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Inner and Outer Realities:

Jean Gebser in a Cultural/Historical Perspective¹

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¹Originally a Plenary talk given at the *Jean Gebser Symposium 2000*, Dresden, Germany Through the long course of history the Western mind seems to have pursued two recognizably different paths in the pursuit of knowledge about world and about human nature itself. One emphasized the outward appearance of things, while the other searched for hidden organizing principles within. The first has tended toward materialism as its preferred worldview, while the second toward *idealism*. By this I mean followers of the first path have tended to seek truth in the realities of the visible material world, while those who have pursued the second have stressed the importance relationships and abstractions?aspects of the world that cannot be observed directly. The first group has relied on immediate experience, while the second has rested is case on logic, mathematics, and intuition. The former are known as empiricists and the latter as rationalists. Such a picture, of course, is an oversimplification of the history of Western thought, but gives us a working context in which to discuss Jean Gebser?s contribution to modern thought, and the reconciliation that integral consciousness brings as a gift to the today?s world.

Before turning to Gebser, however, it will be useful to review some of the highpoints of the two major themes mentioned above. Among the earliest and most thoroughgoing of the materialists we find the Greek philosophers Leucippus (c. 460-? BC) and Democritus (c. 460-370 BC). Both argued that everything in existence is composed of atoms. In Greek, the word atom is an adjective for the word *indivisible*, so in a literal sense what we see when we look around is the complete story; there are no inner hidden parts to reality, and there are not hidden causes either. Not surprisingly, these two philosophers believed in an absolute material causality as well. A more liberal approach to understanding the physical world was promoted by Aristotle (384-322 BC), who was arguably the first scientist in history. Though his work on logic places him in the tradition of rationalism as well, he also was an empiricist, for instance observing and categorizing plants by their appearance. He valued the physicality of the world we live in, and did not withdraw from it into realms of pure speculation. He believed, for example, that the rational soul, which he thought unique to human beings, is so completely fused with the physical body that we see the uniqueness of each individual in the way they walk, talk, and generally comport themselves. He did not subscribe to the notion, espoused by his teacher Plato, that the material world is a mere reflection of a more essential realm of pure forms.

Near the beginning of the modern era the British philosopher John Locke (1632-1704) promoted a thoroughgoing empiricism, with the notion that infants are born with no innate knowledge or understanding whatsoever, but learn everything from sensory experience.

Let us suppose the mind to be, as we say, a blank slate (tabula rasa)

of white paper, void of all characteristics, without any ideas; how comes it to be furnished? To this I answer on one word, from experience: in that all our knowledge is founded and from what it ultimately derives itself. [1]

This extreme form of empiricism set the pattern for the development of modern science right through the 19th century, and has played a major role in 20th century science as well. Though science has made good use of mathematics and logic, both tools of rationalism, over and above everything else it has tended to stress the observable material world?though it has done so in terms of measurement and quantification rather than in terms of descriptive qualities. Indeed, perhaps the most important of influence of Copernicus and Galileo was their reduction of the notion of *observation* to numbers alone.

Interestingly, though some of these architects of modern science were deeply religious individuals, the t endency to attend to the surface qualities of phenomena could not but in time lead to the dismissal of the whole notion of God and invisible causes in general. So it was that in the early 19th century, when the great French mathematician Pierre Simon Laplace was asked by Napoleon why he had not dedicated his most recent treatise to God, as was the usual practice, the latter replied, ?I have no need of that hypothesis.? By the time we arrive in the 20th century, with the Vienna Circle and the Logical Positivists, headed by Professor Moritz Schlick, philosophy was dealing mainly with language and common sense, which for all practical purposes amounted to a reduction of scientific discourse to what can be immediately observed. These influences led to a capping-off of discussion about many of the most fascinating aspects of modern physics, for instance, until well into the second half of the 20th century, all because such discussion would have dealt with invisible aspects of reality.

The other path to knowledge, the one that seeks hidden organizing principles, can be traced back at least to Pythagoras of Samos (c. 569-475 BC), who explored music and harmony as represented in mathematics?for example in the relationship of the length of a vibrating string to the pitch of the tone it produces when plucked or struck. His choice of mathematics, which in his time meant geometry and ratios, placed him at the beginning of the Western scientific tradition, where formal relationships represented in numbers are a fundamental organizing feature of reality. Plato (c. 428-347 BC) similarly believed in the preeminence of abstract relationships, posing the existence of a perfect realm of ideals, or *archetypes*, more real that the material world, and lending shape to it. In his writings we discover a fully conceived realm beyond the visible world that influences and lends shape to day-to-day reality. There were two aspects to this non-material reality that bear on our discussion of Jean Gebser. Each has its own history, but both seem to be struggling toward a mutual reconciliation in the modern world.

One aspect of Plato?s thought emphasized the Pythagorian notion that the foundational aspects of the cosmos are best understood in terms of mathematics, i.e., geometry. This idea later caught fire in the work of Copernicus, Galileo, and Newton, setting the stage for an entire worldview based on the notion that mathematics?which thanks to Rene Descartes? invention of ?analytic geometry? now combined both geometry and numerical manipulations?was the very language of the creation itself, and surely the means by which God had put it all together. Mathematics has not only continued to define virtually all legitimate endeavors in astronomy, but has become the core method of physics as well, with advanced university mathematics courses cross-listed in departments of physics and astronomy as well. In the second half of the 20th century this trend has gone much further. For instance, mathematically based hybrid sciences involving physics, chemistry, and biology have led to the mapping of the human genetic code at the molecular level, and are presently poised to transform the very biology of humans and other organisms. Debates over the ethics and practicalities of such changes will occupy the opening decades of the 21st century and perhaps many more decades to come.

Some of the most intriguing scientific advances of the 20th century were made in the realms of quantum mechanics and chaos theory, both of which rely heavily on sophisticated mathematics. The former opened up an expanse of microworld complexity lying just behind the macroworld of ordinary experience. Cutting below the atoms of Leucippus and Democritus, quantum mechanics points to a fluid unity at the deepest levels of reality, levels entirely invisible to the common sense of Logical Positivism. Chaos theory, at the same time, has shown that many types of complex real world events, ones that emerge through the interaction of multiple underlying causes, cannot be predicted with precision, though, ironically, mathematics can be used to obtain qualitative descriptions of them. The latter is in part due to the emergence of new properties of whole systems that simply do not exist at lower scales of complexity. A common example is the weather, which is an emergent product of a large number of constantly changing geothermal and atmospheric factors. Human moods, and perhaps other aspects of human experience, are also the emergent outcomes of myriad undergirding conditions. Thus, while complex emergent phenomena do not arise out of an invisible realm, they do emerge, as it were, out of nowhere.

Invisible Realities.

Let us now return to a less often discussed aspect of Plato?s thought, having to do with the idea of an invisible reality that lies behind the world of appearances. The famous *allegory of the cave*, found in the book VII of the *Republic*, [2] remains even today one of the most intellectually compelling parables of the notion that the world of appearances is an illusion that hides a truer and more perfect reality behind it. In this story, human beings are

pictured as chained to each other in a cave, where they can see only the shadows of real objects on the cave walls. Far away, outside of the cave, is the true reality, where the sun is so bright that if one of these unfortunate individuals were dragged directly into its brilliance, he would instantly be blinded by the light, and only in time adjust to its intensity. And, if he were allowed to return to his previous companions, we are told, they would not believe the story he would tell them about his experience.

This wonderfully rich metaphor appears in the midst of an otherwise rational discourse on politics. Here, it would seem, it is used by Plato to allow the mental structure of consciousness to sense a reality best represented by mythic consciousness. But before pursuing this line of thought further, let me first speak to the rational aspect of this allegory, the idea there the world of appearance is not the true world, and that a more fundamental reality is to be found elsewhere, a reality that undergirds the everyday world of appearances. For the rational consciousness this idea is expressed through metaphysics, and appears again and again in the history of Western thought. Perhaps the greatest example is found in Immanuel Kant?s (1724-1804) division of the cosmos into a phenomenal world of appearances and a more essential world underlying it, to which we do not have direct access. We must approach it through a perceptual coordinate system of space and time, which gives rise to the particular categories of experience that characterize human knowledge. In this, Kant was attempting to answer Hume?s arguments in favor of an empiricism that denied just about any kind of (rational) knowledge that did not come through the senses. Kant's arguments were, however, so convincing that most thoughtful readers were convinced, as had Plato been many centuries before, that reality is not what we see when we casually look out at the world.

Nineteenth and twentieth century science has validated this view in many ways. In the study of the senses it is obvious, for example, that the world comes to human experience transmitted into the brain in a vast flow of neural impulses from the eye, the ear, the tongue, skin, and so on. Thus, in some very real sense we *must* construct our worlds of experience from information provided by the senses. When these malfunction our experience of reality can be profoundly altered. Physics, especially quantum physics, in its own way has shown us exactly what Kant intended, namely that the world as we know it, the world that presents itself to us in colors, forms, and textures, and more fundamentally in terms of space and time?in other words in a world of appearances?is not as basic as the quantum world where even space and time do not hold absolute sway. Once we get comfortable with the notion that space and time, to say nothing of color, form, and texture, are aspects of appearance and not fundamental of reality, we begin to reconsider many aspects of the physical, organic, and psychological worlds in which we live as well. For instance, biological molecules are subject to quantum level effects, so it becomes possible, even necessary, to reconsider the nature our

own bodies in light of the new possibilities of quantum physics. Is it probable, for instance, that quantum level phenomena such as *non-locality* (action at a distance), or the ?entanglement? of events separated by time, might play a role in the quantum neurodynamics of the brain, and thus in the human mind and consciousness itself? Such ideas are important in considering Gebser?s own thinking, since he was very much aware of recent developments in physics, and considered them directly relevant to discussions of an invisible reality. It is in such ideas that aspects of the magic, mythic, and mental structures of consciousness seem to approach each other and contribute to a larger integral vision.

Now let us return one more time to Plato and note that he was, in fact, no stranger to the mythic and perhaps even magical consciousness. Like virtually all Greeks of his time, he was aware of the mystery schools common in those days, and which in one form or another continued through most of antiquity until they were finally all but eradicated by the early Christian church. In Greek culture these schools dated back at least to the time of Parmenides (c. 515 BC), and even earlier in the Middle East, as suggested by certain fragments of the story of Gilgamesh which indicate that he and Inkidu traveled into the underworld guided by esoteric knowledge.[3] Virtually all mystery schools spoke in one form or another of a reality behind or below the ordinary world of appearances, a reality from which important truths about life in this material world of could be sought and sometimes found. Parmeaides seems to have traveled in sleep into the underworld, past ?the gates of the pathways of Night and Day,? in search of wisdom.

The mares that carry me as far as longing can reach Rode on, once they had come and fetched me onto the legendary

Road of the divinity that carries the man who knows

Through the vast and dark unknown. And on I was carried As the mares, aware just where to go, kept carrying me Straining at the chariot; and young women led the way? [4]

The mythic Orpheus is said to have traveled into the underworld as well, in hopes of retrieving his beloved Eurydice, and became the central figure of the Orphic Mysteries in which Socrates himself may have participated. These mystery schools appear to owe a great deal to the even older tradition of shamanism, in which the shaman, in an altered state of consciousness that is essentially magical, actively moves into the world below or world above, there going about his healing, or leading a soul into the afterlife, or whatever his business is. In such traditions it is not so much that these alternative realms of reality are more real than the world of appearances, as is the case in Plato?s allegory of the cave, but that they are of at least equal importance, and often are the location where mythical or magical realities reside which directly influence the world of day to day life.

Plato was well aware of these, and similar ideas about different realities. Sometimes he embedded these ideas in mythical texts. Near the end of the *Republic*, for instance, is found the myth of Er, in which we are told that prior to birth each soul receives its fate (*Moira*), and is given a daimon, or soul-companion, to guide it through life. When the soul enters the material world at birth it passes through a realm of forgetfulness, however, and arrives without memory, so that it is the job of the daimon to guide it in its assigned fate. The Romans had a similar idea in the notion of a personal *genius* that ?knew everything about a person?s future and controlled his fate.? This *genius* was ?an agent of personal luck and fortune?. [5] In both instances we have the idea that there is a pre-destined pattern assigned to each individual?s life that constitutes their fate. And even though the individual may initially, or even permanently, be ignorant of this fate, it sets the proper pattern for his life.

An important variation on this theme was found in Neoplatonism, where it was said that the individual chooses his own life situation prior to birth, but that his subsequent life then fits into a larger pattern. Plotinus, the foremost spokesman for this philosophy wrote,

Coming into this particular body, and being born of these particular parents, and in such a place, and in general what we call external circumstances. That all happenings form a unity and are spun together is signified by the Fates [*Moirai*].

?Plotinus, II.3.15 [6]

Now, Neoplatonism was one of the great underground influences in the development of Western civilization. Though it is not commonly discussed, and has not generally been in the best favor of the Church Fathers (to put it mildly) Neoplatonism has nevertheless moved like an underground stream, surfacing at key moments throughout history to influence thinkers and artists. It was, for instance, influential in the work of many painters of the Renaissance and afterward. It was also influential in the thinking and writing of the remarkable 15th century theologian, Nicholas of Cusa (1404-1464), who is of special interest to us here because he appears to have been an important influence on Gebser himself. Nicholas of Cusa was inspired by Plotinus? concepts of *nous*, the higher realm of archetypes and true knowledge, comparable to Plato?s realm of ideals, and of the *One*, the deep well of Being from which, in its abundance, all existence flows. Nicholas believed in a higher source of wisdom than the rational intellect, stressing the importance of knowing the limits of the ordinary mind. He referred to

conventional knowledge as learned ignorance (*docta ignorantia*). Also in line with Neoplatonism, he proposed the doctrine that all potential exists within God, who alone is infinite. Because God is the absolute maximum, he contains all things "enfolded" (*complicatio*), and is also their source or "unfolding" (*explicatio*).

The latter notions anticipate the ideas of quantum physicist David Bohm, who argues that the material world is supported by a vastly deeper and larger process which he terms the *implicate order*. [7] This hidden order can be thought of as a holographic process of cosmic dimensions, similar to a deep ocean on which the universe, the *explicate order*, rides like waves. Strictly speaking, little that is truly new or creative comes from the explicat e order itself, as it is only a surface phenomenon. The implicate order is the well–spring of creativity, expressing itself not only in the physical world, but through human intelligence and even life itself. These are precisely the processes that Nicholas of Cusa, using different language, attributed to God; namely that novel aspects of reality come into existence by unfolding outward from their divine source. Let that divine source be Gebser's origin, and let projection be the mechanism for the unfolding, and we have Gebser's concept precisely.

We may note that with Jean Gebser we have come full circle in terms of Western concepts of the nature of consciousness. The first profound Western system concerned with consciousness was that of Plotinus, and in Gebser we return again to Neoplatonic ideas, now transformed into modern concepts.

The Inner and the Outer

Bringing all the above discussion together, we now see that Jean Gebser was a true Neoplatonist in the tradition of Nicholas of Cusa. Expressing the latter?s ideas in modern terms we obtain the vision of a universe with a deep structure that, in Kantian fashion, is ordinarily known to us only as it unfolds into our day to day experience. This deep structure is not formless, however, but is the very embodiment of universal forms, or truths, as expressed in the Neoplatonic idea of the *nous*. As we have seen, however, according to the older traditions this deep invisible reality contains more than the abstract geometry of stars, flowers, and crystals, but also the very patterns of our own lives?our destinies that we must find live out if we are to find the central meaning of our own individual existence. This notion is also seen in the psychology of Carl Jung, with whom Gebser was personally very familiar.

In the final analysis, we count for something only because of the essential we embody, and if we do not embody that, life is wasted. [8]

Jung, who considered himself to be a modern representative of the ancient Gnostic tradition, was not have been ignorant of these Neoplatonic ideas. More than any other modern thinker he made extensive use of the notion of archetypes, which for him were of a more psychological nature, and reside behind visible reality in the *collective unconscious*. The latter exists between the outer world of appearances and the deep *unus mundus*, or ?one world? in

which all reality, both physical and psychological, is rooted. So it is that both Jung and Gebser emphasized the importance of finding and fulfilling life?s purpose, a purpose already written, as it were, in the book of destiny, behind the space-time world of appearances. In this they placed themselves in the tradition of seeking the form and meaning of a thing in the deep pattern that marks its individuality, rather than in its surface traits. It is interesting that this approach marks a distinct and separate approach to even the scientific method, one that was favored by Johann Wolfgang von Goethe (1749-1832), who found Newton?s experimental methods distasteful, and who proposed a more contemplative approach to understanding nature and the objects in it. This tradition continued through the writings of Schiller, Schelling, Hegel, Coleridge, and Emerson, and continuing in Rudolf Steiner and Carl Jung, and continued right down to Brian Goodwin, [9] one of today?s foremost biologists and systems theorists. For these thinkers the human mind was not separate from the natural world, as it was for Descartes, but a participating part of it. In the words of cultural historian Richard Tarnas,

It is only when the human mind actively brings forth from within itself the full powers of a disciplined imagination and saturates its empirical observation with archetypal insight that the deeper reality of the world emerges. [10]

This certainly was Gebser?s approach as well.

In such matters Gebser was also clearly influenced by the great Indian yogi and philosopher Sri Aurobindo, for whom ?the divine? seeks to express itself in the world of human experience, even to the point of transforming the human body into a divine vehicle. Sri Aurobindo saw this as an evolutionary process, though certainly not of the Darwinian variety. The basic idea, which is completely compatible with Plotinus, Nicholas of Cusa, and perhaps even David Bohm's quantum physics, is that the form already exists in the divine, struggling, or perhaps I should say *waiting* for the appropriate vehicle to move into physical expressing. Sri Aurobindo and his partner, The Mother, hoped to make themselves such a vehicle. However, in time they both died, passing from physical existence, and so presumably they did not complete this great effort. They did, however, consider themselves to be pioneers, laying a course for others to follow in the future. In Sri Aurobindo's own words,

Seeking to embrace all life in itself [puts one] in the position not of a pilgrim following the highroad to the destination, but, ?of a pathfinder hewing a way through a virgin forest.

TheEssential Aurobindo

And so in their own view Sri Aurobindo and The Mother were evolutionary

[11]

pathfinders, making way for a divine process already complete in the timeless and spaceless invisible, and struggling to emerge into the visible world of appearances.

Sri Aurobindo also shared another most important vision with Gebser, that of an integral consciousness. Though Sri Aurobindo did not actually speak of ?integral consciousness? as such, he came very close to it:

To be wholly and integrally conscious of oneself and of one's being is what is implied by the perfect emergence of the individual consciousness, and it is that towards which evolution tends. All b eing is one, and t o be fully conscious means to be integrated with the consciousness of all, with the universal self and force and action.

?The Future Evolution of the Divine Life on Earth; Pondicherry, 1963[12]

Indeed, what Sri Aurobindo called the *Supermental* is clearly very much like the idea of integral consciousness.

To what extent did Sri Aurobindo influence Gebser?s thinking on the nature of integral consciousness? This is a difficult question to answer. Both men were writing at roughly the same time. And we know that Gebser took a keen interest in Indian spirituality, includi ng the teachings of Sri Ramana Maharshi and the writings of Sri Sarvepalli Radhakrishnan. Of the latter he commented, ?Like Sri Aurobindo, he is the living proof of that new (integral) consciousness in the dawn of which mankind is now living?. [13] Gebser also corresponded with the prominent Buddhist scholar D.T. Suzuki. It was the latter who verified Gebser?s report of a powerful episode of integral consciousness as an authentic experience of nirvana. Indeed, the whole affaire of Eastern influences in Gebser?s thought would be an excellent topic for an investigation.

Gebser and Modern Science

Having pursued these oriental and historical themes in Gebser?s thought, let us now turn our attention to the modern scientific world, asking what relationship the latter might have on his ideas. In doing so let us seek an integral perspective, emphasizing how Gebser brought together traditional Eastern and contemporary Western thought.

To begin with, let us note the obvious fact that Gebser was very well informed about the facts of modern technology as of as late as the early 1970s. In fact, most major paradigm-changing developments had occurred much earlier in the century, and by the early 70s their implications in terms of consciousness and reality were being widely discussed. It was already apparent that quantum physics had undermined the clockwork worldview of materialism that supported the Age of Enlightenment from the time of Descartes and Newton, and in more subtle ways had made possible barren modern philosophies such as Logical Positivism, which attended only to the most literal surface aspects of phenomena. In fact, the deep implications of quantum physics were well known to Gebser. For example, that space and time are not absolute features of the cosmos, but rather simply the way we experience it in the day-to-day reality of the marketplace (to use Hume?s well-worn reference). Also he know that events can be connected outside of the traditional space-time fabric, so that the magical notion of synchronicity, which refers to non-causal (or acausal) but nevertheless meaningful coincidences, becomes part of the new physics, though it was prohibited in Newton?s universe. To be more explicit, subatomic particles that were once bound together like Siamese Twins, in what is termed the *singlet* state, continue to share their destinies afterwards, though they appear to the observer to be separate and independent particles. Observations made on either one of them simultaneously effects the possibilities that can be displayed by the other, despite the fact that they may be vastly distant from each other and have no possible means of communication according to ordinary classical physics. Modern physicists have pointed out that since all particles were once bound together in a grand singlet state at the moment of the big bang, all matter in the universe is connected in this way. Thus, in some ultimate but real sense we are all part of a vast single event unfolding at a deeper level than the space-time display that our senses display to us as reality!

One version of this idea, which Gebser was either aware of or anticipated, was Bohm?s previously mentioned concept of the implicate order, according to which the entire cosmos as we experience it ?unfolds? out of a deeper sea of reality that exists beyond space and time. The latter are the means of its exfoliation into the world of human experience. This deeper reality, which Bohm represented in the mathematics of holography, must be thought of as pure process. The explicate order, or reality as we ordinarily experience it from day to day, on the other hand, is the simply the surface of the implicate order, like the surface of the sea, which appears real but is only a reflection of the deeper event that is not constrained or defined by space and time.

Now, Bohm?s theory of the implicate order is just one theory by just one physicist, and at that a theory which is not widely accepted by all or even most physicists. Nevertheless, the basic notion that the world we experience is undergirded by a much different order of reality, one where space and time do not have their ordinary meanings, and where distance and causality are not what they appear to ordinary experience, is just about universal in today?s physics of the microworld. Notions of *super-strings* and *quantum foam* are conceptually closer to traditional Buddhist ideas of the Creative Void than to the empty vacuum that filled Newton and Descartes? spaces between atoms. Out of these fundamental levels of reality arise everything

we experience, and even the ways in which we experience it. In Bohm?s implicate order, but also in many other of today?s representations of the most fundamental levels of reality we find echoes not only of Kant?s metaphysics, but also of Plato?s realm of ideals, Plotinus? *nous*, and Nicholas of Cusa?s God beyond rational knowing from which all of creation unfolds into the world we experience from day to day. Here we might notice that Plato and the whole Neoplatonic tradition emphasize the idea the hidden orders of reality are a source of patterns, or *archetypes*, which lend form to objects and events in the world of objective experience. Similar ideas are being discussed today by theorists such as Rupert Sheldrake and especially Ervin Laszlo, who has written several books which develop the idea that *quantum vacuum* fields may represent a kind of cosmic memory in which not only physical patterns, such as the spiral form of galaxies and sunflower seeds, but patterns of human thought and behavior, can be stored for later expressed. [14]

Nearly all of these ideas were anticipated in one form or another in Gebser?s integrative mind. He was one of the first to recognize the basic similarity between the Creative Void of Buddhism and the seething caldron of creation found at the most fundamental levels of the reality of quantum physics. Perhaps even more important, he recognized and repeated again and again in his writings the fact that the reality reported to us by modern physics is an integral reality, comprised of magic events such as synchronicity, as well as mythic concepts such as David Bohm's holographic metaphor for reality, and the fusion of these with the mathematics of the mental structure of consciousness, all together giving birth to an integral understanding of the cosmos that unite all structures of consciousness in a single integral vision.

Beyond even this, Gebser had the remarkable foresight to anticipate the basic insight of the modern sciences of complexity, namely that most real world events, especially those involving human behavior, constantly derive from a rich and extremely intricate *network* of interactions, which cannot be simplified and reduced to the linear causal sequences that characterized the Newtonian cosmos. In the Foreword to P.J. Saher?s *Eastern Wisdom and Western Thought*, published in 1969, he not only anticipated the view of the modern sciences of complexity, which today include chaos theory, but suggested the influence of the invisible as well.

What does this network-image mean? It is an acknowledgement that so-called reality is not a mere space-time sequence but a complex process. A network is no system (which as such always fixes limits) but an expression of a texture of relations (and of the abundant possibilities suited to the network). In other words, historical realities are not, as thought hitherto, events succeeding each other consequently but are constellated by the interplay of many factors, the invisible among them. [15] Today, complexity theorists study the networks of interactions that influence just about all real world events, and also speak of the *web* and even *fine mesh* of interacting influences that characterize the activity of all such complex organizations, including biological systems from the level of single celled organisms up to the behavior of human beings, societies, economies, and governments.

All of this anticipates an idea which I feel is very important to understanding today?s world. This is the notion of *complex wholeness*, [16] or in other words the understanding that real world events participate in enormous complexity, but are not lost into it. Rather, complex structures such as cells, ecologies, brains, and societies, exhibit an emergent property of wholeness, which gives them an identity and style that we can recognize. Individuals, for example, have unique personalities, nations have national styles, and so on. These complex emergent properties must be understood in terms of the dynamics of complexity, but reflect underlying unities in the dynamics that create and support them.

Evolution is one such emergent property of complex dynamics?the evolution of the individual and the evolution of a species. Science today is not yet ready to deal with the influence of the invisible behind such evolution, but Gebser felt strongly that it plays a significant role; a role that goes beyond ordinary determinism, and points in the direction of a governing fate, or daimon, to return all the way to Plato. If Jean Gebser and Sri Aurobindo were alive today we might guess that they would see in the wondrous emergent properties of complex adaptive systems, systems with properties that can be influenced by the smallest possible of forces, an opening for the invisible. And perhaps the science of the future will validate such thinking, finding in the influences enfolded in the implicate order or the quantum vacuum field the infinitesimally tiny whispers that pivot us toward our personal and collective fates.

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And thanks to Theo Röttgers' recent translation of Gebser?s *The Invisible Origin: Evolution as a Supplementary Execution*.

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