HOLONOMIC ALCHEMICAL SCIENCE

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Establishing the Context

This work attempts to make the case for an attempt to reinstate Alchemy as a vital part of our scientific and philosophical tradition. Unfortunately since Newton Alchemy has been languishing as it has lost its direction through the myriad interpretations that have been projected on it and due to its own interpretations mvriad by alchemical practitioners within our tradition. We have actually lost our ability to understand alchemy so that it has become foreign to us even though it was a substantive part of our scientific tradition for a long time. It is a great secret that Newton who is seen as the father of modern physics spent most of his time on alchemical experiments. It is only recently that scholars have begun to delve into this shadow side of the great scientific

hero. Here we will go back to the roots of Alchemy in Egypt to find our starting point for the introduction of a new form of science which actually has very old roots within our tradition. Hopefully this will vindicate the alchemical searching of Newton and other alchemical practitioners within the Western tradition who saw through a glass darkly that something was missing in the Western Scientific perspective on Nature. That something is a new way to look at systems theory that will be introduced in this essay. Hopefully by the end of the essay you will be converted to the Alchemical perspective presented here yourself and want to consider yourself as an Alchemist as I do. Perhaps that will give you a new perspective on the possibilities of science itself that goes beyond the narrow confines which is presented by Western Scientific practice today. It is this dehumanized Science that underlies the pervasive destruction of the earth based the use of the out of control Technology which calls for a deep rethinking of our position on the use of Science and Technology in general. It is this rethinking that leads us back into our tradition to attempt to discover what went wrong and why that caused us to be alienated from our own place in the context of the earth. One answer to that question might be that one of the places where things went wrong was when we abandoned Alchemy which saw us as the subject, instrument and object of our own experiments rather than nature which as Bacon advised we torture on the rack to force it to reveal it's secrets. Even though we are dreadfully cruel to other human beings we are less likely to want to torture ourselves. and if we see ourselves as connected to the rest of nature then by extension perhaps we would be less likely to want to torture the earth and our fellow inhabitants, if our science was not alienated from us as Husserl describes in his book Krisis. Alchemy can be thought of as non-alienated and non-anomic science prior to its reification. Alienated science means that through it we become decathected objects of other investigators that

treat us inhumanly. Anomic means that science sucks the meaning out of life and leaves us as empty husks without soul or spirit. Through Western science we reify ourselves into alienated and anomic creatures tortured by our torturing of the earth and its inhabitants. How do we get out of this deadly syndrome by which we are destroying ourselves by destroying our home with the other creatures that inhabit this small planet with us? The answer can only be through self understanding. We need to understand our own history and look back for the forks in the road not taken that might have taken us to a different future than the one we are now experiencing. Alchemy is one of those roads which eventually, after Newton, abandoned for the emphasis of a small part of Newton's own work, i.e. the Principia. What did Newton see that we did not see which led us down another road than the one that he himself pursued. We call him a founder of our approach to science yet we do not follow him. If we had followed him what might be different today in our relation to technology and science? This is the kind of question that we will attempt to explore in this work.

Alchemy as we find it in the tradition in general is very difficult to understand due to the fact that it has meant so many different things to so many different people through the ages. Today when we read the alchemical works they are generally almost impossible to understand because the way of thinking that they embody is so different from our modern way of thinking. Thus, here we will be interpreting alchemy in a very specific way which will be called Holonomic Alchemy. We assume that the essence of alchemy is related to what will be called Special Systems theory and Emergent Metasystems theory that will be presented in this essay. We base this interpretation on the existence of some scant indications in the history of Alchemy that these Special Systems may have been known and have been the focus of alchemy in the beginning

stages in Egypt. Over the ages this focus was lost and Alchemy was interpreted in various ways at various times without regaining this initial inspiration found in the work of Bolos (Pseudo-Democritus) and Ostanes teacher. Bolos wrote in the name of Democritus, but did not adopt his atomic theory. Instead it was the theory of ediolons that was taken up by the neo-Platonist alchemists. Democritus thought that each thing projected an image of itself that effected animals and men. It was the image of each thing that haunted that thing in our imaginations which was the basis for the transformational characteristics of alchemy. Bolos speaks of his teacher Ostanes who he lost before the final secret of alchemy was revealed. In the story Bolos attempted to raise the image of Ostanes, but he could not say anything, he merely pointed at a pillar in the temple. They could not interpret this sign, but continued the research that had been begun under the direction of Ostanes now working alone. Later there commemoration of Ostanes during which the pillar opened up and was searched. Nothing was found in the pillar except the words: Nature produces Nature, Nature conquers Nature, and Nature delights Nature. Bolos said that this aphorism summed up what he discovered independently better than any formulation that he had previously heard. This story is very illuminating. First of all we see that it is the ediolon of Ostanes which is questioned about the secret of alchemy. That ediolon can not speak but only sign. But the sign is not adequate to give the message at first. Later the pillar is discovered to be empty when it pops open instead of full of manuscripts. But eventually it is found that there is within the pillar a saying which Ostanes meant to communicate with his sign. That saying sums up what Bolos discovered himself in the intervening years summarized his own discovery.

One point of this story is that you can discover the secret of alchemy on your own, in other words you do not need the

transmission from the master to comprehend the secret of alchemy. A second point is that Ostanes cannot speak after death, but can make a sign as an ediolon. He indicates something that appears solid. But later this thing is discovered to be empty and still later it is discovered that it holds the inscription of the saying in question. Thus, words are not necessary to transfer this knowledge, only signs. But the signs point to something seemingly solid like a pillar but which is actually empty. Then we find that the pillar has inscribed within that emptiness the saying. This transformation from solidity, to emptiness, to inscription is also very important for our understanding of the secret of alchemy. We might say that the secret of alchemy is bound up with the move from formlessness and form to beyond formlessness to the order inscribed within the formless.

The inscription is extremely peculiar. It says that nature produces nature, then nature conquers nature, and finally that nature delights nature. The first of these statements might be said as Francis Bacon says it using the phrase Natura Naturans. In other words Nature Natures. This statement alludes to a fundamental way of looking at things endemic to the Indo-European worldview in which the highest state is when the same thing is both a noun and a verb. We might say Form Forms, Shape Shapes, or Being Is. Nature Natures, i.e. nature unfolds itself naturally and thus produces nature from itself. This state of self production unfolds into the state of self-conquering and selfdelighting. Conquering and Delighting are clearly meant to be opposites that unfold from Self-production. In what follows we will give these two further states beyond self production very specific interpretations. But at this point it is possible to see that in order for something to conquer itself or delight itself it must first be produced. Self conquering has to do with control of the self, which can be thought of in terms of cybernetics, or dissipation by something through a medium of something else. Delight means more than mere control but mutual recognition which suggests the social.

There are two directions to go in the interpretation of these sayings of Ostanes. One way is to think of the sayings as referring to physical nature and the other way is to think of the sayings as referring to the logos nature indicated by Democritus in his use of the term eidolon. In other words we can think of nature producing itself physically or we can think of nature producing images of itself in the logos. Similarly we can understand the conquering and delight in this way as well. If we think of the conquering of self physically then we would concentrate on control whereas if we think of the conquering in terms of dissipation we can think of the dissipation of the images throughout the medium of the logos among things. Similarly we can think of physical delight which is a sensation and the delight on the level of logos that perhaps might be expressed in terms of language through poetry.

Both Plato and Aristotle suggested that it was possible to change the nature of things by changing their constitution in terms of the elements earth, air, fire, water. Neo-Platonism projected this suggestion out onto nature and attempted to found a science that comprehended changes at the elemental structural level. It thought that it had found in Alchemy the experimental evidence for such transformations. Alchemy was built on tradition of Egypt which the craft transformed base things into things that appeared golden. There was never any question about actually turning things into gold beyond the appearance of gold until later. Rather Egyptian metallurgy built upon dyeing industry and attempted to do the same thing with various metals, using one metal to produce the sheen of another. Eventually these formulas for giving the appearance of gold were related more and more closely to the philosophical belief in intersubstance transformation of the neo- Platonists and eventually this gave rise to the suspicion that it was possible to really transform something from one metal into gold or silver as we find in the works of Gerber.

But what we really want to do is to try to understand what the phrases of Ostanes meant within their proper context of the transformation of appearances. We might suspect that this had something to do with the eidolons that appear in the theory of Democritus. In other words it has something to do with the imagination of images emanated from the things. Nature produces nature through images. Nature conquers nature through images. Nature delights nature through images. This makes us think that there might be some connection between Alchemy as originally constituted bv Democritus, Ostanes and Bolos and such Archetypal Psychology as that advocated by Jung and Hillman and Giegerich¹. Archetypal Psychology relates to the images that are intrinsic to the things, including ourselves, as discovered by us. For Archetypal Psychology there is a deep order to the production of images that appear in our psyches. That order is the production of nature within ourselves for us. Those images conquer us and delight us. And ultimately it is the primal images that come first before the logos of poetry and the physus of our bodies. These images tell us about our soul and its relation to the worldsoul. So that Alchemy becomes the work of bringing to manifestation the soulfullness of the world and our selves.

But this view of Alchemy traps us in the realm of psyche and does not allow us to integrate this understanding with Western Science as it stands and thus leads us into the mire of subjectivity and cuts off any relation to the objective world of science. In other words Democritus is prophetic for us because he came up with the theory of

eidolons and atoms. Presumably in his theory they were related intrinsically to each other. But for us the two realms, the imaginal realm of the soul known through archetypes and the objective world of science that studies atoms, particles and quarks have become utterly separated. As Giegerich says Psychology proper is a study of the soul of the soul while all other subjects study the soul of something else. Thus Giegerich says that we must rise above images to realize the logical basis of the split between the science of the Psyche and all other Sciences. But this only emphasizes the split even more than merely discussing the archetypal images.

Our question becomes whether there is a way out of this impasse. Is there a way to understand the Psyche in the context of the other sciences which takes seriously the images and ideas of the Psyche but also is grounded in the experimental approach to other phenomena that is cherished by Western Science. What we are looking for is a bridge or a rosetta stone that will allow us to move between these two very different forms of science, i.e. the alchemy of images and the experimental science of the atoms, both of which Democritus founded. How do we manage to integrate the two as we presume that Democritus must have done?

Warning Alchemist at Work

How does one become an alchemist? It is certainly not by studying alchemy itself. This is because alchemy itself is a lost science which has become mired in multiple interpretations that are all in conflict with each other. However, this lost science needs to be reclaimed because modern Western Science has blindspots that cause many problems both intellectually and practically in our world. Alchemy represents a historical alternative path in which human experience is valued as part of the scientific endeavor. Alchemy as represented by Democritus attempts to bridge the gulf between the

¹ http://mythology.org/publications/Paris2000.pdf

atomic quantitative view of the world and the eidolons which give us a qualitative view of the world through images projected by the things. But finding that bridge is not an easy thing to do in a world split into dualities that relegates Alchemy to the dustbin of history while it exalts quantitative science and forgets about the need to balance quantity with quality.

As for myself, I did not start off attempting to resurrect Alchemy. I only discovered much later that what I was up to corresponded to what the earliest Alchemists had in mind when they formulated their science in Egypt long before the Arabs and the Europeans became interested in the Alchemical project. In fact, what I was interested in was the relation between Western Science and Alternative Sciences. I have pursued this question with some vigor and to some depth over the last twenty five years or so. Only recently did I realize that the conclusions that I had drawn were related to Alchemy, as it was originally conceived. In this work I hope to put forward the answers that I have gleaned by these years of study and hopefully in the process produce a new form of alchemy on a strong scientific basis which I Alchemy. Holonomic This foundation of Alchemy solves the problem of the relation between the ediolons and the atoms posited by Democritus, as a form of the logos/physus split that is endemic to our worldview.

Let me explain the progression of my own studies that led me to claim Alchemy as a new basis for a more subtle science that what exists now in terms of the development of Western Science. When I went to London I did my Ph.D. dissertation on The Structure of Theoretical Systems in Relation to Emergence. In this thesis I consider a radically different kind of scientific endeavor based on what I called the Logic of Disconnection, which is radically opposed to the underlying continuity posited as Being and assumed by modern Western Science. In

that dissertation I analyzed the kinds of Being discovered in modern Continental Philosophy and showed that what they were talking about were various meta-levels of Being. I noted that these meta-levels of Being stopped at the fifth meta-level and at that point we leave behind Being and enter into the realm of Existence. In that realm there is no assumption of continuity such as we posit through the meta-physical concept of Being that we project as the world. Rather in Existence what becomes necessary is the opposite assumption of radical discontinuity. I use the work of Sidi Ali al-Jamal as a basis for describing what this kind of science of existence might be like. I see that science of existence as the basis of many traditional sciences that have historically been promoted in the Chinese culture. Islamic cultures, and Buddhist cultures. In other words unless we change our primary assumptions radically to include a fundamental discontinuity it will be impossible to construct a coherent theory of sciences of Existence as opposed to sciences of Being.

After leaving London I continued my researches as I made my living as a Systems Software Engineer Engineer and Aerospace firms in Southern California. I continued my study of alternative sciences such as Homeopathy and Acupuncture that contradict the assumptions of modern Western Science attempting to understand two things. First I was attempting to understand the difference between the Worldview Western and Traditional Worldviews such as those of Taoism in China, Islam and Buddhism. Second I was attempting to understand the difference between Western Science and the traditional sciences that emanate from these traditional worldviews.

In the process of this study I wrote a long manuscript called <u>The Fragmentation of Being and the Path beyond the Void</u>. In this manuscript I attempt to delve into the depths of the Western Worldview in order to

understand its underpinnings. This manuscript framed the problem in terms of the transition from Being to Existence within the Western worldview. It discovers at the core of the Western worldivew a fundamental fragmentation due to the fact that the Metalevels of Being do not extend infinitely but in fact cannot be found past meta-level four of Being. In other words it becomes clear that at the center of the Western Worldview there is an emptiness that we must take very seriously because it is our transition from Being to Existence within our worldview. What I discovered writing that book was that the structures of the world are very conservative in spite of the emergent changes that transform the worldview occasionally. What is conserved is the structure of the Indo-European worldview in terms of metalevels of Being and the interface with Existence at the fifth meta-level. After finishing that manuscript I continued to research until in about 1993 I discovered the basis for understanding both the bridge from the Western worldview based in Being to other Traditional worldviews based in Existence, which is also the bridge from modern Western Science to Traditional Homeopathy Sciences such as Acupuncture. To capture and develop that discovery I went on to write a series of working papers on Reflexive Autopoietic Dissipative Special Systems. A new introduction to these working papers now exists. Also various explanatory papers were delivered to the ISSS 2000 conference in order to make the theory more widely known.

The key idea that I discovered was that there were a series of emergent levels beyond standard General Systems Theory which explained how the traditional qualitative sciences of existence related to the modern quantitative sciences. I will explain these emergent levels and how they relate to each other in the following section. But here we are merely discussing the serendipity of the discovery. The discovery occurred by accident when I just happened to be studying

two things in parallel and just happened to wonder about their interrelation with each other. One thing had to do with the Formal Structural Systems theory of George Klir. I had written a paper on how that theory was related to software engineering design methodologies that appears in my manuscript Wild Software Meta-systems. At that time I happened to be reading a book on Hyper Complex Algebras and began to wonder how the series of Hyper Complex Algebras (complex, quaternion, octonion, sedenion). It turned out that both the lattice of Methodological Distinctions that Klir talks about and the series of Hyper-complex Algebras have in common the element of real numbers. When we connect both these series of emergent hierarchies, one of order the other or algebras, then we get a larger lattice with some very interesting properties. This discovery of the larger lattice prompted me to begin studying the whole area again in terms of this structure and it was discovered that it provided precisely the kind of structure I had been searching for these many years. Since 1993 I have been searching for historical precedents for this structure and have found many of them far and wide. The structure is very peculiar and so it leaves a unique signature on the theoretical and practical structures which it is associated with. I have come to think that this structure is a lost theoretical basis for the traditional sciences which make sense of Acupuncture and Homeopathy and other sorts of traditional sciences based on the assumption of the discontinuity of existence rather than the continuity of Being. From the beginning of the new Millennium I have begun attempting to make this theory more widely known because I have assured myself that it is indeed what I have thought it was for many years, i.e. the necessary bridge to a new way of looking at science that combines the traditional sciences of existence with the modern sciences of Being to raise both to a new level of subtlety and sophistication that neither has achieved before. It fills in the some of the blindspots of Western Science giving it the ability to be more responsive to its environment. It gives traditional sciences a positive theoretical basis where previously good explanations were lacking so that they were mocked for being merely superstitions or perhaps forms of magic.

There are really two formations that are involved. One is the formation produced by the hyper complex algebras themselves which are related to systems and called Special Systems Theory. But there is also a metaformation that is made up of all the hypercomplex division algebras plus the normal real algebra which is called the Emergent Many of the historical Meta-system. examples I have found of this formation elucidate the Emergent Meta-system. It was by chance that I happened to see in a book by Edinger on Jung's Aion a diagram that looked like the emergent meta-system formation. I looked up the diagram's in Jung's book, and then realized I would have to read it in order to know what he was talking about. When I read the book I discovered that Jung had known about the Emergent Meta-system formation and had made an image of it. I went on to read Jung's Mysterium Conjunctus and became interested in the question of whether Alchemy concerned the Emergent Meta-system in any way. After finishing the Mysterium Conjunctus and Jung's other Alchemical Texts I went on to read many books on alchemy. The most interesting of these was the book by Lindsay on Alchemy in Egypt. In that book I found what I had been looking for in the section dealing with Bolos and Ostanes. Their saying is a clear example of the Special Systems. This made me realize that what I had discovered really was the root of Alchemy and that this placed it squarely within our tradition rather than as something outside that tradition as many of the other examples I have found turned out to be. Thus I realized that what I had discovered was the original basis of Alchemy which is precisely an alternative form of science within our tradition prior to the triumph of atomism. By contributing a theoretical basis for Alchemy commensurate with Modern Western Science it is possible to construct a new more subtle and more sophisticated Science by the combination of this Alchemical Science with normal modern Western Science.

By becoming interested in Jung's works again (I had done my senior thesis at Kansas University on Jung and Symbolic Interactionism) I began to explore the world of Jungian psychology. Doing that I discovered the archetypal psychology of Hillman and the critique of that by Giegerich. I recently attended the "Psychology at the Threshold" conference where both Hillman and Giegerich attended and gave presentations. On my return from that conference I read Giegerich's The Soul's Logical Life. It turns out that this theory of Logical and Archetypal Psychology is an exploration of the phenomena of the eidolons of Democritus which is related to Special Systems Theory and the Theory of Emergent Meta-systems which explain the relation between quantity and quality. Therefore in this essay I will deal with the extension of Archetypal Psychology as it relates to the articulation of the broader theory of Holonomic Science and as it relates to the interpretation of Alchemy in general as an alternative kind of science to the modern Western experimental science. Holonomic Science

Giegerich makes a case for why Jung and Hillman's psychology is interesting, and that is because they take seriously the concept of Soul. This is an extreme case but it points to exactly what modern Western experimental science has lost, i.e. its soul. Soul, God, Spirit and other meta-physical concepts have no place in modern Western experimental science. Alchemy on the other hand has throughout its history been concerned with soul and nature both. This concern for the relation between soul and nature is precisely what we need to recapture in our scientific endeavors. There are even some books these

days that concern the nature of soul from a scientific viewpoint such as The Spiritual Universe by Fred Alan Wolf. He uses Quantum Physics as a basis for explaining the unexplainable. The popularity of his work and similar works on the soul by others including Hillman, More and others of the Archetypal Psychology school shows that this lack with respect to modern Western philosophy and science is something that is heart felt by many. Bringing together Alchemy with modern Western science should address this issue of the relation of Soul, Spirit to other more mundane terms like World and Self which are levels of abstraction that may be seen to relate to modern Western science.

Special Systems Theory

Alchemy in the beginning seems to be a theory of the Special Systems. This focus was rapidly lost but is discernable in the work of Ostanes and Bolos in the ancient Egyptian school of Alchemy. But because it appears at the beginning there is a strain of Special Systems that runs through the historical examples of Alchemy of later ages. Here we will be giving a much more advanced theoretical description of the Special Systems than appears in the aphorisms of Bolos and Ostanes. Hopefully, after I have explained the basis of Special Systems theory it will be clear how their aphorisms relate to this theory.

The easiest way to explain the theory of Special Systems is to start with the distinction between Systems and Metasystems. Systems are social gestalts. Metasystems are environments, milieus, contexts, situations within which systems appear. A system is a whole greater than the sum of its parts. A meta-system is a whole less than the sum of its parts. A meta-system has holes in it. Those holes are niches in which the systems nest within the field of the metasystem. An example of a meta-system is the

computer operating system within which application systems appear. Another example of this difference is the relation of the Universal Turing Machine to the Turing Machine. The Universal Turing Machine is like an operating system for Turing Machine applications. Once have you understanding of this difference between Systems and Meta-systemic Fields out of which systems arise and to which they return, then it is possible to go on to define the special systems. The special systems are part systems and part meta-systems that exist between the system and meta-system. We call them Holons because from one angle they look like systems and from another angle they look like meta-systems. Thus as Koestler said who coined the term, they have a Janus face from the viewpoint of the whole they look like parts and from the viewpoint of the part they look like wholes. These holons have a very special structure which is made clear by their relation to the hyper complex algebras. These algebras were discovered by Hamilton and Graves in the middle of the 1800s. Thus they have been known for 150 years. But to my knowledge this mathematical basis has never been used to ground a systems theory. That is because these special systems have some very strange properties. No one before thought that systems could have the strange properties that the hyper-complex algebras exemplify. It is this realization that these strange properties are useful for looking at the world that is my contribution to this field.

There are three sorts of holons or special systems where the whole is exactly equal to the sum of its parts. These are called dissipative ordering special system, autopoietic self-organizing special system, reflexive social special system. Each of these are named for an existing theory. Dissipative systems are named for the theory of Pirgogine who talks about neg-entropic dissipative structures in far from equilibrium thermodynamic systems. Autopoietic systems are named for the theory of living organisms

developed by Maturana and Varella. Reflexive systems are named for the sociological theories of Barry Sandywell and John O'Malley. In other words each of these emergent levels of phenomena have been identified previously by specific theorists. What we are doing is showing how these emergent of levels different phenomena fit together into a single metastructure defined by the hyper-complex algebras.

Once we have identified these emergent levels and their relation to the hyper-complex algebras then it is possible to see that they actually form a higher level formation composed of the three holon levels and the system level which together define what is called the Emergent Meta-system. The Emergent Meta-system is a dynamic image of existence by which things are produced ex nihilo out of the void, i.e. pure discontinuity. It is composed of stages called seed, monad, view and candidate and meta-operators that connect those stages called creation, mutual gestalt pattern formation, action, annihilation. This dynamic formation shows how things pop into existence and interact, view each other, explore possibilities, and then disappear in mutual annihilation. The Emergent Meta-System (EMS) is a theory that is equivalent to the dragon of existence posited by the Chinese in their mythology. It is also this dragon who is suppressed in the Western tradition, in which the gods and heroes slay dragons. The emergent metasystem is an image of the dynamic of existence that is covered over by Being. We can see an image of it in Shiva dancing in the ring of fire. Each of the arms of Shiva stands for a moment of the EMS cycle.

Now it is difficult for most people to relate to the Hyper-complex algebras. We only are taught real or complex algebra in school and so the quaternion and octonion algebras are foreign to us. But there is a very simple numerical analogy that we can use instead. That analogy is the Perfect, Amicable and

Sociable numbers. Perfect Numbers are those where the divisors add up to the number itself. They are very rare. Examples are 6, 28, 496 etc. Amicable numbers, like 220 and 284, are those where one number's divisors add up to the other whole and vice versa. Finally the Sociable numbers are a series of such numbers in which each one constitutes the next until it returns to constitute the first one in the series. Sociable numbers were discovered in 1918 while the other two types were known since antiquity. These numbers have precisely the holonic attribute of the whole being exactly the sum of its parts that is between excess and deficiency of all other numbers. We can see perfect numbers correspond autopoietic special systems, amicable numbers correspond to dissipative special systems and sociable numbers correspond to reflexive special systems. In other words mathematics is shot through with oddities like this that can be seen as analogous to the special systems. Another example are the non-orientiable series of (lemniscate, mobius strip, kleinian bottle, hyper-kleinian bottle) or in physics the series of soliton solutions (solitons, breathers, multi-monopoles). There are many different ways in which the emergent levels between the various special systems can be seen to be articulated in various kinds of mathematics. We can even discern physical phenomena that correspond to each level. For instance the soliton corresponds to the dissipative speical system level, the super-conducting Cooper pairs correspond to the autopoietic level and the Bose-Einstein condensate correspond to the reflexive special system level. With these physical examples of holonic systems as a basis special systems theory becomes fully scientific because it has a mathematical basis for its theory and anomalous physical phenomena that shows that these systems are "real" as any other phenomena studied experimentally science.

But what is amazing about these systems is

that they give us a model of the interpenetration of things that is posited by Buddhist meta-physics. That is the strange character of hyper-complex algebras which had no use physically until it was realized that they represented special anomalous systems that appear only rarely. It is these rare systems that Alchemy studies. These the systems exemplify underlying interpenetration of all things described by Buddhist, Islamic and Taoist Traditional views of the world. Traditional sciences of existence assumed the interpenetration of all things in spite of their radical discontinuity in existence. Modern Western experimental science assumes continuity in the form of Being and atomic external discontinuity between the things themselves rather in the medium of spacetime. This is fundamental difference between traditional sciences and modern science. This gap is bridged by realizing that special systems are rare and thus exist but only peripherally in terms of the phenomena that science studies. However, because they are negentropic, these systems have an advantage over other systems so that once they exist then they tend to take over as they have done on our small planet, which sports life of social groups with consciousness. We know that this planet is a rarity in the immediate universe. So these anomalies become important when we look around at the part of the universe in which we live, because they are exemplified by us and the other creatures like us on this earth. What is even more interesting is that the theory of the Emergent Meta-system gives us a theory of how Gaia, the "organism" of the earth is constructed. It is constructed based on these structures of interpenetration. Thus it is more than just a theory of the constitution of life, consciousness, and the social but also a theory of our relation to Gaia as the Earth environment of which we are a part.

In essence the Special Systems Theory and the Emergent Meta-systems Theory is a rosette stone for understanding the relation

between Western Science and Traditional Sciences of Existence. It offers a bridge between these two forms of science which allows the traditional sciences to make sense in relation to other sciences. It offers also a bridge between the Western Philosophic and Scientific tradition and other traditions such as Buddhism, Sufism, and Taoism which explore the meaning of existence in terms of annihilation or void. emptiness, realization of the basis of traditional sciences, including Alchemy, is fundamental step forward our understanding of the wisdom of the past and its comprehension of the place of man on earth which we lack today.

Meta-Levels of Being or Psyche

One of the interesting philosophical issues raised by Special Systems theory is the relation between it and the Being projected on nature by the West. It turns out that Being has four meta-levels (Pure, Process, Hyper, and Wild) and that when we try to go to the fifth meta-level we encounter existence as something beyond Being. But what can be said is that the differences between the metalevels of Being ARE the special systems and vice versa. Thus Existence articulates Being and Being articulates Existence mutually. This allows us to develop a non-dual theory and this non-duality allows us to elucidate problems like those of the nature of soul and spirit raised by archetypal psychology. Nonduality is a type of theory that supports what is neither one nor two. In other words, nonduality does not mean one or unified. Nonduality is another state that is not unified nor differentiated, i.e. it points at what is other than the one or many. The model of Existence producing Being and Being producing Existence allows us to articulate a theory which is non-dual in a very deep sense but still articulate. This is because what special systems show us is the order etched into the emptiness or void that is prior to the arising of all things. Democritus said that there was only Void and Atoms. His theory may well have been a theory of the emergent meta-system that produces monads (atoms) out of the void and then allows them to articulate and return to the void in a dynamic cycle. In such a picture the eidolons have a place because in this process possible candidates are projected which annihilate to produce the seeds (side effects) of the next cycle. Thus we can understand Democritus theory as having some of the necessary ingredients necessary to be a theory of an Emergent Meta-system. Unfortunately we do not know enough about Democritus theory to know for sure that it is precisely what he is talking about. However, if it were then we could see why Bolos would refer to him when he articulated the theory of Ostanes in which nature produces nature, nature conquers nature and nature delights nature. We can see these as the autopoietic, dissipative and reflexive moments of the EMS cycle. Self-production is precisely the theme of Autopoesis in which nature produces nature from itself. We can contrast this autopoietic moment with nature producing more than nature, i.e. the artificial or nature producing less than nature, i.e. the un-natural, for instance toxic pollution. We see that our sciences of the artificial allow us to design all sorts of gadgets, but that these leave a trace in nature which is unnatural pollution. Perfect balance is seen in nature producing nature naturally. When nature has produced itself then some part of it might conquer another part. This is the image of a dissipative structure that invades and reorders the environment to its own purposes. The spreading of an ordering from one part of nature to another is an example of a neg-entropic reordering which destroys the old order and institutes a new order. Finally we see in social systems reflexivity in which there is mutual delight, like the speaking of a common language, or the participation in a common culture, or the institution of a common social grouping. Mutual Delight is an echoing back and forth of mutual stimulation which calls for more

stimulation of the same kind, in terms of language, culture and social interaction. This interaction is for the most part as Mead says symbolic interaction, but it could be semiotic interaction or of some other kind. It is in the reflexive social field that images that are of interest to archetypal psychology produced. In other words the realm of images spoken of by Hillman is reflexive as is the realm of ideas that Giegerich would have us sublate images into. Archetypal and Logical psychology find their place in the reflexive social sphere. Myth is the inner logic of this sphere with respect to a particular worldview. Language emerges in this sphere as the symbolizing and signing medium within the social sphere. Consciousness appears at the autopoietic level as the necessary correlate with the living of the organism.

It is within these realms that soul and spirit appear. We can think of the concept of Jung of ego verses self. We can combine that with the idea of Bubber of I-IT and I-THOU relations. We can think of ego-alter and selfthou relations by combining the insights of the two theorists. Giegerich says that the Self of Jung is merely the introjection of the transcendental ego into the unconscious. The transcendental ego is the prior synthesis of experience which allows us to know where we are in our world and allows us to understand our place in the scheme of things in every instant. Thus the Self is an image of the World within the person. If we look deeper into Jung's theory we can see that his archetypes fit onto the schema of the special systems. We can think of the ego-alter as a system and anti-system pair. We can think of these existing within the meta-systemic field of the Self-Thou. Between these two emergent levels we can see the holons of the ego-shadow/alter-shadow, animus/anima, and wise-old-man/cathonic female. In other words the archetypal levels identified by Jung corresponds to the levels of the special systems very precisely. Thus Jung was a precursor to this theory of the special

systems. He structured his own theory of archetypes around the hierarchy of the special systems. We also see an image of the EMS in Aion and Mysterium Conjunctus in terms of the Marriage of Moses Quaternio of Quaternios. Jung had somehow discovered both the Special Systems and the Emergent Meta-systems formations even though he did not realize their mathematical or systems theoretic formulations. He projected them as archetypes and saw them to be the major themes of Alchemy.

When we realize that self-thou and world are duals of each other in as much as the selfthou is an image of the world within the person, then we can go on to attempt to understand where the soul and the spirit come into play. We are helped in this by Giegerich who makes a Psychological Distinction analogous to Heideggers Ontological Distinction. This distinction helps to distinguish the realm of the soul from the realm of psychological phenomena. The logical level of the soul is at the level where Pure Being appears out of the ontic level of psychological phenomena including images. What this analogy allows us to do is to see that the four kinds of Being that are meta-levels can also be applied to the logical level of the soul. This means that what Giegerich following Heidegger attains is the first level of Being, i.e. Pure Psyche. What he does not yet know is that there are three other meta-levels of Psyche above that called Process Psyche, Hyper Psyche and Wild Psyche which are related to the various kinds of Being (ergo Pure, Process, Hyper, Wild). Psyche is merely another name for what others call consciousness. Consciousness is merely another name for what ontologists like Heidegger call Being. All these are synonyms developed in various unrelated contexts. But once we understand that there is a Psychological Difference on the analogy with Ontological difference separating psychological Psyche/Being from the phenomena or ontic level of entities. Then it is possible to learn from modern Continental ontology that there are four kinds of Being and that these kinds of Being end abruptly their mounting staircase of meta-levels at the fifth level. At that point we fall off the staircase into existence. At that point Soul is converted into Spirit. Spirit is the identity of the soul with emptiness or void at the level of existence. Soul is the identity of the soul with the Psyche/Being at the various meta-levels less that five. Psychological phenomena exist at the level below the psychological/ontological difference.

This theory of Soul and Spirit allows us to say some interesting things vis a vis the Hillman/Giegerich discussion that occurred at Psychology at the Threshold conference. First of all we can see that Hillman himself plays the role of a deconstructionist using Jung's psychology as his basis deconstructing. But unlike most deconstruction which is nihilistic Hillman takes the soul seriously as does Jung. Thus as Giegerich says Hillman has made an advance by his concentration on Archetypal **Imaginal** core of Jung's psychology. But as Giegerich says we must go beyond images and see though them to the logical level of the soul. It is logical in the sense that once we produce psychological difference we can begin mounting the metalevels of Being toward the spirit which appears at the point where we move into empty or void existence. Thus we see that Hillman's discounting of the Spirit is fundamentally wrong because both soul and spirit exist as distinguishable from each other. Soul occurs in the meta-levels of psyche. When the meta-levels of the psyche end at the fifth meta-level then soul transforms into spirit. Spirit is identification of the self-thou with emptiness or void. Soul on the other hand is the identification with Being beyond the level of ontological difference. Giegerich makes the point that the Soul functions under a negation, even a negation of a negation. This is equal to looking at the Pure Soul as Pure Being where we see a negation of

phenomena. Then we look at Process Soul (En-souling) as Process Being which is equivalent to what Sartre calls Nothingness that is an active negation of a negation. Otherwise we would see this positively though a process philosophy such as that of Whitehead. But there are two more levels, one is the Hyper Soul which is equivalent to Derrida's Differance and there is the Wild Soul which is equivalent to Merleau-Ponty's Flesh. Hillman as a deconstructionist is usually talking about this same level that Derrida talks about, i.e. Hyper Soul. But we can go beyond this to understand the Wild Soul which appears in the image talked about by Robert Bly as the Wild Man or Wild Woman who leads the initiation process. But all this is merely a preparation for the understanding of Existence as the Buddha did as emptiness when we discover the fifth meta-level of Being.

What is interesting is that the special systems, i.e. the archetypes differentiate these meta-levels of psyche or soul. This is to say that the archetypes distinguish the soul or psyche from itself. This is a very interesting result from combining special systems theory of the dynamics of existence and its associated ontology of Being with the developed by concepts Hillman and Giegerich. Archetypes are holons that distinguish the meta-levels of the soul. That is why the soul speaks to us archetypally. It is speaking of its own internal differentiation.

What is interesting in terms of Hillman's concept of "Seeing Through" is that metasystems are deconstructions of systems and the process of turning a system into a metasystem can be thought of as a process of seeing through. This is interesting because as we step through the levels of Psyche/Being we encounter the holons that produces the archetypal structuring so that the archeypes can be seen to come out of the seeing though process as we move through the stages of the soul to the endpoint of the spirit. We can see this process as occurring below the level of

psychological difference or above it, i.e. embedded in the images as Hillman would approve or at the level of soul, ie. Beyond the level of psychological difference as Giegerich would have us to. These two levels of Seeing though are duals of each other. One does not go far enough from the point of view of Giegerich while the other goes too far from the point of view of Hillman. But in actuality these are duals of each other and can be seen as complementary. One does not achieve the level of soul completely and remains mixed up in the images because it does not see though imagination itself in Giegerich's terms. On the other hand, Giegerich's formulation produces an ontology at the level of ideas that Hillman wants to avoid. Hillman would say that soul at the level that Giegerich suggests is too much like spirit. Hillman wants to live in the ontic realm and does not want to raise his sights to the ontological in spite of the fact that this level is still impure. Hillman likes that impurity. It gives more grist for the mill deconstruction.

Our point is that neither Hillman or Giegerich go far enough. We would move not only to the level beyond psychological difference but would step though the various meta-levels of soul until we reached the fifth meta-level where spirit as utter formlessness and void appears. This formlessness that the Buddha identified should be the axis of our study of the Notion or Concept and the Images. Both vanish in the void or emptiness uncovered as we discover the bedrock of existence.

Another point is that within the empirical realm set up by Jung in his psychology there is following Bataille ego-alter as restricted economy, i.e. system, and self-thou as general economy, i.e. meta-system. But then when we move beyond the empirical realm we enter the realm of soul beyond the dividing line of psychological difference. That realm moves though the stages of the soul (Pure, Process, Hyper, and Wild) to the

threshold of existence where the spirit appears as we enter the emptiness of the void. Giegerich talks about how the transcendental ego has been excluded and made The Unconscious and then introjected back into the empirical realm as the Self. The soul is seen as the inner coherence of the Transcendental Ego which is the prior synthesis before our experience of what we experience. If we look at the Hindu hierarchy of Being we find the following stages:

- 1. Brahman
- 2. Brahma/Vishnu/Shiva
- 3. Atman
- 4. Transcendental Ego
- 5. Empirical Ego
- 6. Persona

It is possible to see that what we are doing is stepping up though this hierarchy. Descartes defines the Empirical Ego with his Cogito Ergo Sum. It is not until we reach Kant's Critique of Pure Reason Transcendental Ego was discovered. Husserl went on to discover the problem of intersubjectivity which is the Atman level. We are stepping up though this hierarchy. We can see ego and self defining the limits of the level of the empirical ego. Similarly soul and spirit may be seen as defining the level of the transcendental ego. So this raises the question of how to define the limits of Atman and beyond. Jung talks about the collective unconscious but suppresses the idea of collective consciousness. He along with many of this generation saw the problems of mass psychology and withdrew from it. However, it is necessary to rethink some of these assumptions. We may wonder what a depth sociology beyond the limits of depth psychology might be like. The Atman has two forms. One is what looks though everyones eyes. The Hindu philosophy also had a name for what looks though all the animals eyes as well at one point. The other interpretation of Atman is who each of us are across all the myriad worlds of the

pluriverse.

Meta-levels of Psyche

The question that is naturally raised is what is the nature of the stages of the soul. If we accept that there is psychological difference on the analogy with ontological difference, then there it is a compelling argument that there are meta-levels of the soul along the lines of the meta-levels of Being.

Existence	No-hand	Freedom	Dis- continuous - indeter- minate
Wild Being	Out-of- hand	Encom- pass	Propensity - Chaos
Hyper Being	In-hand	bear	Possibility - Fuzzy
Process Being	Ready- to-hand	grasp	Probability - Stochastic
Pure Being	Present- at-hand	point	Determinate - continuous
ontic	thing	entity	

By analogy there are the following levels of the Soul

Spirit	
Wild Soul	Fragmenting Soul
Hyper Soul	Splitting Soul
Process Soul	Ensouling or Conceptualizing
Pure Soul	Soul as Concept or Notion
Empricial - Imaginal	

When we first break through to the level that Giegerich calls psychological beyond the threshold of psychological difference then the soul seems static as the double negation that Giegerich talks about. But then we see that this apparent stasis of the soul, its achieved wholeness, is grounded in groundlessness then the underlying dynamism becomes apparent. The soul is continually being ensouled in order to maintain itself as notion. The double negative operates on itself to necessitate continual renewal. Death is when ensouling no longer operates. But beyond the ensouling there is the bifurcation of the soul in the realm of possibilities, what Derrida calls Difference which is differing and deferring. At that third meta-level there is an indecision that hangs back in the realm of possibility. In many cultures such as the Chinese the soul is seen as dual in form. In Chinese there is the **hun** and the **po** souls. One goes to the realm of the spirits and the other goes to the realm of the body in the earth at death. This splitting of the soul occurs at the level of Differance. At that level there is some part of the soul that never is manifest. This is the deepest part of the soul that never is known in line with what Henry calls The Essence of Manifestation. Henry quotes Meister Eckhart with respect to this level of the souls operation. Finally the split soul continues to split becoming chaotic and this is the level at with the many souls or spirits appear within us that Hillman is so fond of pointing out. We have many complexes and these are autonomous and they correspond to the characters we meet in dreams which also correspond to the so called gods, i.e. jinn, and angels. When we continue to transition to the next meta-level we encounter the void and all the various souls splinters or sparks and spirits dissolve in that emptiness.

What we see is that the levels of Being/Psyche explain some of the structure of consciousness pointed out by Jung and Hillman. When we are seeing though to the level of the gods. The sparks or splinters of

the soul that Jung speaks of in Mysterium Conjunctus are merely the fragmentation of the soul itself at the fourth meta-level of Being. The splitting of the soul so that it has a dark side of self deception is explained by the **hun** and **po** souls that appear at the third meta-level. Evidently the Egyptians have many names for the souls functions and so we can see the hun and po splitting up into different aspects in Egyptian soulology. The process of ensouling explains many of the dynamics of the psyche. But finally we have the Notion of the Soul in a reified concept that defines the first metalevel of the soul.

It is necessary to see though Jung, Hillman and Giegerich, and it is easy to do that if we borrow these ontological concepts and apply them to define the various psychological (soulological) meta-levels. What interesting is that it is the traversing the stages of the soul that gives us access to the archetypes which exist as special systems between the meta-levels of the psyche. Thus we encounter the archetypes within the structure of the stages of the soul. The archetypes are defined by the holons that are defined as dissipative, autopoietic and reflexive. When these non-dual representables are represented (imagined) then the archetypes appear. It is this encounter with the non-duals that allow us to see though the dualities that are produced in our Western worldview to discover order, right, good and fate. Recently Hillman called out attention to Beauty, Justice and the Good. These are other names for Order, Right and Good which are the non-duals at the center of the Western worldview. They the archetypal core of the Worldview which appears when we see though nihilism and dualism.

Hillman is refreshing because of his debunking of many new age urban legends. Many of these revolve around the spiritual marketplace that has been created by the contentions between various spiritual paths.

We can apply the levels of Being to analyze this spiritual marketplace.

Existence	Spirituality as Formlessness and clinging to Void or Emptiness	
Wild Being	Spiritual Fascism i.e. cult production	
Hyper Being	Spiritual Relativism and Perennialism	
Process Being	Spiritual Delusion Production	
Pure Being	Spiritual Reification	
ontic	Many paths.	

Hillman is against spirituality because he sees it as monolithic. This is in my opinion a misreading of the term spirituality. For me spirituality refers to the identification with the formless, i.e. emptiness or void via annihilation. But when we back away from that distinction between form and formless then we see that Spiritual Reification is possible and that this leads to Spiritual Delusion production whenever one is interested in Powers or Effects of spirituality. But when we go deeper we find the prevalent assumption of relativism and perennialism. Relativism says we cannot decide between paths and thus they are all legitimate. Perennialism says that all the paths ultimately have the same goal. These two together are the core of nihilism because one says that the differences do not make a difference that makes a difference ala Bateson and the other says that they are all the same ultimately anyway. This is a definition of nihilism which sucks the meaning out of life as described by Rosen in his book Nihilism. Fascism is when someone decides to impose a spiritual way on others

and thus produces a cult like social formation. In this spiritual fascism nihilism becomes active destroying other paths. Such a fascism may be atheistic as well. Relativism is a passive kind of nihilism. Fascism is active nihilism that works to destroy a spiritual path that is in existence. Beyond that there is another intensification of nihilism which is genocide where all the adherents of that other path are wiped out. This is a nihilism pursued at the level of existence obliterating the other.

In this way we can see that what Hillman is pointing to is a real danger and that danger has become manifest many times. But that danger is a distortion of actual spirituality into some of its deformations. We notice that those deformations operate as the various levels of the soul. In other words the soul can be tortured by nihilism and myths in the Indo-European tradition record many of the ways that souls can be tortured by nihilism. And excellent example is the confrontation between Achilles and Agamemnon in the Iliad. Achilles saw that the Acheans were no better than the Trojans and so with drew from the fighting and called the wrath of Zeus down upon the Acheans. The torture of the soul by nihilism is one of the most fundamental phenomena in our worldview. So the stages of the soul is not merely an academic exercise because these same stages define the depths of hell as well as the heights of paradise when we are freed from the onslaught of nihilism.

Stages of Initiation

One of the things that my researches has uncovered is that there is a set of stages of initiation for males and females defined by the meta-levels of Being. Men and Women move though these levels in opposite directions during the initiation process

Male	<u>Female</u>

Pure	Process	
Feminine wisdom	Masculine wisdom	
Hyper	Wild	
Wise old man	Cathonic Female	
Wild	Hyper	
anima	animus	
Process	Pure	
Male ego	Female ego	

Men start out rooted in process, i.e. work, perhaps the work of war. Then in the midst of this they go berserk or encounter wildness in some way as they follow the goddess of war into battle (Athena). This experience allows them to understand the wise old man, like the wise old man of the sea that Menalaus encounters and captures. Finally the male develops a feminine wisdom which comprehends the purity of the uninitiated female but often when it is too late.

Similarly the Female starts off pure, then she gets lost in the mirror house of social images of her until she meets the cathonic female like Baba Yaga that puts her to work on impossible tasks. From that she comes to understand the male wisdom concerning process which she is initiated into with respect to child birth and child care. But the secret of masculine work she comes to understand often too late.

The series of stages are the same for male and female they are merely traversing them in the opposite directions. This is what makes the masculine and feminine complementary in our worldview. The stages of the initiation give each person an acquaintance with the various meta-levels of the worldview. But them each comes to see in the other a face of

the world. The mysterium conjunctus is when the masculine and feminine meet each other at each of the meta-levels of soul. In other words the soul of the man and woman are forged differently. The man is driven toward enlightenment while the woman is driven toward endarkenment. Darkness is impurity for the male while it is light that is an impurity for the female. They are like ships passing in the night as they each forge their souls in the initiation process producing the complementarity that will allow mysterium conjunctus to take place. The mysterium conjunctus is a conjunction of the complementarities forged by the initiation process at the level of Atman. Each has the various levels of their souls articulated so that they can meet the Other at each level of the soul and in that way their spirits can become one as they enter into the void together canceling or annihilating.

World and Soul

Hillman's deconstuctionism due to its lack of philosophical sophistication is open to the attacks of Giegerich who uses a combination of Hegelian and Heideggerian views to lay waste to Archetypal Psychology as it stands and to assert that beyond it there must be a logical life to the soul. However, as we have seen there are assumptions in the stance of Giegerich which are also problematic. One of those assumptions is wholeness. Giegerich has an uncritical assumption of wholeness with respect to the soul. We have in turn critiqued that wholeness by showing the possible stages of the soul as being related to the meta-levels of Being. This critique when it is linked with the special systems theory shows that there are several kinds of wholeness. There are wholes greater than the sum of the parts which are the standard gestalt wholes. It is interesting that gestalts and flows are duals of each other. Giegerich talks about the liquefaction of the dialectic. Really that can be seen as merely the inverse of the gestalt which has a flow as its

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opposite. However, as we have seen there is also wholes less than the sum of their parts which we call Meta-systems and would like to name Archons after the archons who governed Athens after the kingship was abolished. Between these wholes greater and less than the sum of their parts exist another kind of Whole called a holon. There happen to be three kinds of holon of this type called dissipative, autopoietic and reflexive. Each of the special systems manifest in very rare phenomena and so are not generally recognized. They are the province of Alchemy rather than normal Western experimental science. However, having said this there is also something further. The system and the meta-system appear at the center of a hierarchy of ontological schemas:

pluriverse
kosmos
world
domain
archon (meta-system)
system
form
pattern
monad
facet

The ontological schemas are the duals of the ontic schemas which are discovered as emergent (non-reducible) levels of phenomena in nature such as social, organism, organ, cell, macro-molecule, molecule, atom, particle, quark etc. These two sets of emergent levels are themselves together opposite another pair of interleaved

emergent levels that have to do with the social and individual processing of information.

<u>Individual</u>
Actualization
Insight
wisdom
knowledge
information
data
given

This latter pair of interlaced hierarchies of emergent levels moves from the limited to unlimited and thus give fine coloring to that dichotomy. Above the limited there is a split between physus (ontic) and logos (ontological). These four hierarchies give us a good definition of the structure of our worldview at the level of Being. The worldview itself has a great deal of depth and these two dualities may be seen as only two levels out of a whole series of levels.

<u>Bifurcating</u>	Non-duals	Non-Bifurcating
particle	uncertainty	wave
quantum mechanics	spacetime	relativity
physics	infoenergy	thermo- dynamics
physus	order	logos
limited	right	unlimited
having	good	having not
existing	fate	existing not
actualization	sources	Actualization not
Unmanifest paradoxical	root	Manifest suprarational
	Single source	

The bold levels are those articulated by the four hierarchies. One of those hierarchies is that of the ontological schemas which the system/archon fall into. These various hierarchies define the structure of the world.

When we talk about the "worldsoul" it must be realized that the Indo-European worldview has a very specific structure. Where the dominant worldview is well structured the soul lacks structure, even negates structure. So the conjunction "worldsoul" is very peculiar. Both Giegerich and Hillman lack a sensitivity to the structure of this specific world we live in due to its global dominance.

We can go on to say that the ontological hierarchy has a sliding scale of whole with no parts and parts with no whole which are posited at the two ends of the ontological hierarchy. A pluriverse appears as parts of whom the whole cannot be seen. A facet appears as a whole of which the parts cannot be apprehended. But this designation may appear at any level up to those just adjacent to what ever reference level you choose. The point is that the dual of the holon is the holoid (or hologram) which is no part and no whole. Thus the holon has a dual in the holoidal. This "whole" with no parts and no wholeness that is holoidal is yet another kind of wholeness, i.e. a self-negating wholeness.

From this it becomes clear that there are four kinds of wholeness, greater than the sum of the parts, less than the sum of the parts, holonic (equal to the sum of the parts) and holoidal (with incommensurate whole and parts). If as Giegerich says that the soul is whole then with this distinction we must ask what kind of wholeness does the soul have. The first answer is that the ontic realm is full of gestalt/flows and so we do not believe that the soul is of that type. The second answer is that the soul differentiates itself in the metalevels of Psyche (Being) reaching toward the whole that is less than the sum of the parts, i.e. the field of spirit, where utter deconstruction reigns. Hillman would like that as it produces an infinite field for him to ply his deconstructionist trade. But Hillman would stop short of empty or void Existence where the soul transforms into spirit. Giegerich prefers the level at which soul shows itself as dynamic and liquid, i.e. the level of Pure Being, i.e. pure psyche. Hillman would push on into Difference and then to Wild Psyche. What Giegerich calls the Wild is the whole realm of Psyche beyond the threshold of psychological difference. As we move up thorough the stages of psyche we encounter the archetypal holons. We would not call these wholes that are both parts and wholes at the same time the soul. This leaves one kind of wholeness for the soul which is that of the holoidal i.e. neither part nor whole like a hologram. Each part reflects the whole,

but since all the parts only imperfectly reflect the whole the whole itself is left ill defined as it is caught in multiple viewpoints as a noematic nucleus with no essence. We could posit that the soul has this kind of non-wholeness/non-partness which is the dual of the holon. But such a definition of the soul would bind it too much and make it something positive rather than a negative. What we can do is see that this is a form of the tetralemma.

Part no whole

Whole no part

Both part and whole

Neither part nor whole

As such we know from Nagarjuna that the center of the tetralemma is emptiness. Emptiness is the difference between the both and the neither. This is the same emptiness that appears at the fifth meta-level of Being which we hid from ourselves by accepting Aristotle's dictum of the Excluded Middle. We believe that the soul and spirit are no different from each other. Rather both are empty. But we can see the difference in terms of the fact that the Spirit is wholly identified with the emptiness while the soul has not yet achieved that complete identification. Thus Soul can appear as any of the types of wholeness we have mentioned but is better thought of as somehow the center of the tetralemma before the tetralemma itself falls away in the complete identification of soul, spirit and emptiness at the fifth meta-level of Being/Psyche.

There is something that needs to be added here. In Arabic there are two words: ruh and nafs. Ruh means the breathing and nafs means the breath itself. Nafs is used for "I" or the self-reference of the Self. On the other hand in English we get Spirit from the word

for breath in Latin. Soul² we do not know the derivation of but it is fairly sure that if known it would relate more to Ruh because it may be related to 'lifetime' which is the length of time one is breathing. Robert K. Barnhart in his Dictionary of Etymology says that Soul comes from *swawalo which is an Old High German root that means "of or belonging to the sea". Because the sea has waves and tides we can see in this root a relation to the motion of breathing mirrored in nature. At any rate between Arabic and English there is an inversion of terms that we must take into account. What we are calling soul here is Nafs in Arabic while what we are calling spirit here is Ruh in Arabic. There connotations are precisely opposite. Nafs is breath not the breathing while Ruh is breathing not the breath that is breathed. We can account for this by the two languages different valuing of Being and Existence. English values Being and deplores Existence. Thus Breathing is placed on the side of Being and breath on the side of Existence. On the other hand if we value Existence then it is breathing that is placed on this side and the breath on the side of Being, i.e. in the reified Nafs. Soul = Nafs and Spirit = Ruh. However from the point of view of their connotation they are the opposite meanings which is caused by the differing valuation of Being and Existence in the two cultures.

What we must remember is that there is a complementarity between breath and breathing. David Abrams makes the case that the entire atmosphere is the actual embodied soul. It is our connection to the other beasts that inhabit this planet with us. When we say breathe breath. We have the verb and the

² Soul \Soul\, n. [OE. soule, saule, AS. s[=a]wel, s[=a]wl; akin to OFries. s?le, OS. s?ola, D. ziel, G. seele, OHG. s?la, s?ula, Icel. s[=a]la, Sw. sj["a]l, Dan. si[ae]l, Goth. saiwala; of uncertain origin, perhaps akin to L. saeculum a lifetime, age (cf. {Secular}.)] From Webster's Revised Unabridged Dictionary (1913) [web1913]:

noun which are the two faces of the same phenomena. There is no breathing without the air to breathe. There is no air to breathe without the breathing of the plants and animals that complement each other in terms of output of carbon dioxide and oxygen. The deeper complementarity between plants and animals is normally missed. Each are breathing and transforming the other's waste. If the world soul is the breathed atmosphere then in the deeper complementarity of plants breathing animals and intertransformation of the air itself there is a wonderful metaphor that can extend to the complementarity between men and women's initiation rites. Initiation rites produce soul by taking the initiates through the levels of the soul giving them experience of each one. But the men and the women experience this in complementary ways and this sets up two complementary faces of the world that recognize each other producing mysterium conjunctus as each level conjuncts in the meeting between men and women. One breathes in the light and breathes out the darkness and vice versa. They together set up the positive and negative fourfolds. For men it is the fourfold of Limited/Unlimited/ /Physus/Logos in the metaphysical era which previously in the mythopoietic era was Heaven/Earth/ /Immortals/Mortals. women it is the negative fourfold shown us by Aristophanes in the Birds of Chaos, Night, Abyss, and Covering. The negative fourfold is an inversion of the four great nonduals (order, right, good, fate). The duality producers, i.e. the men, have as their opposites the inversion of the non-duals that lie in the heart of the dualistic worldview. Men produce too much darkness though their dualism and Women too much light by their exemplification of the non-duals. Women must move toward the dark because their nature is light, the light of the non-duals. Men must move toward light because in their nature is the production of the darkness of dualism. Their duality is like that of the plants and animals. Light purifies darkness and darkness purifies light. The mysterium conjunctus occurs when both the sun and the moon are visible together. The sun's brightness is lessened and the moon can be seen.

To understand this dance within the Western Worldview it is necessary to understand the structure of the world and the emptiness of the soul and spirit or Nafs and Ruh which ultimately are the same. But we differentiate Nafs and soul as connecting with the world while Ruh and spirit connect with the transcendent, but ultimately since there is no transcendent we realize that they are related only to emptiness and void. Nafs becomes Ruh by undergoing annihilation. But Ruh is merely refined or sublimated Nafs. But we value these differently based on whether we have Being or Existence as our reference point. What both Hillman and Giegerich lack is an appreciation of the structure of the Indo-European world as outlined above. Hillman following Jung believes we can translate any myth into our cultural context. Giegerich has an uncritical view of the wholeness of the soul. Hillman prefers deconstructive fragmentation. He finds the Wild Psyche at the fourth meta-level to be a safe refuge but would prefer to avoid trying to move to the fifth meta-level, i.e. the level of spirit. Giegerich thinks that Hillman does not know anything beyond the threshold of psychological difference. He sees everything beyond that threshold as wild not recognizing the structure that the worldview exemplifies. Neither appreciate the role of the archetypes as the holons that inhabit the interstices between the stages of the Psyche or Soul beyond the threshold of psychological difference. What is necessary is for Archetypal Psychology to realize that it needs to be replaced by an Archetypal Philosophy (Ontology) and Systems Theory. Archetypal needs to be interpreted in terms of the Archon and the Holons. appreciation of Special Systems Theory and Emergent Meta-systems needs to be attained. Then it is possible to understand how both Hillman and Giegerich are just sensing different parts of a very big elephant.

Psychology Beyond the Threshold

Giegerich in his talk titled The Flight Into The Unconscious at the Psychology at the Threshold conference (Santa Barbara UCSB August-Sept 2000) did his best to destroy Jungian Psychology and called the next non-psychological. millennium applauded the attempt to plow under what was old and worn out. But afterwards I asked Giegerich what was next and he said he did not know and we would just have to wait and see. Unfortunately Giegerich was so self involved at that time he took no interest in who was standing in front of him questioning him, i.e. someone who might possess the key to what he was calling for, i.e to unlock the non-psychological new century of Jungian/Archetypal Philosophy. It is interesting when our lack of curiosity causes us to miss the appearance of the Other we are ourselves calling for when it arises at the moment of our speech. This same self obsession was observed in several other philosophers at the conference as well, who had little time to talk with anyone outside their small circle. Hillman, of course, could not be expected to be receptive. But little did they know that amongst them was someone who had actually become an Alchemist in the true sense of the word. And not just that but someone who can formulate it as a theory which can be seen as fully scientific and expressible in ways that can be understood philosophically as the basis of an imaginal philosophy. In order to move beyond Archetypalism or Jungianism we need to actually reclaim the spirit of Alchemy. Not merely talk about it and pretend. That spirit is not what they would try to think it to be. You cannot learn it by studying alchemy. No amount of the study of the manifestations of Sol Niger will reveal the nature of Alchemy itself. Rather one must study science with an eye toward the non-dual. Then if you are graced by God with some insight it is

possible to see what the underlying nature of Alchemy actually is. Alchemy is a supplement to Western Science which was there from the beginning and which in fact gave rise to Western science as a reaction to Alchemy first united theory and experiment. Later that unification fell into disuse and Alchemy reified to the horror of Roger Bacon and later Francis Bacon. Both Bacon's attempted to clear the way toward a science of experiment. But the science that grew up still was based on Aristotle's concept of science as the view of the common by the common. Thus we lost Plato's scientific view that cherished the uncommon, the unique or odd, i.e. rare anomalies. With Holonomic Science these anomalies are taken back into an overall framework that includes both the common and the anomalous. Holonomic Science raises Western Science to a new level and sophistication and at the same time makes sense of traditional sciences of existence which it creates a bridge for to the modern experimental sciences rooted in Being. Holonomic Sciences are intrinsically alchemical because they are rooted in the non-dualities at the core of the Western Worldview. Archonic and Holonomic Science allows the Alchemical supplement of Western Science to become dominant again because by it the Alchemical becomes acceptable Science to the Western Scientific establishment. This is because it is rooted in theory based on mathematical underpinnings and it has physical examples in the anomalous phenomena that we cited earlier. Archonic Science studies the Meta-systems, i.e. fields, environments, situations that provide niches for systems. We do not have to get rid of systems all together as Hillman would do. Rather we recognize the correct place for the system and the meta-systemic environs. Holonomic Science studies the Holons, whether dissipative, autopoietic or reflexive. Within the reflexive environment we find a place for the myriad images that Hillman would study as reflections of reflections of reflections. Also we study the Holoidal as the inverse of the holons. In the

Holoidal the images are arranged such that each part of the hologram contains an encoding of a fuzzy picture of the whole. The Alchemy of Archonic Holonomic Holoidal Systems Theory brings back to life what was hither to a dead part of our tradition. This alchemy can be seen in the works of Plato, in the Greek Myths, in other Indo-European Myths and Epics. It is deeply rooted in our tradition, and those roots go up through Democritus and the Egyptian Alchemists Bolos and Ostanes before being lost in the reflexive milieu of Alchemy as it was pursued and reinterpreted throughout the development of the Western tradition and the birth of science, right up to Newton the last Alchemist. In fact, we might say that Alchemy was killed by Kant and his definition of the Transcendental Ego because at that point it was known who Mercurius was. Kant took the Physics of Newton and made a philosophy of it basing his Critique on the structure of the Calculus. It has taken us a while to get back to valuing the transcendental ego and talking about it in terms of old words like soul and spirit. Using these words Hillman and his crew are trying to put life into psychology again, responding to the abstraction from the lifeworld that Husserl indicated to be the prime problem in his Krisis. Giegerich is right to point to Jung and Hillman as making important moves by concentrating on the Soul and Alchemy as key terms in the revitalization of our worldview. But even Giegerich falls short because he does not understand past Hegel and Heidegger that what there is beyond the threshold of psychological difference are the meta-levels of Being and beyond that Existence. The discovery of the threshold of existence suddenly makes Buddhist metaphysics relevant again to us because it helps us understand the inherent fragmentation of the Western worldview. Holonomics uses mathematics to model the interpenetration of things long discussed by the Chinese Buddhists as the positive interpretation of emptiness. Modern Science gives us the same thing in the form of Bell's Theorem. Any two things that have ever been together continue to effect each other at a distance. Because everything erupted together from the Big Bang that means that everything is really one whole, but that wholeness has multiple ways of being seen, as archon, as holon, as holoid or as system. The soul is not captured by any of these kinds of wholeness because ultimately soul and spirit are the same as breath and breather need each other and are complementary.

So even though it could not be recognized at the conference, I believe that the next thing beyond Archetypal Jungianism is at hand. It is Archonic Holoidal Holonomic Systems Theory which comprehends interpenetration that underlies the fragmentation of the kinds of Psyche that lay beyond the threshold of psychological difference. This is a new playground for the deconstruction Hillman. He could not see it due to his intentional mistrust of systems. What he did not realize was that systems have an inverse. And between systems and meta-systems are three kinds of perfect balance which in turn has an inverse in the holoidal. All these kinds of wholeness address the embeddedness of the Soul in the kinds of Being and brings us to the threshold of existence where spirit appears. Archonic Holoidal Holonomic Systems Theory gives Archetypal Jungian Philosophy a "Scientific" basis that raises the sophistication and subtlety of Science itself to include inter/intra//surfacing/penetration. By producing the Threshold event Hillman called for what lies over the threshold as we work from grave to cradle. He invited his prime critic and gave him the stage who did his best to sweep away Jungian Psychology. He had already offered a devastating critique of Archetypalism. But by plowing under we then ask for new seeds to sprout. One of those seeds, perhaps a weed, odd and outcast is Special Systems Theory and Emergent Meta-systems. It deserves a try at giving Jungianism Archetypal now become Soulology a chance to become something more than a nostalgia for the lost soul of

Holonomic Alchemical Science -- Kent Palmer

man. Instead of looking at the non-differentiated we need to look at the differentiated, i.e. the structure of the world. When we do that and consider the various kinds of wholeness that are possible for the soul to embody then we see that the world really does have a soul which when we hit the level of existence turns into spirit.

The Myth of the Radical Dialectical Unity or Wholeness of the Soul

When we read Giegerich's The Soul's Logical Life we see at the end Giegerich criticizes Derrida, the real intellectual power behind the throne of Hillman. Hillman practices deconstructionism on Jung's works but he does not provide a theoretical framework for that deconstruction. At a recent workshop Hillman did admit that deconstruction was one of his sources, one of many, but from a philosophical point of view the key, source because it guides his work. Doing deconstruction unphilosophically leaves Hillman's various opinions on everything under the sun open to severe criticism from a Heideggarian and a Hegelian like Giegerich. But in the end Geigerich attacks Derrida and rightly says that his method is more fitting for cyberspace than the psyche. Geigerich in his analysis of a particular myth in his final chapter attempts to demonstrate the radical logical or dialectical unity of the myth. He does an excellent job of this showing fairly well the logical necessity of the unfolding of that particular myth of Artimis and Actaion. However, what Geigerich tends to play down is that if Jung had not both stuck to the soul as primal metaphor and as well sunk into a virtual simulation of the psyche as the basis of his psychology, and Hillman had not done a deconstruction of the Jungian tradition, then Geigerich's position would not be nearly as compelling. In other words Geigerich is dependent on Jung and Hillman as he acknowledges to prepare the ground for a logical and dialectical move. By logical he does not mean formal logic but instead a dynamic dialectical logic of sublation introduced by Hegel. However, actually logic here means the level of logos which is added to psyche to produce something like the ontology that rises above the ontic. He calls this psychological difference as noted above. But as we noted also Geigerich is naïve about wholeness as Hillman is naïve about heterogeneity, difference and antisystemization. We must be much more sophisticated than either of them. Geigerich institutes psycho-logical difference. But he thinks that by that he achieves wholeness.

But as we have seen there are varieties of wholeness that Giegerich is unaware of. We could interpret Hillman as being above the level of Psychological Difference and exploring the realms of Hyper Being, i.e. Differance, or even Wild Being that Geigerich would himself explore. This may be more philosophically sophisticated than Hillman pretends to be. But ultimately there is only a show down between them, on oneside the imaginal and on the other side the dialectical logic which renders imagination itself imaginary. But when we introduce the kinds of Being or here the kinds of Psyche, where Psyche relates to soul and soul to phenomenological consciousness and consciousness to Being and Existence, suddenly there is a deeper foundation. When we bring in the Special Systems and the Emergent Meta-system as well then suddenly we have an apparatus by which we can consider the relation of the imagination as one of the psyche's functions along with logic and the ability to engage in dialectics. Plato says that dialectics goes to the limits of the intelligible which he distinguishes above in one part of his divided line between representable and non-representable intelligibles. The Good is an example of a non-representable intelligible that Plato presents in the Sun, Divided Line and Cave analogies. Plato uses metaphor to describe the difference between the logical level and the imaginary level. These metaphors are very sophisticated. Plato also describes how when trapped by paradox Socrates resorts to an image, the image of the captain who knows navigation and his crew that does not. Plato shows how when we are caught in paradox one way to escape is to go down from the Logical level to the Imagination level. Plato himself is always doing this using myth and poetry to tell stories that illustrate his points. Plato moves back and forth between Dialectical Logic and Imagination to weave one of the most interesting arguments and narratives ever produced in our tradition. One thing that Giegerich lacks is this appreciation that Plato had for the use of

Imagination to get us out of impasses where the dialectic gets stuck. For Plato the move between dialectical logic and imagination is a two way street and both directions are useful. Therefore to sublation we must add superlation. These are opposites. One builds to the next level of synthesis and the other, superlation, deconstructs. Both sublation and superlation are based on the word re-lation. A relation is between things at the same level of abstration. A sublation is a move up to a new synthesis. This is the move that Hegel continues to make over and over again until he believes he has reached the absolute spirit. But Hegel does not consider Super-lation. Superlation is deconstruction. It is when you deconstruct the synthesis into its parts. This is exactly what you do when you take a system apart into its meta-system. Systems are gestalts which are wholes greater than the sum of their parts that stand as syntheses. When we move up to a System we do sublation of the parts that make up the system. Hegel allowed for Systems that were para-consistent and thus could embrace paradox, i.e. active contradiction. Systems could be para-complete if and para-clear also because formalisms have three properties of completeness, consistency, and clarity. That is in their relation to the truth. But in relation to reality they also have the properties of verifiability, and coherence. validity, Giegerich is really only considering our relation to Truth and eschewing the equally fundamental relation to Reality. Actually, there are four aspects of Being which also include Identity and Presence.

Real	X is.
True	X is Y.
Identity	X is X
Presence	This is X.

So we see from this that Truth is only part of the picture. Instead of saying that the Soul has an essential relation only to the Truth, a prejudice inherited by Giegerich from Hegel, we should also consider the soul's relation to all the aspects of Being. When we do that then we see that the soul actually relates to all the kinds and aspects of Being. When we combine them we get a matrix of the various kinds and aspects of Being.

True	Real	Identical	Present
Pure	Pure	Pure	Pure
Being	Being	Being	Being
True	Real	Identical	Present Process Being Present Hyper Being
Process	Process	Process	
Being	Being	Being	
True	Real	Identical	
Hyper	Hyper	Hyper	
Being	Being	Being	
True	Real	Identical	Present
Wild	Wild	Wild	Wild
Being	Being	Being	Being

What is important about this table is that Being is fragmented into both aspects and kinds. This is because Being ultimately is a paradox and that we apply the Theory of Higher Logical Types of Russell to attempt to deal with that paradoxicality in our Reason. Reason should be thought of as applying all four aspects of Being together. The logical levels is merely the meta-levels of Being. The aspects are the types that ramify at the various meta-levels. The aspects are different at each meta-level. When Geigerich privileges Truth and Logicality he is collapsing all the kinds of Being into an abstract gloss as what lies beyond the ontic and he is only really considering one aspect, even though he does mention reality a few times. What we need to understand is that all these kinds and aspects play a role in the arena beyond the ontic. Psyche as it is normally used say by Jung is merely one way of talking about Being, it is the form of Being that impresses itself on us as consciousness. Ontology is what we talk about if we want to be objective.

Consciousness is what we talk about if we want to be subjective. Soul on the other hand is something indefinable that is non-dual between ontology and consciousness. In order to understand soul we must ultimately understand non-duality and to understand that we must talk about supra-rationality as opposed to paradoxicality. Our tradition by accepting Aristotle's principle of excluded middle has cut itself off from an understanding of Suprarational non-duality. Non-duality means not one, not two. Neither one nor many. David Loy in his book Nonduality gives a good introduction to the subject and its relation to the Western tradition that is manly ignorant of this way of looking at things. But as we said above there are different kinds of wholeness (System, Holon, Archon, Holoid) and soul is none of these, it is somehow in the non-dual middle between all of these. Non-duality is beyond what Merleau-Ponty called the Chiasm of reversibility. It actually exists above the fourth meta-level of Being in the realm of Existence which we can interpret as Void via Taoism or as Empty via Buddhism, Merleau-Ponty defines Wild Being going beyond Derrida's definition of Hyper Being as Differance. When Giegerich talks about the Wild in which Artimis is found he is referring to Wild Being which he wishes to distinguish from Derrida's Hyper Being (Differance), i.e. where Hillman would be if he approached Deconstructionism philosophically rather than as a nonreflective practice. Geigerich's charge of literalism in Hillman applies also to his deconstructionist method. Hillman is a naïve deconstructionist not setting out philosophical justification of the method as Derrida has done but rather following Derrida blindly into that nihilistic territory. But as Geigerich points out it is possible if we will be absolutists to make distinctions that stand in the nihilistic landscape. But these absolutes are still frozen and are ultimately nihilistic as well. We can only approach the possibility of non-nihilistic distinctions if we leave the Wild of Being for

the emptiness or void of Existence. Both Buddhism and Taoism has explored these non-dual territories to which our tradition is blind. We have much to learn from these traditions and their popularity shows that people sense that there is something there missing in our own tradition, which is trapped in Being and has spent millennia suppressing Existence in the image of the Hero slaying the dragon.

Revisiting the Artimis and Actaion.

Giegerich's masterful interpretation of the Actaion myth is a hard act to follow. But let us consider for a moment the fact that if there were not nihilistic deconstructionist interpretations to play off of his argument for an absolutism would not be nearly as interesting. Giegerich's criticism of Hillman and More is dependent on them to give meaning to his case. Thus as we move up to Wild Being from Hyper Being (assuming that Hillman's deconstruction could be justified in manner similar to Derrida's philosophically) it is necessary to have that lower logical type in place. Also the emphasis on truth and the playing down of identity, presence and reality, also plays an important part in Giegerich's argument giving it a focus it would not have otherwise. Presence appears as the presencing of the goddess to action. Identity plays a role in Action's becoming the Goddess, becoming the stag, becoming the Dionysian victim. Reality plays a small role when Geigerich attempts to bring in Existence for which he needs another term to make it coherent. Giegerich really when his argument is carefully study talks about all four aspects of Being, but he emphasizes truth greatly. He also emphasizes Wild Being over Hyper Being and barely distinguishes the others. He does not even really know about the metalevels of Being beyond the level of the ontic, i.e. past the incision of ontological (psychological) difference. He does not really know about the special systems that exist in the interstices between the kinds of Being representing the non-dual.

Plato makes an interesting remark in the Republic just after the analogies of the Good and as he is beginning to talk about the degeneration of the republic into an timocracy, then oligarchy, then democracy and tyranny. He appeals to the Muses and then in passing says that the gods have a birthing number which is perfect and that it was a departure from that perfection in the birthing number that probably produces the degeneration of the city. Plato is telling us that the gods (jinn in Arabic) have a form of reproduction based on perfect numbers. This tells us they are autopoietic systems. This tells us that they are seen as wholes exactly equal to the sum of their parts. That their parts cohere based on conjunction and that there are also dissipative and reflexive systems that are related to these autopoietic systems. This squarely places the gods in existence rather than in Being. If we think about this we realize that the meeting between Artimis and Actiaon can be seen as an interaction between a jinn existent and a human-being. According to Quran the Jinn and Men are opposites in every respect. Jinn live about a thousand years giving credence to Giegerich's claim that the old Greek gods are dead. Jinn see us in this world and we see them in the next world. There is a whole folklore concerning Jinn in Islam that is rooted in Quran. One of the points about Jinn is that they eat bones and the smoke from fat burned on fires, just like that offered by men to the Greek gods. It is fairly clear that Ouran is talking about the same creatures which are distinguished from Angels. It is interesting that this folklore is never talked about in the same breath as the Greek gods. But the Quran gives the Jinn a reality based on the word of God, which about one fifth of the worlds population accepts. Thus Jinn and men are opposites and equal in many ways. Also we can be assured that other Jinn exist today that Archetypal psychology plugs into under the names of the old Greek and other

gods. The point is that Quran says that these invisible manlike creatures actually exist and that men may have dealings with them. Plato on the other hand says that they have a birthing number related to the perfect number and so they would then clearly inhabit the non-dual interspace between the dualities we posit in our worldview. They are existents and we style ourselves as human-beings. We think of them however as pure being rather than existents. Norman Austin in his Meaning and Being in Myth³ makes this point. Thus we need to consider the relation between the existent jinn and our picture of them as gods who suppress the dragon of existence, i.e. python/typhoon. In one case they inhabit the paradoxicality of the totality of Being and in the other case they inhabit supra-rational non-duality. Right there it is clear that there is an important tension being embodied that is important to our worldview. If we take this Quranic (i.e. Islamic) perspective seriously then it becomes clear that when we talk about Jinn and Men meeting beings or as existents something interesting is bound to happen. Reading gods as jinn helps us deconstruct the language of the gods and reduces it to the level of fairytales about fairies from the exalted level of myth. That event is dramatized by the myth of Actaion. The key point of the Dionysian dismemberment of Actaion is that he returns to empty void of existence in the end. This is a key point that shows how the rest of the myth may be read as saying something about the structure of the Indo-European worldview based on the metalevels of Being. Actaion enters the forest hunting. Hunting is a dynamic activity that is rooted in Process Being. In that activity he sees the goddess which presents herself to him naked while startled in her engagement in the process of taking a bath, also a process rooted in Process Being. The moment of presencing of the goddess to Actaion is an event of Pure Being, a frozen moment in time which we see as timeless because Actaion

³ (Pennsylvania State University Press, 1990)

was enthralled and entranced by what he saw. Perhaps the whole story of Giegerich that he actually killed a stag is true. Sounds reasonable, but in that Giegerich departs from the actual story. The point is that when that endless moment was over. Actaion was turned into a stag. He became man-stag, i.e. something with Hyper Being, something undecidable, something both man and stag at the same time. Then his dogs tore him apart which is his entry into Dionysian Wild Being. After that Actaion was no more, i.e. he entered into the void of existence as something destroyed. Notice that the story as told has just the number of pieces needed to represent all four kinds of Being. So although Giegerich does not know about the four kinds of Being, we can interpret this myth and many others as showing us that the world has this structure. Here there was first Process, then Pure, then Hyper then Wild. A specific sequence that is different from the normal sequence by which the kinds of Being unfold as meta-levels. Process and Pure are reversed but Hyper and Wild are in their normal position. If we look back at our initiation ceremony sequence we note that men start out in Process and end up in Pure Being. They encounter Wild and Hyper Being along the way. So one thing this myth might be telling us is that a meeting with a female jinn is of a different nature than a meeting with a female woman. We go straight from process to purity. This can be seen in occasions where Athena appears in battle to lead the troops. In the process of fighting the men see the goddess as a presence in the midst of the fighting. Normally this sight causes them to go into a berzerker mode, i.e. enter the wild state. But in the Wild state they are identified with some kind of animal, usually a lion. Thus we see here a commentary on the use of Hyper Being to identify with the animal and then the movement into a wild Being state from that. So the myth is telling us that in this case the movement from process to wild can be set off by the presence of a goddess and the transformation into an animal. Pure and Hyper comes between Process and Wild.

For a man in initiation, the reaching of the Hyper Being state where he meets the Wise Old Man and learns the pure wisdom occurs later than the berserker state. Thus the intervention of a goddess causes immediate state change from process to wild while in initiation this later stage comes about in a different order. Intervention of a goddess changes the order of the production of a face of the world, where all the different kinds of Being are brought together. The goddess intervenes to trip the man over into berzerker mode from which there is no return whereas in the initiation there is a return from berzerker mode through Hyper and Pure Being.

A similar case occurs with Achilles when he meets the Amazon in the second half of the Iliad. As Achilles killed the Amazon he fell in love with her. This is a very similar situation fraught with ambiguity as that of Actaion and Artimis. Here death and love are mixed as they are in the story of Actaion and Artimis. Why would Aritmis allow Action to see her if she did not love him as he loved her. The very vision is her love of him. Aphrodite had an affair with a mortal as well. But because Artimis must remain pure she cannot be touched by her human suitor so he must die to maintain her purity. The point is that these situations amount to paradox which is what you get when you combine the four kinds of Being into a single ontological state. Paradox is what the Western tradition knows very well. It is suprarationality that is not well known. So we get an event that is structured so as to show paradox as a whole and the kinds of Being as the phases of that whole face of the world.

Now lets look closer. We know that the special systems appear as the interfaces of existence between the kinds of Being. But both the initiation and the goddess manifestation series change this order. Is it possible to see these special systems? The first of the special systems is the dissipative.

Dissipative ordering structures spread out in from equilibrium thermodynamic environments. When Giegerich talks about the wild and the tame we see how the tame is encroaching on the wild. It is almost a given that because Actaion is in virgin wilderness he is encroaching or trespassing spreading order of civilization just by being there and seeing what is to be seen for the first time. So dissipation of order as tameness can be seen as an underlying theme behind the myth. As for the autopoietic, Plato has already supplied the answer. The birth number of the gods is a perfect number. The coupling of Actaion and Artimis would definitely be the production of an imbalance and a departure from the birth number. By her virginity Artimis is in some way preserving this birth number. It is the autopoietic nature of the gods that make them long lived. When humans strive for immortality as in Chinese alchemy it is by making the body an autopoietic system and conserving Chi. As for the reflexive special system we can see it in the dogs around Actaion and the nymphs around Artimis. Neither of them are alone. There are witnesses of their meeting. Witnesses that could tell tales to the other gods but not to the humans. Both of these semi-social environments can be seen to be reflexive in as much as there are multiple viewpoints and witnesses, but the witnesses are less than their masters in each case. The bathing of Artimis stops, but the dogs are there to continue the hunt with Actaion as prey. We don't see the dogs until after the Presence of Artimis to Action. It is as if the nymphs disappear and the dogs appear on the other side of that endless moment of Pure Being. There is a reflexive transformation between the bathing of the goddess and the tearing to pieces of the dogs. It is as if these women became the dogs and tore him to pieces. Women in groups were known to pretend to dismember animals in the Dionysus cult. In fact we can see clearly that there is a relation between Dionysus and Artimis. Dionysus and Athena are a pair and Artimis and Apollo are a pair. The former

come out of the thigh and head of Zeus and the later are born of Leto from Zeus as well. We can imagine Dionysus lecherously hunting Artimis in the wilds. Well if Actaion was Dionysus in this case we get a reenactment of his destruction by the Titans. Artimis is inviolable but Wild while Athena is inviolable and cultured or tame. Apollo stands for culture and Dionysus/Shiva stands for the wild. Thus there is a tame/wild dichotomy going through these two pairs of children of Zeus. We also know that Dionysus gets Artimis to Kill Ariadne his wife at one point. So it is not just Actaion that has a bad encounter with Artimis. Artimis repels as Dionysus attracts. Atrimis is unaffected by Dionysus unlike other women. Hephestes has better luck with Athena. The point of all this is that the matrix of the gods as a variety personalities gives context for understanding the myth which is indispensable. It is well and good to say that nothing else is needed but all the myths are mutually elucidating and sticking to a single myth is somewhat myopic.

At any rate in general we can see that this myth has dissipative, autopoietic and reflexive moments. If we combine these moments with the system of Actaion as a gestalt standing out on the background of the virgin forest as trespasser then we might construe it also as an image of the dynamics of the Emergent Meta-system even though there is not enough detail to press this interpretation forward as in the case of other myths like that of Cadamus and Harmony.

The main point here is that we can use the kinds of Being and the special systems as a basis for understanding something of what is happening in this myth. The myth is a face of the world, i.e. an integration of the kinds of Being with hints of the special systems indicating existence behind the projection of Being. We only see the face of the world in myth if we step out into the plane of Existence beyond Being. This myth takes us

though the stages of the kinds of Being in a certain order an takes us into existence. The goddess may appear as a perfect Being, i.e. the embodiment of paradox when man is around. But when man is not around, when the forest is virgin then the goddess returns to a mere existent. Existents are like rocks at the side of the road, or trees that fall in forests when no one can hear. There is no projection, even mutual projection between man and Anima as Artimis, in existence. In a way the myth carries the mytheme Romantic love. That is the unobtainable love that became the basic notion of love in the West passed down from the Cathars and Troubadours to us. Everyone knows that Artimis is inviolable. So Actaion is the one who demonstrates that by bringing Being into Existence enough to have Being collapse on itself and self-destruct because the projection could not land and effect the nature of things.

There are many ways to interpret this and other myths. One of those ways is called Onto-Mythology. That looks for the structure of the Indo-European Worldview in myths and also for the traces of Existence. Here we have applied Onto-mythology in order to show that the myth is richer than either More or Giegerich imagine. Others will I am sure surpass this explanation. All explanations form a rich tapestry where imagination, logic and what goes beyond logic all commingle to give us myriad meanings from myth that satisfies our souls.

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About the Author

Kent Palmer is a Senior Systems Engineer at a major Aerospace Systems Company. He

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⁴ http://server.snni.com:80/~palmer/disab.html

⁵ http://server.snni.com:80/~palmer/fbpath.htm

⁶ http://server.snni.com:80/~palmer/resume.html

⁷ http://server.snni.com:80/~palmer/advanced.htm

⁸ http://server.snni.com:80/~palmer/refauto2.htm

⁹ http://server.snni.com:80/~palmer/autopoiesis.html

¹⁰ http://dialog.net:85/homepage/incosewg/index.htm

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Meta-systems¹¹. He now teaches a course in "Software Systems Requirements and Design Methodologies" at University California Irvine Extension.

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¹¹ http://server.snni.com:80/~palmer/wsms.htm