

# **The Cosmological Concept of Creation from Friction as Suggested by Sound-Meaning Relationships in Language: A Phenomenological Approach**

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## **Introduction**

The following paper is a condensed excerpt from a much longer unpublished document written during the late 1960s to the early 1980s. That document details the results of the study conducted by myself into the possible relationship between a specific type of cosmological assertion and complexes of sound-meaning patterns as exhibited in, primarily, the Indo-European languages. The cosmology so suggested may be roughly described as the idea that all existing forms of the material and spiritual world, together with their interconnectiveness, arise from an original source whose nature is expressed by the image of a *frictional encounter between contrasting forces*. The classic representation of this archetypal formative principle is the development of complex structures along the boundary layer between contrasting streams of a fluid medium.

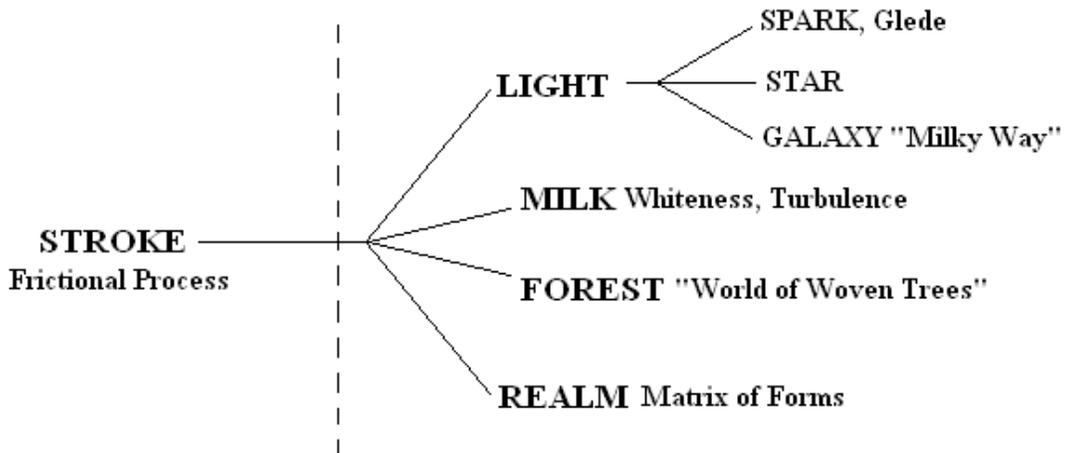
In his paper “Image and Sound: An Archetypal Approach to Language” Paul Kugler accounts for the relationship between meanings and sounds in terms of the images of archetypal psychology.<sup>1</sup>

**“When different aspects of the same archetypal image are realized in language they tend to seek similar sound patterns and form a complex of phonetically associated words.”**

If Kugler’s contention is correct, then the meaning-relations among word families require deep treatment and cannot be explained as a simple matter of chance or arbitrary invention. To refer to this topic without presupposing the bias of any particular theory, I have chosen the expression *eidophonetics* (idea + sound), defined as *the study of historical sound-meaning relationships in their capacity for expressing leading ideas*. A “leading idea” is an abstract notion that binds together a cluster of concrete images so as to express a definite way of organizing experience and responding to the world. When words that are related in sound also have meanings expressive of a leading idea, we have a case of the eidophonetic property of language. My study may therefore be typified as a phenomenological study of the eidophonetic properties of language.<sup>2</sup>

## **A Cosmological Eidophonetic Pattern**

The present paper must necessarily omit a detailed account of the specific clusters of terms that produce an eidophonetic image of a particular cosmological scheme. A general description must suffice.<sup>3</sup> (A more detailed discussion is to be found elsewhere.)<sup>4</sup> Analysis of a large number of cognates related in sound to root meanings having to do with a stroke, blow or frictional encounter, in particular the Indo-European *qldos* “strike” base *Qel-*, reveals a cosmological scheme that associates the “stroke” with a multiplicity of expressions clustered around the idea of a “realm.” Figure 1 below diagrams some of these eidophonetically related concepts (also compare this diagram with the image in the appendix).



**Figure 1. Eidophonic pattern associated with stroke-words**

**The Myth of Eurynome**

In the ancient Pelasgian myth, the goddess Eurynome first brings order out of chaos by dividing the ‘sea’ from the ‘sky.’ Eurynome, dancing upon the surface of the water, causes a wind to arise. She rubs her hands together, trapping the wind between them, and the serpent Ophion is formed. The goddess couples with the serpent, giving birth to the Cosmic Egg from which all of creation is born. Eurynome and the wind she raises constitute a third factor: dwelling in one medium and disturbing the surface of the other, communicating impulses from one to the other. Rubbing her hands together is surrogate for the cosmic frictional encounter of the two great layers of ‘sea’ and ‘sky.’ The serpent is an undulating, coiling creature: a representative of the archetypal form created by the friction along that surface. We see a depiction of the Cosmic Egg and the coiling serpent embossed on an ancient coin of Tyre. The serpent coils thrice about the Egg.



**Figure 2.  
A Coin of Tyre**

## Eidophonic Pattern of *Welt*

A large body of the cognate terms we have investigated center about the consonant-patterns CLT, GLT, HLT, WLT. The German word *Welt*, which means “realm,” has a boundary-surface meaning in English, where it may stand for a seam such as a border, binding or hem. In shoemaking it stands for a strip of leather placed *between* the sole and the upper of a shoe. It also means “a narrow ridge” and “a ridge in the flesh” such as might be raised on the skin by the *flick of a lash*. As a verb, *welt* refers to the stroke itself, as with a lash or a rod. *Welt* therefore eidophonically associates the idea of a “realm” with a disturbance raised along a surface as a result of friction. A pattern emerges:

ACTIVE FORCE	RECEPTIVE MEDIUM	EMISSION
Welt (stroke, lash)	Welt (skin, leather)	Welt (fleshy ridge, weal, realm)

Here we identify a connection between the imagery of the creation-myth and the eidophonic associations found among a very large family of sound-related words, of which *welt* is just one example. The connection lies in the fact that both the myth and the meaning-relations associate the creation of a ‘realm’ or a matrix of forms (see Figure 1) with a frictional process. Can this idea be made more concrete? What kind of a picture can we form of such a process, and has it any relation to processes with which we are familiar?

In looking about for such a process among observable phenomena, we find that complexes or systems of related forms appear in a fluid medium, along surfaces which mark the encounter of qualitatively contrasting characteristics within the flow of the medium. Dividing surfaces, or “boundary layers,” are created in a fluid medium, such as water, when different portions of the fluid are moving at different speeds. Such surfaces may be created in a number of ways: a confluence of two streams, an obstruction in the path of a stream, the shape of the stream bed, and so on.

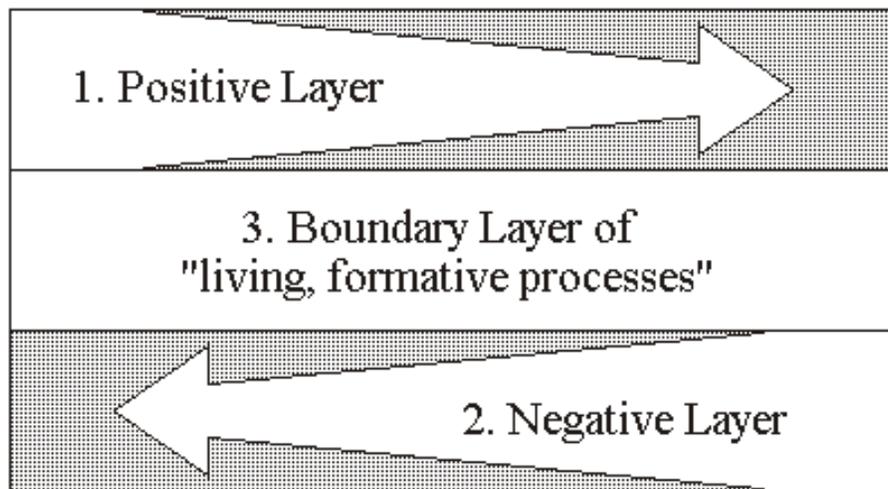
Fluid moving through a pipe forms secondary spiraling currents along the length of the conduit such that invisible boundary layers are created in the liquid along the lines of differences in flow. In a pipe which turns at a sharp angle, a vertical spiraling boundary surface twists to the horizontal. This same phenomenon applies inside curving blood-vessels, and there are instances in nature where a dividing wall in a blood-vessel, separating neighboring bloodstreams of different quality, has formed along the line where the invisible boundary surface would otherwise exist: A fine membranous “realm” has grown along the line of the potential boundary surface.

## The Work of Theodor Schwenk

Theodor Schwenk has done extensive observation of boundary layer phenomena, which he reports in his book *Sensitive Chaos: the Creation of Flowing Forms in Water and Air*. Schwenk provides a great number of photographs and drawings that show the pervasiveness of boundary layer phenomena among living and non-living structures and processes. Schwenk is finally led to say:

**“Boundary surfaces, with their rhythmical processes, are birthplaces of living things...Boundary surfaces are everywhere the places where living, formative processes can find a hold...Two things are necessary for this rhythmical movement...the water itself and some other activating force. The actual form of the wave is the result of the interaction of opposing forces...the wave is the newly formed third element arising between the polarities...and appears at their surface of contact.”**

In the description of this process we see a frictional image again: the stroke or “activating force” is the stress between qualitatively disparate masses in a moving fluid medium. The matrix of forms is the resultant development of “living, formative processes” along the surface of contact. We may diagram the basic picture as shown in figure 3.



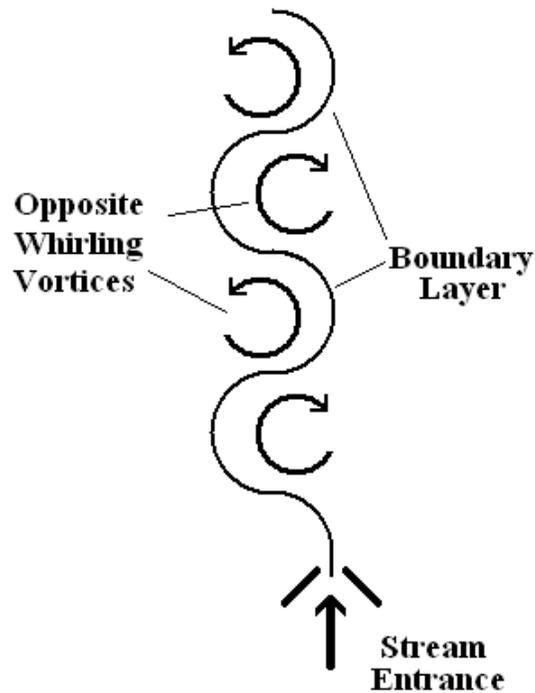
**Figure 3. Basic Boundary Diagram**

The key characteristic of the reaction of a liquid to internal stress is rhythm. Schwenk says “Everywhere liquids move in rhythms...the slightest thing will cause...water to respond immediately with rhythmical movement.” Rhythmic response, the characteristic response of water when disturbed, takes the form of *waves* created in the medium. Wave forms are undulatory, like the serpent, and like Ophion in the myth they too are brought about by means of the frictional interplay of two surfaces.

If the stress between the two layers passes beyond a certain point, as it does for instance at the edge of the sea where the ocean waves run onto the beach, the waves begin to “break.” Actually the waves are forming vortices: the wave form folds over upon itself and begins a rotation. But the pull of gravity and the shallow water combine to bring about the collapse of the developing form.

When the boundary surfaces are closer to vertical than horizontal, the process may continue until a train of vortices (whirlpools) is formed. Such a situation may occur at the meeting of two streams, or where the water has been divided by a stick drawn vertically through it. The vortex-train has a remarkable structure. Vortices alternate rhythmically on either side of the boundary surface, those on one side taking up the opposite direction of spin from those on the other. The boundary

surface itself reacts to the vortices, distorting into a wave-like or undulatory shape (Figure 4).



**Figure 4. Vortex-train (after Schwenk)**

### **A System of Vortices**

The different vortices in the train are not separate from one another but are organically woven into the behavior of the total disturbance. The vortex-train is a “totality whose separate members are held together by rhythmical laws.” Schwenk therefore speaks of “the whole field of motion of a train of vortices.”

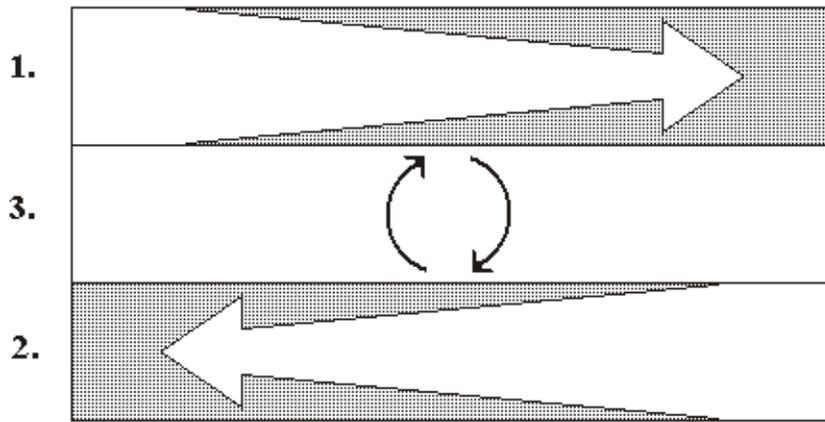
A vortex has a spiral structure. Water circulating around its center moves up and down along a spiral path, more slowly the further it is from the central funnel. In the center, the pressure is “negative,” that is, there is a suction, so that water there is vaporized and air fills the space. The vortex also has a “pulse” or rhythmic vertical expansion and contraction. It is oriented in space. A chip bearing a pointer and placed within a vortex will maintain its direction as it circles about. The vortex and the whole field of vortices in a train of them is also extremely sensitive to the any change in the character of the stresses within the medium, reacting throughout by changes in its various traits of behavior.

Since a vortex has a spiral structure, a train of vortices is an undulating, coiling thing. The image of the formation of the serpent Ophion as a result of the friction of Eurynome’s hands is a duplication in mythological imagery of the formation of a coiling and undulating train of vortices between polarized layers of fluid which have reached a certain point of frictional stress. On the coin

of Tyre (Figure 2) a conch shell is shown to the right of the serpent coiled about the egg. Since the interior of the conch shell duplicates the spiraling vortex form, the picture on the coin is a direct statement of the association between macrocosm and microcosm, universal cosmic forces and terrestrial creation.<sup>5</sup>

**Further Analysis: A Model of the Vortex**

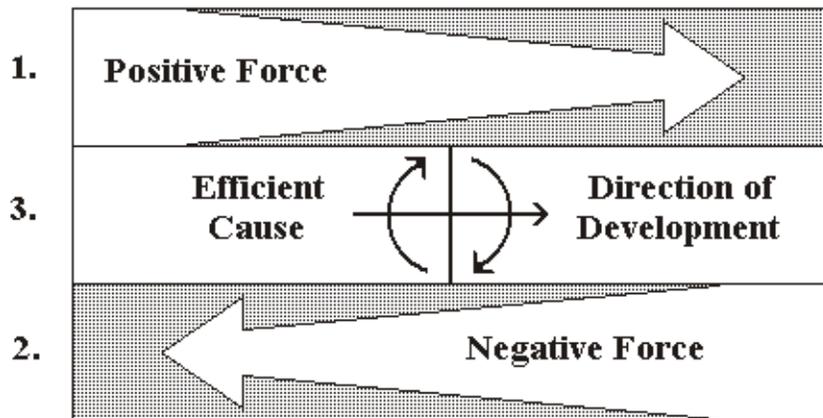
Focusing our attention on a single vortex as a system, let us diagram a stylized representation of the vortex lying along the boundary between polarized surfaces (Figure 5).



**Figure 5. Stylized representation of vortex form between boundary layers**

The vortex system depicted by the circling arrows in Figure 4 is structurally limited by the upper and lower (positive and negative) layers; they therefore may be said to form the *structural axis* of the system. We may represent this axis as a vertical line drawn through the center of the vortex circle and connecting the “upper” and “lower” dimensions. But the vortex has another axis. This is its axis of development, or *dynamic axis*. This axis may be represented (in the two-dimensional figure) as a horizontal line drawn at right angles to the vertical axis, crossing the latter at the center of the vortex.

The horizontal, or dynamic, axis also has its defining limits. At one end it is limited by the efficient cause of its existence. At the other it is limited by its direction, or rule, of development (see further discussion below). The completed vortex-schema, then, looks as shown in Figure 6 below. In that figure, which is perforce two-dimensional, it is more appropriate to the concept to visualize the arrow of the dynamic axis as lying at right angles in the third dimension to the upper and lower (positive and negative) arrows, such that the dynamic axis is, in effect, pointing toward the viewer while the curved arrows of the vortex coil about it (much as Ophion coils about the Cosmic Egg).



**Figure 6. Stylized vortex-system, showing structural and dynamic axes.**

Although this diagram originates as a stylized model of a single vortex, we may now expand its significance to include the representation (by means of the arrow circle) of the total system of a given vortex-train, which acts as a field, or cosmos of related forms. In this expanded sense the arrow of the dynamic axis, or axis of development, represents *the overall direction of development of the whole vortex field*: the sum of all the vectors.

It needs to be pointed out here that by speaking of the directionality of the dynamic axis, we have introduced a concept of a teleological nature into the analysis. This teleology is not to be understood as some sort of fixed “final cause” in the Aristotelian sense, but rather as, in the case of water-vortices, the tendency to maintain itself as a reactive field of structures, which is evidenced by the “sensitivity” to changes in conditions noted by Schwenk. Vortex fields may be deflected from ideal formation by irregularities in the formative impulse or by impingement of other fields. (To speak of an “ideal formation” with regard to any dynamic field is to indicate a kind of teleology.)

Sometimes the modifications are extremely complex, creating a large number of sub-systems and sub-sub-systems. We are to understand the arrow of the dynamic axis to represent the total of all the deflections, so that the axis is not, so to speak, straight but has a “twist” in space-time, representing the way in which it sums up the total direction of development of the field.

### **Eidophonetic considerations**

Returning for a moment to the WLT consonantal form, we recall that among its associations (as *Welt*) were the following: a *realm*, and a *disturbance raised along a surface as a result of friction* (a *weal*). We see now that the second of these meanings also describes the characteristic form of boundary-layer phenomena. The “disturbance” which results in the formation of a train of vortices consists of what one scientist (Guy Murchie) has called “the shearing effect of disparate velocities.” The effect of this is called turbulence (see Figure 1). Murchie describes turbulence as follows:

**“Turbulence...is the divergence of streams into eddies and subeddies. It is elemental dynamic form, the stress wave.”**

What is turbulent is characteristically also *turbid*, that is “thick or opaque with suspended matter; not clear; cloudy, muddy.” The turbulent layer is the *milky* layer, especially when air bubbles are mixed with water through the action of the vortices. Material which would otherwise be at rest is brought into collision and ordered juxtaposition in accord with rhythmic laws within the vortex field. Milkyness of the turbulent layer is especially noticeable at the verge of the sea, where foam is formed by means of the extreme mixing of air and water. Aphrodite, as Born-of the-Foam, is a creature of the vortex, turbulence, and rotation.<sup>6</sup>

### **Astronomical and Cosmological Considerations**

The ordering, accumulation and collision of particles brought about in a fluid medium through the action of turbulence is thought by some astronomers to be the most likely model accounting for the formation of the solar system. It was through “a much improved perspective on the matter of turbulence” that the mathematician Weizsacker was able to develop, in 1943, a model of the solar-planetary development which has received wide acceptance.

In Weizsacker’s model particles orbiting the sun take up a number of “bean-shaped” secondary orbits, and at the intersections of these secondary orbits collisions occur which eventually build up planetary bodies. Such secondary orbits, which “girdled the central mass like a necklace,” occur also as secondary spiraling currents in conduits of water.

Boundary-surface phenomena are also thought by some to account for the formation of galaxies. Murchie says “Astrophysicists accept celestial eddies as the most plausible galactic source.” He quotes physicist George Gamow as defining the standard size of a galaxy as the size of the smallest eddy which can be held together by its own gravity.

It appears, then, that turbulence along boundary-surfaces in fluid media is a process which provides a cosmological model in which a realm is “struck out” between opposing forces; for a vortex field and a galaxy are both realms, systems of organically related forms (where “organically related” is as mentioned earlier, forms “sharing the same field” or in terms of Figure 6, “sharing the same dynamic axis.”

On such a model, space-time itself would *necessarily* be understood as a “fluid” medium. Star- and galaxy- systems would be spatiotemporal vortex fields, brought into existence by the shearing of space-time (not just space) into qualitatively separated layers and the formation of a boundary layer between them. What we see of these great systems are merely three-dimensional cross sections of the whole.

### **The Terrestrial Interspace and Evolution**

While the movement of molten magma deep within the bowels of the Earth is sluggish, and that of the stars, too, is relatively so slow as to seem imperceptible, speeds of formation and transformation that characterize life as we are capable of experiencing it are available only in the interspace between these extremes; that is, upon the surface of a rotating planet (especially when there is an axial tilt creating seasonal cycles). Within this terrestrial interspace a unique stream of

forms occurs, as an expression of the cosmic forces which embrace it. This interspace constitutes a *realm* or matrix of forms. Within the realm of the terrestrial interspace the arrow of the dynamic axis points in the direction of organic evolution.

Evolution is a matter of adaptation, or the ability to undergo a change of form in order to preserve internal, or psychic, orientation. There is, in addition to the matrix of habits which govern patterns of organic behavior, a matrix of aims. This matrix of aims constitutes the direction of the arrow. Since the arrow, however, is meant to stand for overall systemic direction in space-time, the possibility of such an arrow is dependent on the degree to which the system of earthly evolution is a single system; if it is understood as a realm, formed by a single spatiotemporal “stroke” then the systemic unity of the evolutionary process is inevitable – that is to say, evolution is the temporal expression of the unity of the realm.

No over-riding aim, however, may be identified as *the* aim of evolution, since to do so would be to close the system. The teleological aspect of any turbulent system is indeed mysterious, since it must be present (or there is no system) but at the same time it must remain in a certain sense undefined and ultimately undefinable. We will, therefore, speak not of “aims” but rather of the *telic function* of the dynamic axis, which balances the causal function by “opening” the arrow of evolution to allow for the growth and continuing responsiveness (adaptation) of the system.<sup>7</sup> With specific reference to the realm of the terrestrial interspace, we will then understand the “poles” of the axes of the model to represent functions of a single inner-oriented system capable of growth. The dynamic axis is defined by the polarity of the Causal Function and the Telic Function, and the structural axis is defined by the Celestial Function and the Terrestrial Function (Figure 7 below).

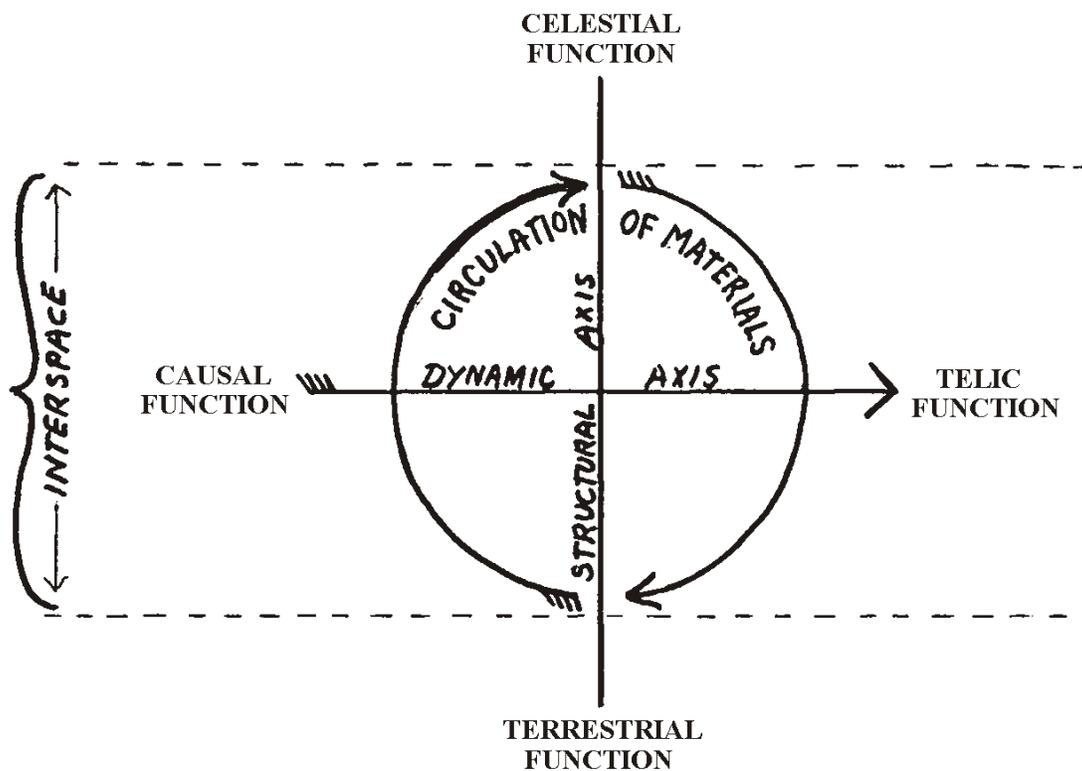
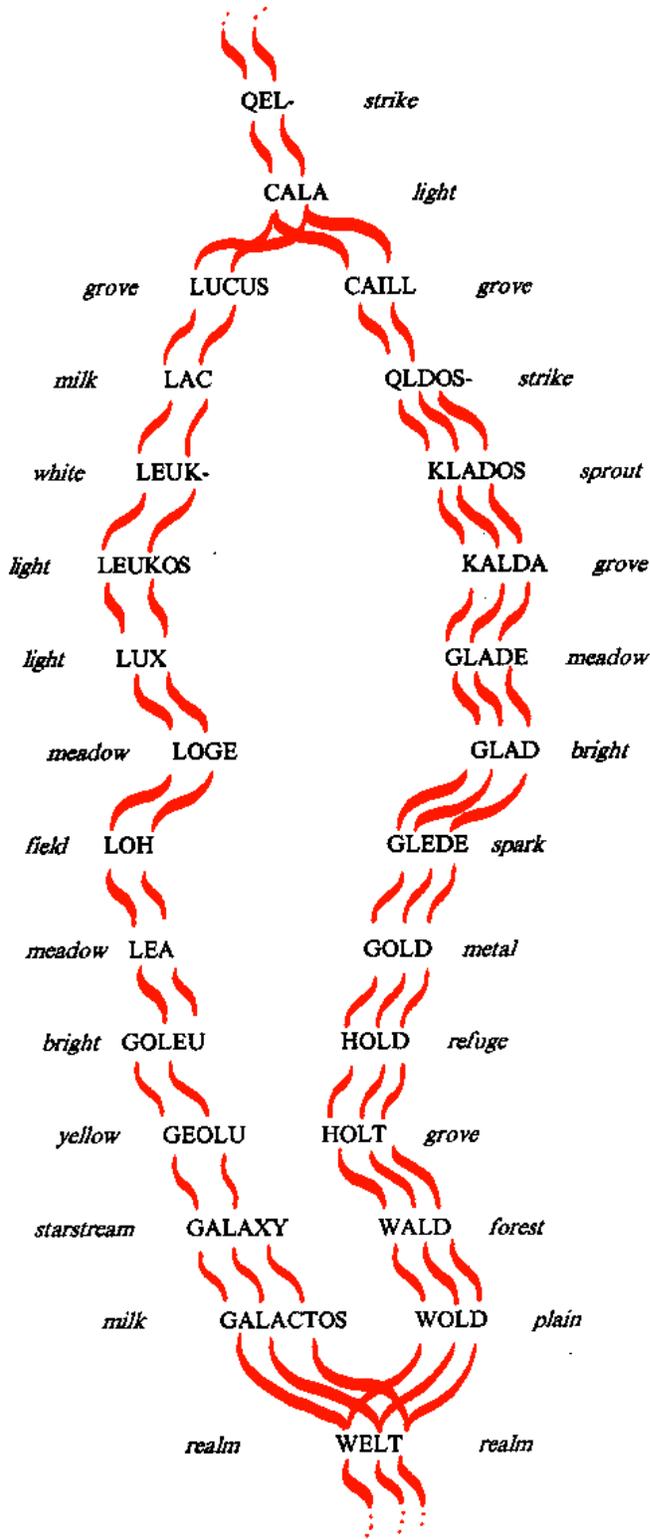


Figure 7. Cosmological Model of the Realm of the Terrestrial Interspace

APPENDIX

**A portion of the stroke → realm  
eidophonic pattern based on the  
root form qel-**



Please compare this image with the cosmological diagram of Figure 1. The majority of terms in this “stream” of eidophonetically related sounds are accepted cognates (determining historically related cognates in many cases is a debatable business at best). The stream is not intended to “flow” in historical sequence but rather to illustrate the way the meanings interlock with the sound relations as established by the order of consonants. The flow pattern depicted in red shows the consonant relations. The common phenomenon of consonant reversal is also taken into account: generally, the order of the consonants in the left-hand stream are reversals compared with those in the right-hand stream. For example, the LC/CL relation between *lucus* and *caill*, both meaning “grove.”)

The reasons for the inclusion of some of these terms in the overall eidophonic image have been developed in my main body of (unpublished) research on this topic and unfortunately cannot be elaborated in this brief paper. Much of that research however has been incorporated in a fictional story *The Letterseeker* which can be seen on my website [www.stanmcdaniel.com](http://www.stanmcdaniel.com). This diagram appears in Chapter Three of that story. The text from Chapters One through Three lay out the basic ideas by means of various conversations and also by the etymological headers for each chapter.

## ENDNOTES

<sup>1</sup> *Spring*, 1978, p. 143. Kugler's view is based upon the results of actual experiments in word association carried out by Freud and Jung.

<sup>2</sup> I use the more general term "leading idea" rather than "archetypal image" so as to remain relatively neutral with regard to the specific perspectives of archetypal psychology.

<sup>3</sup> Cf. *Hamlet's Mill*, Von Dechend and Santillana, Gambit Press 1969, page 379. Speaking of a group of terms built on the consonant pattern MND, they state "We...approach the words in question by means of the common objective significance underlying the vast family of words engendered by the radical." In their study it is a related type of cosmological scheme that makes up the "common objective significance."

<sup>4</sup> The research results are more detailed in "The Philology of the Idea: An Essay on Eidophonetics" on my site at <http://www.stanmcdaniel.com/hobbit/eidofram.htm>.

<sup>5</sup> The palm tree on the coin to the left of the egg was sacred to the goddess and is a symbol of resurrection.

<sup>6</sup> Aphrodite can be identified as a form of Eurynome. Cf. Graves, Robert, *The White Goddess*. Farrar, Strauss & Giroux, New York (expanded 1966 edition), page 395.

<sup>7</sup> A more extended discussion of the telic function may be found in my paper "Models of Development in Esoteric and Western Thought" at <http://www.stanmcdaniel.com/pubs/development/development.html>.