

## BOOK REVIEW

### RECLAIMING ENCHANTMENT: HUMANITY IN A CREATIVE UNIVERSE

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**Stuart Kauffman, *Reclaiming Enchantment: Humanity In A Creative Universe*, NY: Oxford University Press, 2016.**

In 2011 I bought “Re-inventing the Sacred” at Moe’s bookstore in Berkeley. It’s fair to say it changed my life. To have so eminent a thinker risking the re-assertion of the concept of “ontology” in contemporary discourse; to see him reveal personal pain that he dealt with as a mature physician; and to watch him emulate Durkheim and Kolakowski in arguing, if implicitly, that there is a capacity in society for the sacred/divine and that this is the subject matter of religion was staggering. Luckily, the first paper I wrote in response was accepted, if in an ultra-low-impact peer-reviewed journal; since then, this work has spawned several more books, an annual conference, and the momentum seems unstoppable.

None of these details is irrelevant; it IS very hard to get anything heterodox published, there are very few bookstore’s like Moe’s, and their survival is a sign of contradiction in the face of Amazon and others’ state-sponsored incursions into parts of our lives that those of us over 40 can remember as sacrosanct – including, indeed, the free working of the market economy that contemporary neoliberalism falsely claims to revere. Again, I mention all this because Kauffman’s aim is avowedly grandiose in this new book: “the overarching aim is civilizational”. As such, it resembles the work of system builders in the past like Gautama, Hegel and Eriugena.

The paradox that Gautama and Marx address is this; they attempt to give a full story of all and everything, including the details of one’s subjectivity, aware that doing so is itself a third-person description. So they attempt to find an Archimedean point

from which everything can be viewed. For Gautama, the key process is dependent causation and the key material is Democritean atoms which constitute both us and *res extensa*. Yet, this fragmentation of the psyche acknowledged, meditation allows an amplification of the being of the observer who can acknowledge this fragmentation.

For Marx, of course, the primary reality is economic, and the primary process informing consciousness is due to this reality. Society reflects class struggle; in our ignorant state, we imagine our art, science and “stream of consciousness” to be somehow veridical. Only revolution can achieve that veridicality.

All this is being mentioned because Kauffman wishes to “rejoin that subjective pole” lost to third person science. His weapon of choice; a nuanced version of third person science, mixed with quantum mechanics (QM). The result will be a “new mythic structure”.

Kauffman follows Voegelin in stressing that Western thought is a synthesis of the Apollonian disincarnate reason of the Greeks and the Hebrew rooting of power in narratives about family, tribe, and then nation (It is fair to say that, as of 2015, these nations seem to be changing roles). In Voegelin’s critique, sculptures like Michelangelo’s David are of an appropriately Hellenized Hebrew. Democritus, Gautama, Plato; all are exemplifications of an “axial age” that synthesized science and spirituality. According to Kauffman, we moderns have over-emphasized the former. The world may be representation, but it is also Will.

Our current mythic structure, Kauffman continues, is due to the Anglo-Saxons Newton, Darwin, Smith and Locke. While one could argue for Galileo and Rousseau, the influence of Darwin and Smith is indeed mythic, both in the way these names are invoked to justify schemas well beyond their ken, and the sheer scale of their influence.

With chapter 1 enters a new source for this reparse of nature; the arts. If poetry is not central to a civilization, it is doomed. Yet the book is of course one written by a “Doctor, biologist and philosopher”. The chilling effect on the arts due to the pathological structure of the web, leading to few good artists getting paid, is equaled by the fact that most of the great artistic movements of the 20th century would have been strangled at birth by a skim of their contents by the NSA.

Andre Breton would not have lasted a week in today’s world; neither for that matter would John Lennon. When not jailed, artists are starved of resources. It is one of the weaknesses of this book that Kauffman is not familiar with contemporary struggles of artists; recent movies like “Whiplash” and “If I stay” give frightening insights into what might be required to reinstate poetry to its correct place.

In the second outline, that given in chapter 1, Stuart is keen to introduce a panpsychism, with *res potentia* and *res extensa* linked by measurement. All well and

good; his analysis of Max Born might have dwelled on the distinction between the ontological and epistemological interpretations of QM. Indeed, Stuart repeatedly errs on the side of too many words, where an equation would have sufficed, in the new QM interpretation that he issues caveats about.

None of the above is the point; the point is that the “Biosphere, lawless” will defy Reductive Materialism (RM). We now enter Stuart’s areas of great competence with accounts of how “hypopopulated, vast chemical reaction graphs with very few atoms or molecules flowing on them” cannot be explained by RM. This writer would have liked also to have seen a distinction between the “Biosphere, lawless” and Gaia, around for the last 10 millennia or so and likely to fall prey to the Anthropocene age as it did during the long era of “Snowball earth”.

The strongest parts of these earlier chapters are the precise accounts of types of dynamical systems, all the way of to chaotic dynamics, and a keen sense of the “adjacent” possible that this entails. Yet there are many more elliptical ways of linking the macroscopic world in which humans act to QM, as thinkers as diverse as Alan Turing and Mario Savio established. Their separate, tragic fates are as true a fact as their assertion of human freedom in the face of the spy apparatus of their respective countries.

With chapter 4, we move on to biology. He is at pains to prove that “No laws entail the evolution of the most complex system we know in the universe”, the Biosphere. This writer would have liked also to have seen a distinction between the “Biosphere, lawless” and Gaia, around for the last 10 millennia or so and likely to fall prey to the Anthropocene age as it did during the long era of “Snowball earth”. By Stuart’s own admission, much of this work is from his earlier books.

The economics chapter that follows is fine as far as it goes. Arnhart is name-checked; Smith’s “hidden hand” is a precursor to self-organization, “trickle-down theory” and much else that is contentious in current economics. Darwin gives us design without a designer; or did he?

We now come to part II and the promised discourses on the “subjective pole”. As ever, the writing is good, and the history well-researched. Only QM allows consciousness to be causal. Even John Searle has now come around to that viewpoint, and it is very well-argued here.

The “poised realm” - a state of reversible decoherence - is the major contribution to QM proposed here. It is extremely difficult to understand how it can work in practice. If the non-diagonal terms are gone, as they are in QM as distinct from CM, there is no way of getting them back. There does arguably exist a prior state in which the system has coupled itself to the apparatus, and the diagonals are complemented by

a vast adjacent state that allows quantum indeterminacy. I look forward to seeing this debate continued.

Stuart goes on in the next section to risk becoming an “Edifier” like Rorty or Wittgenstein rather than system-builder. “Do we need foundations?”, he asks, particularly in an incomplete and evolving biosphere. Well, yes and no, perhaps. In the absence of theory, biology has plateaued; and anti-intellectuals are famously in the grip of pedants or pub philosophers of yore.

This book, or one like it, should be read by everybody at all interested in science. It is clear, I hope that this reader is not convinced by the attempt to transcend science through science. The attack on what Waddington called the “world problematique”, at his time the environment and the Cold war, and now the burgeoning neoliberal state, is well-intentioned. Yet it cannot be long before another Obama figure emerges, the inheritor of a history of discrimination and therefore morally unassailable, and re-introduces spying at almost cosmic levels, retraction of all the promises of his campaign, and investiture of further power in the banksters, to not a smidgeon of complaint by liberals as we have witnessed since 2008.

What then can we do? We can engage with a range of academic subjects, as Stuart does here, and thus serve as an example to our students of the search for truth, not career. We can believe in the arts rather more than he does; their processes are self-transcending in exactly the sense he wants. We can insist that the 4 years or so our society allots for university study involve the fervent pursuit of truth and technique, with the work of irresponsible academics to be critiqued in as public a way as possible by students who should be encouraged to fact-check using smart-phones in class.

Above all, if this is to be a new axial age, we need to follow the nostrum of the bumper sticker “Do not believe everything you think”. Marx may have gone too far, but we over-estimate our agency in dealing with power by narrating to ourselves what our plans are for overcoming it. This tendency is amplified by diverse trendinesses in academia, from poststructuralism to psychologism. It is important that we use the opening provided simultaneously by the web’s openness and use as a weapon by power to reassert the sacred in the human and the rest of the Biosphere. This book is a good start.