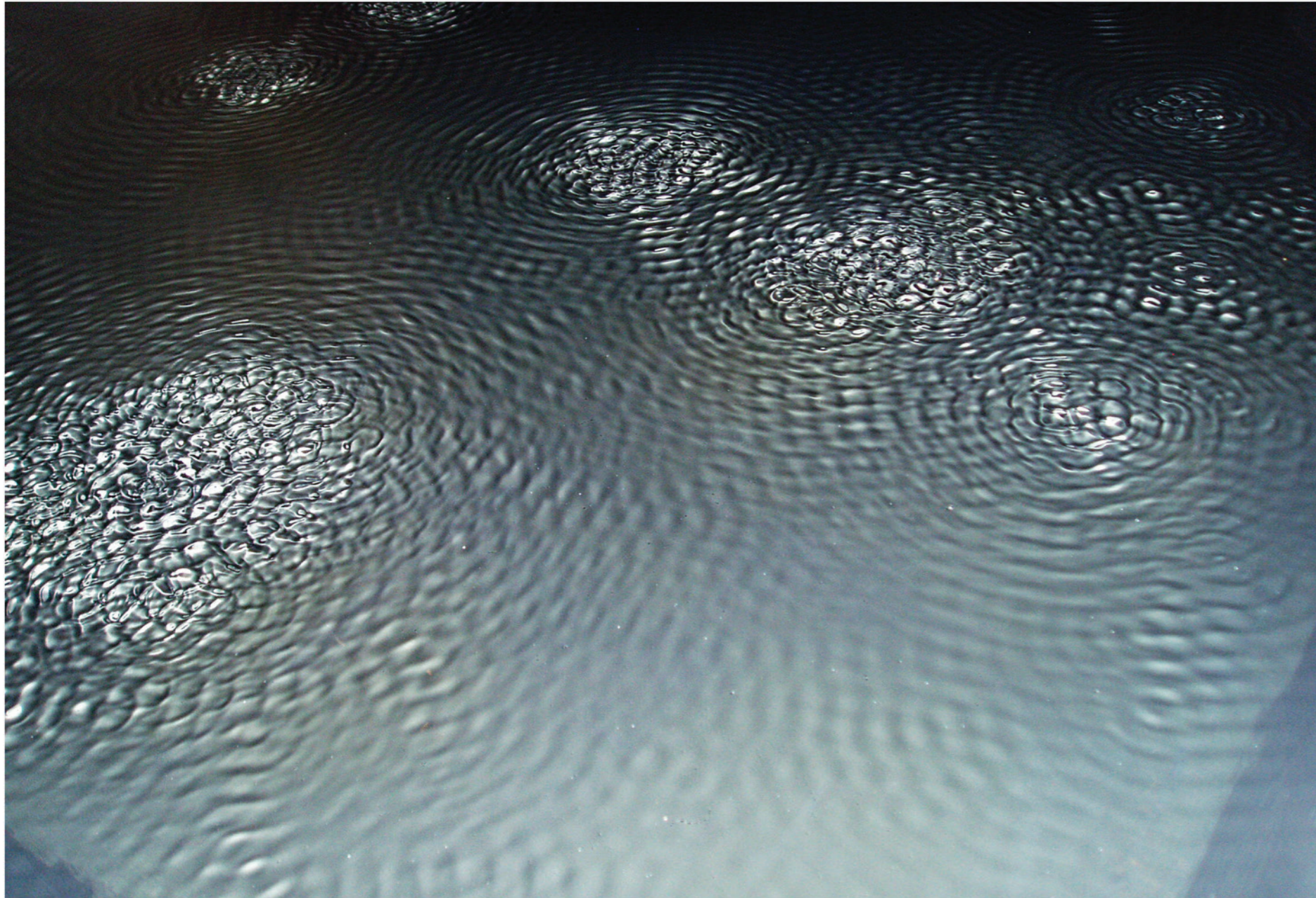




SHAPE JOURNAL

THE UNKNOWN OCEAN - PART 3 - METHOD

EXPLORING THE UNKNOWN OCEAN THAT IS REALITY / DIALECTICAL MATERIALISM / GRAVITY
DEVELOPMENT OF HIERARCHIES / MYTH OF SIMULATION / ITERATION & HOLISM



Special Issue 32

The Unknown Ocean

Part 3 - Method

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Introduction

The Unknown Ocean that is Reality



Welcome to the third part of our *Unknown Ocean* series and the 33rd Special Issue of the SHAPE Journal. Here we will continue our journey deeper into the uncharted depths of reality, this time concentrating on the necessary methodology.

A major threshold lies before Mankind, which so far scientists have refused to address, and hence never resolved, and, instead they have continued with the old views and methods, which are incapable of transcending this evident impasse. We are stuck and can go no further.

Now, of course, many of the aspects of this new view have been glimpsed upon many occasions by remarkable investigators, but their brilliant contributions have not managed to transform the standpoint or the methodology of the majority of serious investigators. They remain steadfastly committed to both Positivism and Pluralism. And, though, in most involved individuals, both mysticism and religion have long been banished from their standpoint, those alone did not, and indeed could not, deliver the necessary breakthrough that will facilitate the next steps forward. In all the main intellectual disciplines the old assumptions are still well entrenched, underpinning both Modern Science and Philosophy.

In the 21st century, crucial scientific researches are weighed down with these abstractions, constructions, assumptions and principles of a now significantly failing past intellectual stance. For these are no longer worthy of delivering a productive and developing standpoint, essential at this time to produce any real progress at all. Science has run out of steam. Since 1927 Physics has only moved backwards towards an even more defunct *idealist* standpoint.

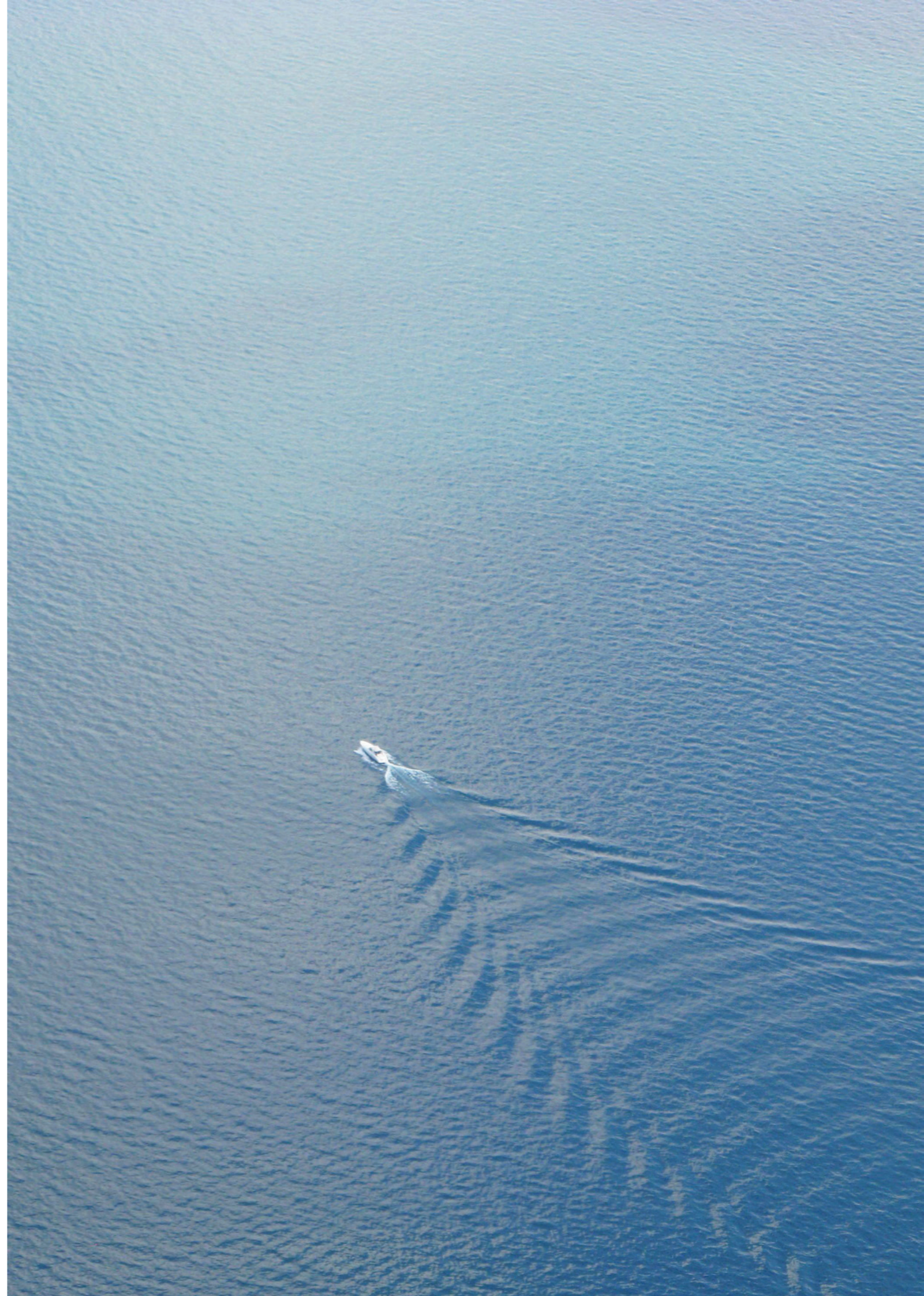
Yet, the way forward has been, at least, indicated, for the last 2,500 years with both the Holism of the Buddha in India, and the scepticism of Zeno of Elea. In spite of a long period of stagnation, philosophically, finally, only 200 years ago, Frederick Hegel, in his main philosophical undertaking, revealed the inadequacies of our concepts, and why they were inevitably so. But, of course, Hegel was an idealist (an obvious disadvantage in his own primary objective of unifying Philosophy with Science) so that, not even his leading disciples, namely Karl Marx and Frederick Engels, saw that Hegel's gains in the area of Human thinking just had to be re-established within the alternative, materialist philosophical outlook, and, of course, intimately wedded to Science. But, that just hasn't happened!

Despite brilliant contributions by scientists like Darwin and Wallace, and the major gains in Philosophy made by Marx, the necessary re-construction of a consequent philosophy among scientists did not occur. And, that has been a major problem.

Now, the situation is beginning to change, as this writer, and many others worldwide, begin to question the impasses and anomalies proliferating in all areas of Modern Science, and are endeavouring to construct a new, and sounder basis, and this series of Specials deliver some suggested steps in an advancing a wholly new understanding upon a, so far, unimplemented standpoint in Science and in Philosophy together.

It is, of course, a presumptive claim, so he has broken the argument down into three Special Issues of this journal, of which this is the final instalment.

Jim Schofield Feb 2015





Dialectical Materialism

The Philosophical Standpoint & Method of Marx

What is Dialectical Materialism?

It is an unusual and revolutionary development in Philosophy, because in addressing the Nature of Reality, it is also crucially aware that any results of such an endeavour will be unavoidably transformed by its conception in Human Thinking, which, at any point in Mankind's development will never be in a position to address everything relevant, or, at that stage, be intellectually capable to deal with all that will be involved.

Concrete Reality, as exists independently of Mankind, is understood via man-devised Abstractions in Human Thought, and, as such, will never totally represent what they are intended to.

Such abstractions, though based upon and reflecting Reality, are always and unavoidably both simplified and idealised to deliver something that can both exist and be manipulated in human consciousness (as available at that time), and, as such, will certainly omit many important factors, and absolutely everything involved in that thing's creation and development, as it occurred, maybe over eons, in the real World.

Now, just stating these powerful limitations seems like an admission of guaranteed defeat. But, that is certainly NOT the case, as the whole history of Mankind's development from an intelligent ape to what he is, and can do, now proves. And, the redeemer, at this stage in Man's development - Dialectical Materialism, is in the approach and methodology that this development delivers.

The major credit has to be given to Frederick Hegel, the German philosopher, building on the developments started by Zeno's Paradoxes, 2,300 years earlier, he began to understand exactly how Man could, in spite of current inadequacies, still build useful and good reflections of Reality in his own consciousness – in his own physical brain!

Hegel realised that Mankind's approach could never internalise completely what he was observing and even studying, so all our extractions will have two very different sides. The first side would be the contained Objective Content – a useful but always incomplete reflection of Reality that will be the basis for our consequent concepts. While the second side will be the inevitable inadequacies of ground upon which those extractions were based – the consequent assumptions and principles formulated from a history of such internalisations.

This important ground will always be insufficient to deliver whole truth of Reality: indeed, they will be the best overall conclusions that we could make at any given juncture. And, though in many carefully organised situations they will be sufficient to be both useable and even reliable, there will always occur a time when those believed-in bases will deliver TWO diametrically opposed concepts, arising from the very same assumed bases.

Hegel discovered these Dichotomous Pairs, and, as with Zeno's suggestion he saw such pairs – like Zeno's Continuity and Discreteness as incompatible, and indicative of a crisis, which must be transcended if further understanding was to ensue.

You could use one, or the other, each in particular situations, when it proves adequate, but such an unexplained switch between them pragmatically, clearly indicated that something was very wrong with these Pairs as such!

Now, no matter how many logical manipulations were applied to such pairs, they could never be transcended into one or the other of them being primary and correct. It was then that Hegel realised that the problem was not in the Pair themselves, but in our assumptions and principles upon which they depended, and it would be there that the real work had to be done.

Hegel called his method of criticising and revising these bases, Dialectics, but it wasn't in the old classical meaning of a debate to resolve differences, because what had to be addressed were currently agreed by everybody: they were just wrong! What Hegel proposed was an entirely new method of purposely finding Dichotomous Pairs, in order to transcend the impasses caused, and be able to move forward in understanding.

It also had another disturbing consequence in the attitude to Human Understanding. It was clear that a given transcendence of a given Dichotomous Pair would never be a final solution. Even after a major success with a new set of bases, these too would also generate their own Dichotomous Pair, even though at a higher level. Henceforth, such dialectical reasoning had to be constantly applied to overcome all our own necessary simplifications and idealisations.

Ironically, the very achievements of Mankind in establishing "sound premises", was also the thing that would always be bringing things to yet another halt, and another perplexing impasse.

Now, there was no arguing with Hegel: his methods were sound, and opened up a prospect of tremendous subsequent developments. But, he was an idealist! His respect for Science wasn't enough for them and he disagreed on the most fundamental issue of all. Most scientists were materialists.

And, this caused his best student, Karl Marx, to remarkably totally switch his philosophical stance from Idealism to Materialism. But, Marx naturally kept the great gains of Hegel's work on Human Thinking, and so postulated Dialectical Materialism as the new basis for Philosophy.

It was very different, indeed, from the Mechanical Materialism of the scientists. For, it rejected the assumption that actual Natural Laws could be, and indeed were, extracted from Reality directly. And, these would be exactly as they were in totally unfettered Reality – pure as the driven snow, indeed!

And the new stance also crucially rejected the universally assumed standpoint as embodied in the Principle of Plurality, which underpinned absolutely all the laws that were extracted throughout almost all of Science. And, this turned out to be extremely important, as this principle actually, though not overtly, inverted the usual materialist view – which was that it was concrete Reality, itself, that made the laws what they were, rather than the opposite stance, which asserted that it was eternal Natural Laws that made Reality what it was.

Clearly, to claim to be a strict materialist, while having abstract Laws actually driving Reality was always a major contradiction, so the usually termed Classical Science Approach had been suffering from this Dichotomy, literally for centuries.

This hidden dichotomy is the famed Holism-Plurality split where people like The Buddha stressed Holism, while most of Western Thought assumed a pluralist stance.

It also revealed itself in how experimental evidence was considered. In spite of extensive and indeed rigorous “farming” of experimental conditions in order to most easily extract the sought-for Law, what was extracted and formulated as a Law, was considered as always separable from all other simultaneously acting Laws, and it was this aspect of Plurality that enabled farmed situation Laws to be considered as also eternal Natural Forms, irrespective of the carefully arranged experimental conditions that were imposed. Clearly, absolutely all such Laws were a product of the arranged conditions, and NOT independent of them. And, this made them Man-made (at least to some extent).

Let us re-iterate this point, as it is clearly crucial! Abstractions from Reality via arranged conditions and suitable simplifications and idealisations could indeed give Mankind useable Laws, but only in the correct circumstances: they were neither eternal nor were they the ultimate bases, ever. They were as good versions as we could get at our then current state of development, and hence would always change if used outside of their appropriate conditions (those used in extracting them). Also, every single one of them at some stage would be bound to fail.

So, behind the term “dialectical” in Dialectical Materialism is a substantially different holist philosophical standpoint, which saw the usual pluralist investigations and consequent Laws as always and unavoidably “for now”, and also never complete!

Now, in contrast to this, most scientists were Mechanical Materialists (or more properly Pluralist Materialists), and seeing their extracted Laws as both Natural and eternal. But, it is never thus.

So, if ever you decide to read something by Marx, look out! Your normal logical reasoning will just not suffice. Indeed, you may be confused by his insistence on making abstractions (with maybe new names) at every turn, and thereby seeking Dichotomous Pairs in order to, thereafter, transcend their evident limitations, and he will do it by first seeking their common bases, and then carrying out a detailed critique of them, followed by the development of something better. And all that was by no means easy for him, and even harder for you. And without instruction, which I personally never got, it is almost impossible to understand what he is trying to do.

We are so inured with Formal Logic and principles like that of Plurality that we go about attempting to understand anything and everything in a certain way. And, let’s face it; the old ways are not completely useless. We do arrive at meaningful and useful abstractions. What we have no idea of, are the methods involved in going further than such an approach.

Indeed, such a method as Dialectical Materialism is so different to our usual methods that, in the end, the only sound method is to re-find it for yourself – starting where you can and persevering until you begin to crack a couple of things for yourself.

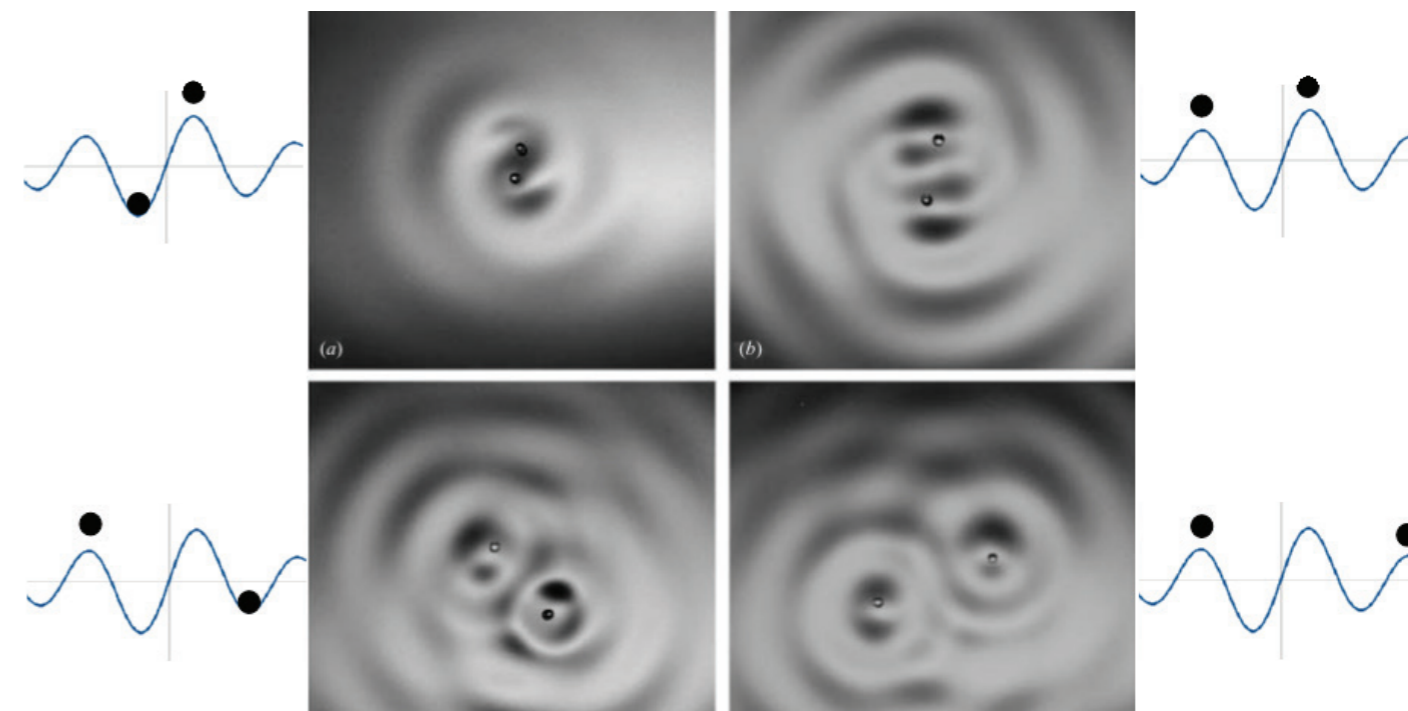
In the end, I did it by attacking the inexplicable areas in my subject, Physics. And, finding them in post Copenhagen Physics was not difficult: they are absolutely everywhere.

Of course, when always addressing the difficult impasses (as you must) you are forever tempted to be a pragmatist, and use whichever arm of your found Dichotomous Pair works in a particular situation. But, clearly, such a backsliding meant that NO real breakthrough of the impasse had been achieved. Such is the Postmodernist excuse for not knowing and giving up the chase!

I was lucky in that I was a scientist and have spent my life attempting to understand Reality in order to teach it. That profession is a demanding master, and only after many years did I finally realise what Zeno, Hegel and Marx were trying to say.

On getting to such a position, the addressed problems started being resolved at a remarkable rate, and this old Marxist finally became a *real* Marxist. The proof was in the successes that were achieved. I managed to solve all the anomalies of the famous Double Slit Experiment, redesigned Stanley Miller’s famous experiment about the Origin of Life, devised Truly Natural Selection when Darwin’s theory was extended to the development of non-living matter, and even produced the Theory of Emergences – wherein the revolutions evident to both Hegel in Thinking and Marx in Society, were extended to include all natural developments.

Couder’s Motivations Why Philosophy and Ground are Vital



What were the motivations of Yves Couder, when he embarked upon his remarkable series of experiments, which finally resulted in his amazing “Walkers”? Why would he attempt experiments with just a single substance - silicone oil - and the application of various oscillations in an attempt to produce something significant out of extremely unlikely resources?

Clearly, he must have had prior experience with such things, but, certainly, no evidence that the things he sought were actually possible to achieve.

So, I can only assume that he already had ideas about internally-achieved Stability, as distinct from the usual externally-determined cases – such as a round ball in a deep surrounded valley, for example. Couder must have been convinced that he would, indeed, find some kind of Stability involving only his chosen, very meagre, components

He had, of course, the example of the atom, which was, indeed, a stable entity, available in a multiplicity of different forms, with very different properties. But, the internal structures, as so far revealed, did not seem sufficient to explain its steadfast, multi-instance stability, never mind its multitude of very different properties in the various different instances.

The Copenhagenists had managed to concoct a “frig”, based upon discrete quanta, and a purely formal approach. But, as such, what they actually gave was only a description, and never an explanation. For, Form cannot be cause – to assert that, is certainly a purely idealist standpoint, so I assume that Couder is no philosophical idealist, but a materialist scientist, and he, therefore, seeks the internal reasons for Stability.

He knows that in atoms there are orbits and oscillations, so he starts with what is already known – the phenomena of resonances and recursions, and attempts to create some sort of stability, literally upon the simplest basis he could think of.

He chose a tray of silicone liquid and introduced oscillations into it by various means. His only controls would be the frequencies of any induced oscillations. So, he began his investigation.

Initially, he got nowhere until he introduced another source of oscillation, which would both cause, and itself be affected by, some ever-present, separate oscillation. And, to achieve this mix, he released a drop of the same silicone liquid onto his tray, already vibrating vertically. As you might expect, he initially got absolutely nothing – the drop simply was absorbed into the tray of liquid substrate. But, he persisted, by varying the frequency of oscillation of the tray, and also the size and height above the tray from which he released his drop.

At a certain point in his adjustments the drop bounced, and continued thereafter to repeatedly do so, and by so doing was contributing another adjustable oscillation into the set up.

Remarkably, Couder had produced a persisting stable system out of oil and oscillations ONLY!

It was an interesting concoction, for it consisted of his bouncing drop, his oscillating tray of oil, and an elicited Standing Wave on the surface of the oil substrate, surrounding the position of the bouncing drop.

Now, full descriptions and further developments are available from Couder himself. But here, as I said, at the outset of this paper, I am interested in Couder's motivations and philosophical stance, for they must be of paramount importance!

I can only see Couder as a fellow subscriber to the Principle of Holism, as against the universally adopted position of literally all current scientists, who prefer the alternative Principle of Plurality. I can find no other explanation for his particular approach and choices. And, to this theorist, such a standpoint would not lead him to support the Copenhagen Interpretation of Quantum Theory as a basis for all such phenomena within the Sub Atomic area. Couder surely had a very different agenda, not only in his basic standpoint, but surely also in seeking a better approach to all the questions posed by that now consensus position.

For, physically, that standpoint has proved totally unable to explain any of the phenomena involved. Indeed, such explanations have been regularly condemned as pure invention, and the alternative of putting 100% faith in "discovered" equations has been promoted to being the only acceptable "definition" of the Truth of these situations.

Indeed, when experiments are investigated, and the "theories" arrived at are studied, we find absolutely NO explanation of the many anomalies always found to be present, and only purely formal ways of representing and dealing with them considered legitimate. Such a standpoint can only be mere pragmatism – as such equations allow a certain kind of reliable predictions, and hence deliver descriptions that can be successfully applied, then that is all that "it is possible to achieve", and the always-necessary crucial phase of explanation is abandoned.

Perhaps Couder is doing what this researcher (Jim Schofield) did when confronted with the Copenhagen Interpretation of the various Double Slit Experiments, with their multiple totally inexplicable anomalies, for, he refused to accept the idealist pattern-matching, and still required materialist explanations.

So, after an extensive amount of research, and the inclusion of a Substrate into these inexplicable experiments, he managed to fully explain every single anomaly with a consistent, materialist standpoint. Clearly, whether his proposed contribution is correct is NOT the important factor. Whether his explanations contain more Objective Content, than that which the Copenhageners proffer, is the real question.

So, there appears another possible differentiation of scientists like Couder, from the majority of scientists today. Maybe he too realises the never-correct nature of all explanations, while at the same time, knowing that they are the only way forward.

Talk of Absolute Truth and eternal Natural Laws is idealist and impermissible, while subscription to the regular increase in Objective Content of our theories is the only valid route.



Hitting the Buffers

The problem with fields in Empty Space, and especially with Gravity, is that the tenuous, vanishingly small effects at truly great distances, and even their directional effects seem impossible to install into any kind of substrate.

And, of course, Einstein's Space-Time Continuum, though a formal encapsulation of an undoubted physical effect, also infers some sort of substrate, which is not only significantly affected by the presence of matter, but which, thereafter, can then in turn affect moving bodies travelling through it, and divert their subsequent trajectories. In other words we are seeking a concrete embodiment of Einstein's formal representation.

NOTE: Though, at the same time, the necessity for a substrate seems to be strongly supported by the ribbon-like skins forming links between collections of galaxies, which could be explained by those tenuous connections being where a substrate exists, while the rest, out there, truly is wholly empty!

Also, there has to be several, nay MANY, such fields, acting together, on every affected collection of matter, and pulling in different directions, without being permanently cancelled out.

The first, and very clever, solution was to consider these effects as being something like the ripples on a pond – as being like waves, which can certainly pass through one another, and emerge on the other side undiminished. But, of course, you have to detect any sort of medium, and the irreversible discovery of the Quantum scuppered that entire analogistic model, for two basic reasons.

First, the apparent Continuity of such fields, and the Discreteness of quanta of Energy appeared to be totally incompatible (like Zeno's Achilles and the Tortoise Paradox). And also, of course, absolutely NO medium of any kind was found to be present in that enormous void, as a carrier of such effects.

And, that is not an isolated, or even unique, contradiction in Science in general at the present time. For, the Solidity of most Matter, and its apparent emptiness at sub atomic levels are yet more apparently contradictory facts.

So, we definitely have laws (like Gravity), which depend upon the Level in which they act. And, such are NOT directly derivable from the lowest order relations, as is generally assumed to be the case.

Indeed, you cannot build anything higher out of entities defined in themselves alone.

There has to be a creation of wholly new features at each and every New Level of existence, and that will never repeat - never be explicable merely as a summation of lower Level features.

The vastly higher forms, such as that of Life, make this absolutely clear, for no New Level comes into existence incrementally and imperceptibly!

On the contrary, they always emerge only in a cataclysm, which, alone, can start afresh, and forge wholly new, previously prohibited, co-operative relations.

You simply do not have pure, bottom-up causality as the sole causation of such things!

Now, on these vastly higher Levels such as Society and even Thought, such revolutions (for that is what they are) can actually be experienced, and, indeed, analysed.

So, we are as yet only in the very beginnings of the absolutely essential *Science of Emergences*. Yet, this has certainly commenced, but at the “wrong end” – that is top-down, for the problems we are currently addressing here.

And, in these initial gains in understanding, such created Levels were all at the very top end – were started initially in earnest by the German Philosopher Frederick Hegel, some 200 years ago, with his studies of Human Thought, which were later extended further into developments in Human Societies by Karl Marx.

Yet, in spite of these vital gains, Science carried on regardless, with adherence to a strict bottom-up causality, and an incorrect extension into a straight-through inferred Reductionism.

Yet, of course, that paradigm was NOT a pure fiction: it did certainly work extremely well “within-a-Level”, but, it could not transcend an Emergence.

So, a vast collection, of such extractions, turned into what were termed Natural Laws, was very quickly amassed, which locally and within-Level did seem to obey the initial assumptions made, and led to the “universally applicable” Principle of Plurality – that all Reality was analysable into separable Natural Laws, which delivered absolutely Everything!

But, it just isn't true!

Such an approach would regularly and inevitably generate contradictions, at the limits of its applicability, and thus necessitate a forced division of Reality into distinct and unbridgeable areas of study – seemingly naturally severed apart at these crucial fault lines of contradiction.

And, of course, in attempting to explain the ubiquitous Action-at-a-Distance, in Fields (especially Gravitation) the problem seemed insurmountable.

Yet, the lack of real understanding was never a final and destroying end to scientific endeavour, for, quite apart causal explanations and understanding, Man had also discovered that quantitative relations, between significant variables, could be found. And, these could be reliable and useable if the Domain of study was very carefully isolated and farmed, to bring it as close as possible to a “pluralist state”, for then the purely formal extractions could be formulated into Equations, For, it turned out that the elimination of many factors, plus the maintained rigid controls on others, so modified the mix, that the result could be made to be dominated by a simplified determination that would deliver in accordance with Plurality.

But, such useful and reliable features were not the revealing Essences that they were assumed to be.



On the contrary, such were the extractions of relations were the result of a inan-arranged set of circumstances, which were always significantly different from the targeted phenomenon in Reality-as-is!

They represented a specially tailored situation, and were also always limited to purely quantitative variables too.

Such extractions didn't, and indeed couldn't, explain why things happened in the way that they did, but instead focussed in upon a description of a pre-arranged, significantly-limited, maintained case. As long as that Domain and its essential arrangements were not transgressed, the formula could be reliably used!

Nevertheless, such Pluralist Science was NOT useless! On the contrary, it gloriously enabled technological achievements, and has constantly led to innumerable useful inventions, and all Productions for the Market too.

But it did not explain!

And, it actually hid, therefore, by omission, the actual causes of why Reality was the way it was. It turned real, ever-varying Reality, into the playing out of an artificially isolated, strict relation, and inferred that all phenomena were merely the various, possible summations of such fixed, Natural Laws.

It was, therefore, and still is, a blinkered view of really existing phenomena, but without giving any explanation. It never was sufficient for all investigators, and the best scientists tried, in addition, to encompass both of the key imperatives of Science – not only to predict and use, but also to understand.

But, the ever-pending crisis had to come to fruition, and it would always occur at a boundary between one Level and another, dividing Science into its various specialisms, but crucially and cataclysmically at the division between everyday phenomena and the Sub Atomic World.

Indeed, THIS crisis could not be set aside. It hammered at its investigators without pause, until the majority decided to retreat – and abandoned materialist explanations for an equation-led alternative, where such relations, themselves, became the causes of phenomena.

Einstein and the materialists were finally defeated at the Solvay Conference in +1927, and Bohr and Heisenberg led the majority into an absolutely idealist alternative approach, encapsulated in the Copenhagen Interpretation of Quantum Theory.

Ignoring the contradictions became a principle, and that particular area of Science became a branch of Mathematics, and a wholly idealist discipline.

But, of course, such retreats solved nothing.

In no time the retreaters found themselves producing Atomic and Hydrogen bombs for the pragmatic leaders of their countries, and attempting to further their studies via ever-greater atom-smashers to reveal the fundamental particles of Reality.

So, where do we go from here?

A solution is surely possible, as proved by the successes of the Bolsheviks in the Russian Revolution, but in spite of the then hour-by-hour changes in that Emergence, it was still slow enough for valuable and determining analyses to be made and put into polices and actions.

On-the-fly investigations and actions were possible!

But, in much lower Level transformations that certainly isn't the case, for the entities and processes involved are invisible and undetectable, and the speeds are colossal, so, no easy as-it-is-happening analyses are possible.

The best methodology is still Hegel's Dialectics, wherein he purposely sought out and embraced Dichotomous Pairs of concepts, and instead of looking solely to them for a resolution, he, instead, always examines the assumed common bases that underlay both the arms of the dichotomy for errors: the assumptions and even principles (like, for example, Plurality) must first be unearthed, and then criticised. Indeed, they must ultimately be replaced by something substantially better – something with more Objective Content.

Now, in addressing, for example, Gravitational Fields, the assumptions of interacting fundamental particles, in a totally non reactive Empty Space, can deliver Nothing - especially, as such entities are devoid of the necessary properties to actually deliver what we are seeking. For, these bases are the Lowest Common Determinators (LCMs) of a rigorously simplified and idealised Reality, and can never explain anything beyond that man-devised realm!

Clearly, there are Levels between any such fundamental particles and the emergence of Gravity. The assumption that Gravity already exists, and resides, within each and every particle is meaningless! Gravity has-to-be a property of higher orders of Reality, including something other than the discrete fundamental particles that are currently considered in the usual conceptions.

Remember, such effects have to reach across the entire Cosmos, so they have to be more than an incremental sum of tiny influences, AND, crucially, they too, will also require intermediaries to carry their influences to the ends of the Universe.

NOTE: Interestingly, in the usual conceptions, Gravity is always considered a continuous effect – divisible down to the infinitely small, and just as smoothly summed up to the incredibly enormous. It seems essential that such an effect must be communicated by a Universe-wide presence – some sort of substrate. But, if so, what is it?

Indeed, the situation wherein a single line of development is assumed to be involved vanishes, almost without trace at the very outset.

What we must consider are multiple and simultaneous development paths, which though initially independent of one another, increasingly affect one another, as they grow in dominance, and what must then be totally unavoidable, is that these alternatives are no longer merely self-determined, but obviously mutually affect one another in increasingly competitive ways. So, at a certain stage inevitable crises will occur, and impel changes that will facilitate survival and even further dominances.

Such developments may seem to be leading to total chaos, but that isn't the case, in areas that have been available for study (notably the Evolution of Life), and wholly new overall Levels that are sustainable, always emerge. And, such Levels are NOT mere summations of what came before. They always involve entities and processes that have never occurred before.

So, we are considering NOT the affects upon certain things by others, but in fact, the Self Development of Reality without any external motivations or imperatives at all.

Reality does it all by itself!

And, it involves multiple and differing possibilities, making progress separately, and then coming up against others in contradictory situations, which will, one way or another, be ultimately resolved. And, absolutely ALL such solutions are where many different processes make higher-level relationships, which ultimately resolve into stable New Levels. And then, in total contradiction to the usual bottom-up causality, these new levels, in a top-down way also modify the very conditions, which led to their emergence.

The causes are destroyed with in the Emergence process!

Development via Hierarchies

And the Creation of the Wholly New

Here is a cautionary tale in current investigative science! Can you really reveal the nature of complex things by smashing them to pieces?

For that is, of course, the main investigative tool in present-day Sub Atomic Physics, where ever greater Accelerators, or more correctly termed Colliders, give these scientists ever new data, from which they construct their theories about both the origins and development that has brought about the present Sub Atomic World.

But, seriously, is that ever possible? The answer to such a question will depend upon exactly how actual creative developments happen in Reality. Clearly, changes must have causes and any serious attempt to address that trajectory, must tackle the crucial questions of both Stability and Transforming Change.

What are the phases in developing Reality? What keeps things the same, and what totally overturns that state and creates “the wholly new”? Do undirected situations merely complicate into ever more complex associations, which can then be clearly revealed by such tremendously violent dissociations? Or, alternatively, are developments not mere summations but mutually-transforming unifications within ever-higher systems or Levels - in other words, in hierarchies of qualitatively different levels?

For, in the latter case, the dissociations will, at best, merely deliver the units of the prior level, but it is also even more likely that you actually make-and-get previously, never-existing, broken fragments with no consequent stability.

The two alternate scenarios give very different results upon dissociation, and will be particularly dissimilar if the dissociations are extremely violent, for such vast energy insertions could actually create the entirely new, but, crucially, unsustainable fragments that tell us absolutely nothing about what we are trying to understand, most essentially in the natural evolution of these things in the Development of Reality.

One of the most puzzling features of Reality is the presence of evident hierarchies with very simple, stable particles at one end, and Human Beings with consciousness at the other. Clearly, any attempt to explain consciousness in terms of the properties of particles, will never be successful.

So, how do the evident multiple levels co-exist, for they most certainly do? Importantly, when a new level is established, it is then never a subsequently repeatable episode.

The very same thing doesn't happen again elsewhere. In fact, once a level has been established, it is also stable, indeed self-maintaining, and crucially, also has a significant top-down effect upon its “producing level” – it actually prohibits either the same transition or any other similar transformation happening again. Thus, such an event cannot be seen as mere complication – a straightforward incremental achievement! The level is not just a

collection of substances and processes: it is more like a coherent System, and as part of its allowed set of processes, there will be some that are self-maintaining of the system, and some that prohibit any challenges from without at all. And, this also ensures that the “previously-producing level has, itself, been significantly altered. It is effectively policed by the new level above!

Now, clearly, between individual particles of matter and the ultimate Consciousness of Mankind, there are an insurmountable number of hierarchical levels. So, the famed principle of Reductionism, which assumes a feasible tracing of causality down through all these levels must be false.

You can never do that, for the levels that exist NOW, are not those that produced the level above it: they have all been transformed as part of the emergence of the new Level above it.

Causality within a level is, of course, possible. But, causality across a level change, such as, for example the Origin of Life on Earth from an entirely non-living level cannot occur again, and also cannot be worked out from the assumed producing level – for that, as it was then, no longer still exists.

Now, of course, Life did indeed arise from a previous non-living level, but it is NOT a lower level we can investigate today. It has been transformed itself in that process, and it is hard to see how we can now theorise about how it all occurred from our present day viewpoint, the evidence has long gone.

NOTE: Indeed, Stanley Miller realised this, and from a speculation of what that prior level most probably contained, set up his famous experiment, which, after a week of totally self-running, was able to produce amino acids (crucial building blocks of Life). But, that was it!

Clearly, the crucial process was a veritable avalanche of intermediate and transitory sub levels and processes: it just couldn't be set up. Life was not an unstoppable and natural consequence of the mere existence of the prior level

Indeed, for Life to emerge, the prior level in a particular area had to be dissociated almost entirely in order to allow a new level to emerge. The prior level was a necessary precursor, but could never be, as such, the cause of Life. And, it also, itself, did not survive that emergent episode. Indeed, what emerged in its place was significantly different once the whole episode was finished.

So, quite clearly, Life was no natural, straightforward consequence of that producing level (which, let's face it is often the inference of many, who are supposedly researching this field. How often do we hear arguments about the “ideal conditions in which Life would certainly arise)? Indeed, when it did occur, it was initially a seeming calamity – major breakdown of a prevailing Stability.

Andreas Gursky





Only after a period of turmoil and dissolution, did a final, and higher level finally emerge, and even that latter constructive phase of the interlude would still not be a regular incremental ascent, but reflect on going up, the oscillations that had earlier occurred when going down. Indeed, even that ascent was stop-and-start, with different systems gaining temporary dominance, and only finally resolving into the establishment of one such dominance that became a self-maintaining stability.

NOTE: If the reader is surprised at this seeming detail, which could never have been observed, it arises from the all embracing Theory of Emergences, which is indeed based upon observed evidence, but can with some confidence be extended to all such Emergences, including that of Life itself.

Perhaps the crucial phase in such Emergent Interludes, occurs in the catastrophic collapse of a prior Stability, for what is actually lost is never the basic primary processes, but the stability-ensuring “policeman processes” which inflict major inhibitory constraints upon any qualitative changes. And, it is only when these constraints are totally dismantled that the unchanged underlying primary processes can be brought into a wholly new final stability, with a very different character.

The reason for the above details is to demonstrate that within such interludes no straightforward causality produces the new level. Indeed, there is a complicated route through many sub stages, that don’t even survive for long before the final Level is reached, and stably established.

Also, within this account were the processes of the dissolution of a stability in addition to the construction of a new one. And clearly, at some future stage, a very similar crisis and resolution would be bound to recur.

I believe the point has been made that the search for the process of the Origin of Life in even a well-defined prior level, would still fail to deliver the actual process.

Finally, it must be re-iterated that any currently existing lower-than-life-level, will NOT be the same as that which was the case when the Emergence began. It will have been itself transformed by the process of Life’s emergence. It is now a different thing, and will never be the basis for a new emergence of Life – even purely theoretically.

Inner Pavings Too?

Let us assume that there is no such thing as Empty Space - “as Nature abhors a vacuum!”

And, thereafter, that by gravitational processes, a once-universal filling of all of Space (presumably caused by an initial Big Bang), was selectively changed to remove literally everything from that enormous area, which could be affected by Gravity. But, any wholly, matter-neutral entities would be left behind, literally having the same distribution as was originally attained, while the everywhere-evident and detectable concentrations of matter would dominate.

What Mankind naturally considered, in attempting to make sense of Reality, would unavoidably leave out of his deliberations the Empty Void, for it would clearly be the remaining seemingly totally Empty area which we termed Space.

Indeed, not only would we not consider Empty Space as important, but also literally 100% of our investigations, deliberations and even theories, would be derived solely from these gravitationally aggregated areas. Empty Space would be considered purely as an absence of *everything*.

Yet, this initial definition, via omission, soon became inadequate as soon as the propagation of Light throughout the Cosmos had to be considered, and the first conception of a space-filling substrate was conceived of, which was a Medium (somewhat like a liquid) that could be affected by Waves—oscillations of the substance of it. But, that too was undermined successively, as literally nothing was ever detected there to prove the existence of such a medium.

The final idea was of a massless, transparent, and undetectable, elastic medium termed The Ether. And, conceptions derived from waves elicited in media such as water or even Air, were also allocated to the Ether too, to explain its undoubted ability to propagate electromagnetic radiations, such as Light. NOTE: An important question to answer is, “Why is Light invisible?”

But, if such particles, as could exist there, were material, yet apparently matter-neutral, we would have a very different World there, from that extracted from the main centres of matter, such as upon Planet Earth, and all other clearly seen heavenly bodies.

The “empty space” World would have to be composed of very contradictory entities, which could both interact with Matter, carry electromagnetic energy, subtend various fields, and deliver Action at a Distance, while being totally undetectable, and therefore, un-investigatable too!

And once we define such a substrate, what would stop it from being literally everywhere, including as a background, even in matter-dominated areas of Reality? Indeed, everywhere not occupied by matter, could indeed be filled with this substrate, including the interstices between the more evident Matter concentrations.

Indeed, the seeming emptiness inside atoms would also be so filled!

And, to make things even more interesting, it has been shown that these gravitationally-neutral entities could still involve matter, but in balanced dichotomies composed of both matter and antimatter, of positive charge with negative charge, and balanced magnetic effects to make them neutral too!

The basis for all such particles would only be the mutual orbiting of appropriately endowed matter and antimatter sub particles. So, though such particles would be invisible, they would still involve internal moving charges, in mutual orbits.

To attempt to explain the propagation of electromagnetic energy through Empty Space, and the miracle of supposed “Action at a Distance” – being effective over truly vast, indeed, cosmic distances, had to be the objective.

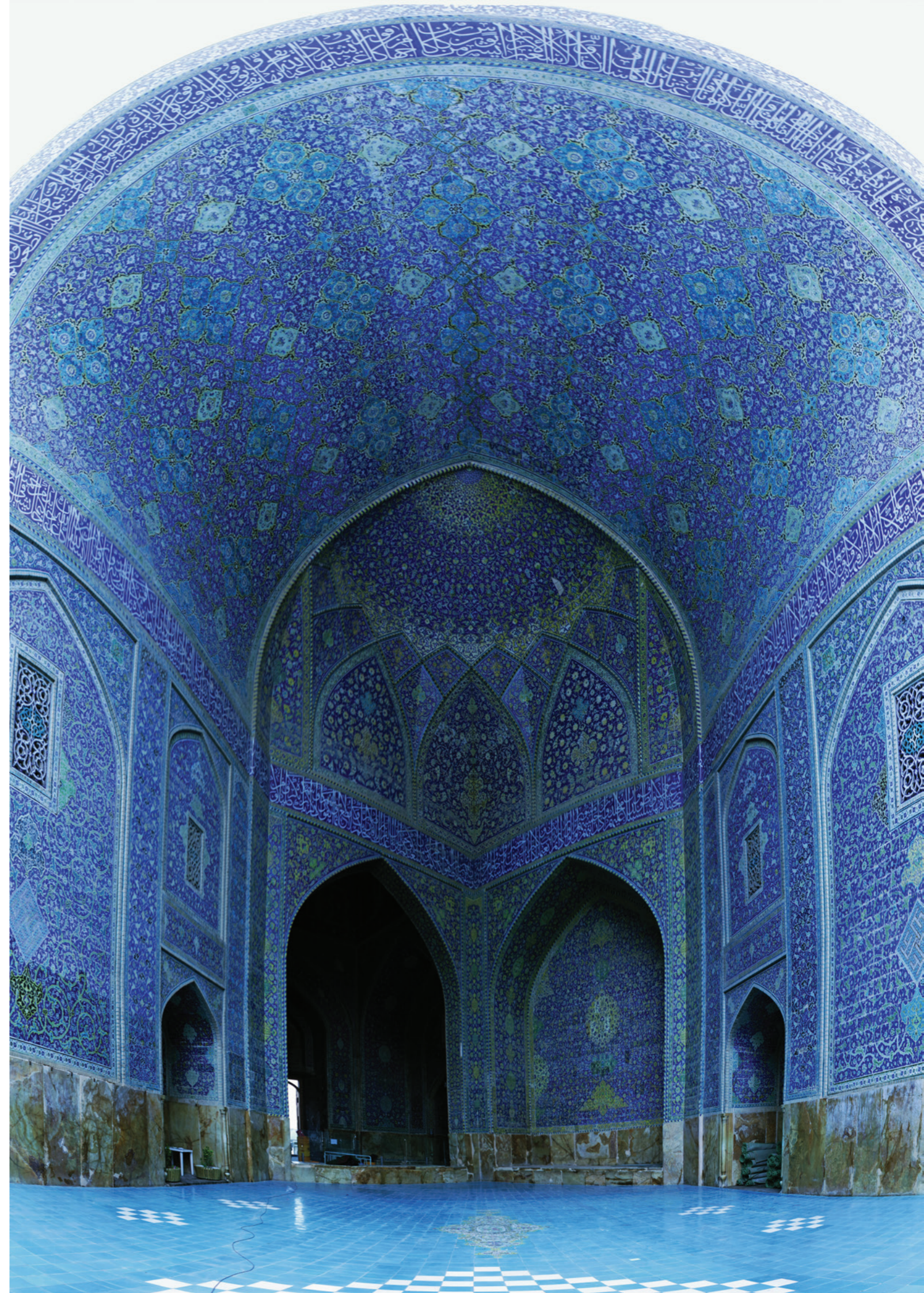
Some of the consequences of this hidden matter have been investigated elsewhere – including in the physical explanation of the famed Double Slit Experiments, without any necessary recourse to the Copenhagen stance at all. But, even there, the supposition was that a universal paving composed entirely of large numbers of such invisible, mutually orbiting entities, not only extended throughout Outer Space, but also absolutely everywhere else too – including within those Experiments.

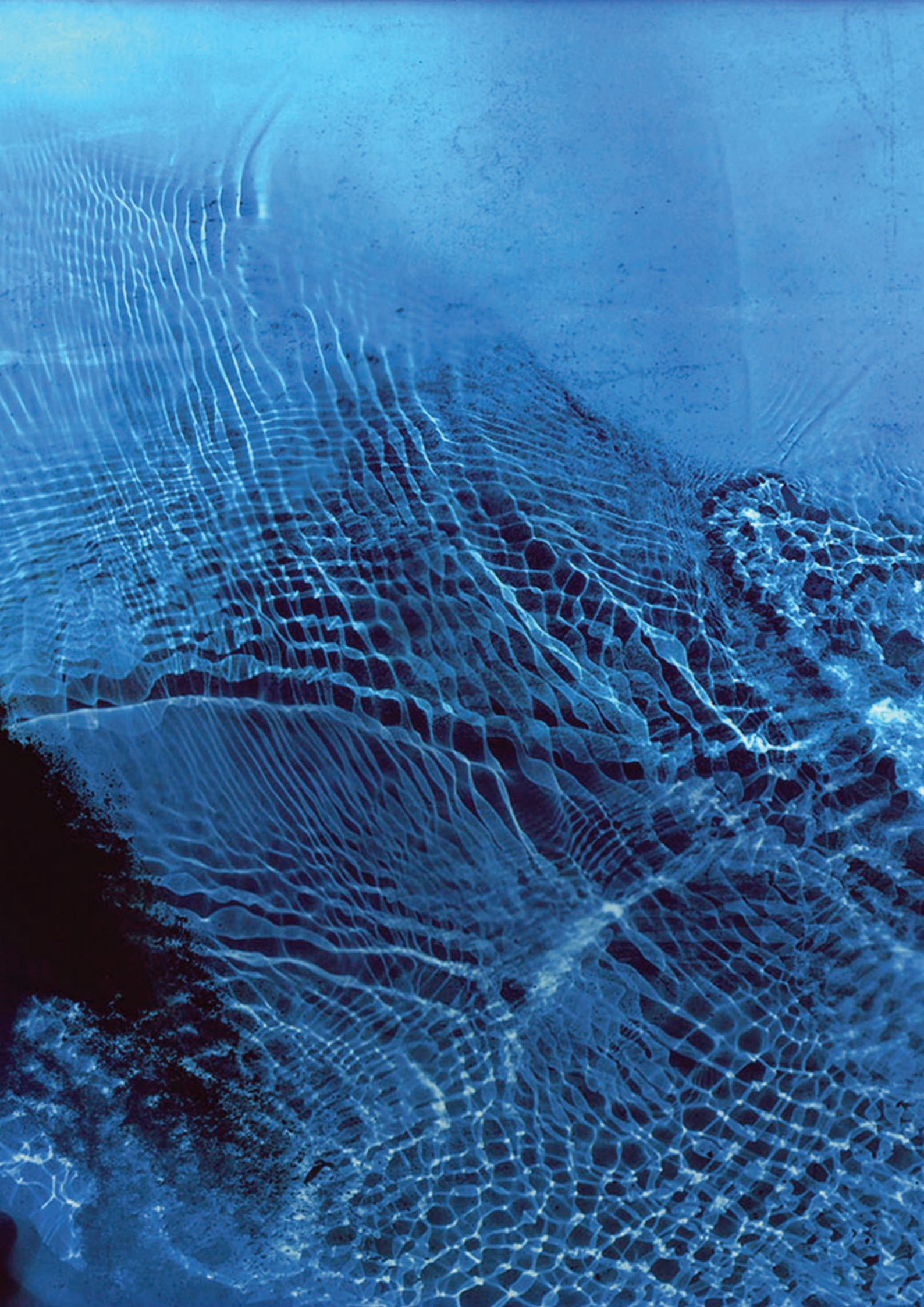
It is but a small step, to go from there to the inner spaces of atoms, themselves. And, once considering a universal substrate, in such a situation, the implications could be revolutionary.

How this could be so, has been indirectly revealed by the truly remarkable experiments of the French physicist Yves Couder, who invented a whole new type of experiment, wherein he actually moved difficult-to-understand phenomena from their natural place in the microcosmic world, into as close an analogue as he could construct, in a macro situation. And to keep things as simple as possible, he used only a single substance – silicone oil, and introduced ONLY several oscillations into the situation. Now, such content would not be expected to produce anything very remarkable. And, initially that was exactly the case. So he worked to try to involve oscillations that would interact with one another. He commenced with a single vertical vibration, continuously applied to a tray of his silicone oil substrate, and then released a drop of the same liquid onto its surface.

At first only a transient event occurred then passed away. But he could change his applied vibration and release his drop from different heights. So, this he did until his drop actually bounced! He had matched the timing of the falling drop, and its downwards force, to the upwards moving part of the overall vertical vibration, so that rather than simply coalesce it was returned upwards in a bounce. And, that wasn’t the end of his fruitful adjustments.

He finally arrived at a sustained system, with three elements. The original drop now bouncing up and down, the applied vertical vibration of the substrate, and a standing wave on the surface of that substrate around the bouncing position of the drop.





Clearly both resonance and recursion were involved and together these various vibrating components produced a persisting entity, which he called a “Walker”.

Now, if that were all, it wouldn’t be anything other than an interesting trick. But, these Walkers (and he could set up a whole regiment of them persisting simultaneously on the surface of his substrate) didn’t vanish on contact but could move around and bounce off things. These were certainly stable systems!

Also, with the addition of an extra, imposed rotation, he amazingly made possible quantized orbits of these Walkers on the surface of his substrate.

He had wrested a situation from a very difficult area, and attempted to mirror it, as exactly as possible, in an easy to study, macro area. It certainly wasn’t the usual isolate, filter and control approach of prior experiments, but, instead, an alternative, constructivist approach, attempting to make things happen in a revealing, yet complex way.

So, with a possible Real World substrate, composed of impossible-to-detect particles, the researcher and author of this paper (Jim Schofield) went on to tackle Propagation, Pair Production and even Pair Annihilation in terms of a Paving of Empty Space, consisting solely of so called *Neutriron* particles, which would NOT be fundamental entities but, each of which would be actually composed of a mutually orbiting pair of one electron and one positron, And these units would therefore be matter-neutral, charge-neutral and even magnetically-neutral too! And, they could also hold individual quanta of electromagnetic energy, by the promotion of those orbits, and deliver the same by their subsequent demotion.

Propagation would be achieved via the stationary substrate by bucket-brigade-like transfers from unit to adjacent unit, The only movements involved would be of quanta of energy at the speed of transfer, which we see as the Speed of Light, or C .

Now, this line of research is by no means complete: further investigations are proceeding involving other, different particles, in order to first tackle electrical and magnetic fields in Empty Space, and following that will be a general assault upon the most significant feature of so-called Empty Space – Action at a Distance.

Now, the original intention was to attempt to solve all the properties of Empty Space in terms of a Paving, consisting of a single undetectable unit. But, this is certainly impossible, and the direction, currently, has been to consider other joint particles, also with internal mutual orbits, but capable of delivering what neutrित्रons certainly cannot!

Using the very same model of pairs of sub particles of opposite matter types, and charge, but this time of different sizes, new particles were conceived of, which would NOT be neutral in all respects. Indeed, though the opposite charges would cancel out, the difference in size of the two sub particles would mean that neither matter-type nor magnetic effects would be cancelled out.

Yet, these particles would also have, somehow, to be undetectable! This was achieved by involving TWO particles essentially mirror images of each other, and being present in equal numbers, and also moving constantly about.

With this “random” situation, the overall effect would be neutral, as long as conditions produced totally free and constant movement. Now, though as yet incomplete this phase of research shows great promise, as fields appear to be the gathering around and orientations of these particles in concentric and motionless shells.

So, needless to say the role of this rather more complex substrate, within the inner spaces of Atoms, will be a more difficult problem to crack.

Yet finally we are getting close to the transference back of Couder’s macro level discoveries to explaining the phenomena within atoms.

For instead of some idealised Planet-and-Moon concept, we are approaching situations where multiple oscillations and rotations could come together to produce the very features, which defeat classical Science, and have led to its abandonment via the Copenhagen Interpretation of Quantum Theory

The question is, of course, “What does such a paving do to, and in turn get from, the particles we are already aware of in atoms?”

For, we are looking for Couder-like resonances and recursions between all these suggested contributors, which also produce a stable product – the atom! If Couder’s discoveries do have relevance, there will be an alternative explanation for the quantized orbits of electrons within atoms. For, without the simplification of a totally Empty Space, within these entities, we have, instead, something like streams disturbing a relatively quiescent “lake” of substrate, causing vortices and turbulence, so that all elements are actually mutually self-modifying to deliver a stable system.

NOTE: It is even worth a close look at James Clerk Maxwell’s physical model, with which he generated his still-relevant electromagnetic equations. For, he was certain that “The Ether” consisted of just such features.

And, if these ideas have legs in the situation within atoms, the dissociating phenomena in lakes and streams, will there have a chance of integrating several oscillations and rotations in to a stable outcome!

The Myth of Simulation

Pluralistic “Holism” or the Real Thing?

In criticising the assumption of Plurality in Science, there are a series of developments from basic Plurality, which have been developed by scientists and mathematicians to somehow address the more blatant errors, which are unavoidably precipitated by its involvement.

In the case of the former it was to bring their methods and extracted relations closer to the actually existing holistic nature of Reality. While for the latter, it was simply to extend the known mathematical forms then available into wholly new areas.

Obviously, both these later developments did not solve the problems. They were still both misleading and at least partially fictional. But as with all formal investigations and systems, they can be massaged to fit pretty well in certain areas. And this “usefulness” means that they have to be given very detailed and accurate criticism, or they will be assumed to be not only pragmatically acceptable, but also true, accurate and indeed necessary. And that, I must emphasize, they are certainly not!

The basic use of Plurality is to assume the separability of all contributing “Parts”, which “together” are assumed to constitute any given “Whole”!

NOTE: The inverted commas here are essential! For what is assumed to be a Part and a Whole is very particular, and is not the same here as would be the case in the use of these words in a holistic description of complex processes.

So, in the usual approach, anything, which makes these Parts easier to reveal, and even extract, is considered entirely legitimate. Indeed, it is lauded as an important process, crucial to the attempt to understand complex Reality. But, I prefer to identify it clearly as the Pluralist Experimental Methodology beloved in Science generally.

In this process, specially erected and maintained Domains are always considered to be essential in which to carry out experiments, because they can be so arranged as to easily reveal certain important factors, and their crucial relationships. Thus, whole families of these Domains can be separately prepared to each deliver a limited set of factors and one or another relation between them.

Now, the clear assumption is that such sets of Domains and experiments are revealing what is actually happening in complex, unfettered Reality without in any way distorting them by such simplifying arrangements. They are assumed to be entirely separable!

Now, once these experiments have been completed, and we have in our hands “all” the relevant constituent Parts and their separate relations, it is then considered to be possible to use them “together” to actually deliver Reality-as-is – that is natural, complex and wholly unfettered Reality as it is in World around us. Various means have been developed to give the impression of doing this.

So, for example, a kind of “faked” General Formula can be constructed, which includes all the separately extracted relations, fused together in such a way that when each set of Domain constraints are set up, the overall, general formula directly reduces that Domain’s originally extracted relation. And the same would be true for all the other Domains and their relations too. The fringed general formula is then claimed to be a kind of Theory of Everything in that particular area. What utter rubbish! It is no such thing!

But, such never exists within Reality as a simple, disembodied, all-determining general LAW. It is a clever, man-made approximation, which can enable employees to turn the handle and get the results. It is nothing to do with understanding the situation, and will ONLY work if the all Domains are set up by man, and isolated from each other, in turn, so that the resources and products can be routed from one to the next through a complete sequence - such as in an Oil Refinery, for example - or almost any industrial or technological process you care to think about.

In unfettered Reality NONE of these separately extracted contributions and relations are the same. For there they are NOT *components* but aspects of an integrated Whole, and crucially do not exist except when in that whole.

Indeed, it is the Whole, which plays a significant role in the nature of the “Part”, and, what is more, nothing remains exactly the same throughout. They are all subject to incipient changes, and will at some point change into something else. Can the separated relations or even the combined general equation deliver these crucial changes? The answer is “NO!” Our artificially “farmed” and extracted relations are similar enough, but qualitatively different to the real relations.

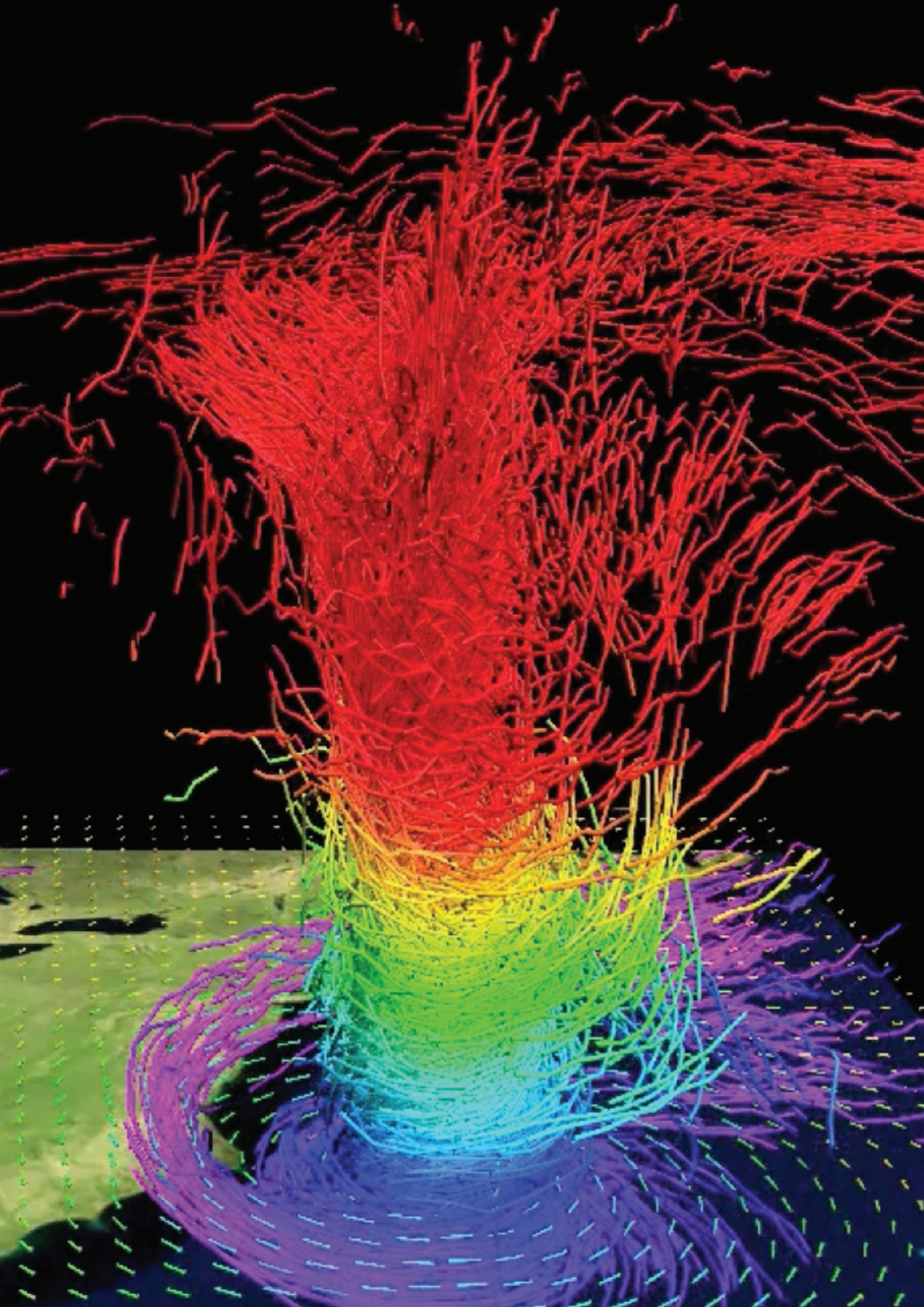
Now, such so-called *Additive Complexity* is only one, rather crude, attempt to deliver holistic Reality via an amalgam of pluralistically extracted relations.

The next trick is to have all the separate, pluralistic relations acting simultaneously, and to cycle round them, putting in the current required values into each in turn in an iterative way. This is another approach, but it too has many major flaws!

The main one is that at particular junctures one of the relations ceases to be even remotely like what is going on, and has to be replaced by another (found separately in different isolated circumstances). To signal the necessary switchover, there is another feature of this method. It involves the finding of threshold values of key parameters, at which the old relation must be dumped, and replaced by the new one.

Of course, there is no way that this kind of regime could be administered by a human being (or even a closely coordinated team of human beings). Too much testing and switching and then applying is required.





This methodology is used almost entirely on computers, in what are termed Simulation Programs.

Ideally, though not usually, these need to be multiprocessor computers, so that many of these different processes can be done simultaneously (involving a corresponding increased complexity in the necessary programming, of course!). But even so, it is yet another trick!

NOTE: I am once more pressed to liken such methods to Discreteness posing as Continuity, in that instead of an immanently self-modifying and changing complex, we substitute “moments” wherein we can interject our pluralist findings.

Now, the critic will, with justice, question why, if this is true, that such tricks can approach Reality so frequently – for it does so in the very best simulations. And in answer to this is *Dominance!*

Classical (simple) Holism would have all things *equally* contributing to an “almost random” mix, but that is rarely the case. Plurality approximates to real Holism by concentrating on those factors, which, for a time at least, dominate.

And while that remains the case, in what are termed Stable Interludes, the pluralistic extractions are not far from what is actually going on, especially in appropriately “farmed” circumstances.

But, as with all simplifications, such methods will always at some point fail, and fail catastrophically when stability is severely threatened, and an important qualitative change is nigh.

The essential relations are still the pluralistically extracted ones, and so are different from the similar relations, which hold (and sometimes changes dramatically) in unfettered Reality. These then are the current ways in which a completely plurality-dominated experimental methodology is attempted to be used to model totally holistic, real-world situations.

Clearly, the major holes in a Science totally dominated by such pluralistic ideas and methods, appear in all true Development – in those episodes wherein significant qualitative change occurs. The most profound such Events are often termed Revolutions, but the connotations associated with that word limit it to such happenings within Society, involving conscious human intervention towards various opposing ends. But, more generally, for they appear at every level of Reality, then they are termed Emergences.

As with all names, even this term appears to infer gradualist, incremental changes culminating in the New, but this is incorrect! Emergences are short interludes of dramatic and significant changes, which always (if successful) result in a whole new Level of self-maintaining stability, with its own new entities and laws.

The classic such Emergence is, of course, the Origin of Life on Earth, and its wholly new Level – LIFE, which is characterised by its own science – Biology.

Yet this, though the most important and certain, is only one of many, many Emergences, via which the Reality of today has been created.

Clearly, the role of those philosophers of Science, wishing to correct the mistakes of a wholly pluralistic approach and methodology, must be the detailed study of Emergences.

NOTE: This author has redesigned Miller’s famous holistic experiment in which amino acids were produced by emulating natural processes of the primaeval Earth. This new version tackles the inherent opaqueness of the original, and uses modern methods to supply continuous, time-based information throughout. He has also, within the last month, produced a Theory of Emergences.

Iteration and Holism

When we look at the history of Mankind’s attempts to understand Reality, we cannot but arrive at two seemingly opposing conclusions.

The first, which is the most optimistic and certainly the best conclusion, is to marvel at how far we have come, and how much we can now manipulate and construct things to our own needs and wants.

But, the second, opposing conclusion must be that each and every gain has to an extent been something of a construct – a useful and partially objective invention that may empower us in certain areas, but which is never the absolute truth!

And these must not be seen as alternatives: for they are both quite accurate conclusions.

We are brilliant at finding, or even inventing, formal (or other) constructs, which undoubtedly take us ever closer to the Truth, without either ever actually getting us there, or even being entirely conducive to subsequent progress in that purpose. Indeed, every single gain, though it can greatly increase our successful intervention into Reality towards some particular end, will always, in time, turn into its opposite and become a major barrier to further developments.

Scientists have come to call what they actually seek Objective Content rather than the Absolute Truth, and to be ever ready to set aside any of these powerful conceptions and methods, as soon as they become a hindrance. But, it must be said that such will happen only when an undoubtedly better alternative has been both discovered and developed to quite clearly transcend that which it replaces.

And currently, we have once again reached yet another impasse in our search for an ever closer approach to the Truth of Reality. And the cause of this is undoubtedly our own widely trumpeted and truly wonderful methodology in experimental Science. And the causes for this situation are also becoming clear. In order to crack intractable problems, we had to learn to effectively “farm” Reality into handle-able “plots” (or Domains).

These were rigorously controlled localities, isolated, as far as possible, from the rest of Reality, and adjusted and maintained as such. For, we had also learned what factors were the ones we needed to study, and we gradually learned enough to control most of the usually present others, within our isolated Domain, by holding them constant (or even excluding them altogether), while leaving our prime candidates as the only real variables in that context.

A whole range of techniques were assembled, which “farmed” these localities in such a way that the sought-for prime relation between the still remaining factors, which in unfettered Reality could only be occasionally glimpsed, but here were instead exposed very clearly indeed, and could be effectively extracted by taking sequences of measurements, and finding (by mathematics alone) the appropriate formal relation between them.

Indeed, because of the parallel development of the study of such relations in the abstract – termed Mathematics, there were soon a vast array of Forms to try to fit to our sanitised data, and many, many Domain-based experiments yielded abstract equations, which, only within these Domains, allowed reliable predictions to be generated.

Thus was developed the famed Scientific Experimental Method, which has enabled Mankind to transform the World, not, it must be insisted, by Science, but by Technology! For this methodology was from the start, and still remains, yet another construct.

Yet, it is considered to be a great deal more than that due to the widespread belief in the Principle of Plurality. This view of the nature of all things sees them as dividable into Wholes, which themselves are further analysable into their constituent Parts. And, of course, these Parts can then be similarly analysed.

Now, such a simplification seems, and is, quite reasonable, but hidden within it is a totally debilitating error, which is the belief that all such divisions are quite properly separable: this means that what is found in these farmed Domains is the same as what is acting in unfettered Reality: the extracted Law is the sam!. It is considered to be unaffected as a law, but acting simultaneously with many others in a complex, varying mix, that makes it almost impossible to observe there.

Now Plurality, as a principle, had long preceded the emergence of reliable scientific methods, but though conceptually applicable, it was not practically applicable until controlled Domains became possible.

Once such control was available to Man, he could indeed extract relations and use them with a large measure of confidence. But he was not dealing in individual essences of Reality: he was using very special versions determined by the very unusual conditions of the constructed and maintained Domain. Of course, as long as the use of these relations was confined to the same Domains as those in which they were extracted, all was well -but what about in unfettered Reality?

Could we just assume that our hot-house flowers would be exactly the same in the jungle of Reality? And was what we observed there merely the addition of many such laws, just delivering a complex result? The answer is clear! That is not the actual case. It would only be the case only if Reality were indeed pluralistic. If it were, on the contrary, holistic, it would be wrong! We considered that though we could not deal with unfettered Reality in the way we did with Domains, the latter had “revealed” what was really happening “even out there” in the World at large.

But, this was incorrect! Unfettered Reality is not, and never was, pluralistic: it is, without any doubt holistic. And this meant that the situation was not merely the complication of a situation due to the simultaneous actions of many “known” relations. That was an incorrect assumption.



In fact what happens in Reality is never a mere summation of unchangeable laws that were precisely revealed by Domain-based investigations, for the latter are always the results of artificially arranged situations.

In the real World, the relations are always actually caused by the given situation, whether it is some configuration of Reality-as-is, or some man-devised and constructed Domain: one is not contained within the other – they are differently determined. We may get away with our pluralist assumptions, but only when either Reality (or ourselves) produce something close to a very simplified state.

We have it upside down: an easy mistake to make!

The laws we extract are not primary. They are produced by whatever configuration of contributions are involved. To make the laws primary is a wholly idealist position, because it sunders the causal link and makes the laws eternal. To do this means that they exist independently of, and prior to, all possible conditions.

Now, though many will dispute these assertions, there is sufficient evidence to disprove the pluralist alternative, though most scientists and technologists would not even consider such a possibility.

To address such things you have to explain Emergences such as the Origin of Life on Earth, and as soon as development and evolution in Reality is admitted, the occurrences of such Emergences proliferate and have been regularly occurring since the Origin of the Universe itself.

Current Science constitutes only the methodology of Stability: it deals with such, whether natural or man-devised, very well, but it cannot deal with the creation of the entirely New: it doesn't deal with Qualitative Change at all.

Now, the compartmentalising of Modern Science is yet another proof. Can anyone actually traverse the explanatory gaps between the individual Sciences?

I know there are exports and imports between the Sciences, but that does not make them the same country does it? The realms of the different Sciences were originally created by actually occurring Emergences, causing the establishment of wholly new Levels of Reality, so that the various Sciences are applicable only where the new Sciences dwell. The Origin of Life on Earth created the realm, which has the laws we term Biology.

NOTE: This author has been both a physicist and a biologist, and knows that, by using pluralist conception and techniques - never the twain shall meet.

But surely, these boundaries must be the most important areas of scientific study?

They should be studied in their transformations.

The Emergence Event, which produced the realm of Living Things, is without doubt the most important area of study. But, pluralist Sciences (from either side) cannot address the problem, though the continually try.

Now, this rather long trip has been absolutely necessary because I must now turn to the main tool of the Sciences – Abstraction. And from an understanding of this, perhaps, indicate an entirely new path.

I must explain Iterative Processes, NOT as another mathematical technique, but as an alternative route to understanding Reality (or maybe, as usual, another and better construct – but what else is there to do for this Fragment of Reality (Mankind) attempting to crack the Whole Thing from the inside?)

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