

Exploring the Akasha - Conversation between Ervin Laszlo and Gyorgyi Szabo

Gyorgyi Szabo (GS): In your new book, *The Akasha Paradigm in Science – (R)evolution at the Cutting Edge*, you take a strong scientific approach. Why did you focus your attention on explaining this particular concept - the Akasha paradigm - predominantly scientifically?

Ervin Laszlo (EL): I want to give credibility to this concept in today's world; science means scientific, and being accepted as scientific is the mark of credibility. It is important to give credibility because the impact of the new paradigm depends on people taking it seriously. If they don't, they will ignore it. So it's important to provide a *handle* for people. Best is when they say "aha I had intuitions or experiences like that but I didn't think it was anything real. So now I see there is something to it, it has a scientific basis and I will pay more attention to it." That is the basic objective of my book. Written for scientists, but not only for scientists - for everybody who is interested in looking deeper into the question of what can we truly understand about the nature of reality.

GS: How and in what way is this book different from *Science and the Akashic Field* and your other books on the Akashic field?

EL: I published nine full-length books on the topic of an Akashic field before this one. First I called the field "psi field" (meaning by psi both the unexplained psi-phenomena and the symbol for Schrodinger's wavefunction) and then I called it the QVI- (quantum vacuum interaction) field – they are all the same concept. I was searching for an explanation of a specific phenomenon: nonlocality in space and time. The idea is that the information that is the trace of all things in space and time is preserved, it does not vanish completely. It is recallable. Whatever happens to one thing at one point in space and in time happens in some subtle way to other points to other things in space in time because nothing is completely separate from any other thing. And the trace of all that is happening

is preserved over time. I tried to document this and find a scientific explanation for it in terms of a field.

I have been working on the theory of such a field since the mid-eighties but the last year I realized that what we are dealing with is not just another field. This is a matrix, a unified background for all phenomena. It functions (metaphorically) as the software of the universe. The particles and systems and their interactions are the hardware, what directs or guides or governs—in the cybernetic sense—what happens to the hardware is the software. The software is the universe's "veiled dimension." It is not just a specific field. It is the fundamental dimension that manifests many different kinds of fields, such as the fields that produce electromagnetic phenomena, gravitation, and attraction and repulsion among nuclear particles. The veiled dimension also manifests the field that creates connection among phenomena and preserves their trace. These are all particular manifestations of the basic matrix that underlies all things in the universe.

GS: Let's talk about the concept of a 'field' in relation to the Akasha. Would you regard, for example, the morphic field, the zero-point field, the gravitational field, the electromagnetic field and other fields as building blocks of the Akasha? Do you see these fields as explanation and/or interpretation of specific phenomena?

EL: I call the specific fields manifestations of the Akasha. The Akasha is a multi-faceted dimension, it appears to us through its effects. Its effects include gravitation, electromagnetic phenomena, attraction and repulsion among nuclear particles and also non-local connection among systems and the preservation of the trace of their interaction. These are all manifestations, manifest effects of the field.

The Akasha is prior to its manifestations: it was there before this universe was born. Our own universe came into being informed by the Akasha; the laws of nature were given already at the moment of the Big Bang. Otherwise we can't explain how this universe would be capable of giving rise to complex systems such as living organisms. For this its elements have to be amazingly well

coordinated —and this can't be merely chance. According to quantum theories some ten on the five hundred is the number of the universes that would be possible. According to Penrose's calculations the possible number of universes are of an even greater number. It is not plausible that our universe would have been randomly selected from this enormous number of possible universes.

GS: Einstein said: take all the observed facts and find the simplest scheme that can tie them all together. Is the Akasha Paradigm that simplest possible scheme that can do this?

EL: According to Einstein the aim of science is to take into account the observed facts and find the simplest possible schema that can tie them together. The simplest possible scheme is a cosmic matrix that is "veiled" in the universe—it is not available to direct observation. The idea of this basic matrix, like all the key concepts of our thinking about the nature of reality, is freely invented. But not "anything goes"—our idea is to be tested by attempting to deduce from it the phenomena we do observe and their interrelations. A cosmic matrix that generates and interconnects all phenomena is, in my opinion, the correct idea. It is the simplest possible scheme that can tie together the facts—including the anomalous facts of nonlocality and coherence in nature.

GS: I understand that you studied extensively the works of Ludwig von Bertalanffy and Alfred North Whitehead and that that research helped you to develop the evolutionary systems theory you call the GET: General Evolution Theory. Would say that the Akasha Paradigm can be explained in the context of a systems theory?

EL: I call the things that arise in nature "natural systems," and the things that evolve in nature "evolutionary natural systems." These systems are not something absolute and separate—they are sets of interpenetrating "stationary waves" that appear to us as material. Actually, matter is not an absolute category in the universe: it is essentially an illusion. The basic elements of reality are information and energy. When energy is structured in a seemingly solid way, it

appears to us as matter. Actually, it is still energy, more exactly stationary waves of informed energy.

Information is a basic element of the universe. Systems manifest not just the classical forces of interaction—physical, chemical, biological—but also interaction based on information, more exactly, on what David Bohm termed “information.” Evolutionary natural systems function through both “information” and “in-formation”—both are factors in their interaction and evolution. They react and respond to “information,” and they “prehend” (to use Whitehead’s term) “in-formation.” When we complete our theories of systems with these elements, we reach evolutionary systems theory. In this theory evolutionary natural systems are formed by interaction with one another, and are “in-formed” by the cosmic matrix I call Akasha.

GS: Would you agree that the evolution of your thinking follows a trajectory that originated with Systems Theory and has now reached the Akasha Paradigm?

EL: There were various phases in the development of my thinking. To begin with, I was deeply impressed by Whitehead’s “organic metaphysics” based on the concept that all things are related to all other things. These relations are not superficial, “external” conveyed merely by mechanical cause and effect. They are “internal” or “intrinsic”: each thing is what it is because of, and through, its relations with other things. Indeed, with *all* other things. In that sense the whole world is a vast organism of internally interrelated elements, and functioning in coordination and harmony.

I then realized that not only is the “whole” an integral unity but also its parts are that. There is something closely analogous in the way things evolve in the reaches of cosmic space, and how they evolve on this planet—between the physical and the biological modes of evolution. The things that undergo evolution cannot be fundamentally different kinds of things. While I was at Yale I was introduced to the works of Ludwig von Bertalanffy. I realized then that the evolving things (I called them “coagula” until then, things that coagulate the

many flow-processes that make up their parts) that these things can be, and are best, called “systems.”

Von Bertalanffy showed that “systems” have a similar dynamic in all areas of experience and at all levels of complexity. We find something in common when we examine all these areas and levels. They can all be described by a single theory that embraces the general aspects of all systems, the elements and processes they have in common. Von Bertalanffy called this the general theory of systems (in German, “Allgemeine Systemlehre”). This was translated into English as “general system theory” which is ambiguous. It can be read as “general-system theory” or as “general system-theory.” The latter is correct. There is no such thing as a “general system.” What Bertalanffy meant was a “general theory” of systems.

I then realized that these general aspects of the many kinds of systems on the diverse levels of complexity also apply to the way the systems develop. They scale the rungs of complexity from atoms and molecules, to crystals and cells, to single-celled and then multicellular organisms, and they do so according to some basic processes that hold true as we ascend from one level to the next. These are the “invariances” in the evolution of the systems, and they appear in various “transformations.” But the transformations are just that: they are transformations of the invariances (just as the shape of a circle is invariant with respect to all rotations, and a square is invariant with respect to rotations of 90 degrees). In this sense there is also a theory of evolution that remains invariant across its transformation was applied to physical, biological, ecological, and social-cultural systems. This is then the general theory of evolution.

Before long I found the key concept for GET (general evolution theory) in the “dissipative systems” theory of Ilya Prigogine. I met Prigogine himself, and we developed the kind of friendship I had with von Bertalanffy. They were the scientists who worked out the concepts and the theories that I then assembled into the general framework of the laws and regularities of the evolution of natural systems in time and space. I progressed from “systems philosophy” based on von Bertalanffy’s general theory of systems, to “general evolution theory”

making use of Prigogine's theories and equations of developmental transformations in systems.

The next realization was that natural systems cannot evolve in the real world unless they are constantly and intrinsically interrelated. How are such interrelations possible in the observed universe? How do atoms and molecules, cells and organisms, and entire ecologies and webs of life evolve, more exactly, co-evolve? The interconnections need to be constant and multidimensional, and they must be fast; faster, I realized than the theories of conventional physical or biological signal-transmission allow.

I was looking for instant interconnections among realworld systems, and I found not one or two here and there, but an entire plethora in almost every field of investigation. Of course, the evidence is not always direct, observational; sometimes it is indirect, statistical. The latter kind of evidence is based on the fact that things could not have evolved the way they did unless such connections existed between their parts, and between them and the systems that make up their environment. Here the concept suggested by novelist Arthur Koestler proved to be relevant: the systems that co-evolve in space and time are "holons." They are "Janus-faced" entities: wholes in regard to their parts (looking inward), and parts in regard to the wholes that make up their environment (looking outward).

Evidently, I needed to find the basic concept that could explain such interconnection in nature. I found it in the quantum-physical theory of "entanglement." This means instant, multidimensional connection that does more than connect things through ordinary cause and effect. Entanglement means intrinsic interconnection: through entanglement each thing, as Whitehead said, is what it is because of, and through, its connection to other things.

This kind of "nonlocal" connection became the cornerstone of the explorations that brought me first to the hypothesis of the psi field and then to the quantum/vacuum interaction field—and finally to the Akashic field.

It was years later that I realized that the concept of this field has been

anticipated in an astonishingly clear way thousands of years ago in Hindu cosmology. It was regarded as the fundamental dimension of the cosmos, the Akasha. I embraced that concept, in recognition that it was present in human speculation about the nature of reality for thousand of years. I considered it a confirmation of the validity of my concept, a significant coincidence of perennial intuitive insight with theory based on current discoveries in the sciences.

GS: You mentioned that real-world things are both informed and informed. What is the source of their “in-formation”?

EL: It is the Akasha. Evolutionary natural systems “prehend” (to use Whitehead’s term) this deep, and in the pragmatic context of everyday perception, “veiled,” dimension of the universe. This is the same as in Whitehead’s organic metaphysics “actual entities” (his term for the things that appear and evolve throughout space and time) prehend other actual entities, and also prehend “eternal objects”: the unchanging forms or ideas coded into the very nature of the universe. In my view evolving natural systems are shaped by their interaction with other evolving natural systems, and are “formed” that is, “informed”—by their interaction with the Akasha, the unseen but effective “software” that governs all interactions in the universe.

GS: In recent years, the theory of the Big Bang has been challenged by multi-cyclic cosmologies that look at the origins of the universe as a transition between cycles, making the single-shot Bang into a repeating Bounce. Thinking about Big-Bounces, I had an idea that this trans-cyclic ‘bouncing’ could be a kind of cosmic reincarnation. The idea of human reincarnation, where past-life experiences are believed to be accumulated and carried over between individual life-cycles, seems analogous to the cosmic Bounces: as above so below. Do you think that the successive universes transfer information into each new cosmic cycle?

E.L. I believe they do. Of course, this is speculative, yet there is meaningful evidence for it. The fact is that our universe is amazingly tuned to bring forth

complex systems persisting in the physically improbable state from thermodynamic equilibrium. If this is not a fantastic level of serendipity, then either our universe was “tuned” for life right at the beginning, or its fine-tuning is the result of an act of design. The latter cannot be excluded, but it exceeds the scope of science. Within science we need to come up with a “natural” explanation, rooted in the reality of the universe itself, or, in this case, of the reality of the multicyclic “megaverse.” Because the logical explanation for science is that our universe was not born with a clean slate. It “inherited” its fine-tuning from a prior universe, that is, a prior cycle of the megaverse.

This would be a transcyclic, truly cosmic evolutionary process. Each universe creates complex systems and is formed by interaction with these systems. Its tuning with complex systems renders each universe more capable than its predecessor to bring forth complex systems. This is like the genetic information accumulated across countless generations in a given species. The information is transferred to the fertilized egg, the zygote, and this creates the basis for an offspring that has the accumulated information coded into its own genetic constitution. The same way, our universe is likely to have had the accumulated information of prior universes right at the start, in the Big Bang. In that case the Big Bang is a Big Bounce. A fully “informed” bounce, giving rise to a universe that can bring forth complex systems.

Because of the transfer of information from universe to universe, there is indeed a remarkable analogy with the idea of human reincarnation.

GS: Is it the Akasha that holds all this information? Does the Akasha have infinite memory? An infinite capacity for recording, storing, and conveying information?

EL: The concept I just outlined—a series of universes that transfers information and makes each universe successively more tuned for life—suggests this. We need to add what it is in the megaverse that conveys the information from cycle to cycle. Here the current physical cosmologies give a definite and univocal answer: it is what they call the “quantum vacuum.” Now we know that “vacuum”

is not the right term: the enduring substratum of the cyclic universes is not empty space but filled space: a plenum. This plenum is what connects the successive universes, for it does not disappear as a universe collapses. It is the ground, the matrix, for the evolution of the successive cycles of the megaverse.

The cosmic plenum contains both energy and information, and this informed-energy substratum is not wiped clean in the transition between cycles. The megaverse is not “re-programmed” at these phase-changes, but evolves as an informed whole, toward higher and higher levels of coherence and complexity.

This is the idea that the Hindu seers, the *rishis*, came up with thousands of years ago and called the Akasha. The quantum vacuum is an information-filled cosmic plenum; we name in recognition of the insight of the Hindu seers “the Akasha.”

Now about the question of infinite memory capacity. We cannot speak about anything that’s infinite in the real world because we cannot conceive of what an infinite real thing—would be (the mathematical concept of infinity is different: that’s our own creation, with properties we ourselves attribute to it, so we can have mathematical infinities, even entire series and hierarchies of infinities). It is plausible, however, that the capacity of the Akasha is quasi infinite—infinite for all practical purposes. This follows from the consideration that the most likely form of information storage in a field is the holographic form; with wave-interference patterns superimposed one on the other and creating higher-order patterns. Information stored by wave-interference superposition is extremely efficient. It is said that a holographic medium the size of a cube of sugar coded as a multiplex hologram could contain enough information to record every letter in every word in every volume of the U.S. Library of Congress. If you think of a multiplex hologram the size of the universe (which, though unbounded, is believed to be finite), then it’s memory-capacity would be truly of an unimaginable dimension: sufficient to record and store the trace of all that happened in the megaverse from the initial Alpha universe to the ultimate Omega universe.

GS: Does the Akasha Paradigm answer all the questions that had puzzled you all these years?

E.L. The Akasha is a paradigm, not a particular theory. It is the basis for particular theories, and the questions I have had all these years require answers in terms of theories. But these theories, if they are to be sound, presuppose a sound basis. The Akasha furnishes that basis. So I say that the Akasha paradigm gives me a basis for searching for answers to the questions that have been puzzling me. Finding those answers calls for research, not just by me, but collaboratively by everyone who is truly committed to finding the answers.

GS: While you were working on this book, were you experiencing sudden new insights, was your thinking taking on new turns?

EL: this is a book that I have been writing and re-writing. Each re-write was based on an insight that was partly critical and partly creative. It told me that what I had in the previous draft was not quite right; it had flaws. But as I progressed with the re-write further insights would appear—they would “fall in” as the German word *Einfall* suggests. I would then try to spell it out. This happened dozens of times while I was working on this manuscript.

GS: Just a few days ago when you sent the manuscript to the publisher, you told me that you had ‘completed your task’. What did you mean by that? Do you feel that you had a calling, something urging you to write?

EL: I meant it more modestly than that. I accepted as my task to try to formulate the basic insight of this book: the idea that all the things we encounter in our experience have a common root. This root not only grounds them, but also connects them and enables them to evolve together. This has been an unceasing intuition for me over the years, and it has prompted me to write nearly a dozen full-length books on this topic and many articles and “blogs.” When I sent this book’s manuscript to the publisher I had a feeling that I had fulfilled my task—for now. I have spelled out the nature of the insight as well as I could, given the information at my disposal, and my ability to gather it into a meaningful and

coherent whole. All this is provisional, subject to further research and insights “falling in.” That could be tomorrow, or next year. I would then have another “task” before me. But that is fine with me. The meaning of the search for truth is not in finding it, but in the seeking. That is an endless, exhausting, Sisyphean labor. But it is worth undertaking it. What better way could we fill our life with meaning than to search for it?

GS: What about the myth of Indra’s net and your concept of consciousness? Are they related?

EL: I thought that the concept of consciousness that I arrived at has been already anticipated in this ancient concept of Indra’s Net. It is like a necklace a jewel made up of many jewels where each jewel reflects all the other jewels. This is different from having all together and interacting. They are each separate. If you take this notion and apply it to internal and external aspect theory and all of our brains having this internal aspect, organisms and they are all informed by the same basic dimension the Akasha that means that all consciousness automatically informed by the same basic information by the same basic reality so that we are reflecting as it were like a jewel all the other consciousnesses. Not because there is a god or a divine being imposing his or her ideas on consciousness of each person but because all of our body and brain matter energy system is informed by the same virtual dimension – the Akasha. When we reflect on our own experiences, we introspect, then our consciousness is connected with all the other consciousnesses. Because our organisms are connected with all the other organisms, all the other matter energy systems operate on the same program. So it is a remarkably close account of the Indra’s net.

GS: Your ideas are fascinating. They make me think of things like Jung’s archetypes, and the feeling that when we enter to a dream and we may enter into another person’s dream domain, where consciousnesses meet without having the limitations of the physical body.

El; these are all research topics. You need to develop observations and you will

find an integral meaning, you find out how one thing relates to another. You are getting away from 'ad hoc' assumptions and theories. Modern science has given up on the possibility of a theory of everything, a single scheme that can explain everything. This would be as Einstein, said, like reading the mind of God. But I believe that we can have the same basic scheme in some very diverse phenomena, which is an objective that science has never given up.