deepened inexorably, and plummeted-down into a wholesale Collapse, with a seemingly headlong descent to a Nadir of Dissolution, which effectively dismantled the “stability” absolutely, destroying all its inter-relationships and apparently heading for totally Random Chaos.

BUT that wasn't the significant effect of the Collapse, for that was crucially also the demise of any inhibitory processes. which stopped any other such systems from beginning to build. And with those out-of-the-way too, perhaps surprisingly to the pluralists, constructive processes started occurring again, literally everywhere!

Now, multiple competing systems were being built. But, once again, it wasn't just healthy competition: the new systems, as previously, also included “policeman processes” which, where possible, suppressed other possibilities, so most of these constructions were short-lived, UNTIL that is, one finally dominated and established a wholly new and different self-maintaining overall Stability.

A Revolutionary Change had been completed!

The trouble is, of course, that all real laws are of this type! Every law we try to investigate will turn out to be like this, because our concept of a pure and simple law is a man-imposed-myth.

Mankind, had originally, only begun to investigate Reality, by cutting-it-down-to-size. Only intensively “farmed” situations, “effectively-limited” to a single law were usually dealt with.

But, as soon as we deal directly with Unfettered Reality-as-is we are always in the dynamic holistic situation I have been describing. The pluralists can only work in tailored-single-law-Domains!

The holist can never alight upon such laws as actual components: ALL situations are as described above. So, we are unaware of the sub-dominant but still active contributions, which only make a significant contribution during these Interludes of Qualitative Change, and maybe even then only evident after whole sequences of such Changes at multiple Levels!

Trying to find the essential Qualities of Reality by systematic analysis, is a myth.

They will only be partially revealed by the most intensive research into natural Emergences, for they are NOT the properties of Elementary Particles, but of holistic interactions ONLY!

So, if literally all laws are of this type, which we call Meta Laws, our assumption that they are all Simple Laws is mistaken, and hiding in any “extracted simple law”. there will be a historical collection of hidden contributions that will play their part in exactly what appears in an Emergence.

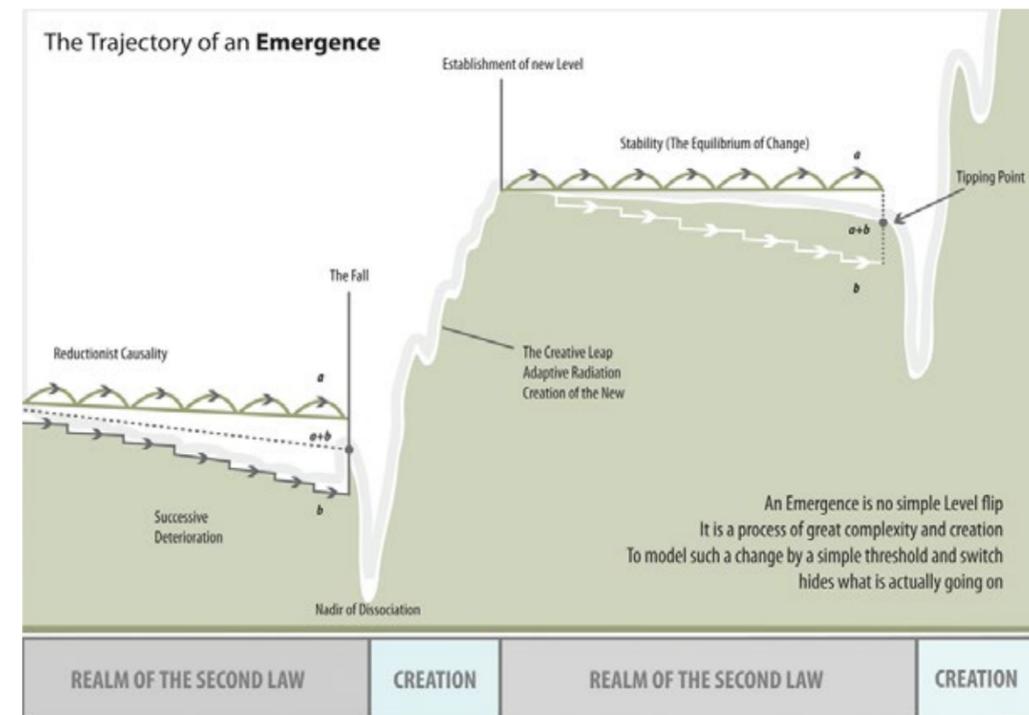
Though I can think of no way that such components could be involved in a formal encapsulation of a new law from an Emergence: though I am well aware, if I know holistically of a series of such contributions some explanatory case could indeed be made.

We do it all the time in everyday life, though usually without a full list of active components.

In other words Physical Explanations, informed of the likely contributory factors and exemplars from elsewhere, could indeed be far superior to a purely Formal Equation based upon the usual pluralist means.

Though, of course, sufficient holistic studies would have to have been undertaken to amass a comprehensive list of the hidden factors involved.

NOTE: Using precisely this method, and without a single equation or law being involved, I was able to describe a totally holist explanation of all the anomalies of the Double Slit Experiments, without any of the speculative tricks necessary with the Copenhagen alternative using only Formulae.





*Untitled*, 1934, by Alexander Calder

## Totally Interacting Reality

### The Real Trajectory and its Laws and Development

Once again, in a session listening to David Harvey, it has significantly clarified some vital areas of Dialectical Materialist Philosophy. He was giving a Lecture on Volume II of Marx's *Das Kapital*, and the problems of a world wherein things change qualitatively, yet relate meaningfully in what appeared to be "fixed" relations and even Laws.

Of course, Marx was the first, and at that time, the only philosopher, taking such a position, while the dominant stance worldwide was still the Greek, pluralist one, which saw the world in terms of forever-fixed concepts and separable Laws - yet it was such, along with a World that upon a multiplicity of Levels actually oscillated between long periods of Stability, wherein those things did appear to be permanently fixed, and very short Interludes of Qualitatively transforming Emergences.

Clearly, the pluralist approach and that holist world, did not match at all well. Indeed, for the 2,300 years since the Greek Intellectual Revolution, mankind had managed to cope via that pluralist view of the nature of reality, by skilfully manipulating investigated situations, into ones that conformed very closely to Plurality, and thereafter re-constructing them for all productive operations that were to involve what they had by those means extracted.

The problem was that real, "pluralist-like" relations did get established, and persist in even some natural situations, as well as the many man-made situations of Science, but they were never even then eternal Natural Laws, and were definitely modified by contingent factors, and even totally demolished in Emergent changes.

Now, Marx's primary area of study became Capitalist Economics, and while the overall system had by then persisted for centuries, and though its underlying Laws were constantly subject to innumerable contingences, those Key relations had to be understood as still generally applicable, if not actually fixed!

The only way that I have been able to address such situations, theoretically, has been by relating all such complexities to my research into multiple, simultaneous, and mutually-modifying mixes of chemical processes, in a strictly holist way. For, as distinct from the pluralists, who took all the many laws involved as fixed, and merely summed them to give Complexity; I, instead, took those relations as being defined holistically by their contexts, and hence inevitably varying.

But, in addition, the actual dynamics of change of each and every involved relation, would change continually, until some form of balance between the various contributing relations was established, and thereafter by its very nature self-maintained.

Now, such Stabilities, could be of various kinds - with the most likely being the overall Dominance of a modified version of one of the contributing factors, - usually due to a relative abundance of a major resource for that process, which thereby gave the appearance of an apparently Pluralistic Law. But, could also have a directly opposite sub-dominant process though clearly currently swamped along with all the others.

NOTE: The dynamics of why this occurs has been fully revealed elsewhere, but will only confuse the intended narrative here, if included.

And, this analogue, admittedly from a very different level, nevertheless reveals a similar holistic outcome, when instead considering the relations within Capitalist Economics.

But, it was evident from the reactions of David Harvey's students, that their prior lives, which had been dominated by the usual general subscription to Plurality across all the usual Intellectual Disciplines, was causing them difficulties with Harvey's holistic description: so I have taken it upon myself to attempt a contribution in this precise problem!

Indeed, what confused the students most, was the fact that Marx, at one point in his analysis would lay down fixed premises, and upon that basis derive fundamental Laws for that Phase, only to dispense with both those assumptions, and depend upon other quite different ones, which, it would seem, definitely affected that law qualitatively.

In a sense, Marx appeared-to-be effectively starting "pluralistically" via a veritable phalanx of what seemed to be fixed assumptions, only to resort to holism to change the premises, in another Phase, yet, once more again treat the new phase "pluralistically": it was a confusion-encouraging method, and, it was clear that Harvey's students couldn't see why Marx's Method was valid.

But, the difficulty arises from the misunderstanding of Holism as meaning, both that everything is varying all the time, and therefore affecting everything else *continually!* For, that is certainly NOT what Holism actually involves.

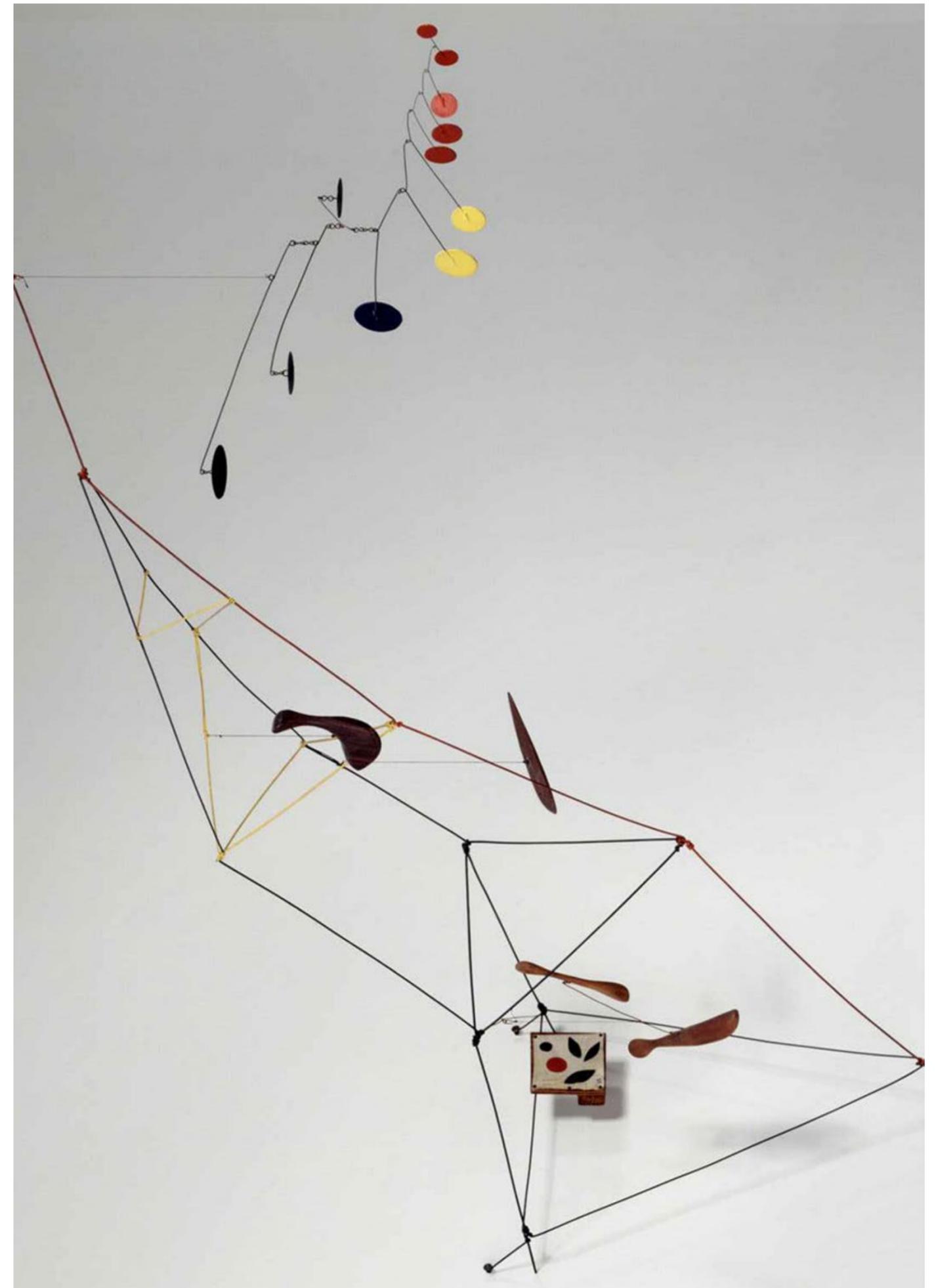
Indeed, in the holistically-mixed situation, described earlier, a balanced Stability is invariably found, but it is a multiply achieved balance, so variations in one of the involved components could threaten that balance

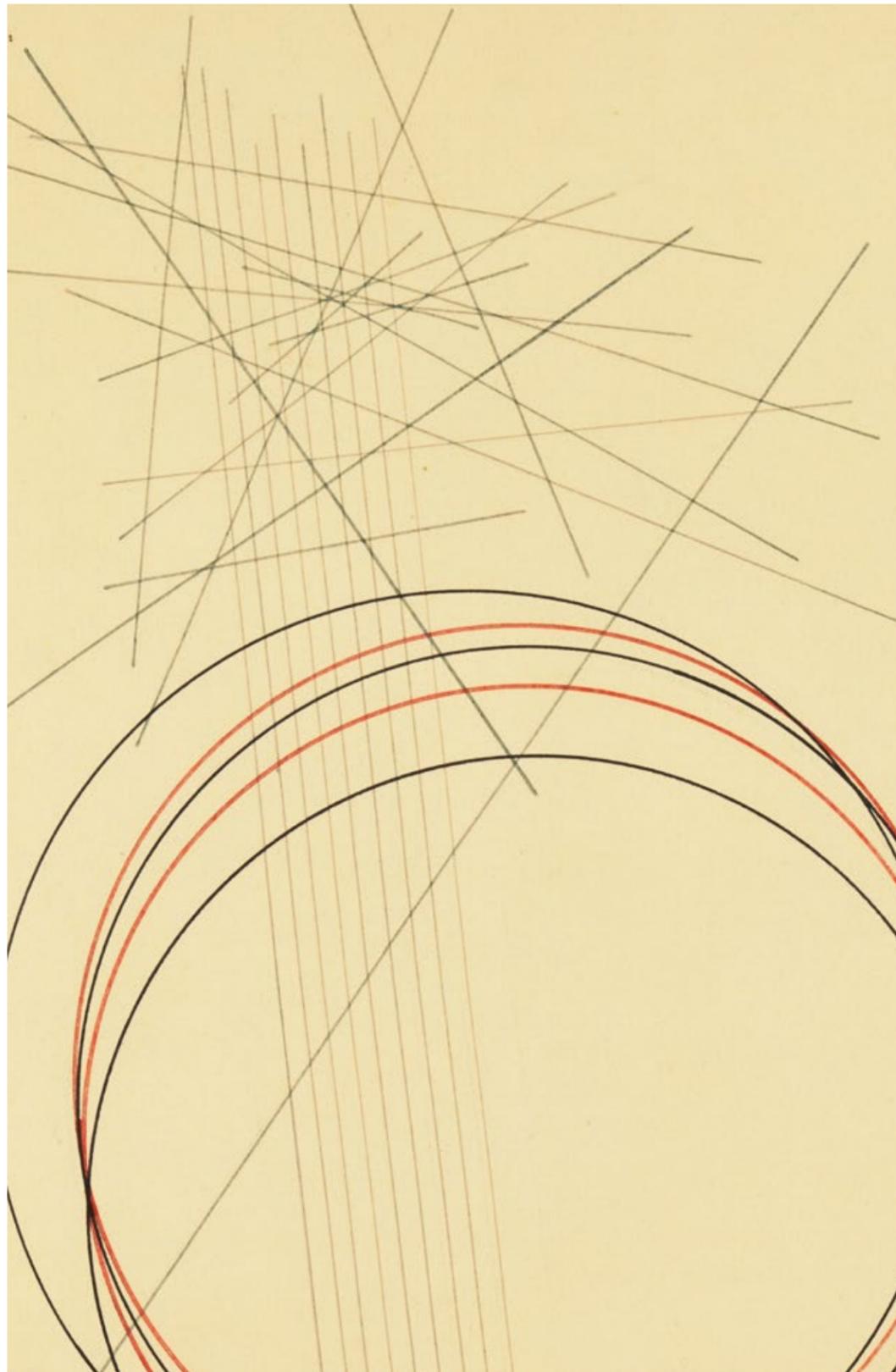
and cause a momentary crisis, which would normally be retrieved by a consequent change in another of the involved components. Such small changes would always be occurring, and being quickly overcome. But occasionally, major Crises would happen and take longer to be remedied. Until finally, a terminal Crisis would turn into a wholesale system-collapse!

Clearly, working from the underlying-balance-law has to be the correct way of explaining ALL of these possibilities! So, Marx had to ensure a kind of baseline set of premises to deliver his Stability, just as if the variabilities were NOT present, to establish a background situation, which would, in Reality, be modified, causing such variations, Crises and even terminations.

Holistic situations replicate such features in many different Phases and Levels, so that before the discovery of Dialectical Changes, most situations were impossible to analyse. Indeed, that is why the Greeks' Intellectual Pluralist Revolution was so popular: it enabled a *kind* of analysis to be achieved, even if you had to hold-things-still for it to work at all!

NOTE: For example, with one kind of variation in the component processes, the Crisis might well be resolved, but with a swing in Dominance to what was the previously sub-dominant process, while the overall nature of the Stability would be unchanged, but crucially with a new, and "opposite" law acting.





## Generality, Particularity & Singularity

### Marx's Abstractions & Dialectical Developments

On further listening to David Harvey's analysis of Marx's Capital, it becomes important exactly what the necessary kinds of Abstraction are, that are actually being used.

Previously, when revealing the significant and transforming content of the Greek Intellectual Revolution, somewhat earlier in these investigations, the key achievement turned out to be in the wholly new kind of Abstraction that they had developed in their study of shapes, but which, at that time, had also enabled the development of the very first intellectual discipline - Mathematics.

So, once again, within this current discussion on Marx's Capital, it has to be the kinds-of-abstraction used, as well as both when, and to what extent, they can be effectively employed, that are the most important questions.

Now, Marx wasn't a scientist, he was a philosopher and historian - and neither is David Harvey, who is a geographer by trade: so neither of them were intimately familiar with the methods and abstractions of 'hard' sciences such as Physics, or even their associated disciplines, such as Mathematics. So, they would not be immediately aware of the unavoidable limitations of idealistic Mathematics - for their focussings were very different in their own primary disciplines.

Now, Marx crucially talks about Generalities, Particularities and Singularities as the abstractions concerned with the Laws of Motion of Capital, and how he sees and uses them, turns out to be crucial, and also very revealing when related to their somewhat different uses in Science and Mathematics.

So, once again, I am pressed to use my analogue regarding Multiple-Chemical-Processes, to clarify what is involved. For there, though many active factors are involved (all acting simultaneously), the most frequently naturally-achieved Stability, in this type of system, will always be in an achieved persisting *balance* between all of these processes, characterised by a certain Dominance, as the apparent underlying determining "Law" of the situation.

And, that would be what Marx calls the *Generality* of the situation.

But, the other factors involved will vary, and though they cannot dislodge this Dominant Law, they can move it about - somewhat!

They would be the contingent *Particularities* of the situation.

Finally, something could happen which completely terminates the situation: so this Law ceases to apply!

That would be due to a *Singularity* of the situation.

These are key Abstractions from the situation with different properties and effects.

Now these are necessarily considered somewhat differently in their varieties of use: and though my explanations, that lead to these differences, arise from my always-holistic stance, it is important to note that many other widely current uses, even in Science, are wholly pluralistic in their determining, underlying stance, and hence differ significantly! That is, they take all the laws involved as permanently fixed.

So, Marx's strictly holistic methods will never be considered by those usually employing entirely pluralist methods - like the majority of both scientists and logicians for example.

Now, in any such, many-law, holistic context, as with both my favoured chemical analogue, and also the ones involved in Capitalist Economics, the simultaneously-acting laws will most certainly NOT interact pluralistically, for then all would be of the exact same type. Indeed, within holism there will usually be a Generality - delivering the underlying fundamental Law, determined as such by the overall, dominating conditions, but always also (potentially) modified by a whole series of Particularities; which can adjust and vary the Generality. While there will always be, in addition, one or more Singularities, which can, in appropriate circumstances, terminate the Generality completely, by changing the underlying situation. And, there will be different reasons, which causally-determine all these natures, and their roles, in a given situation.

Once again, my revealing analogue can be used to expose all their various determining causes. In that case, the Generality will be described by the basic underlying Law, itself, caused by the relative abundance of its major required resource, more often than not, determined by the circumstances in which it occurs. While, the various Particularities, will never challenge that objective dominance, but could modify it contingently to some extent. Finally, the Singularities are totally independent influences, sometimes from without, that cancel the dominance of the Generality and facilitate its complete replacement.

NOTE: Now, the above constitutes only the briefest start in addressing such Holistic Changes and how we can deal with them, and, as we develop this description, the significant differences and evident superiority to the consensus Pluralist Approach, will gradually, and excitingly, be revealed. For example, the conundrums and even impasses connected with Dichotomous Pairs of contradictory concepts will be fully explained - particularly via our revealing analogue, which will always include an opposite sub-dominant process, which, in certain circumstances replaces the prior Dominance, without significantly altering the overall Balance and Stability!

But, the very reason for the prior adoption of Plurality as the universal stance in investigating Reality, does have some sort of basis, in the evident relative predominance of long-persisting Stabilities within Reality: indeed Stabilities are frequent and persist for long periods, but can never deliver any significant Qualitative Change.

So, in spite of the always very short durations of Emergences, they are, nevertheless, the sole sources of all Development. And, the apparent "Truths" of Plurality are usually arranged-for, by artificially-constructing and actively-maintaining appropriate Stabilities, to ensure the possibility of applying such Pluralist Laws successfully.

But, of course, such a purely technological approach can never address any of the areas involving qualitative changes and their explanation - and these are evident in by far the widest ranging areas of study. Even Modern Physics and Cosmology have both been brought to existential crises by the limited pluralist approach, and without a veritable revolution in these areas, they are effectively doomed as sources of Explanation for Reality.

NOTE: It is interesting to consider Mathematical Singularities alongside Marx's use of the term. The use of singularities in Mathematics means indisputedly that they are occurring wholly-within a legitimately pluralist context - namely Ideality. But, the infinities possible within Ideality, legitmises the positioning of a found "real" relation upon a graph of infinite possible extension, though for it is only a small locality within that graph, that maps onto a situation in Reality, and the rest of the space included in the graph necessarily constitutes what are, in that context, termed as Singularities - that is as asymptotes to Infinity, or swoops to Zero. They should just be the boundaries-of-Reality, but in idealist Modern Physics are instead suggested as portals to alternative Worlds!

#### **Singularities and Emergences**

Now, of course, even the role of Singularities, as so far merely described, can never explain any consequent real development, but only individual qualitative changes: and where they lead is also never-supplied, at such a level of analysis.

What is actually needed is a causal-mechanism for "system-change", wherein a mutually-affecting collection of many different, and even contradictory, processes actually dismantles the old order, and generates a wholly

New System. And, such an event, has a name within this Holist View of Development: it is called an Emergence.

And, it is certainly not a mere fixed-causality, with a given single outcome at all! Indeed, it is not even a consistent, co-ordinating system of coherent, related processes, naturally coalescing into a consequent final outcome. It is, remarkably, a balancing system of contradictory factors, which ordinary Logic would see as merely inhibiting, or even cancelling, one another, and hence leading nowhere!

And, it should be clearly contrasted with such co-ordinated systems, which can never lead to real, entirely-original qualitative changes.

An Emergence is always a remarkable Event, which produces purely temporary Stabilities, which almost always involve the same self-restoring balance of contradictory factors, while displaying an apparently resultant Dominance (which, superficially, certainly looks like a pluralist law).

Now, this turns out to be a surprising entity, for though it appears to be, and usually is, a conservative arrangement, ensuring its Status Quo for long periods of time, it can, in certain circumstances, become undermined. And yet, though that cause undermines - in one area of the balance, it mostly restores the situation - in another area, to counter that undermining. Such a contradictory Stability, therefore, includes the wherewithal to correctly deal with Crises most of the time.

But, if pushed too far, it not only precipitates a wholesale dissociation - a total Collapse - it also always delivers an unexpected outcome. The produced intermediate situation no longer perpetuates anything. New subsystems can now begin to come together, relatively unhindered - though many just as quickly dissociating again in their own Crises. But, finally they come together in a new balance of contradictory factors, which constitutes yet another new Stability! And, that new system could never have been predicted from the prior Stability. This is how the Wholly New emerges!

But, how is the necessary variety first produced, and then maintained in any given context? The engine of our Solar System is clearly The Sun, but different parts of a planet, presenting different angles of incidence of the Sun's Rays at its surface will receive different amounts of heat, and

consequent differential heating of the local atmosphere, causing Winds and hence differential evaporation from any liquid water available in seas or lakes.

And as the planet spins, it will also at every point on its surface by alternately be illuminated, and then plunged into darkness, causing differences in heating over time!

So, already, just considering the 'stable' Sun and Earth, we get diverse conditions including precipitation and even worldwide small particle distribution, via moving winds. And the more things that are considered, the more variabilities are involved.

The point is, how do they co-exist in some maintained, or regularly repeatable mix? Clearly, conditions can vary enough to promote opposite processes in extreme situations, the results of which can be moved about by winds and currents. Yet, some planets in our Solar System do seem to exhibit restricted ranges of processes, and continuing as such for seemingly vast periods of time. While others, like Earth, seem to be in relatively constant change: which appears to be largely due to Life.

And Life itself must have once been some kind of Emergence: what else could it have been?

So, why no evident Life elsewhere in the Solar System?

We can deal with a variety in conducive circumstances, but what triggers the crucial event that enables everything that can consequently emerge? Clearly, once we abandon the fictional simplicity of a Pluralist World, we find ourselves in a much more complex Reality, requiring a wholly new approach when attempting to understand it.



*A Universe*, by Alexander Calder

## Postscript:

Clearly, there is still a great deal to yet be addressed, but I feel some brief foray into that waiting world should be addressed here, as a sample of what is to come.

Let us consider Causality!

For, our idea of Causality is significantly distorted by not only the premise of Plurality upon its nature, but also in the consequences of that stance for how we see, explain and use Causality.

The Principle of Plurality has all elements extracted from Reality as permanently-fixed: not only categories and concepts but also extracted Natural Laws too. And, consequently, our tools for dealing with these were obviously also "tailored-to-fit" such fixed entities and relations.

Primarily, if Plurality were true, it would be entirely valid to deliberately restrict, or even "farm" investigated situations to effectively isolate a given relation: for, if that relation were naturally eternal, our manipulations would never affect it: it would remain the same.

Also, we could never effectively use that relation, if we didn't similarly simplify the context for use, as with "only one Law free to act", we could easily apply it to achieve predictable ends. And any complex production would have-to-be organised as a series of productions, one for each pluralist Law evidently involved.

We would never attempt to apply them all simultaneously! Yet, of course, simultaneously, is exactly how Reality works with its "Laws", when left to itself! So, because of our subscription to Plurality, we purposely prohibit, for ourselves, any knowledge whatsoever of how simultaneous "Laws" might actually affect one another, or even follow particular natural sequences over time.

The natural selection of such sequences is NEVER available to us, as it must have been in totally unfettered Reality. Indeed, Plurality is NOT true in either Reality, or even in Reasoning. In fact, it is only true in Mathematics, because of its simplified relatable abstractions, on which it was constructed. But, they don't form the abstractions upon which Reality and Reasoning are constructed!

So, in making Plurality the basis where it does not apply misleads what we can do with what we obtain by such means: and, in addition, limits the conditions we can apply them in to severely restricted and unnatural contexts.

## Explanation in a Holist World

As soon as we dispense with straight-through Pluralist Explanations of phenomena - usually termed Reductionism, (as we certainly must), we unavoidably present our selves with a seemingly insoluble problem with regard to Explanation generally.

Let me explain!

For every Explanation does so in terms of some underlying causalities: so it never completes the task: we have then to address the elements of that explanation and explain them too.

With Plurality, we can explain a given phenomenon solely in terms of the properties of the contributing factors involved. And to, thereafter, explain those defining properties, themselves, in the very same way, at the next level down.

Nothing, apparently, prevents this, so explanation-underlies-explanation all the way down to supposedly final Elementary Particles, which are then the components of absolutely Everything!

You can see the logic of such an approach.

For, with a set of Elementary Particles, with fixed properties, everything in the World is explicable: but it is certainly predicated upon those initial properties being fixed and eternal. That both allows the above assumptions, and "it must be so", as there is nothing below the Elementary Particles to vary them.

This assumed Reductionism is, in fact, the very basis for Plurality!

But, of course, that isn't actually true. We cannot descend through all levels in that way, by extrapolating the possibility of individual "one-step" explanations universally.

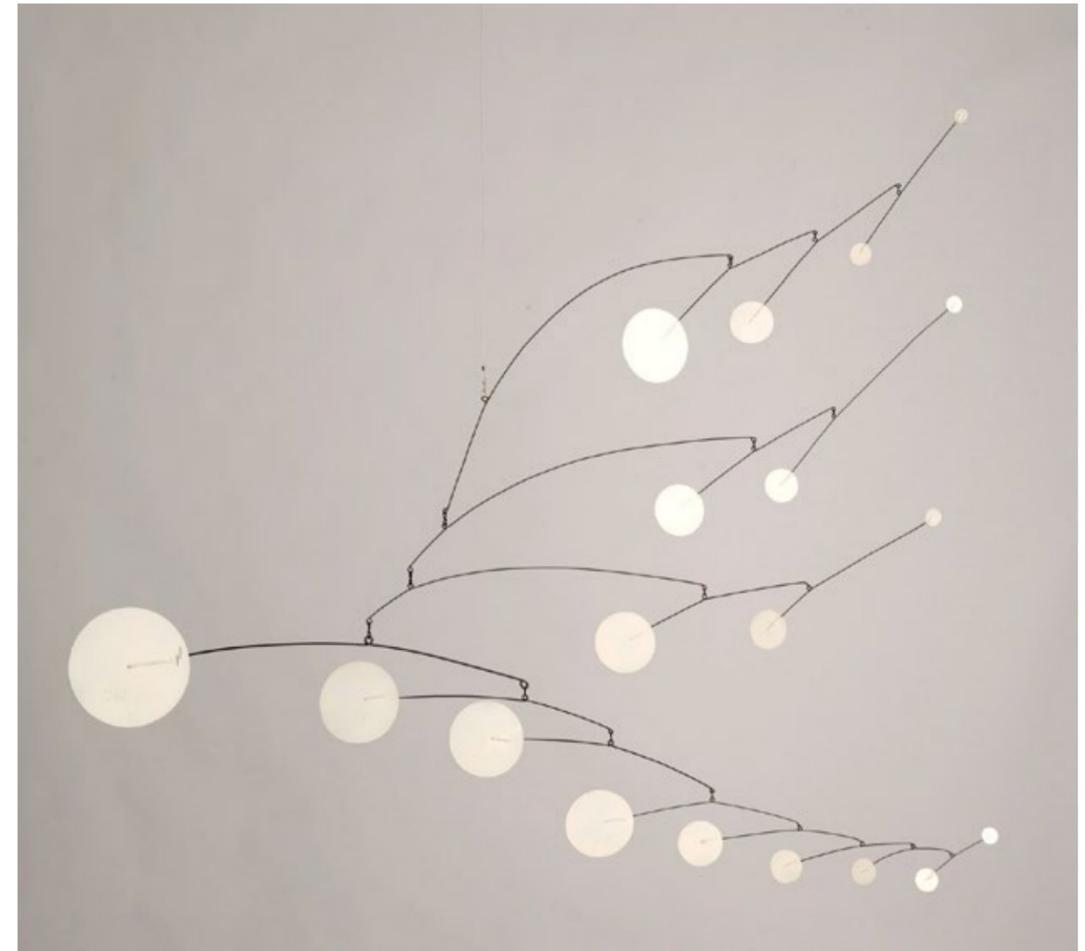
It is, in fact, a very convenient fiction! And, of course, like all useful fictions, it appears to be true in short-runs! However, though we can ensure successful use of such explanations, by so constraining-and-maintaining the circumstances, that Reductionism is true, but only as long as we don't stray beyond the limits of that delivered-and-enabling Domain.

But, in spite of the alternative approach, Holism, being known for just as long, it has never been conducive to effective productive use of things: so Plurality provided the required-and-predictable contexts for all use. We purposely built our contexts to be pluralistic, whenever we could.

But, Reality-as-is is NOT naturally pluralistic: it is actually holistic - all things, to greater or lesser degrees, are contingent upon shifting contexts.

However, reality frequently settles into relatively Stable Interludes, wherein Plurality actually approximates to being true, sometimes for very extensive periods! Some key things have certainly persisted for billions of years. This approximation to Plurality is so close, in fact, that Mankind learned how to achieve and maintain such situations, so that particular extractable "Laws" could be taken as eternally true, and used reliably to required ends, within those enabling contexts.

But, each such Domain could only be true for a Single, Given "Law", so, to achieve anything at-all-complicated,



*Nineteen White Discs*, 1961, by Alexander Calder

would require a whole series of different Domains - one for each required "Law".

Plurality was the ideal philosophy for Technology. But was really terrible for Science!

Scientific Theory required the truer Holistic Approach. A philosophy that takes into account the bigger picture of changing natural contexts, cycles and upheavals.

Let us see why this is the case! To not only pragmatically use things, but also attempt to understand them, and thereafter extend Understanding throughout Reality-as-is, it required the Continuity of the forms of understanding throughout Reality. BUT, though short sequences of Explanation were possible, they always terminated at some unbridgeable impasse in the available explanations: so all such explanations were local, and the reasons for that limitation were always due to qualitative changes having occurred: things that were reliably considered in a particular way just ceased to be so: they had become something different.

An interlude of Qualitative Change had occurred, which was no longer delivered by the usual pluralistic Laws, usable previously. Indeed, though Reality did arrive at self-maintaining Stabilities, which persisted for long periods, they were always terminated by such Interludes of Qualitative Change eventually, wherein Laws changed, and new Stabilities were erected. Indeed, in some special cases, literally everything changed, and the Interlude became a true Emergence or Revolution!

Clearly, though Technology could cope with Plurality, Science, as the means to Understand Reality, had to cope with Holism, and therefore all its Qualitative Changes too. And, the differences between the two turned out to be absolutely enormous!

Plurality was, and is, the simplest-possible interaction between factors: a particular fixed property can have a straightforward quantitative effect upon something else, and even a couple of such effects can merely sum. So, in self-maintaining, stable situations, such an interpretation can be close to what actually happens.

But, Holism can also immediately complicate any situation, by instead switching to considering effectible-properties all acting together, and not only changing each-other, but also their overall combined effect,

which is now produced by the Integrated System of Contributions, and can even produce more-than-one possible overall Effect, and even deliver something wholly New and completely unpredictable!

NOTE: In Science, where predictions are used as proofs of "understanding", this inconvenient truth cannot be tolerated.

And, in hierarchies, this will always be possible: even what we think is a single property of a single factor, could just as easily be one result of a System at a lower level. And, of course, the usually assumed simple sums are unlikely, with variability-in-properties being generally the case - the combined effect in certain circumstances could be remarkable.

As Hegel had already demonstrated, switches to "Opposites" would be one of the simplest effects (see *Truly Natural Selection* by the writer of this paper). And Cascades, or even Avalanches of qualitative changes, would be possible within Systems of Systems.

Indeed, the *Theory of Emergences* (2010) describes the trajectory of an Emergence, involving first a series of failed Crises, each of which is nevertheless only temporarily, but which always partially succeed, by instituting certain changes, but also necessarily precipitating other such Crises, until a total Collapse occurs, plummeting the situation towards a Nadir of Dissociations, when, surprisingly, a level is reached wherein wholly new sub-systems begin to self-construct, and with both their failures, and the following series of new constructions, finally establish a Wholly New, Persisting Stability: An Emergence or Revolution will have occurred.

Can you imagine tracing your way through that?

It can be, and has been, done within successful Social Revolutions, but only by superlative Holist Thinkers and Leaders.

Now, I can establish the truth of this conception. How else did the multiplicity of intellectual disciplines and even specialisms emerge? Why did Natural Philosophy irrevocably split into Mathematics, Physics, Chemistry, Biology, Geology, Medicine and all the rest? And, why did the rational basis of all of them always fail at the impasses caused by Dichotomous Pairs of contradictory concepts?

It was a miracle that Mankind even managed to arrive at Plurality!

Why should a 'product' of Reality even get to considering such things? Settling immediately upon the correct path to Truth was obviously impossible: it would have to be a rocky path - full of errors, misconceptions and unavoidable pragmatism. Reality is far too wonderful to fall directly into our laps: after all - it produced US! How did that occur?

For 99% of Mankind's existence, as a separate species, our only intellectual principle was "If it works, it is right!" And, yet with only this, we managed to spread to all corners of the planet, using only knapped flint as our only enabling tool! And literally everything else only began to be achieved within that last 1%, entirely socially due to the Neolithic Revolution. Literally NO genetic changes were involved in this huge development: the wandering Hunter/Gatherer family groups and our present-day selves are pretty much identical genetically. We're the same species as those ancestors. The changes have been social - they have been cultural.

We have to understand why, and how, we began that miraculous development path AND also comprehend its necessary and unavoidable actual trajectory. It is only through such historical materialism that we can possibly grasp who we are, what we have become and where we must go next. As the great Australian Archaeologist V, Gordon Childe insisted "Man Makes Himself", but never to a conscious plan.

And, the next step has to be the transcending of the current Pluralist Phase to the very much richer Holistic Phase in Mankind's Intellectual Life. But, that hasn't been easy! It sometimes feels as if it has barely begun.

From the first inklings in Zeno of Elea's Paradoxes to today constitutes a full 2,500 years, and, within that time, neither Hegel's Dialectics, nor even Karl Marx's Dialectical Materialism, was ever turned into a new universal basis on which to begin to integrate the Sciences.

It certainly had a major influence in both Economics and Politics, Culture and Art, but Science remained relatively untouched by the new philosophical stance.

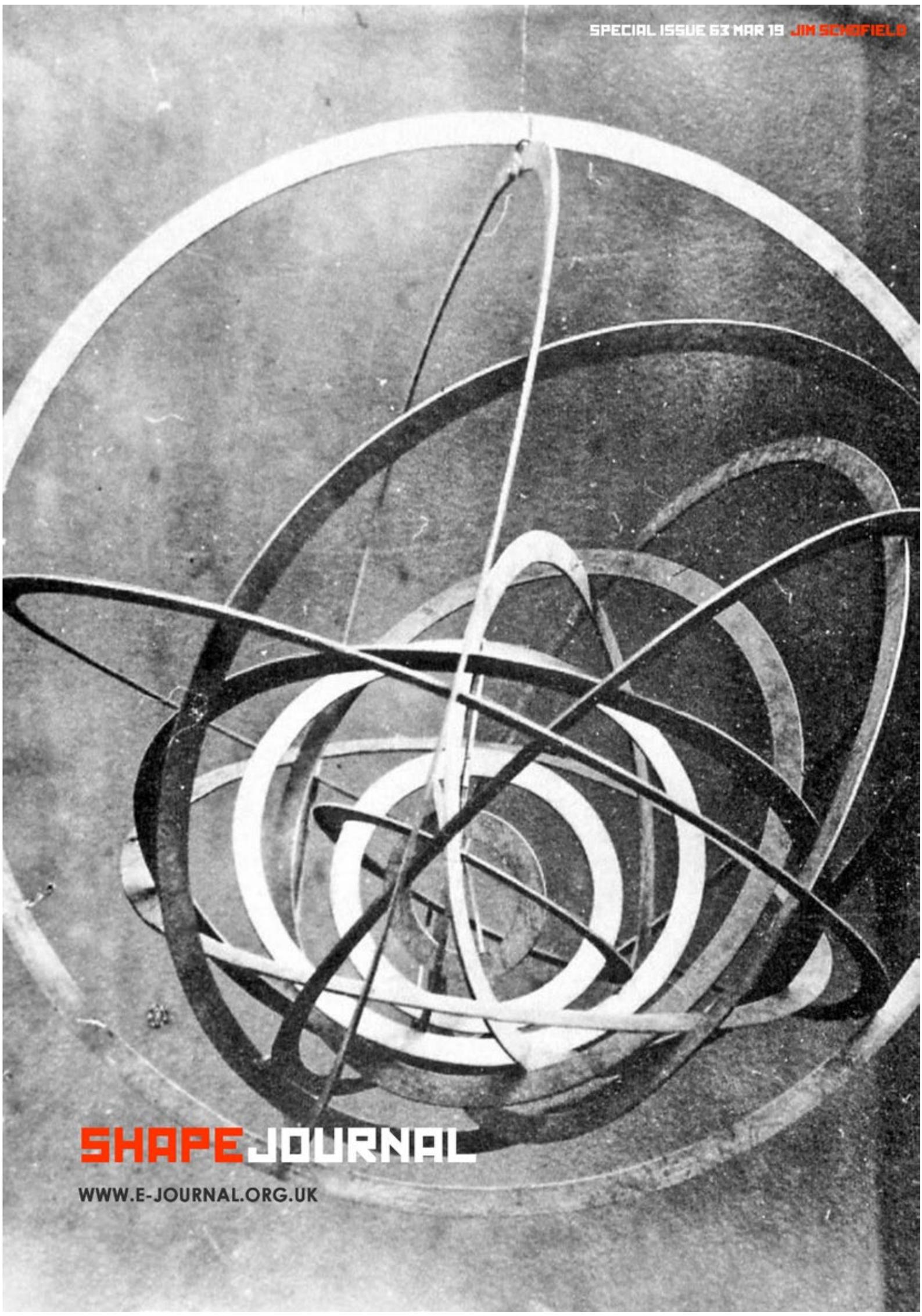
But, in the last decade a new breach has finally been made in the wall entombing Science in The Plurality of the Past.

The major and demolishing critique of the Copenhagen Interpretation of Quantum Theory - as *The Real Philosophy of Science* has finally been published, and not only replaces that illegitimacy, but upon sound and generally applicable philosophical grounds, finally enabling the necessary assault upon a Holistic Experimental and Theoretical Method applicable throughout the whole spectrum of The Sciences, but, of course, each one needing their own Karl Marx to do the sort of job he was able to do upon Capitalist Economics and Social Evolution!

Where is all of this New Marxism?, you may ask!

It is all substantially available in a single place - this very journal (now in its 10th year and its 122nd Issue).

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