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# On the Topology of the Noosphere

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As a young child I had a certain set of dreams, the enigma of which remained mysteriously hovering in my memories to this day. In one of these earliest dreams of my life, I am playing hide-and-seek with my friends, but am observing myself from an external third-person perspective, just as all my dreams had regularly been until then. I remember that the next morning, my waking conscious mind had noticed this split between self and observer and judged it unusual, and so in the following night's dream, I somehow willed my observer self to merge into the body of my self that was being observed. In this apparently spontaneous lucid experience, I forced myself into what I deemed to be a *proper* first-person subjective experience. My dreams have never been the same since then. I began to miss the third-person view and wonder why I did what I had done to get rid of it, and in general puzzle over the deeper meaning of these events.

**Figure 1.** *My two dreams, through my eyes as the observer.*


Dreams are symbolic manifestations of the unconscious, the ultimate nature of which is clouded in mystery. Some scholars deny its existence because it implies two subjects or personalities within the same individual. But our most habituated idea of our ego-self, bordered merely by our consciousness, is in fact only a tiny portion of a vaster field of the psyche. (Jung, 1964, pp. 23, 38) Within this larger realm hide various energies, forces, intelligences, and personalities. Occasionally, these *others* emerge into the view of our conscious self through spontaneous expressions of imagination, surges of emotion,

unexpected memories, associations, ideals, beliefs, fantasies, and dreams. (Johnson, 2009, pp.2-3) Was my dream demonstrating the distinction between two such characters: the conscious and the unconscious, the observer and the felt self, the third-person and the first-person subject?

At other times, these *others* can grab our attention via surrounding physical events, and in so doing reinforce their otherness or transcendence, appearing to originate somewhere outside of our own psyche, out of nature itself. These superpersonal events can arrive in our perception via any sensory modality, yet we say that they take the forms of *images.* (Jung, 1964, pp. 28, 55)

The basic constitution of an image is a symbol transmitted onto a screen, where the screen can be anything from a dream to the wakeful mind to the physical world. Carl Jung noted that these images arise autonomously out of a compact storehouse in the substratum of the human psyche he called *the collective unconscious.* In their personified aspects, the images are called *archetypes,* and represent the numerous character traits that exist among humans. Inner work enables more of these hidden characters to emerge and integrate with our conscious personality, and is the crux of the individuation process - the evolution to wholeness within an individual human psyche. (Johnson, 2009, pp. 3-30)

Yet, following the symbol of dual characters from my childhood dream, the existence of the collective unconscious must then also imply the existence of another entity, the collective consciousness. For this, we can refer to Pierre Teilhard de Chardin's concept of *the noosphere* – a unified planetary layer of psyche, potentially evolved out of the human portion of the biosphere of the Earth. According to Teilhard, the individual grains of human minds combine into one grand system of thought, and hence an Earth-sized conscious subject. However, it remains unclear whether the subjective experience of this superindividual would remain multi-centred, as seen through numerous sets of eyes akin to my first dream, or become a truly uni-centred organism, felt as one fully bound conscious self, analogous to my second dream. (Teilhard deChardin, 1971, pp. 37-40) Would collective

consciousness symbolically resonate with my first dream of one me watching another me, or would the observer and the self be fully compressed into one as in my second dream?

I suggest that these dreams represent the two phases of the process of *noogenesis* – the coming to consciousness of the unified Earth-subject (Teilhard de Chardin, 1971, pp. 31-32). This essay will attempt to elucidate observable symptoms of these phases, using the prior-mentioned concept of archetypal images. Furthermore, a kind of subtle topology of the noosphere will be envisioned, in hopes of gaining deeper insights into the process.

## *Part A: Surfaces*

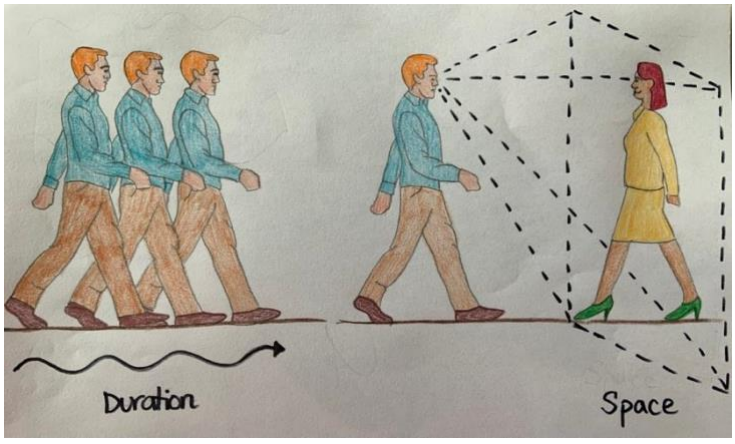
### *Space as Image*

To begin with, let us break down the idea of an image, especially as it relates to our human perceptions of the media of space and time. For this task, we can turn to the genius comprehensions of Henri Bergson. Using a distinction between counting and number, Bergson demonstrated two different modes of subjective experience. Given the task to count say 50 sheep, we do so by focusing on an image of one sheep at each instant of time, while tallying these single images into a sum at the back of our minds. This mode represents what Bergson called *duration*, or the embodied experience of a flowing time, as we experience one sheep at a time, and it is how actual counting is performed. However, there is also the second mode of perception of number and that is picturing all 50 sheep at once in one unified image. In this case, the full number 50 is not actually counted as in duration, but is already a static unified image in *space*, that is then additionally translated to the symbol '50.' (McMahon, 2002, pp. 49-50) In the spatial image, all of the sheep are co-present at once, whereas in the symbol all that is left is a kind of spaceless contracted meaning. In counting we experience a sequence of images in flowing duration, in number we experience one frozen image in space and eventually substitute it with a symbol.

We can draw an analogy here to my two dreams: in the first, we can count the different subjects, in the second they are co-present at once. Following Bergson, we might interpret this as such: experiencing oneself from a 3rd person point of view, as happens in out-of-body experiences, may actually represent a purer more direct subjective experience, being that it is duration, than experiencing oneself in the 1st person, where the self then appears to be a substituted symbol or a sum. This would imply that out-of-body consciousness and experiences of a more panpsychic nature are closer to pure awareness than the regular subjective experiences of an embodied self.

Bergson further stressed that space is the necessary medium which the mind needs to count, localize, and touch the *quantitative multiplicity* of objects. He equated space with *objectivity*, and noted that two objects cannot permeate each other in the same space. In contrast, pure spaceless duration amounts to the *qualitative multiplicity* of consciousness, where states and objects can easily permeate each other and hence be less countable. So, duration was equated with *subjectivity*. (McMahon, 2002, pp. 51-56) In short, time or duration is what flows through our body when we are immersed fully in the moment of pure experience. And space seems to involve images that we view as existing outside of ourselves.

**Figure 2.** *Duration (time) vs. image (space), as per Henri Bergson*




This, by the way, might be the reason why the unconscious speaks to us in the language of symbols. (Johnson, 2009, p. 4) Because just like consciousness, the unconscious is a qualitative or mixed

multiplicity, it must delineate or decohere objects and ideas out of itself first. It does so by spewing out symbols and images.

Like Bergson, William James spoke about two states of experiencing the stream of consciousness. In the *transitive* parts, like the flights of a bird, we are immersed in pure flow of process, as in Bergson's duration. We understand this process only in that when we stop our train of thought to analyze its momentary content, we automatically lose the direction in which the thought was moving. The process gets momentarily halted by the content's image in idealized space. These latter static or *substantive* parts are in turn like the perchings of a bird. (James, 1950, pp. 151-153) Hence, all of our conscious experience involves such intermingling of duration and space - process and image - representing one of the ultimate dualities or polarities of nature.

Of course, it is not all that clear cut. Images are not always frozen snapshots of a reality in flux. They themselves can take on a dynamical quality, like what we see in movies, for example. When we watch a skateboarder pass us on the street, we are experiencing a smooth and continuous stream of reality, and yet we turn this experience into an image or a cognitive packet when we perceive or think to ourselves 'A skateboarder!' The mere attribution of a description to the event has converted it from pure experience and process into a sizeable parcel of information – a sensory image and a linguistic symbol. Yet, when we watch the skateboarder in action, we can *feel* both the linguistic label and the skateboarder's progressing movement at once, which means that most of the time, process and image are intermingled to such a close extent, that they might only be separated by intense introspection, if at all.

Can the process or duration of the mind be emptied of all contents and images? Transcendental meditation states aim to achieve just such an empty awareness. But in most ordinary states, consciousness appears to always be *intentional* or *about* something, that is directed upon some object or an image. (Barušs, 2020, pp. 856-865; Combs, 2002, pp. 278)

These contrasting qualities of aboutness and emptiness of the mind is how the neuroscientist Cristopher Koch distinguishes between consciousness and perception. When presented with an ambiguous image, such as a woman that turns into a vase and vice versa, the mind is unable to grasp conscious hold of both meanings at the same time, as the conscious aboutness keeps switching from one image meaning to another. We also know that perception often occurs subliminally and unconsciously, amidst what feels like emptiness to the conscious mind. (Horgan, 2023, chapter. 1)

**Figure 3.** *Ambiguous image that can be seen as either a young or an old lady*

*Note.* (Hill, 1915)

I propose that the function of images is to stabilize what is otherwise pure flux, to create bits or decohere sense or meanings out of an otherwise incomprehensible and chaotic stream. Without image-making, our experience may forever remain non-cognitive and unsucceptible to analysis. It may feel something like the transcendental state of pure awareness, which may be the golden grail of meditation practice, but is beyond the scope of this essay. Let us instead see what more we can learn about the metaphysical purpose of imagery.

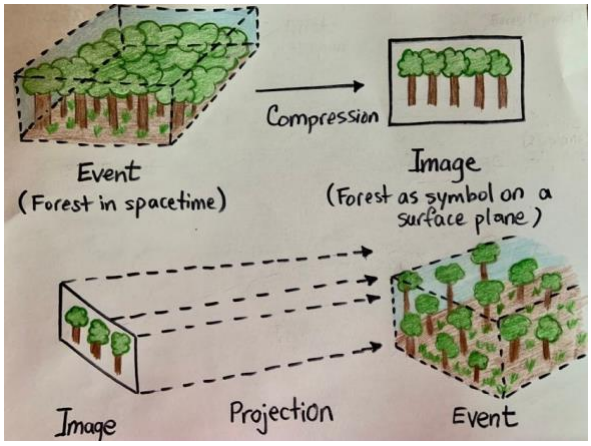
**Projection into Space, Compression onto Surfaces**

In the previous section, it was alluded that an image of 50 sheep in space, say a field of grass, can essentially be shortened to a bare idea of 50, that is a numerical *symbol*. To a certain extent, this

transformation from an image to a symbol requires the compression or elimination of space. For example, the image of the passing skateboarder required the space of the whole street, not to mention the stretch of time it took for them to skate from one end of the street to another. We can say the image played itself out in a portion of 4D *spacetime*. Yet, when we identified the image by the linguistic label 'skateboarder,' we compressed the said spacetime to a mere *surface*, on which the symbol 'skateboarder' became imprinted. If we wrote the word down on paper, the paper would represent the surface, and the word itself the symbol. However, in the case of our internal thought form, the surface is some kind of intra-dimensional subjective mental space, which was stamped with the symbolic thought for skateboarder.

Here, I am attempting to show that any image, be it sensory (visual, auditory, tactile, olfactory, gustatory) or cognitive (linguistic), and whether it occurs in external events, dreams, art, pure thought, etc., is at its base composed of a symbol impressed on some type of a surface. For simplicity we depict the surface visually as a flat 2-dimensional plane, but depending on the situation, the reality of the matter means this so-called surface is actually projected into 3D space, 4D spacetime, or even higher multi-dimensional realities, as the compressed symbol becomes an *event*.

**Figure 4.** *Compression of an event to an image, and projection of an image to an event*




It is well known in psychology that the psyche contains an image/symbol producing mechanism. One common example of this are the images of dreams. Here, we can call our inner subjective mental

space a surface, and the objects and events observed on it its images and symbols. Another example of these is the stream experienced in near-sleep states of hypnogogia and hypnopompia – faces, figures, animals, people, objects, nature scenes, geometry, writing, etc – which often evoke a sense of a heightened reality. (Barušs, 2020, p. 1928-1953)

A part of such imagery is *post-cognitive* or *memory visions*, which represent compressed copies of recently preceding or long-past witnessed events in the real world. For example, if one has spent the day gardening, one may see compressed motifs of gardening in hypnagogia that night. (Mavromatis, 1987, pp. 44-51) But an event can also be compressed backwards in time, and received from the unconscious by the conscious mind, as the in the case of *pre-cognitive visions* (Barušs, 2020, p. 2205; Mavromatis, 1987, p. 131). An image can be projected into a physical event both forwards and backwards in time.

**Figure 5.** *A post-cognitive vision: Compression forwards in time or projection backwards in time*

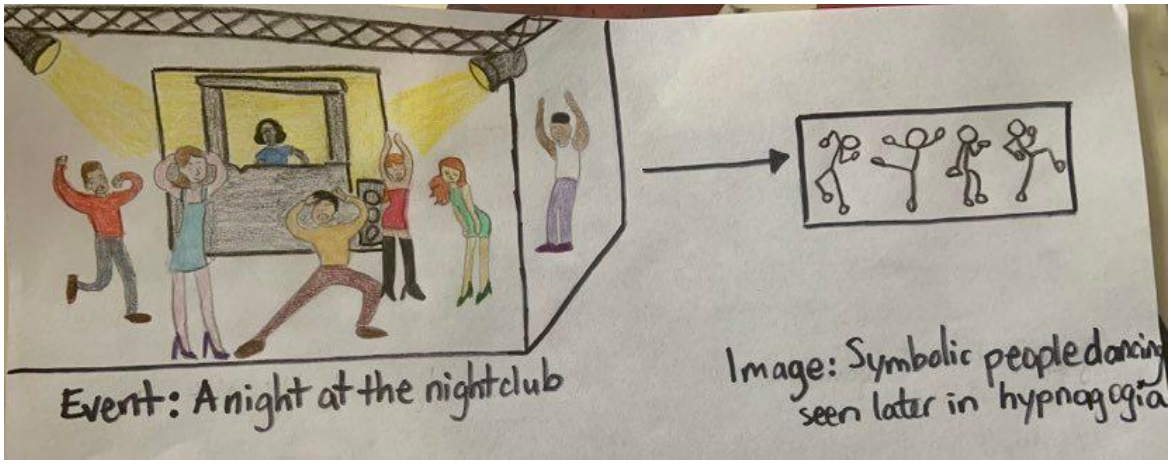
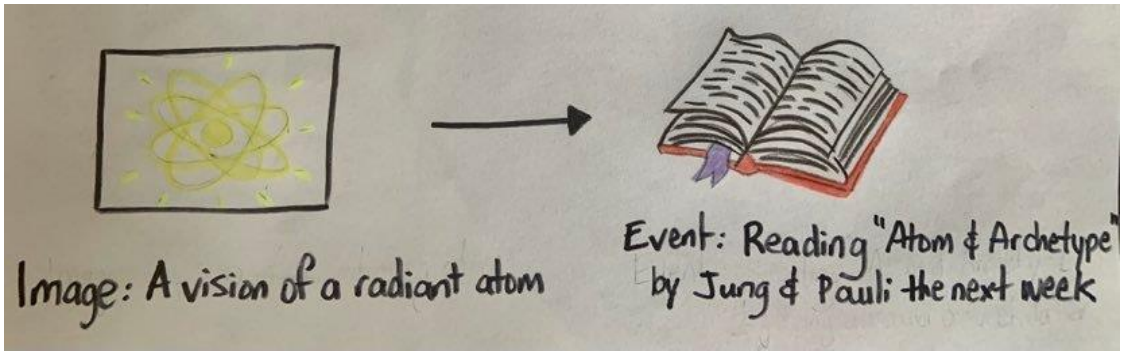



**Figure 6.** *A pre-cognitive vision: Compression backwards in time or projection forwards in time*




It is helpful to employ the terminology of the phenomenologist Edmund Husserl when describing the types of images and symbols received in precognitive experiences. Husserl defined *presentational* objects as those which we encounter in the physical world. (Thompson, 2007, p. 26) Yet, if you think about it, even these real phenomena that we encounter are somehow translated into the reality of our mental space, (Jung, 1964, p. 38) so the images of presentational objects must have dual, though conjoined parts, like two slices stacked over each other – one that belongs to the physical world, and the other that belongs to the space of the mind. On the other hand, Husserl's *representational* objects are those which are conjured up solely by the mind in its mental space. (Thompson, 2007, p. 26) If I look at the night sky and see the moon, I would be dealing with a presentational image, whereas if I then close my eyes and imagine the moon, that image will be purely representational.

We are accustomed to assuming that we must first be presented with a physical object or event before we can in turn imagine it or represent in our mental space. The mind constantly copies such impressions from the physical world onto the surface of our consciousness, as we are thinking, remembering, and dreaming of the past day's events. It is only when we imagine or *receive* a mental representational image first, which is thereafter strangely followed by its presentational counterpart, that we stop to take notice of an odd coincidence. We do not have an easy explanation for how the mind can grasp images of physical events that do not occur until the future. Although, come to think of it, we do not yet have a full explanation of the biophysical mechanism of memory, either, which in turn creates representational copies from presentational images. However, according to the breakdown of

image-event transference presented here, we can establish that precognition and memory essentially operate by the same mechanism, just in opposite directions. A precognition is a memory of the future.

Jung spoke about projection of archetypes from the unconscious using the notion of *synchronicity* or meaningful coincidence. Archetypes lie dormant as potentials for particular images within the collective unconscious until they are triggered by something or other in a person's life. Metaphorically akin to the splitting of an atom, this activation releases a large amount of numinous power, which like quantum mechanics or some cosmic divinity re-aligns the events in the psyche and the physical world to make them appear *acausal*. (Combs & Holland, 1996, pp. 69-74) It is probable that archetypal images possess the power of vertical causation. They may cause events both forwards and backwards in time, which means they exist *above* time, as we traditionally imagine it in its linear flowing fashion.

Other examples of projections of archetypes are not so much onto the surfaces of synchronous events, as onto other people. For example, a common experience for women is to project their animus (the archetype of male energy) onto an external man and fall in love not so much with that human being, but with the projected soul-image. The same happens to men projecting their anima (female archetype) onto real women. This faulty projection is what so often sabotages ordinary human love, and causes people to live out their unrealized unconscious parts through others. (Johnson, 2009, p.48).

Emma Jung suggested that the animus and the anima were entities that would coalesce throughout one's life, through images and experiences with the other sex, eventually starting to behave as laws onto themselves and interfering with the life of the individual in disturbing and destructive ways. However, she also defined this as a spiritual process. To heal the faulty projection, a woman would need to re-project the animus image, from the surface that was some individual man, to the surface that would become some intellectual or spiritual pursuit in her life. This is what she called the embracing of one's true destiny. (Jung, 1985, pp. 1-14)

The field of depth psychology is full of fascinating findings about the nature of projection within the personality. However, here we will only delve deeper into synchronicity for the purpose of learning more about its metaphysical nature.

**Repetition of Images**

Carl Jung had actually based his idea of synchronicity on the work of an obscure Austrian biologist, Paul Kammerer, who first proposed this concept under the name of *seriality*. Kammerer spent his days observing and classifying the ongoing stream of events and people in his life, noting down coincidences, and analyzing them in terms of their patterns. To a greater extent than Jung, Kammerer emphasized that coincidental events occur not just in meaningful pairs, but whole clusters or series of events of repetitive motifs. One example found in his notebooks recorded his brother-in-law attending a concert with both his seat and coat check tickets showing #9. The next day, he went to another concert and once again both tickets showed the same number, this time #21. These were examples of a series of a 2$^{nd}$ *order*, because the coinciding number recurred on two successive days in time. Images, symbols, and motifs could repeat themselves in higher numbered ordered series, as well. In addition, Kammerer classified by *powers* (number of parallel events), *parameters* (number of shared images between events), and *typology* (the class of images, ex. names, numbers, situations, etc.). Series could be homologous or analogous, pure or hybrid, inverted, alternating, cyclic, or phasic. (Koestler, 1971, pp. 135-143) With these last complexities of this system, we begin to glimpse Kammerer's intuitive striving towards an almost geometrical patterning of the reality of serial events, all guided by a mysterious fundamental law that operates in contrast to physical causality.

Let me outline a couple personal examples of the way clusters of repeating images show up in events. Last year when I was cycling the scenic Cabot trail in Nova Scotia on a 2-week trip, in the last few hours I met another long-distance cyclist named Julia from Toronto who had a degree in Consciousness studies. Besides us both cycling the same location at the same time, which was a kind of

synchronous alignment in space and time, there were 4 other parameters or images shared between us: both long-distance cyclers, both named Julia, both from Toronto, both with or working towards a degree in Consciousness studies.

In another quick example, my friend had brought me beaded earrings that looked like monarch butterflies, made by a tribe from Mexico. The next day, I took a picture wearing those earrings in front of an art mural that had 4 monarch butterflies. Later that morning, I received a spam e-mail from an astrology service the first line of which stated that the author had a vision of 6 monarch butterflies leading me to a wonderful oasis. The 6 monarchs in the e-mail corresponded with the 6 monarchs (4 in the mural + 2 on my ears). The image of the monarch butterfly repeated itself 3 times within 24 hours in this series of the 3rd order.

Kammerer stated that coincidence collectors like him lived in a serial Wonderland universe, although paradoxically he remained a devout materialist and criticized parapsychological explanations of seriality. (Koestler, 1971, pp. 138, 143) Others focused more on psychology than Kammerer. Josef Breuer had recognized that certain neurotic symptoms like hysteria and pain in patients are in fact symbolically meaningful. For example, a patient who couldn't 'swallow' some inner psychological understanding about themselves developed throat pain. Another patient with depression who felt like they 'could not go on anymore' developed a walking problem. One who could not 'digest' some unpleasant fact would end up vomiting. Idioms are in fact belong to the collective unconscious since they are known and understood by whole cultures. (Jung, 1964, p. 26) So, it seems the symbols in these linguistic surfaces were bizarrely replicated physiologically on the surfaces of the human body.

Jung advanced the notion of seriality out of a mere statistical analysis of physical events into the psychophysical correlation of precognitive psychic images with later physical events, or the uncanny cooperation of inanimate objects in arrangement of symbolic patterns, he called synchronicity. (Jung,

1964, p. 55) He overcame materialism by adding the necessary numinous and acausal factor of the archetype to the theory, and integrated the secrets of ancient alchemy. (Jung, 1968, pp. 242-280)

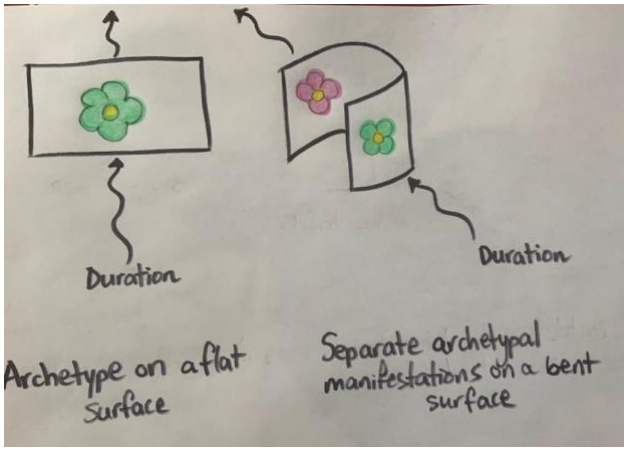
Historically, a key tenet of alchemy has been the notion of *resemblance* – the union between drastically disparate parts of nature through a similar acausal image. A moss growing on a rock looks like a beard growing on a man's chin, stars and clouds shape humanoid faces in the sky, the rivers of the world are akin to the branches of trees, blood, and nerve vessels within bodies. Such image duplication, replication, multiplication, and amplification makes nature metaphorical and analogical at its very core. (Foucault, 2002, pp. 21-25)

***Bent and Folded Surfaces Allow Vertical Causality***

Much parapsychological research has been conducted over the years using the Ganzfeld procedure, military remote viewing, and experiments in clairvoyance, precognition, and telepathy. Metastudies have confirmed the presence of a significant statistical effect indicating the validity of these phenomena, and that in fact they represent natural human abilities that can be developed with focus and training. (Barušs, 2020, p. 459-509; Radin, 2013) All of these psi phenomena involve the separation in time or space of the two aspects of the same one image – the psychic and the physical, or one psychic and another psychic as in telepathy and some cases of clairvoyance.

In section 2, it was shown that images are constituted by symbols compressed onto surfaces. For simplicity's sake, we started with a flat surface. Now, if we take a flat translucent surface and bend it, compress the archetypal image onto it in such a way that it doubles or multiplies, and then project it and send duration through in such a way that it travels first through one portion of that surface and soon after through another, we obtain the experience of seriality.

**Figure 7.** *Archetypal manifestations on flat vs. bent surfaces*




The bent surface may project fully into one type of space, so that the serial events both occur in say physical space, or both in mental space. On the other hand, the separate portions of the surface may each project into their own separate spaces or dimensions. For example, duration's entry 1 might be projected into the psychic space where a precognitive image is received by the mind, and duration's entry 2 may in turn be projected into the physical world where the same synchronistic image plays itself out. This could explain how representational visions are followed by their presentational real world counterparts. Or vice versa, there can be presentational events that are transferred to representational memories.

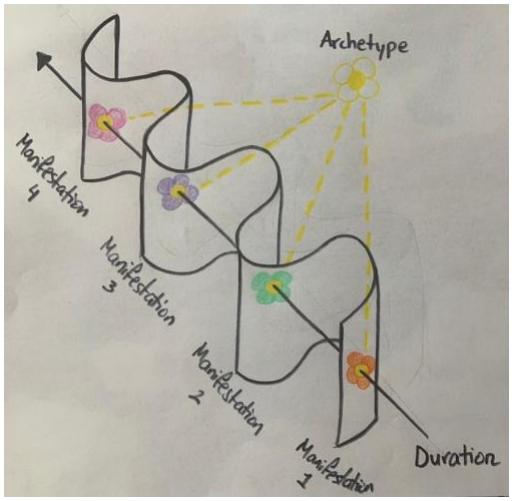
My main point is that same surface can house both psychic and physical spaces, which would make mind and matter a kind of spectrum of projection, rather than a strictly separated duality of substances or realms. Alchemists believed that *Prime Matter* was the core underlying 'substance' which in itself united spirit and matter. (Bamford, 2007, p. 43) Other relevant names for this reality were the *Unus mundus*, or the Chinese *Tao* – the organizing principle lying behind all of the manifest world. (Combs & Holland, 1996, pp. 65-69, 93) James posited the same single experiential reality overarching the material and inner worlds in his radical empiricism. (Combs, 2016a, p. 2)

Likewise, the philosopher David Chalmers proposed that at the fundamental base of both matter and consciousness what unites them is information. (Horgan, 2023, chapter 1) In the bent surface conception above, it is precisely the informational motif of the image or its archetype that is able to link the varying folds together, be they projected into material or psychic spaces. However, it is important to note that the archetype does not transfer from one portion of the surface to another upon the bend like an ink stamp in a kind of linear causal fashion, but rather is infused into the whole surface as a vague spread-out energy before the surface is even bent. Only this would give the archetype its vertical acausal, rather than horizontally causal power.

Interestingly, holographic surfaces act just in such a manner, by storing the information encoded into the surface in every part of the surface. If a holographic plate is illuminated with light, its surface projects into a 3-dimensional light image or a hologram, showing the specific image that was encoded into the 2-dimensional surface. Interestingly though, if such an encoded holographic plate is broken into random pieces, and any one of them is then illumined with light, that piece will too project the whole original 3D image, though perhaps at a less clear resolution. (Bohm, 1980, pp. 183-184)

Kammerer had noted that seriality takes the shape of waves propagating themselves along the time axis. (Koestler, 1971, p. 141) Such a wave can also be pictured as a propagating through a surface.

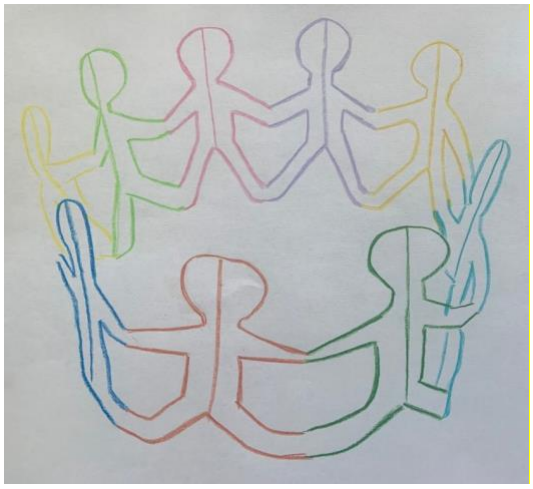
**Figure 8.** *Individual manifestations of the same archetype through a waving surface*




At this point, it might be useful to draw the obvious modern analogy between waves and quantum probability fields and/or waves of light. Could the surfaces of Prime matter we have been envisioning refer to these fields that propagate or rather exist throughout nature? It was Johann von Goethe who observed that a sun ray may be passed through a slit of any shape, yet still somehow project onto an end surface in the shape of a circle. (Charumela, 1998, 35-36 min) This astonishing fact demonstrates that each sun ray, being a surface, carries the very archetype of the shape of the sun from which it emerges.

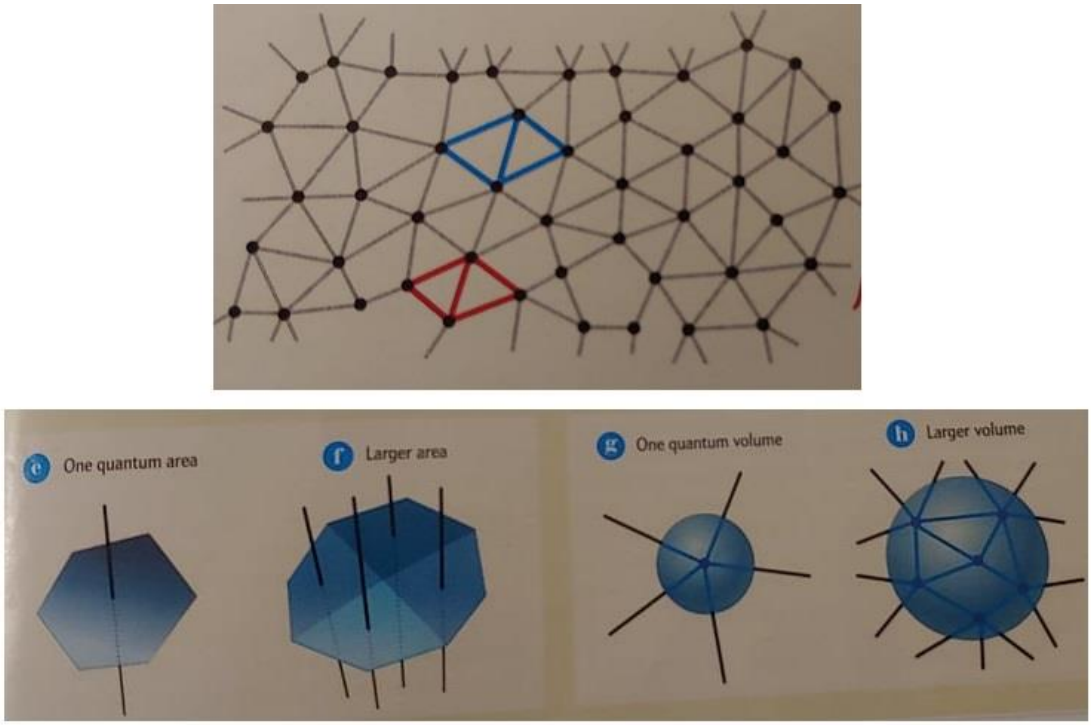
In a similar manner, the resemblances or image replications that occur throughout nature, can also be said to occur through *folds in being.* (Foucault, 2002, pp. 22-23) Take a flat surface as a piece of paper and fold it several times. Then cut a shape such as a person out of the paper, and unfold it. The result is a chain of paper people, each one individual due to a specificity of the paper or the particular fall of the scissor in that area, yet all still embody the same general archetypal shape.

**Figure 9.** *A paper doll chain*



The alchemical philosophy is that the world is linked together by such archetypal chains throughout. (Foucault, 2002, p. 23) Historically, various cultures have employed divination methods and the reading of natural omens to spot such replicated motifs in their surroundings, in order to foretell the future. (Combs & Holland, 1996, pp. 66, 123-149) Gregory Bateson pointed out such connecting patterns throughout various realms of biology. (Bateson, 1979) Douglas Hofstadter used the metaphor of loops woven into 'the eternal golden braid of existence' and explained various *isomorphisms* in the realms of mathematics, art, music, and language. (Horgan, 2023, chapter 2) Even modern physics hosts a similar idea as part of Loop Quantum Gravity, where spacetime is envisioned as a knitted fabric, consisting of loops forming multi-dimensional chains. (Horgan, 2023, chapter 4; Smolin, 2012, p. 99-102)

**Figure 10.** *Quantum spin network (above) and quantum foam (below)*




*Note.* (Smolin, 2012, pp. 99, 102)

***Part B: Solids***

***Reflection of Images***

With seriality or multiplication, it becomes less clear which image is the original and which is the projection. Although, the separate event-instances of the archetypal image each still posesses their specific details of difference, their inner similitudes in actuality make the image a kind of reflection coursing through the universe. (Foucault, 2002, pp. 22-23) Below is a photograph I took of myself reflected in an art installation at a recent visit to the art gallery.

**Figure 11.** *'Infinity Mirrors' by Yayoi Kusama at the Art Gallery of Ontario*

Notice that by curving the mirrored surfaces into spheres, they are able to reflect the original projected image of myself in numerous ways, but often altered in size and shape. A similar effect happens inside a fair's funhouse of curved mirrors. The original 'archetypal' image gets distorted in various ways specific to each instance of its re-manifestation. Jung's definition of the archetype included that its individual representations may vary quite greatly in detail, without ever losing their basic underlying motif. (Jung, 1964, p. 67)

While attempting to bridge physics with archetypal psychology, Wolfgang Pauli and Carl Jung envisioned subatomic activity in terms of mirrors and reflections. The philosopher Gottfried Leibniz called the soul a perpetual living mirror of the universe. (Combs & Holland, 1996, pp. xxxvii, 68) Bergson too noted that the qualitative multiplicity of conscious states that permeate each other can reflect the whole soul within itself. (McMahon, 2002, p. 59) The mind and imagination too can be contemplated as light trapped in a highly polished diamond where experience reflects back on itself again and again

through motifs in thoughts, memories, and feelings. (Combs, 2016b, p. 61; Johnson, 2009, p. 154) Reflection clearly is another metaphor for image repetition.

**Spheres**

After taking the photo of myself with the 'Infinity Mirrors,' I was intuitively guided to spot the archetypal repetition between my photo and Salvador Dali's 'Galatea of the Spheres.'

**Figure 12.** *'Galatea of the Spheres' by Salvador Dali, 1952*

*Note.* (Galatea of the spheres, 2023)

This formed the initial spark to my transpersonal and transdisciplinary inquiry when composing this essay. Archetypes often guide us in such a way through image repetitions, towards spiritual pursuits that lead us towards individuation.

The sphere and its dimensionally compressed replicate, the circle, have historically and archetypally been salient symbols within spirituality and consciousness studies. The Jungian psychologist Marie-Louise von Franz explained the sphere (circle) as the symbol of the Self - the totality of the psyche in all of its aspects, and the projected archetype of ultimate wholeness between an

individual and nature. Religions of the world have reiterated this motif with embelished symbols, such as mandalas and lotus flowers in Eastern religions, and sun wheels in Christianity. Plato too described the psyche as a sphere, and one of the central symbols of alchemy was the squaring of the circle. (Jaffe, 1964, pp. 240-250)

The medieval clairvoyant Hildegard of Bingen received powerful and resplendent mystical visions, which elucidated the nature and order of the cosmos. Among her documented drawings, many are set against the background of a circle.

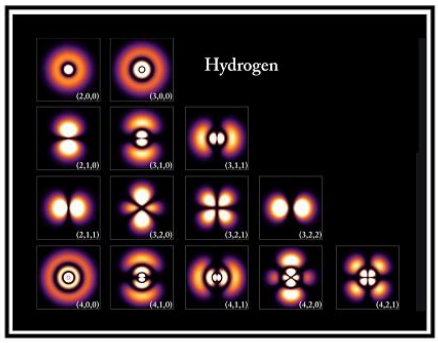
**Figure 13.** *The visionary drawings of Hildegard of Bingen*

*Note.* (Hildegard of Bingen, 2023)

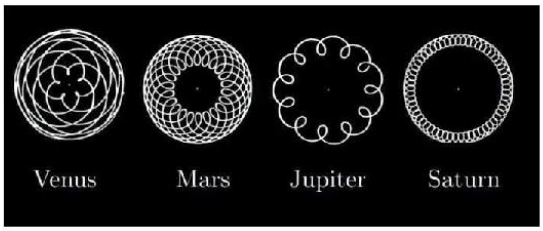
The circle symbol, or more properly radial symmetry, also propagates through various realms of nature. We observe the same archetype everywhere, from quantum orbitals of subatomic particles to

cyclical planetary paths in the Solar system, to patterns of cymatics, to snowflakes, and other instances of the natural world.

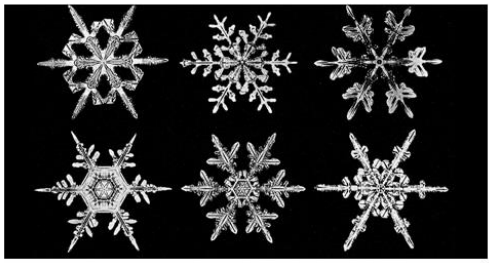
**Figure 14.** *The archetype of circular radial symmetry in nature*



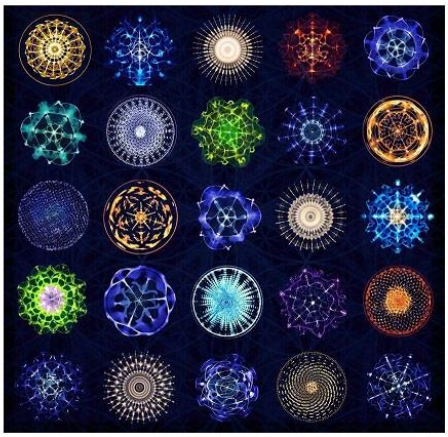

*Quantum orbitals of Hydrogen*




*Epicyclic geocentric planet paths*



*Snowflakes*



*Cymatics in water*

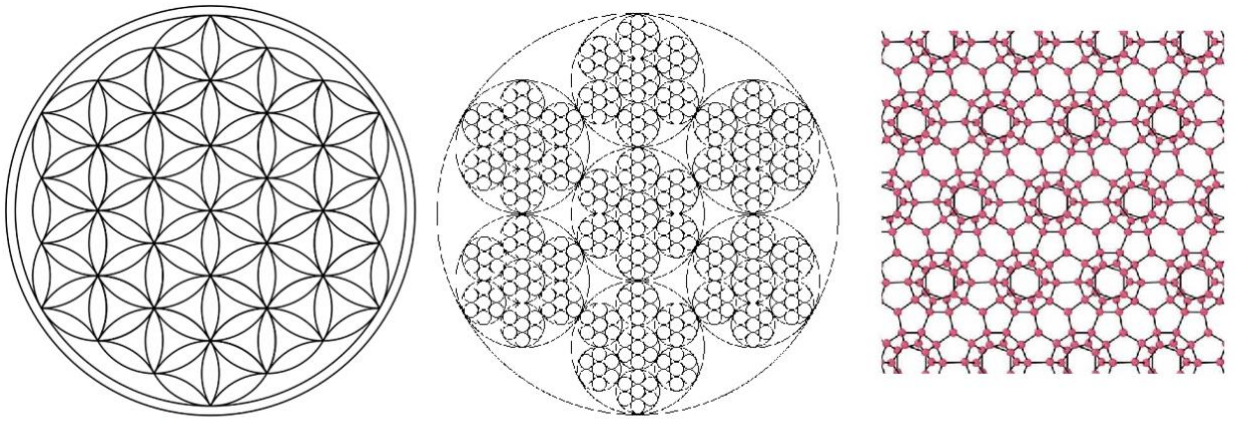
*Note.* Referenced clockwise from top left (Boyd, 2020; Astronomy, 2019; Blore, 2021; Popova, 2023)

In what's considered the key text of alchemy, the enigmatic archetypal figure of Hermes Trismegistus talks about a sphere, the bottom of which is invisible like Haides, while its surface has visible forms and ideas imprinted on it. (Copenhaver, 1992, pp. 76-77) Interestingly, this esoteric image replicates a theory of AdS/CFT correspondence in modern physics, which envisions the universe encased in a snow globe-like boundary. The interior of the globe is basically our own visible universe. The boundary surface lacks the dimension of depth, but encodes all the same information as the inside of the sphere. The surface holographically projects into the full dimensionality of the universe inside the sphere. (Musser, 2020)

Now if we think of the initial surface image as my very self at the art gallery, and the sphere to which this image is projected, actually encasing a multiple number of smaller spheres, we can see how the archetypal image not only projects, but reflects in numerous ways all throughout the big overarching sphere. Carl Jung came to the conclusion that the Self, or God, is the archetype whose center is everywhere and circumference nowhere. (Barks, 2010, p. 199; Combs & Holland, 1996, p. 121) This deep insight may be comprehended in practical terms when one feels a kind of unifying interiority or presence amidst a series of synchronous and seemingly causally disconnected events.

We may also understand this using another symbol that has been separately found in many cultures throughout history – the flower of life (Melchizedek, 1999).

**Figure 15.** *Circles within circles*



*The flower of life* *A circular fractal* *The molecular tetrahedral structure of water*

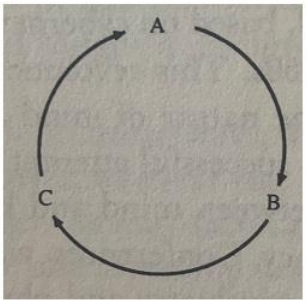
*Note.* Referenced from left to right (Perhelion, 2018; Volkov, 2011; University of Bristol, 2018)

This symbol encapsulates the philosophy of holonic inclusion, where circles that are wholes in one context, are simultaneously parts of larger circles in another. No aspect of the holonic structure can be altered without simultaneously affecting the entire structure in some way. (Wilber, 2001, pp. 32-33) Holonic inclusion operates throughout the many layers of complexity in nature: from subatomic particles to cells to ecologies and onwards. Every part of reality is interconnected and affected by every

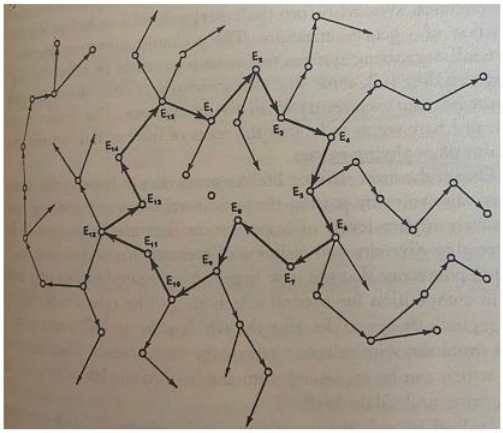
other in this one giant multi-layered super-complex network of interactions, persisting in a kind of existential dynamic balance.

The theory of *autopoiesis*, as a modern philosophy of the self in the field of biology, also mirrors this networked holonic circularity. Autopoietic systems like cells are at their core networks of processes that sustain themselves through time via a global circular causality. (Capra, 1996, pp. 56, 93, 166) Though materials constantly enter and exit the system, the general pattern of interactions remains fairly constant and is what keeps the organism intact. (Combs, 2015, pp. 33-34) This perpetuating circular pattern of wholeness is a fundamental characteristic of the living self. The self equates to the principle of integration. (Johnson, 2009, p. 49)

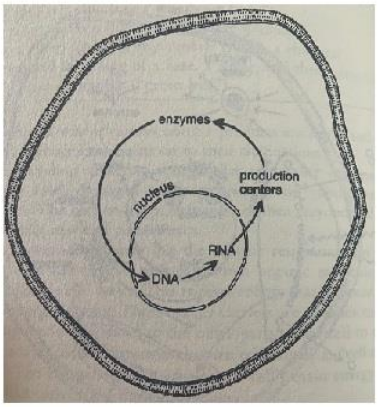
**Figure 16.** *The circular causality in autopoiesis*




*A simple feedback loop*



*A catalytic network of enzymes including a closed loop*

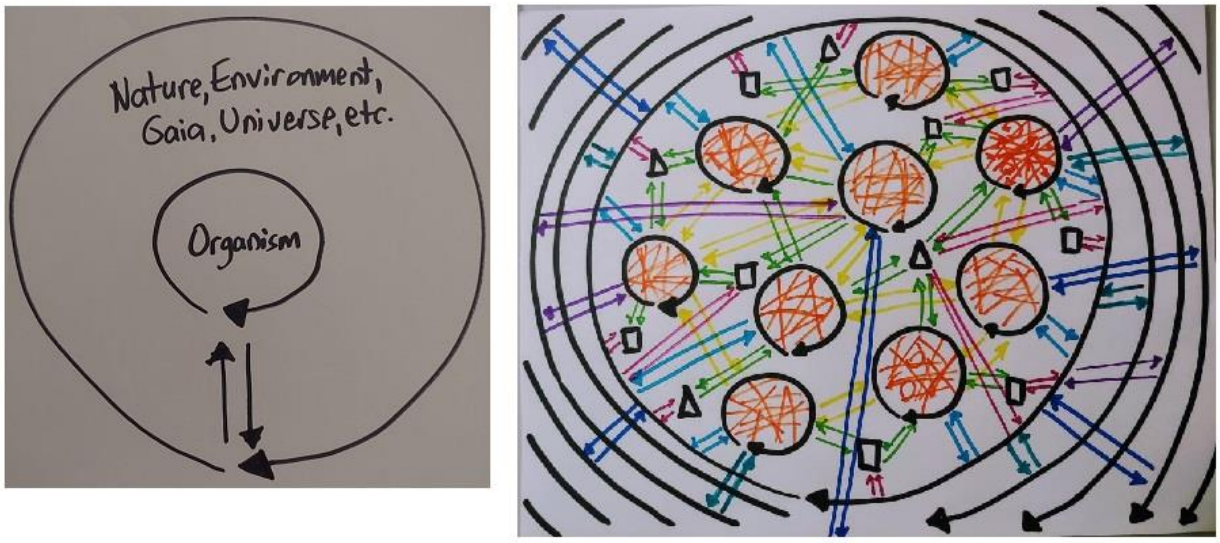



*Components of an autopoietic network involved in DNA repair*

*Note.* (Capra, 1996, pp. 56, 93, 166)

But, it is not just the organism itself that is a *circular* whole. According to holarchy, the environment with which the organism interacts, is itself another larger circular whole, and this pattern can repeat potentially till infinity in a fractal-like manner.

**Figure 17.** *A holonic representation of autopoiesis*



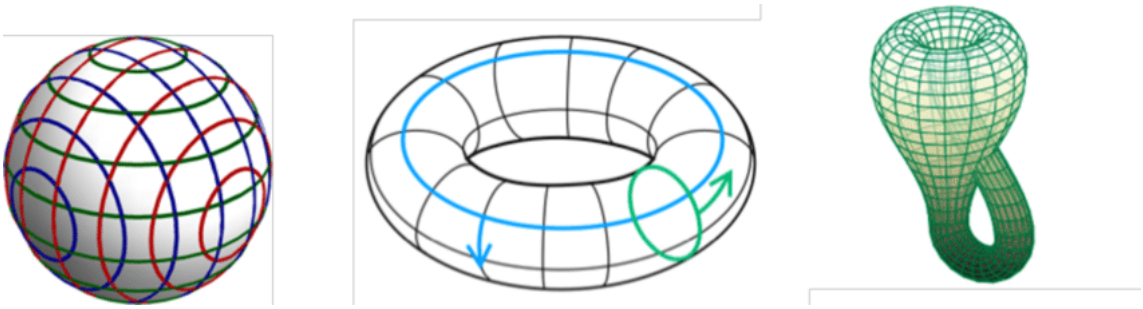

In this multi-dimensional, multi-layered structure of reality, the archetypal image can pierce through the various levels and repeat itself via numerous manifestations, each distinct to its particular niche of the total network. To be immersed inside such a structure would mean to encounter images repeating themselves in strange places. Only the bird's eye view of the overall megasystem might explicate some of these strange connections, but without this godlike perspective, we are forced to settle for simple pattern recognition, in the same way that divinators in folk cultures gazed into crystal balls to catch a glimpse of a familiar pattern that would forecast something unknown and distant.

## *Part C: The Noosphere*

### *Self-convergence as a Characteristic of Life, Mind, and Reality*

In geometry, open plane surfaces can be folded onto themselves to create closed surfaces, such as the sphere, the torus, and the Klein bottle. (Statistics how to, 2023)

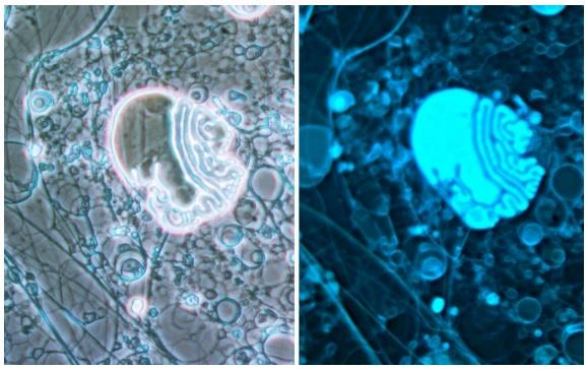
**Figure 18.** *Closed surfaces: (left to right) sphere, torus, Klein bottle*



*Note.* (Asaad, 2020)

One fascinating real life example of surfaces converging on themselves is implicated in the theory of formation of first living cells on Earth. It is hypothesized that in prehistoric times, prebiotic fatty acid membranes in shallow pools from hot springs began to stack, merge, bud, morph, and intertwine together, aided by other biochemical polymers like nucleic acids and peptides, finally emerging into the first proto-cells. (Segall & Damer, 2022, pp. 15, 19-20)

**Figure 19.** *Formation of the first proto-cells by convergence of membrane surfaces*



*Note.* (Segall & Damer, 2022, p. 15)

Douglas Hofstader's concept of a *strange loop* is something that defines, reflects, restricts, contradicts, plays with, and ultimately creates itself as a being. He uses artistic metaphors like Escher's hands, Bach's fugues, linguistic paradoxes, and Mobius strips, all which curl in on themselves. Even our words are defined by other words, which makes language itself a giant self-referential strange loop.

Hofstadter too envisages the world as a cosmic, archetypal, multidimensional pun seething with meaning. (Horgan, 2023, chapter 2)

Stuart Kaufman utilizes self-relation as a key tenet of evolution to propose his *Relational-Matrix* model of reality. His process involves existence repetitively forming relationships with itself, like a rubber band that becomes all twisted up and crosses over itself. In each such joining, a new emergent level of reality is created, yet the overall rubber band always remains whole. (Kaufman, 2011, pp. 220-223)

The human mind too has entered the phase of self-reflection in the most recent evolutionary acquisition of the cortex. According to Paul McClean's model of the triune brain, the human brain is composed of three evolutionary layers: reptilian, paleomammalian, and neomammalian. The innermost and oldest reptilian layer functions solely on automatic drives and instincts. The paleomammalian layer progresses to slightly more autonomy through emotional likes and dislikes. And the final neomammalian layer is marked by thought leading to full blown contemplations of choices, and cognitive control of bodily actions. Whereas the older layers of the mind are either completely unconscious or directed mainly outwards where perception and action are indivisible, within the outer cortex consciousness enters the scene and the self arises as an *awareness of being aware*. (Pachalska & MacQueen, 2009, pp. 300-324) Consciousness emerges out of a literal self-reflection or convergence of outwardly pointed perception back onto itself.

**Cognitive Associations Break Linear Causality**

One of the leading neurocognitive theories of consciousness, the Integrated Information Theory (IIT), analyzes brain dynamics in terms of networked complexes in the brain and their degree of wholeness. Each complex of interconnected neurons can be measured for the amount of its *integrated information,* a kind of synergy that gives a value to how mutual information is spread out and shared throughout the whole network. (Horgan, 2023, chapter 1) The key idea here resonates with archetypal

theory in that one archetypal image or informational motif is also shared amidst the various separate serial events. Hence, we can say that an experience of seriality, including all the spacetime that it encompasses, resembles an integrated cognitive complex. While IIT studies complexes at the level of the brain, depth psychology studies complexes at the level of physical and experiential reality of individuals.

According to the phenomenologist Jean Gebser, human consciousness is in the process of evolution towards the *integral* structure. The characteristics of this level of consciousness are *aperspectivism* (the grasping multiple perspectives at once), *achronon* (freedom from the traditional linear conception of time, and *diaphaneity* (the previously invisible made visible). Marked by a multi-dimensional, non-linear, and intuitive mode of knowing, this state of awareness can be described as *seeing from all sides*. Because of this, Gebser's contemporary, Jeremy Johnson, proposes the sphere as a geometrical symbol for integral consciousness. (Johnson, 2019, pp. 124-136) The ability to persistently notice archetypal manifestations and image repetitions in one's surroundings certainly fits the description of seeing from all sides. In such a case, what is seen from different perspectives is the one archetype. Additionally, synchronicities and serialities do lend time perception a certain acausal fluidity symptomatic of the achronon, while psychic intuitions such as precognitive visions match the integral's diaphanous quality.

Mental associations take a central role in the integral structure of consciousness. In general, the ability to find a similarity between one event and another, and to bridge them through a linking image, involves thought and the pattern recognition abilities of the mind. William James noticed that the wide use of associational brain tracts created what he called *feelings of tendency* or a vague sense of familiarity with something. For example, when one hears a grammatically correct sentence, the mind enters a general undefined sense of feeling and knowing that the words in that sentence form valid relationships and associations amidst each other. James placed intense significance on what he called

the *halo*, *penumbra,* or *fringe* of potential relations that surround, escort, and fuse each conscious thought or image. He adds that the feeling of harmony or discord is the most important element that guides the direction of association. (James, 1950, pp. 153-159) The same harmony is a necessity to the balance of the networked relationships of autopoiesis, as previously mentioned.

The readiness to form associations, relations, and interconnections, as in a network, is a basic background tendency of the conscious mind. As such, when we obviously form associations of synchronicities, serialities, signs, omens, dreams, visions, and various other acausal processes that implicate archetypes and the collective unconscious, we utilize this cognitive tendency of the mind. Only that unlike with purely mental events, all of the above take place in full, or at least in part, within the spacetime outside of the ego-mind enclosed by the body. Do we create the meaning for these external events in the mind post-facto or do they in fact confer their meaning onto us in a manner which breaks our traditionally simple ingrained ideas of linear causation? If we accept the latter, then it becomes possible to imagine the conscious mind as extending outside the bounds of the ego-mind and body. As in the philosophy of *panpsychism*, consciousness extends out from ourselves and encapsulates all of the space and time that contains the said synchronous events into one collective bubble of meaning and purpose.

It is helpful to add that both the strange loops of Hofstadter and autopoiesis of Maturana and Varela were proposed as principles of *cognition*. (Capra, 1996, p. 97; Horgan, 2023, chapter 2) Therefore, cognition is not only a property of the human mind, but is a metaphysical property that permeates all of spacetime, binding various seemingly dead and inert objects and events together into, what may only be described, as *bubbles or beings of collective consciousness.*

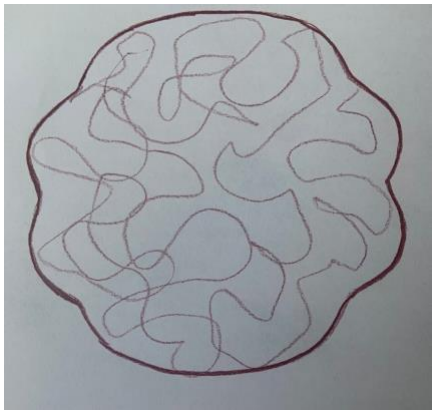
***Panexperientialism and event ontology***

Alfred North Whitehead offered a drastically different metaphysics to the one used by our current scientific paradigm of materialism. In his conception, our universe, at its fundamental level,

does not consist of a vast receptacle or container of *space*, in which discrete particles of substance move around through time. Whitehead saw the fallacy in this conception in that it didn't allow for creative emergence, but rather kept matter to a senseless, valueless, purposeless fixed routine imposed by external conditions, which did not spring from the nature of its being. Instead of particles of matter as the fundamental units of reality with simple location in space, he proposed that we utilize *events,* or what he termed *actual occasions*. The change to thinking in events would mean getting rid of a background of spacetime on which things play themselves out as if on a theatre stage. Instead, events are truly all there is, and each one is already its own spacetime, that also posesses its own subjective inner experience. (Whitehead, 1925, pp. 18-129) Each actual occasion is like a bud, drop, or self-enclosed bubble of experience, which can further merge with each other in a process of *concrescence* to form bigger unified bubbles. (Combs, 2009, pp. 11-12)

Whitehead's event ontology appears well-fitted to explain bubbles of collective consciousness that were alluded to in the previous section. Let us remember that a waving holographic surface or field that houses an archetype can converge on itself to form a sphere, and in so doing gather all the spacetime and events of individual manifestations it encapsulates into one system or cognitive being. We may in fact call this one of the *collective and physical bodies of the archetype*, and likewise a mega-sized actual occasion.

**Figure 20.** *The archetype in its collective and physical form*



Outside, the archetype is an enclosed waving surface, and on the inside it too may form a complex interacting network of its own converging surfaces. Observed in this shape, the archetype looks eerily similar to a subatomic particle, an atom, a cell, a brain, even somewhat to a mandala. Perhaps, each one of these forms represents a different level of complexity of concrescence of an actual occasion, which would make the archetype the actual occasion on the scale of collative planetary human consciousness.

***The collective mind***

Now we can finally return and converge onto Teilhard's vision of noogenesis that was introduced in the introduction. In an observation mirroring the correlation of cognition with integration in autopoiesis, he noted that both consciousness and complexity are systems that are internally centered. Symbolically, both could be represented by a diagram of a circle. Secondly, because there has been no evolutionary change in the structure of the human brain in the last 20,000 years, but the population of the earth is still increasing, Teilhard attributed the next level of evolution to centration of collective consciousness – the gradual process of *noogenesis*, or the growth of the *noosphere*. This inward evolution of humankind on itself is necessarily accompanied by a kind of crystalizing or gravitational pressure, an intensification of psychic energy, a sharpening of certain senses, and a charging of matter with spirit. The final phases of this convergence produce the *Omega point*, a transcendent divine nucleus of the collective superorganism, and basically one unified subjective planetary self. Just like there is self-reflection within the conscious mind of the individual, the Omega point too then becomes collectively reflected throughout the entire surface of the noosphere. (Teilhard de Chardin, 1971, pp. 30-406)

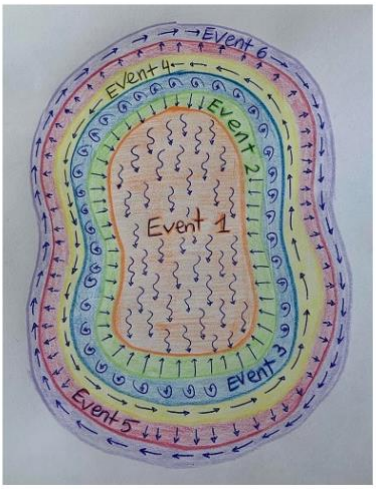
## Conclusion

Using the conception of actual occasions as self-converging surfaces that was developed in this essay, we can answer the question that was posed by Teilhard in the introduction, and relate everything

to my two dreams. Would the evolved collective conscious self of the Earth be multi-centred or uni-centred? The answer is that the process would start out as multi-centred via the numerous collective beings or spheres, as we have used this metaphor, where each may be larger than the individual human, but smaller than all of the Earth. At this stage, the self may appear subjectively as separate beings or images, as in my first dream. Then with time, noogenesis would progress to its final outcome of the omega point where the numerous collective bubbles themselves would blend or concresce into one giant Earth-sized collective bubble, which would represent a truly uni-centred collectively conscious Earth. Subjectively this would feel like one truly unified coherent self, as in my second dream.

But how can we seriously picture what something like this would feel like first-hand without resorting to philosophy? To answer this and conclude this essay, I would like to share a simplified drawing of a psychic clairvoyant vision I once experienced where multiple perspectives of individual humans appeared stacked like translucent images or slices one over the other. Each one was pulsating and moving in a manner unique to itself, creating an overall fluid organic feel to the whole layered structure. Perhaps, this numinous image was offered only to present a glimpse of experience through the eyes of the Earth. But according to the ideas in this essay, the image must necessarily project into space and time somewhere, most likely into the future of humanity.

**Figure 21.** *Individual perspectives stacked into a coherent whole collective experience*



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