

Next Steps toward General Schemas Theory: An Interlude

The Advance of the Systems Engineering Discipline through an extension of Systems Theory

Kent D. Palmer, Ph.D.

P.O. Box 1632
Orange CA 92856 USA
714-633-9508
palmer@exo.com

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Introduction

We have proposed that the Pascal Simplicies be augmented with n category theory and n blob theory and then discovered that it is the simplicies themselves that are taken as a model for how these dynamic extensions are to be understood in the upper reaches of their meta-levels. Like the kinds of Being these meta-levels of n blob theory and n category theory seem to max out at the fifth meta-level in spite of the fact of there being infinite meta-levels above these. But both n -blob theory and n -category theory can use the simplicies as an example of their articulation. This shows that both are direct extensions of the simplicies. We hoped that by extending the simplicies we would get closer to the emergent threshold of the general schemas. We reasoned that while the simplicies are Hyper Being and the n -

categories are Process Being that there are two more aspects beyond these that must be accounted for in our story. We extended n categories by finding their dual which are the n -blob boundaries that represent Wild Being. As for Pure Being we reckon that this represents the normal system which is extended by the special systems represented by the Pascal Simplicies. Given the normal system it is expanded by the n -blob and n -categories which represent Wild and Process Being in two directions. Then lying at the antipode beyond these is the Pascal Simplicies that represent every possible combination of system components in the non-dual realm. This is seen as Hyper Being as opposed to Pure Being of the normal system. These four kinds of Being along with the Pascal Simplicies give us a picture of the meta-system, which is the next schema up from the system. Both the n -blob theory and the n -category theory use the Pascal Simplicies as their ladder by which they climb into the higher categorical and blobical spaces. The simplicies themselves embody the ladder that describes the General Schemas hierarchy. And this hierarchy is a set of system to meta-system mappings, where every level is a restricted economy in relation to the next higher level which is always a general economy to the lower level. So in fact the relation between the system and meta-system we cite here is a general one that may apply to any two adjacent layers in the General Schemas hierarchy. This means that in fact we have described something that approaches filling in between the hierarchy of the simplicies and the hierarchy of the general schemas theory. By filling in we mean that we have used layers to simulate the emergent effect of the general schemas theory arising out of the simplicies. In effect the emergence comes from the interaction of n -multiblob and n -multicategory theory as they reference back to the Pascal simplicies as a ladder, and as they reference forward to what ever restricted economy is being considered. The combination of the n -multiblob, n -multicategory, simplicies, and the restricted economy itself gives an

image of the meta-system or general economy that is the inverse of the given restricted economy. Because the schemas have within them the seeds of every schema as a dimensional differentiation, from this template any of the General Schemas can appear.

At this point we pause because one of the major accomplishments we sought has been accomplished. From the beginning we wondered what was the relation between the dimensional unfolding and the general schemas theory hierarchy. We had noticed earlier that there were two dimensions per schema and two schemas per dimension. We noted that the Pascal Simplicies were the definers of these dimensions. But we also noted that the n -multiblob and n -multicategory theories also expanded with the simplicies. However, we saw that for practical purposes the $n > 4$ was impossible to think about and could only be considered by looking at the analogy with the Pascal simplicies. But if we take the simplicies as a combined model of the special systems, and the n -blob and n -category theories together then we have all the kinds of Being and all the special systems represented which are needed to give us an image of the next higher meta-system from what ever system we are considering. The hierarchy of schemas are merely system to meta-system mappings in each case. So where ever we are in the schemas this combination of elements will produce a model of the next higher general economy. The complexity comes from the interaction of the n -blob theory and the n -category theory at what ever dimensional level we select by specifying a restricted economy which will then yield it's general economy inverse. This generator of the next higher general economy within the schema hierarchy is all we need to explain the relation between General Schemas Theory and the dimensional articulation of the Pascal Simplicies.

But we have gotten more out of this because we were led to posit n -blob theory on the basis of the duality between the octahedron and the cube in relation to the tetrahedral simplex. The

relations between these platonic solids ended up looking like another model of the relation between the special systems. So the simplicies appear as a model of the characteristics of the special systems combined, but the differentiation of the Platonic Solids in three and four dimensional space also looks like a model of the special systems exploded into separate elements. Some of those elements correspond to the n -blob theory and some to the n -category theory which then refer back to the simplicies as their means of exploring higher dimensional operational categories and blobs that we could not normally think about. When we face these higher blobs and higher categories out to a particular restricted economy then the three together allow us to project their general economy and thus move up the ladder, or down as the case may be. It is as if the Pascal Simplicies were the backbone, and the n -blob theory and n -category theory were the wings which together support every restricted economy out of their general economy. Not only are the simplices a fused model of the special systems. But also the platonic solids that differentiate the spaces away from the simplicies, and more so for dimensions three and four, are an articulation of the relations between the special systems, even to the extent that they differentiate the three aspects of the autopoietic system. So we see here two representations of the special systems, one fused and the other articulated, which give us our model of how general economies arise from restricted economies and vice versa. With this generator we can move up and down the hierarchy of the general schemas theory. The differences in the general schemas draw their sources from not just the dimensional differences in the simplicies that are related to a particular schema but also from the interaction of the n -multiblob and the n -multicategories at that level. It is a bit like the chiasm between Klir's structural and process wings in his epistemological lattice. In other words not only does a particular level of n -multiblob and n -multicategory have their own properties but also their interaction at that level

is also different and more complex as you go up the scale from more restricted economies to less restricted economies. This is probably an important finding if it proves to be true. It means that the emergence of the general schemas are by conjunction of n blob and n -category articulations out of the simplicies that minimally define dimension. The definition of dimension is a function of the fusion of special systems characteristics, and the articulation of the difference between n blob theory and n -category theory is a function of the articulation of those spaces away from the simplicies. The lower spaces give us a model of the separation of the special systems in the process. So this answer not only elucidates the relation of the simplicies and the schemas but also the relation of the schemas to the special systems which is our ultimate goal.

Taking Stock

If this is the answer to our foundational question, i.e. that a combination of n -multiblobs, n -multicategories, and simplicies are able to generate any general economy from any given economy, then we need to take stock of where this leaves us in our research program which is attempting to delve into the foundations of General Schemas Theory. First, we did not think that the answer would be that readily forthcoming. We had considered the dualism between Mass and Set before. But it is the addition of the n -multicategory theory to the mix and our need to come up with a dual to it which turns out to be n -multiblob theory. Once we have n -multiblob theory then we see that there is a two way complementarity between the n -multiblob and n -multicategory theory on the one hand and on the relation between the simplicies and any give restricted economy on the other. Simplicies along with the n -multiblob and n -multicategory theory are generators of general economies and they are complete because all the special systems and all the kinds of Being are represented. The fact that it is a generator of the next more general economy means that it serves as a dynamic foundation to what ever schema is presented

as the next more restricted economy. The simplicies encapsulate dimensionality and produce all possible systems of elements. The n -multicategory theory gives the transcendental relations and the n -multiblob theory gives the immanent relations. Immanent relations, transcendental relations, systems of elements, and dimensionality are the ingredients that when conjoined produces the general economy out of the give restricted economy. By grounds we always mean that the general economy has been supplied for any give restricted economy. General Schemas Theory gives a hierarchy of more restricted in the facet to less restricted in the pluriverse. Figure out the complexity of the elements and what system they fit into, then figure out what dimensionality you are operating at, and that gives a picture of the n -multiblob and n -multicategory possibilities that can come into play for a give restricted economy as it's general inverse is produced. We are assuming that there are chiasmic combinations of the n -multiblob and the n -multicategory relations at each level and that it is these chiasms that blend together to give each schema its particular and unique structure.

There is still the question of negative and imaginary categories, and this same question could be applied to negative an imaginary n -blob boundaries. There is also the question of how the Reserve and Field approaches to phenomena relate to the n -multiblobs. We noted that they had an interesting relation to categories. But these sorts of questions beg the question of the foundations. Which can only really be answered if we move through the hierarchy and apply what we have learned in this series of working papers showing how the different schemas are generated from the lower level schemas via the mechanism we have proffered. Of course this would be a very tedious exercise. It is tempting to leave it for the student. But in this case I am the student. So that means that it is an exercise left for myself. But working through that exercise would be a whole different project than the one

we have embarked on here. First there should be written a book like Tom Leinster's book about operads and n-multicategories which considers n-multiblobs as their dual. Then there would have to be another book which considers the interactions between n-multicategories and n-multiblobs and the chiasm that they form. Finally there would be a book like the one I called the anti-thesis that would show that these elements actually combine conjunctively to produce each of the general schemas levels. Unfortunately such a tour de force is beyond my capacity. So something much more subdued must do. But exactly what that should be is not obvious.

Having thought about the problem it seems that the obvious thing to do is to use the computing metaphor and try to see how the n-categories and n-blobs come together in the computing metaphor. This works well because we know the computing metaphor is based on 2^n which is the Pascal Triangle Layer which gives minimal distinctions. If we can follow the thread of the computing metaphor up a few levels then we will at least get the idea how this mapping of the n-blobs and n-categories works in relation to one concrete domain which is an important one for our purposes.

Computing Metaphor

It is easy to see how the facet and monad are reflected in the computing metaphor. The monad is the bit and the facet are the states of the bit which in this case is off and on. So for instance we have a byte which is eight bits. From the point of view of n-blob theory then at the facet level the 0-blob is the state, and at the monad level the 0-blob is the bit. The first boundary at the facet level is the edge of the bit, the first boundary at the monad level is the end of the byte. The second boundary at the facet level is between states of the bit while the second boundary at the monad level is between bits. The third boundary at the facet level is the one that encompasses all the states while the third boundary at the monad level is

the one that encompasses all the bits in the byte. The fourth boundary at the facet level is the change in the boundary of the states, where some errant state is introduced which does not belong to the system. Similarly the fourth boundary at the monad level is the change in the boundary of the bits where some errant electrical shock disturbs the system through electrostatic discharge or some other phenomena that causes the boundary of the byte to shift unexpectedly. So we can see that all these boundaries are implicit in the way the hardware is constructed, so they are easy to miss due to the fact that they are not intentionally dynamic. In effect this set up of the bits in the bytes and the states of the bits is designed into the hardware and are expected to be working for computation to take place. However, all sorts of errant conditions may obtain that causes malfunctions of hardware so that the assumed configuration is lost. On the other hand we can see that there is a mapping between bit positions and actualized states. There is a further mapping between these actualized mappings and possible mappings which is the basis of programmatic transformation as the bit patterns change over time. A natural transformation might be the mapping between two programs, or computing regimes. A modification might be an error in the transformation from one computing regime to another, or a change that is made to the program on the fly. Right here we can see how the layered boundaries of n-blob theory relate to the transcendent arrows of n-category theory. If the boundaries did not exist then the transcendences could not occur. At the facet level the program is modifying the state of a single bit, perhaps setting or unsetting it based on looking at some other value. At the monad level of the program then perhaps we are dealing with a byte and its changing values. We must remember that the facet schema has -1 and 0 dimensions while the monad has 0 and 1 dimensions. So the facet may be in an potential state or in an error state. On the other hand the monad may be either a single bit or a byte which is a line of eight bits. It is interesting that

these error states show up as important when we add the highest meta-level of both n-blobs and n-categories as well as when we add the negative one dimensionality of the bit. Error states are extremely important for actual computing, whereas it does not matter for theoretical computing as much. So we get a connection to the real world from the addition of error states. The key point is that n-blob states are implicit arrangements of hardware items which we may not notice because they are taken for granted. But those immanent configurations are needed for computing to work at all. Also the fallen error states are needed if we are going to have real computation on real hardware and these are shown as the facet goes into negative dimension or as we rise up to the level of tweaks and modifications. This type of analysis could be extended up the all the levels of the computing metaphor looking at each in detail to see how the n-blob and n-categories work together. For instance, if the monads are the bits or bytes, then the patterns are the patterns of memory location configurations or perhaps the patterns of blocks of memory. It is at this level that the ASCII code comes into play so that certain bit patterns are assigned specific meanings so we could speak of the patterning of those codes. When we leap up to the level of form we can consider form as the pixel outlines on the screen, or we can consider form as the whole of the 3d computer in a particular state. When we leap up to the system level we can consider the system to be the hardware alone, or we can consider it to be the hardware in a series of states which makes it four dimensional. The meta-system then becomes the environment around the computer, but also the operating system within the computer. The domain becomes the vertical application market that the computer is operating within, but the domain from an internal perspective is computer science or software engineering. At the world level we consider how the computer doing a specific job connects with everything else. Kosmicly the computer metaphor becomes a way of thinking about things like the

brain's relation to the mind, which we can think of in terms of the relation of hardware to software. The pluriverse would be the realm of all those other metaphors that can be applied to things besides the computer metaphor. At each of these levels we could explore the way that n-blob theory and n-category theory applies multifariously to each schema that articulates the computing metaphor. N-blob theory would tell us about immanent boundaries and N-category theory about transcendences. Each of the four meta-levels could be articulated for each meta-level of blobs and categories. The computing metaphor as a whole draws on all these explicit levels of articulation when it is applied to other phenomena. It is the very precision of the computing metaphor that makes it valuable for comparison to other phenomena. And part of that value comes from the way it arrays n-blob mass-like phenomena against n-category set-like phenomena so that we see the interface between these two classifications of phenomena. Just the little bit that I have said about facets and monads should make it clear what I am talking about with regard to looking at implicit boundaries verses transcendences that mutually support each other. For instance at the pattern level we are talking about memory blocks and pages with associated pointers like the index pointers, register pointers etc. For transcendences we are talking about actually reading the memory locations into the accumulators or registers of the CPU and manipulating them or we are talking about the mapping of specific patterns to particular ASCII codes. If we go up to the form level we are talking about pixels on the screen and their activation on the one hand, and the placing of dialog boxes and other objects at screen locations on the other hand. At each level it is very clear that there are implicit resources offered and there is explicit manipulation of those resources. Manipulation causes transcendences to occur. Whereas immanence refers to assumed configurations of resources held in reserve. As we know the reserve is the opposite of the field. The standing reserve is produced like all the

memory locations ready to be written with patterns of bits which serves as a field of action for the transcendent mappings. Out of all possible mappings some of the possible transcendent mappings get actualized in any particular case. Reserves are related to blob or mass like boundary conditions while Fields are related to category or set like arrows or morphisms. The relations between Field and Reserve as well as Mass and Set are not completely understood. But it is fairly certain that standing reserves are drawn upon by masses and fields are drawn upon by sets. If we ask what makes up a particle then it is fairly certain that it is composed of its field of energy. If we ask also what makes up a mass then it is fairly certain it is composed of its standing reserve. We normally recognize the relations between particle and energy field but it is less often that we recognize the relation between mass and standing reserve. However all four need to be considered if we are to have a full vista upon the relations between all four of these manifestations.

This type of analysis of n-blob and n-category aspects of the computational metaphor could be very detailed and rigorous because theoretically every difference whether transcendent in terms of morphisms or immanent in terms of boundaries could be fruitfully analyzed in this context. But such an analysis would be extremely time consuming and would prevent us from continuing on our journey of exploring the foundations of General Schemas Theory as such. Such an analysis would render an example from one discipline, the computational metaphor, but would not be general in the sense of covering all applications of General Schemas Theory to every metaphor. Here we are looking for broad applicability rather than narrow focus. Which is not to say that it would not be a useful exercise in terms of giving concrete examples of what we are talking about. But hopefully the few examples we have mentioned from the computational metaphor will suffice until a more lengthy analysis can be accomplished.

The key point is that such an analysis treats every difference as important. So such an analysis would illuminate the method of using n-blob and n-category theory hand in glove with each other. It shows that real things need both to be articulated rather than just one. But at the same time it takes us away from the consideration of foundations into applications which is not appropriate at this point in our study. Perhaps this should be a separate paper which would continue the presentation of the other schemas in relation to the computational metaphor and try to work out in detail the relations between the n-blobs and n-categories at each level. What we have failed to show so far is that the combination of n-blob, n-category and n-simplicies plus a normal system gives a meta-system.

If we returned to our example of the facet and monad within the computational metaphor, we can see that the n-simplicies is 2^n bits in memory giving us a Boolean computational system. These bits have two states and are arrayed in sets of eight to give a byte. So the bounds are those between the bits in the byte or between the bytes in memory. But the array of bits themselves are merely possible configurations that have to be taken up by actual configurations of on and off marks. The mapping from actualities to possibilities is the transcendent part. The array of the bits as a standing reserve of a mass of memory locations is the immanent part. Both parts have to be there for computing to occur. All the possible locations needs to be available and out of that standing reserve then certain patterns are actually written to memory. Some of those bits are designated as the program and some as the data. The program working on the data is a separate level of transcendence. But the key is that the possible states of the array of bits become some actualized pattern of states by the process of reading and writing the bits from the accumulator using the index pointers. Bits make a Byte by their conjunction in addressable groups of eight. The coordination of addressing and writing of the pattern of

bytes controlled by the program causes the bits to be set and the byte to be given a pattern. Actualization occurs by first addressing then writing a pattern. But that pattern that is written is based on a program that changes the accumulator to produce the right pattern to be written to memory and also finds the right spot for it to be written. This writing is coordinated by a reading of the program from memory and executing it. Both reading and writing and manipulation of the accumulator are transcendences. But these transcendences can only be realized on the basis of the standing reserve of the computer with its blank memory waiting to be written but also having a program installed that knows what to write in that blank memory. There is a complex interplay in the Von Neumann machine that generates each of the schematic levels within the computational metaphor. But at the lowest level it is clear that the arrangement of bits into bytes is determined by efficient addressing mechanisms. The assignment of actual values to bits is done by addressing the byte and then using the accumulator to write to the byte which is made possible by reading from memory using the program counter. The circle of closure that is needed is described by a Turing machine. The Turing machine has its inverse which is the Universal Turing "Operating System" Machine. Computational closure directly results in the production of the system and meta-system that is the root of the computational metaphor. But this closure is probably only completely realized at the Pattern level or maybe even that of the Form. It does not occur at the level of facet or monad. But perhaps there are partial closures at these lower levels. It is easy to see that closure actually occurs but hard to see just where. And it is hard to see if partial closures are enough to produce the next schema up in the hierarchy from a conjunction of elements from the lower level. So this example is not a perfect case. But I think it is close enough to suffice at this juncture. System and meta-system closure is produced in this hierarchy at some point. But it is difficult to show it occurring at each level in reality even

though we have posited it ideally.

N-blobs and the Interval

Why do N-blobs have the structure that they do at the meta-levels. One hypothesis is that the N-blobs constitute the intervals of spacetime or timespace matrix. In other words, the perfect instances are the instances of nothing in the matrix of spacetime and timespace. This is the 0-blobs. The first meta-level is the boundary of the mass which appears as limits. The second meta-level is the tissue which are the internal discontinuous differentiations within the boundary of the mass. The third meta-level is the bag which combines the outer limits with the inner tissues into a single thing. The fourth meta-level is the tweak which is a few small distortions within the infolded Bag, a kind of crumpling that is caused by the tissues and limits being combined into the Bag. When you think about it this makes sense in relation to the meta-levels of the system. In the meta-levels of the system at the first level you have the System itself as something with Pure Being. Then at the second meta-level you have the rules of the system seen in terms of Process Being. Then at the third meta-level you have the pieces if we are talking about games, or phonemes if we are talking about language, which can be understood in terms of Hyper Being. Then at the fourth meta-level are the anomalies, which show up as aspects of Wild Being. So the first meta-level circumscribes the totality and shows it up as a Pure Being. But the second meta-level talks about rules which are generators of syntax which give us virtual internal boundaries. The third meta-level gives us the pieces or the phonemes, that is the embodying elements that the syntax manipulates. These embodying elements are the plurality out of which the rules make a unity. But the act of embodying causes certain distortions that show up as tweaks that can be seen as anomalies of Wild Being. What this means is that the N-blob levels actually correspond to the kinds of Being

and the meta-levels of each of the general schemas, not just the system schema, setting their boundaries. So in those terms we see the first meta-level as setting the limits of totality, then the second meta-level gives us the generative rules of internal differentiation. The third meta-level gives us the embodiment in plurality of this unity and totality, which then at the fourth meta-level admits to having distortions. So in terms of the interval of spacetime or timespace we see the 1-blob as setting the limits of the interval, then the 2-blob gives what ever differentiation that allows us to measure the distance in space and time between the two limits. The 3-blob gives us the actual instances of the positions in spacetime or timespace which are eventities, even null eventities. The 4blob gives us the anomalies that show up because of the reversibility due to the vistas of different inertial reference frames. Thus the n-blob structure gives us the basis for constructing spacetime or timespace intervals within the matrix. The matrix in this sense means the super-interval which displays a reversibility between positional spacetime and causal lightcones of Minkowski timespace. I have described that super-interval previously¹ as the quadratic interval which means a tetrahedral formation of intervals. The superinterval is what you get when you go up to the 5-blob level. At that level the interval must turn itself inside out and display a more complex internal structure. This Quadratic interval which I have perhaps also described as the Greimas Cube. It is a cube formed of Greimas squares which are the squares of contrary and contradiction from logic as applied to understand the logic of narrative. To the extent that the 4-blob tweak is minimal distortions then the 5-blob quadratic interval or perhaps the Greimas cube is an externalization of those distortions as an articulation of the whole space of the interval into a complex dimensionality. We would say that the same is true of n-categories at the level of 5-categories. Where 4-categories are

modifications of natural transformations which are 3-categories, then 5-categories must be something much bigger than these modifications, a whole revolution in organization in some sense that takes us beyond kinds and their modifications. When you think about it the change from thinking about categories to blobs is something like that transformation. So we might posit that 5-categories are equivalent to meta-5-functors between categories and blobs. The reason category theory cannot think 5-categories is that the very concept of categories must change to something else and that something else is probably a blob. We have posited four possibilities which are the mass, reserve, field and set. Probably the 5-category arrow is between mass and set or between reserve and field and the 6-category is between these two complementary pairs. If this is true then we can try to think about the 5-blob and the 6-blob levels as well. If the 5-blob level is the quadratic interval, and if we associate each interval within that with a different quality of interval related to set, mass, field and reserve, then the 6-blob is probably the inner coherence of these four together. There is a kind of axis that is established between the set interval, mass interval, field interval and reserve interval that gives them coherence with respect to each other, which is a new and different kind of mutual boundary at the center of all the distortions of the Greimas Cube or the Quadratic Interval. Notice though that the Quadratic Interval is patterned on the Tetrahedron and the Greimas Cube is patterned on the Cube. We could speculate that there is another configuration patterned on the Octahedron as well based on fusion rather than interpenetration. So actually the Greimas Cube and the Octahedral formations are really combinations of tetrahedra. That is to say two quadratic intervals interacting. If that is the case then we can think of going up to 7-blob level by looking at the interaction of two quadratic intervals. Of course, we can think of the 7-category as the arrows between the octahedron and the cube formations of

¹ Working papers for previous dissertation.

quadratic intervals. In this way we climb the levels of both n-category and n-blob theory. Instead of just looking at the simplex as our model as do Baez and Leinster we consider the other Platonic Solids as playing a role as well. And of course this comes from thinking about the problem in the context of spacetime and timespace. We know the Matrix has this reversibility that takes us into the quadratic interval. But once we can see this larger structure then we can start thinking of embeddings of it as quadratic intervals fuse and interpenetrate. And this allows us to escape the method that just follows the simplexes up through the meta-levels as the Baez opetope method of gluing. This means we have each level of Platonic Solids ahead of us with their full structure rather than the narrowness of merely the simplexes. We can keep building right into four dimensional space and beyond, although things get less interesting after that.

This makes us think that we can do the same thing with the kinds of Being. I have always said that everything beyond the fourth meta-level of Being was unthinkable and thus existence. However, recently I have had inklings that Ultra Being might have some existence as that which throws us from one worldview organization to another like the transition between Mythopoietic and Meta-physical eras. It could be that the problem was looking for something small like the propensities of Wild Being, where in Ultra Being we are really looking for another very large structure that corresponds with the Quadratic Interval. You see the Spacetime and Timespace intervals have all the kinds of Being within them. The reversibility that gives us the Matrix has to be at the next level up. So that means there might be something that corresponds to Ultra Being. There is actually something in the Western Worldview that corresponds to that which is the being on the other side of existence, i.e. *Wer as in Weorthen a very rare Anglo-Saxon verb for Being. If Ultra Being is a big structure then we can think of it as four separate intervals of Being. This would

correspond well to the concept that the Western Worldview is a meta-worldview that is composed of four different sub-worldviews drawn from the Egyptian, Sumerian, Semitic and Indo-European families. I have argued elsewhere that these four families are associated with four different primal scenes and that these four primal scenes form an emergent meta-system within the Western Meta-worldview. The reason that the Western worldview is so robust is that it is actually a fusion of four different worldviews into a meta-worldview at the Kosmos level. It is because it has this underlying structure that it can change between eras like the change from the mythopoietic to the meta-physical where the whole worldview transforms. Such a transformation suggests that there is something which allows a secret communication between the various worldviews of the meta-worldview, i.e. Ultra Being. However, because the *Wer is on the other side of emptiness, it acts as a seed embedded in emptiness or void that then fructifies into the new worldview after everything has been reduced to void. This structure means that there is Being as *Wer within the Existence as void or emptiness just as there is Existence within Being as the special systems that distinguish the kinds of Being. Effectively Ultra Being is on the other side of the Meta-system separating it from the System as antipode. That is the possibility I had not considered before, that system and meta-system need to be separated from each other at the antipode from the special systems. Now as I have always said if there is another form of Being then that changes the world itself. But really what it means for us is that we recognize our Western worldview as a meta-worldview and we recognize the *Wer on the other side of the void or emptiness as being essential for the regeneration of the worldview when all is reduced to dust and also for the production of eras within the worldview. The meta-worldviews and the eras are sort of opposites to each other both made possible by Ultra Being. I always reserved the term Ultra-Being just in case there was such a thing as a fifth

kind of Being. But it is even stranger than Wild Being since it actually exists only as embedded in existence. However, once we associate it with the Quadratic Interval then we can see that the world is really four worlds and that those four worlds exist in a kosmos the way that four domains exist in a world and four meta-systems exist in a domain. In other words it follows from the general structure of the schemas that such a foursome must exist there, but it is hard to make that concrete at the fifth meta-level where thinking is essentially impossible. At this level one is thinking despite its impossibility. That is why one is confronted with such a large open structure all of a sudden after the succeeding narrower levels at the lower meta-levels. In a since one has broken through beyond thought. Is there Being beyond thought? Yes if there is Ultra Being. That would mean that Parmenides is wrong, and we would have to appeal instead to Heraclitus, or Hegel, or Kierkegaard or some other thinker that thinks contradictions, even absurdities and beyond. Perhaps this is the Being of Nietzsche's madness. It is hard to know since I have only thought the idea possible since the trip back from Tampa where the SocialTheory.Org conference was held this year. I have only said that a fifth meta-level is impossible about a million times. So now we have to deal with the possible consequences of a complete revolution in our way of thinking about the world. It was finally the problem about were do the eras come from combined with the idea that there is a meta-worldview that led me to consider this possibility seriously, even though I am still pretty sure that Ultra Being is actually unthinkable. Is there an unthinkable residue of Being. Put that way the answer can clearly be yes because no one knows what Being is, in itself. Could that be the source of the meta-worldview and the eras of Being? Very likely. Can Quadratic Intervals and 5-blob and 5-category theory help us understand that? It seems possible. Certainly it is more interesting than following up the simplex alone as our guide to higher levels of categories and blobs.

Combinations of Opposites for Simplices and other Platonic Solids

If we look at Baez's work following the Simplex model of how higher category theory should work, then he says that there are 2² opposites at each opetope level. Thus there are four BiCategory opposites. In this way we get a repetition of the combinatorics we saw in the simplices with respect to elements in the opetopes. But this does not take into account the other Platonic Solids which we used as a basis for drawing the complementarity between Set and Mass that gave us the opposite of Category theory which is Blob Theory. So we need to make a fundamental distinction between the kind of category theory that follows the simplexes only and that which takes into account the other Platonic Solids as well. In the simplices we get the opposites by reversing the arrows at each level of the hierarchy. Since there are four main levels in normal category theory, i.e. morphisms, functors, natural transformations and modifications that means that at the modification level there are sixteen opposites. The same is true of the fourth level of the blobs. That means there are 256 interactions between Blobs and Categories just at the first four levels if they both are following the simplices upward. This means that there is something which is both a Category and a Blob at the same time. We have hither to talked about ipsities in conglomerations. So finally we have a meaning for the conglomerations which is the combination of categories and blobs, i.e. blobagories, or catablobs. Conglomerations is a good word for this combined category and blob entity made up of ipsities which are non-dual between mass and set, and probably between reserve and field as well. But what we need to think about is what is the utility function of the conglomeration since it can not be either a boundary or an arrow. What is it that is neither a boundary or an arrow and yet not both either. We know we can get to the conglomeration by combining combinatorially the meta-levels of

boundaries and arrows. But this does not say what the conglomerate itself is, i.e. What is in the interface between the sixteen blobs opposites and the sixteen category opposites when they are conjoined? Arrows go across boundaries that is what gives us transcendence. If we stay within boundaries then we get immanence. One thing to think about is a grounding symbol such as you get in electrical engineering. The non-dual can be seen as a groundless ground of the boundary/arrow duality. The grounding symbol is neither both boundary-arrow, nor their duality. The grounding symbol is one possibility for something which appears prior to the differentiation of both boundary and arrow. Similarly the grounding of a circuit is a third wire that just goes to ground in case the circuit shorts out. So it has to be there in the background but only functions if the relations between the opposites in the circuit fails. So here we will use this analogy to say that the grounding symbol stands in for the value of the conglomerate which is equivalent to the arrow for categories and boundaries for blobs. However, we note that the grounding symbol always denotes a groundless ground. In other words there is no ultimate or global ground except the earth itself. All groundings are local. This is the principal that Rescher talks about in Cognitive Systematization where he makes grounding a hermeneutic circle. Grounding never finishes just like the hermeneutic circle of interpretation. There is just a continuous revisiting of the axioms of the system or the assumptions of the situation represented by the meta-system. This local/global grounding issue is like non-orientable surfaces in topology. Locally there is grounding by revisiting axioms or assumptions, but Globally there is no grounding. This is what makes the conglomerate non-dual. It is neither one globally nor many locally. In other words there is no global grounding as a totality or as a unity. But also there is no local grounding that can be alone as the be all and end all of the system. All local groundings are valid and must be continually revisited as the meta-system

changes around the system. Global groundings are always invalid. Yet there is a sense in which groundlessness is the ground. Which is kind of like saying that *the only thing that does not change is change itself*. As in the Mobius Strip the non-orientability is a global property. Groundlessness is a global property and serves as a kind of ultimate ground, standing in for any absolute ground that might be projected and then denied by change itself. It is this non-grounding property globally that the conglomerates have in the face of the local competing grounds. What we would like to suggest is that at each n -conglomerate level this non-grounding global property appears in spite of all attempts through local grounding and the continuous revisiting of axioms or assumptions based on contexts. Suddenly we are starting to see something that is the antipode to the simplex arising which is similar to the non-orientable surfaces in topology that is the non-dual beyond, between and before the blob and the category. If every meta-level of the conglomerate has a non-grounding property globally in spite of continual attempts at local groundings, then this places a rigorous limit on the conglomerate.

So let us think about the conglomerate and its meta-levels. The 0-conglomerate is clearly the interface between instances and particulars as ipsities. The 1-conglomerate is the interface between morphisms (arrows) and limits (boundaries) which we have said is a grounding symbol. Note the arrow moves and the instance within the boundary does not move across the boundary. But the grounding symbol just sits there unused unless there is a problem with the circuit. So it is a path outside the circuit of transcendence, immanence. The wires of the circuit are immanent. The electricity flowing is transcendent, at least in the conventional view. So the grounding extension to the circuit is there only if there is a failure in the relation between immanence and transcendence that make the circuit work. This failure mode does not move, yet it ready to be

transitioned into for a one time, off loading of power to the earth. Thus if some how either the wires touch or the energy in the circuit becomes too much then the grounding extension is there to allow runoff of excess power. So it is ready for movement yet does not move, until called upon. It is a kind of intermediate backup state between movement and stillness. It is in fact the opposite of erratic change that shows that allows the system to be seen on the ground of the meta-system. It is a kind of reserve, in as much as it is a reserve sink. So it is not a standing reserve, but a place for energy to be drained off. A field is created by the operating circuit that is electromagnetic. So here we can see how reserve, field, set and mass relate to each other. But the reserve is not the standing reserve we normally think about in this case. Rather the reserve is a sink. And in this sense it stands for the groundless ground because when you go to the ground it is merely a sink into the larger environment, away from the immediate meta-system of the system. Thus the 1-conglomerate is an escape path when the morphism and limits some how go wrong in their interaction. The 2-conglomerate is the interface between a functor and a tissue. Functors go out between categories. Tissues are internal distinctions within the masses limits. Thus the 2-blobs and 2-categories they go in opposite directions at this level. So where as the 1-conglomerate is an escape path, the 2-conglomerate is an orthogonality. The 3-conglomerate is the interface between a bag and an natural transformation. Natural Transformations change one kind of category into another. Bags reaffirm the limits and combine in the tissues to make a new whole by embedding. So embedding is opposite of transformations of kinds. This again is going in opposite directions. One changes kind, the other changes by recursion or self injection. But here the orthogonality is more intense because it is not just a difference between inside and outside but rather is more active. Recursion is more itself, while transformation is more something else. Thus there is a self/other split introduced that is

different than merely the inside/outside split that appears at the lower meta-level. The 4 conglomerate is the interface between modifications and tweaks. Now modifications is like the male/female difference between within kinds of species. In there words it is something less than a complete change in kind. Tweaks are distortions that come from self injection or recursion. Tweaks give us the reversibilities and chiasms that appear at the level of Wild Bieng. Tweaks and modifications is as close as you can get to non-dual without being non-dual. Thus there is a complementarity between male and female that is harmonious as we all recognize and ultimately this appears as the mysterium conjunctus, i.e. a spiritual harmony between male and female at the height of their difference and mutual reinforcing each other in that difference yet also mutually supporting each other. There is also a complementarity between frames of reference in looking at spacetime intervals. There is the Lorenz transformation that takes us between these different frames of reference and makes sense of the reversible or chiasmic distortions seen in them. So if we are talking about the interface between 5-blobs and 5-categories then it seems that the 5-conglomerate must be non-duality itself rather than these approximations of it. We know of course that it is at meta-level 5 that we reach existence, i.e. the unthinkable which is truly non-dual. However, we have recently hypothesized separately² that non-duality is itself dual, and thus Ultra Being would be the separation point between the two faces of non-duality³. So if Non-duality appears wholly at the fifth meta-level, but that non-duality is itself dual in some sense, then it makes sense that on this collapse of the one

² See "Orinteeing in a Clean Meta-system" and "Conceptual Dreaming" by the author.

³ This means that Ultra Being, or the unthinkable residue of Being embedded in Existence would be seen in Shamanism and Magic. It is shamanism that is the interface between Vishnu and Albion on the one hand and Huntun and Adam on the other.

and many opposition that we get a full blown non-duality which intensifies the reversibility and chiasm on the one hand but also intensifies the kind of complementarity that we see in male and female as well. But this means that if on the one hand non-duality is in some sense dual, then the opposite also applies and duality is in some sense non-dual. And that is exactly what we see at the lower levels of the n-conglomerate. The duality that appears in the foreground of the world, like mind/body or logos/physis, or infinite/finite, etc. has to have an escape route, then that escape route leads to an orthogonality with respect to self, then with respect to self and other, then self and other become male and female of the same species, or becomes in space time different inertial frames seeing the same interval. All of this shows us that the various meta-levels of the conglomerate make sense because they establish the space within which the non-duality of the duals can be seen as a yin/yang interembedding through the freespace between the non-duals.

Our model for this is the non-orientable surfaces in Topology⁴. There are several of these surfaces. We have a whole hierarchy of non-orientable surfaces. We start with the lemniscate which is orientable and therefore real or a system which you get by cutting a mobius strip in half, then you move up to the mobius strip which reflects the dissipative ordering special system, then you move on up further to the Kleinian bottle which reflects the autopoietic symbiotic special system, and finally you move up to the hyper Kleinian bottle which reflects the reflexive social special system. There are an infinite series of hyper complex Kleinian bottles. When you look at this series then something similar to what we have described in our meta-levels of the conglomerate appears. This is to say that the 0-conglomerate are ipsities, i.e. non-duals between sets and masses. We can think of ipsities as ambiguously between and before the

⁴http://www.uta.edu/optics/sudduth/4d/the_main_gallery.htm

differentiation between difference and sameness of the set and mass which are radical extremes in this regard. The 1-conglomerate is an escape path, the 2-conglomerate is an orthogonality between inside and outside. The 3-conglomerate is a orthogonality between self and other. Here we can think of the escape path as the ambiguity of the escape to the other side by the path around a mobius strip. We can think of the orthogonality between inside and outside as the ambiguity of the difference between inside and outside of a kleinian bottle. We can think of the orthogonality between self and other as the ambiguity of overlapping self-crossings of the Hyper Kleinian bottle. We noticed that the modification was like the difference between male and female and that the tweak produced reversibilities and chiasms. 4-Conglomerate describes the interference pattern in the area of joint self-overlapping of the many Kleinian Bottles in the Hyper Kleinian bottle infinite series. But the infinite series itself does not address the object of the reflexive socius. That appears in another non-orientable surface which is the projective plane which is of another type. Just like there is a difference between sets and masses, so there is a difference between the layers of ambiguity in the Hyperⁿ-Kleinian bottle and the image of the meta-system as projective plane. The projective plane embodies mutual complementarity of lines and points. We can think of the projective plane as being like the complementarity of the meta-system. We know there are infinite hyper kleinian bottles just by adding more kleinian bottles with the same self-crossing area that overlap between them. But notice the rules⁵ of the projective plane⁶.

⁵ <http://www.math.uni-kiel.de/geometrie/klein/math/geometry/projective.html>

⁶ *Given any theorem on projective planes, then the dual theorem obtained by reversing the roles of points and lines is also a theorem for general projective planes.*
<http://www.math.uni-kiel.de/geometrie/klein/math/geometry/projdual.html>

- Each two distinct points are on a unique line.
- Each two distinct lines intersect in a unique point.
- There are four distinct points no three of which are on a common line.

This other class of non-orientable surface is equivalent to the meta-system in as much as it has this complementary rule: *Given any theorem on projective planes, then the dual theorem obtained by reversing the roles of points and lines is also a theorem for general projective planes.* The projective plane is a general model of projection, which is what the reflexive social group does, i.e. like the projection of Being on everything. In this projection it produces an origin though which every line goes. This is the opposite of the lemniscate, mobius, klein, hyper-kleinian line which emphasizes boundaries and thus is mass like. This mass in this instance is the area of overlapping which is ambiguous. Here in the projective plane the emphasis is on the arena of projection and upon the origin though which all the lines must go for the projection to work together and give unity to the projected representation. This is like the problem of theory of mind. We have all these reflexive images of each other but we cut through them with a theory of mind of the other by which we intuit what the other knows. A similar jump happens here where the mutual self-and-other overlapping that defines the source of the projection is turned into the projection itself. This is where when we jump up to the meta-system level we get a sui generic emergent effect at that level of mutual projection within a projection space by the reflexive socius. The projection space is founded on the mass like ambiguity of the overlapping of the viewpoints. It emphasizes

source and boundaries whereas the projection space itself emphasizes origin and shared arena within which the representation of the projection is realized. Once the projection space is created it is a meta-system in which the system of representation can be realized. So we move up the series from lemniscate, to mobius strip, to Kleinian Bottle, to the infinite series of Hyper Kleinian bottles and then we flip over from boundary/source to arena/origin, i.e. mass-like to set-like ambience. This jump is similar to what we emphasized with respect to 5-conglomerate relating to 5-blobs and 5-categories. If we take the route of considering all Platonic Solids rather than merely the Simplicies then we get a much more robust arena of differentiation, and this more robust arena of differentiation is like the production of the projection plane out of the reflexive socius by a theory of mind. In other words we enter a whole world of possible representataion within the projective space. And projective spaces can be variously differentiated so that the topology becomes a rich environment. In this case the mass-like approaches appears from the side of the lemniscate, mobius strip, kleinian bottle and the hyper kleinian infinite series. The set like approaches appears from the side of the projective plane. But on the other hand we can consider the projective plane mass like in as much as it is a space for representation. We can consider the series of non-orientable surfaces as set-like in as much as each one is unique. So we can see that between the two types of non-orientable surfaces there is a fusion of set-like and mass-like approaches. But what strikes us is the fact that when we make this combination we get instead of an infinite series a breakthrough into another realm at the 5-conglomerate, 5-blob, 5-category level, breaking through into a meta-system which is a whole new realm to

explore rather than hitting a dead end. And perhaps this is the secret of Ultra Being, that it sends us off into an unexpected direction so we discover a new realm of exploration rather than merely losing ourselves in an infinite regress that lacks differentiation and interest like the infinite regress of the simplicities. The realm of the other platonic solids gives a differentiation that is interesting, it is in its generation of variety a model of the Good. So it behooves us to explore this new realm that has been opened up at the level of the 5-conglomerate level by the opacity of the unthinkable residue of Ultra Being.

The interesting thing about this development is that it mimics the concept of David Grove in which we do “quantum tunneling” across an uncrossable boundary, a gateless barrier⁷, as described in my review of the workshop “Orienteering in a Clean Meta-system.” For years I have considered the fifth meta-level of Being as Existence which can be interpreted as Void or Emptiness. There is an infinite regress of possible meta-levels of Being. But there is a phase transition at level five from Being to Existence which corresponds to the phase transition from system to meta-system through the special systems. This barrier seems to correspond to the barrier to the solution of equations of degree five and higher in math which is marked by the A5 group which is the group of the Icosahedron/Dodacahedron and the Pentahedron of 4 dimensional space. This barrier always seemed uncrossable to me as I could not think any higher level of Being. But I always left open the door that there was a higher kind of Being by calling it's possibility Ultra Being. It is only on the Plane coming back from Tampa and the SocialTheory.Org

⁷ <http://archonic.net/wisdom.htm>

conference there that I began having doubts about this stand. It came from the confluence of the idea that something must determine the change over from mythopoietic to metaphysical eras within the Western Worldview which has the form of the four kinds of Being, and something must explain the combination of the Sumerian, Egyptian, Semitic and Indo-European worldviews into a meta-worldview. These two ideas of transformation within the worldview and between worlviews in the meta-worldview made it possible to think the unthinkable as I have expressed it before. Before I thought that Arkady Plotnitski's idea of multi-way complementarities might lead to the necessity of Ultra Being. It turned out that Arkady Plotnitsky was right about that as the property of Octonions called Triality shows. So I was wrong in my essay, Thinking the Unthinkable that there are only dual complementarities. Also I thought that the position of Sankara that Being was infact Emptiness as a way of subsuming Nagarjuna's Buddhism back into Hinduism might also show that there was something like Ultra Being. However, when I read Sankara I dicovered that his philosophy was a monism and thus it did not reach to the level of real non-duality. Non-duality does not mean monism, i.e there is only one. It means not one and not two. Wagner in his presentation of Wang Bi's insights makes the same mistake. So Sankara misinterpreted Nagarjuna and constructed a monism, as far as I can see. This is like those Buddhists that think that Emptiness is a monism. The Awakening of Faith can be interpreted this way. So I dismissed Sankara's challenge. A real challenge would say that Being is Emptiness or Void, i.e. is unthinkable like them and thus the same as them negating Parmenides identification of thinking and Being which Heidegger upholds when he says

that Being is intelligibility. That position could lead to the construction of Ultra Being but I have not found anyone who has substantiated such a claim. The Arkady Plotnitsky claim of multiway complementarity is also a path to Ultra Being, and his claim despite my objections turned out to be true. However, I never could understand exactly how that factored into the production of Ultra Being. But maybe it would happen like this. We have posited the Multilith. The multilith has 24 realms of Being given the combinatorics of the exotics or the esotics, depending on whether you are juxtaposing kinds or aspects of Being. But what is it that divides up the aspects or kinds to be juxtaposed, it must be another higher kind of Being. So once Owen Ware introduced the idea of the multilith then it was possible to define Ultra Being as the discontinuities between the four kinds of Being within the Multilith. One of those is a three way division which can be seen as relating to Triality of the Octonions. Now if that is the case that the 24 realms of Being are separated by Ultra Being then we can go back to Sankara and posit that the 24 relations between hands and objects of Vishnu represent the states of the multilith and that these combinatorics of Vishnu's characteristics can be related to Ultra Being. Vishnu, Albion and Hun Tun are representations of the Primal Archetypal Wholeness beyond the dualities of Dionysus/Shiva and Apollo/Brahma but prior to the Brahman. This is related to the root *Bheu which is caught in the enframing of *Es/*Wes//*Er/*Wer. It is the Werothan that plunges beyond emptiness to enter Ultra Being. This makes Ultra-Being something embedded in the Emptiness perhaps as the difference that makes a difference between emptiness and Void as the antipode to Manifestation which I have called the

extrema. The extrema is thought as *dunya* or *dukha*. The ultimate nature of the primal scene of the Indo-Europeans is thought of as the extrema. But there is a primal scene associated with each of the worldviews. So that means there are several drops of the extrema in different forms. What is that which separates these forms of the extrema in order to make other worldviews primal scenes? It could be Ultra Being. So slowly over the years anomalies have appeared in the strong rule that I have laid down previously that there is no kind of Being beyond Wild Being. And that is good, this is how science moves on by making anomalies surface by taking strong positions that deny them. And as I have always said that if Ultra Being does exist then that means that the world is transformed. And sure enough that transformation appears as the eras of the worldview such as the mythopoeitic and the metaphysical, and the others recorded in the myth of Uranus, Kronos and Zeus. It also appears as the differences between the four worldviews, that make up the Kosmos comprised of the Sumerian, Egyptian, Semitic and Indo-European which are so different but together inform our worldview at a deep level. We do not just live in an Indo-European worldview, but a meta-worldview or kosmos derived from the fusion and interpenetration of different worldviews into our own meta-worldview.

Getting to Ultra Being is an instance of crossing the uncrossable barrier. The uncrossable boundary is Existence, i.e. Emptiness and Void. The fact that there is Ultra Being embedded in Existence gives new credence to Heidegger's claims in Being and Time about the existence of Dasein. Of course, it would have to be a more sophisticated argument now that would take

into account all four kinds of Being, i.e. Pure, Process, Hyper and Wild with the subject, dasein, query and enigma as successive pictures of the human being in the world. It would take the claim that Existence is Ecstasy more seriously and see that ecstasy as an opening out of the unthinkable Ultra Being as Weorthan out of Existence to give rise to the Multilith. Now the question is whether Heidegger knew that as a possibility? I have found scant evidence that he knew about Wild Being. He clearly knew about Differance or Hyper Being cause he called it ~~Being~~ (crossed out). But now a careful reading of Heidegger might show that he knew this, or had intimations of it, which led him to posit that Dasein was an ecstasy of existence where by the projection of Being produced the World. Suddenly at the fifth meta-level where Ultra Being shows up we are back in line with his argument after being away from it so long. Dasein has been lost in the hierarchy of the meta-levels for such a long time. Ecstasy of Existence just never made any real sense at that level. But at the level of Ultra Being it takes on a new deeper sense of the unthinkable residue of Being embedded in Existence as Void or Emptiness that breaks out to give us the multilith and which gives us eras of the worldview and sections of the meta-worldview. And this is something that opens out to a new way of looking at these things after the extreme narrowness of Wild Being. Can we build a philosophy at the level of Ultra Being as Deleuze and Guattari and others have done for Wild Being? This is a crucial question. And it goes along with the interest I have had in Hillman's interpretation of Jung which emphasizes the unthinkability of the soul. It also goes along with my long time interest in the anomalies in narratives such as the Epics. There are just opacities, like the alien intelligence produced by combining the

different AI techniques with each other, which are brute facts that have no explanation, until you get a certain vista on them where they take on a new significance. This is what has happened in my own thinking with respect to Ultra Being. Ultra Being has always been a site of anomalies just out of reach. We cannot think it but we can define it by thinking around it. Opening up Ultra Being is like the breakthrough of an unbreachable boundary without penetrating it. We enter a new possible world that opens out to us in unexpected ways. And here we do it by thinking the fifth level of the blobs, categories and conglomerates outside the model of the simplicies. In other words the endless infinite regression hides a secret openness which is seen in the other Platonic Solids in relation to the simplex. By looking at that relation we can imagine the difference between set and mass approaches and then triangulate the conglomerate and then start thinking up the meta-levels of n-blob, n-category and n-conglomerate theory. And when we get to the fifth meta-level we notice that if we do not stick to the simplex but take into account the other Platonic solids that a new possibility of exploration opens up to us rather than our being blocked and locked into the infinite regress.

Meta-discussion of an Interlude

This chapter has become something of a mess because of its radical nature. Radical means to pull something up by the roots. Here we started by attempting to consider the Computational Metaphor as a means of verifying n-blob theory as a dual of n-category theory. Mathematicians act as if $n > 5$ categories are thinkable even though there are no examples of them being thought. We show that the $n < 5$ meta-levels of both n-categories and n-blobs are like the meta-levels of Being.

Then we attempt to consider a non-dual n-conglomerate theory as the interface between n-blob and n-category theory. Under this consideration we question the idea that we must follow the simplicies in our n-dimensional expansion of blobs and categories. We consider the other Platonic solids as a source of guidance, and this leads to an idea of how we might think of $4 > n > 8$. This gives us an idea of how we might expand to an understanding of these higher order categories. But then this leads us back to thinking about the kinds of Being and considering Ultra Being as a possibility beyond the four canonical kinds of Being. At this point we enter a new vista on our whole subject, because if 5-Being exists that transforms our whole view of the world, even though it does not change its thinkability. Ultra Being is still considered unthinkable as Existence interpreted as either void or emptiness. But it also provides that Existence might be interpreted as Ultra Being as well. We stated some examples of anomalies that lead us to think that this might be plausible. After years of denying the existence of Ultra Being as anything other than a place holder for a possibility, we now turn to considering how Ultra Being might exist as an unthinkable residue of Being embedded in the bedrock of existence as a flaw. We see this as *Wer or Woerthan which appears in the Anglo-Saxon roots of Being: (Sein/Seyn) /*Es/*Er/*Bheu/*Wes/*Wer⁸ where the *Wer exists beyond the slash of Ultra Being.

Due to the sudden appearance of the possibility that Ultra Being might exist, i.e. be more than an illusion, this calls for a more in depth treatment which does not fit into this

⁸ See "Primal Ontology and Archaic Existentiality" by the author

series but should be done separately⁹. So in a way our subject matter bursts out of the mold of the investigation of General Schemas Theory and their foundations. If Ultra Being exists then that would mean that the theory of Emergence is significantly altered which was layed down in my earlier Dissertation and Working papers. That would ultimately effect the status of General Schemas Theory because the emergent event's first embodiment is as a Schema prior to kindness, prior to individuation, prior to conferring meaning. The very nature of the Schemas would be effected as would everything else in the worldview. So this interlude produces a messy delimma as to whether to pursue the glimpse of Ultra Being or to stick to our guns and keep going as if nothing had happened. The key point is that this task of pursuing Ultra Being cannot be done in this work, so at this point we would have to digress in the pursuit of Ultra Being, and then return to the study of General Schemas with those results, or we would have to continue as if nothing had happened to our fundamental ontology, and hope that what might have been discovered by the digression would not have too profound an effect. At any rate this problem will have to be solved outside of this text. In a way this text is complete anyway because we have managed to traverse from the series of simplicies, to n-categories, to n-blobs, to n-conglomerates. Since n-conglomerates are non-dual they are as far as one might go in laying groundless grounds for Schemas theory. Everything from this point on would be a reconsideration of the history of the genealogy of schemas from the vista we have established in our pursuit of these groundless grounds. And there is much to

⁹ See proposed book The Metaphysics of Emergence by the author.

consider. There is the work of Plato in which we can see images of the Special Systems within his metaphysics. Then there is the crucial contribution of Aristotle who switched us from Mass to Set approaches to things. After that the next figure of interest is Kant who coins the concept of the schema as an extension of his Categories. After that we could consider Hegel who makes the Categories dialectical. And finally there is Heidegger who reinterprets Kant's concept of categories and schemas to make them the basis of fundamental ontology. Finally there is the modern categorical system of Ingvar Johansson which is also worth considering. After that there are the various uses of the term schema in postmodern times as studied by Umberto Eco with their ramifications in various disciplines. All of this is worthy of consideration. But it does not go to the heart of things like the consideration of the existence of Ultra-Being does. Schemas theory more or less assumes emergence of kinds of things that will take up residence in geometrical schematic templates. In this way schemas theory is passive with respect to emergence of things that inhabit the schemas. The question is whether if Ultra-Being exists whether this difference between emergence and schematic embodiment after emergence will still be tenable. Also since schemas are caught up in time their temporal nature could also be disturbed by the existence of Ultra Being. Ultra Being if it exists would change the nature of everything even something as great a part of the bedrock as schemas. It would also of course change the interpretation of the various thinkers who contributed to the advent of the term schema within the tradition. So it is starting to look more and more futile to continue trying to talk about General Schemas Theory without working out first the nature of Ultra Being and how that changes the way we

think about the world. That means going off on a tangent that may be a dead end. But if you do not try that out then you never know what the results might have been. I suppose the idea would be to write another book about Ultra Being called the Metaphysics of Emergence and then come back and apply what is learned in this exercise to complete these foundational essays. Fundamentally with the discovery of n-conglomerate theory as the non-dual between n-category theory and n-blob theory we have gone as far as we can go in the pursuit of groundless grounds of General Schemas Theory. The rest is basically clean up work and can be left as an exercise to the student. But then as I said before since I am the student it is up to me to provide the exercise material. But somehow the genealogy material has not interested me as deeply as the simplicities and the extensions of category theory. In the genealogy material we are recapitulating the history of the concept of the schemas. This does not seem as solid a ground as what can be taken from the pursuit of the mathematical concepts presented here. This is because our precursors were limited in their view of mathematics and that conditioned their ideas about General Schemas Theory to the extent they recognized something like this as a possibility. On the other hand we live in a time where mathematics is very robust and we can use it as a guide for our thinking in ways that earlier thinkers could not possibly have been aware. It is remarkable that Plato even mentions the schemas in the Timaeus. That then led to the contributions of Aristotle which was to shift us from a Mass to Set like approach to things. And then with the advent of Newtonian Science there was the attempt of Kant to ground that with his Critical Philosophy. His critical laying of the foundations held up until Husserl. Only with Heidegger were the groundless grounds of

fundamental ontology established. From that point on a Pandora's box of the exploration of different kinds of Being was opened and we discovered the four kinds of Being through the work of Heidegger, Derrida, Merleau-Ponty and others. But it always seemed like there was a bound on these meta-levels that stopped at meta-level five. However, if Ultra Being could be shown to exist then this structure would change the nature of the worldview in a basic way by extending the scope of fundamental ontology as it butts up against the boundary of existence which appears at the higher meta-levels of Being. Ultra Being is something stranger than Wild Being. It is a kind of Being which is indistinguishable from Existence. It is a third interpretation of the fifth meta-level of Being as not just emptiness and void but also as an unthinkable residue of Being. It is almost as if just as we have the two duals that hide the non-dual between and before them, so when we flip over into Existence there are two non-duals and they hide the residue of unthinkable Being between them. This makes room for the *Wer root of Being to be projected beyond Ultra Being. It is a strange affair indeed. But we get some hint about this possibility from Nietzsche who talks about the difference between good and bad and then the flip over into Evil with the slave morality. In other words there is the holoïdal of the Good and the excrescence of the bad. But there is something orthogonal to these which is Evil. Ultra Being is experienced as this orthogonal irreducible opaque Evil, like the gunge in the Time Bandits that comes from the incineration of the Devil. What we note is that each of the non-duals have this three part structure associated with them. There is order and disorder as holoïdal and excrescent opposites and Chaos which something completely different that combines disorder and order in

strange ways to produce strange attractors. Another example is right (rta) and left and the orthogonal wrong. We might consider for instance the opposites fate and destiny and their orthogonal arbitrariness. In each case we might consider this orthogonality as being rooted in the possibility of Ultra Being. In other words there is the first distinction between the nihilistic opposites. Then orthogonal to that is the non-duals as holoïdal and their excrescent opposites. But then orthogonal again to these is this third member of the set which takes the concept in another direction. How many of these further orthogonal directions exist is unknown. But these three way concepts related to the non-dual have always been a mysterious anomaly which could be explained by the presence of Ultra Being. But then again maybe this is a stretch. It would take some careful analysis to establish this and other links to Ultra Being suggested in this chapter. Just today I learned that in Catastrophe Theory singularities are created and destroyed in pairs as the surface folds and intersects in three dimensions. Thus the creation and destruction of dual singularities may be the opposite of the Blackholes and Miracles that characterize the deformations in the surface. Miracles have origins in Timespace and Blackholes have sources outside Spacetime. But in both cases there is a deformation without folding or intersecting of the surfaces. If singularities are always created in twos and the difference between the odd linked positive and negative "positive feedback" is related to the balancing act of negative feedback which always has an even number of links, then we might consider the opacity of what brings the dual singularities and the two forms of positive feedback together. That opacity might be considered as having the nature of Ultra Being. Folding and intersection of the surface of the sea of the

meta-system is contrast to its deformation into Blackholes and Miracles. Both together at the same time might take us to the level of Ultra Being which is the unthinkable opacity of Projection itself as the Meta-system opens out to become the clearing in which the System arrives and departs. Heidegger says that Being is primordial intelligibility and Parmenides connects it with thought. But if Ultra Being exists then this cannot be taken for granted any more. The projection would become non-transparent, not even translucent, but completely opaque and blackened. In Alchemy this is called Sol Niger, the Black Sun, the Saturnalia. Here we enter more seriously into the realm explored by James Hillman who believes that the archetypes have this sort of opacity ultimately. The nexus of dual singularities that are created and annihilated and the Blackholes and Miracles of the Meta-system could be different views of the same thing, something opaque and unthinkable which exists at the core of projection that is never actually seen because it is behind the veil of the void as the meta-nondual between the non-duals that is the source of duality. As a generator of duality Ultra Being and its root *Wer of Weorthan might be seen as the antipode of models of non-duality that separate the kinds of Being. At any rate it is the seeds, bija, within the tathagata gharba that give rise to the karma in spite of the emptiness that should erase all the traces. There is a middle way between erasure and non-erasure and the difference is undecidable. If we take this possibility seriously then we have taken fundamental ontology to its ultimate point where Being is no longer synonymous with intelligibility. At that point it is existence that is transparent and the projections which seemed transparent become darkened because they derive from a

left hand of darkness that taints the purity of emptiness or void.