

A proportional increase in the radius of rotation of the *helical* forms, expressing *rotational tensions*, results in *spiral* forms, the fourth stage of complexity in the cycle. The only ratio which satisfies the condition of a logarithmic spiral in which width of turns increases at a fixed ratio to length is again the ratio of the Divine Proportion. The shifting order of these forms between polarity and rotation includes the previous order within the new order, so that *rotational* includes the polarity of *bilateral*, *helical* with its own polarity includes rotation plus polarity, and *spiral* with its own dominance of rotation includes polarity plus rotation plus polarity, with the new bilateral phase including all the ordering of form of the previous cycle.

While it clearly appears to be a special achievement of living forms, the repeating cycle of *bilateral*, *rotational*, *helical* and *spiral* apparently is not valid for non-living or 'inorganic' forms. The energies and configurations progressively built up in the rhythmic interplay of rotation and polarity result in the *gradual* intensification of structure and the flexible vitality which is a special achievement of 'higher' living forms. 'Inorganic' form is based on a generally more rigid *bilateral* symmetry, as in such atomic structures as graphite, salt, peronskite, copper, diamond, carbon dioxide, and cristaballite.

An example which does indicate *evolution of form through a complete cycle is the structure of hemoglobin*, which took the 22 years work of Perutz and his associates to uncover. This extraordinary configuration of 10,000 atoms includes the *bilateral* tetrahedral bonding of carbon atoms in the glycine molecules, the *rotational* clustering in the heme molecules, the intricately *helical* alpha and beta chains which in turn are folded into irregular *spirals*, and finally, each of the four spiralling myoglobin-type parts nestled and interlocked in a symmetrical tetrahedral arrangement to form an overall *bilateral* symmetry. This *bilateral* symmetry reaffirms a basic simplicity of organization over the complexity of differentiated parts to start a new cycle—a hierarchy of form. With all the internal complexity of this structure, we can barely conceive of the fantastic number of hierarchies within hierarchies which include and give meaningful organization to the 280 million such hemoglobin molecules contained in a single red blood cell—which in itself takes the *rotational* form of a disc. Not only does there appear to be a progress in the life forms corresponding to the geometric progression toward complexity and increase in scale, but this progression can be seen as a repeating one with each

new cycle building *hierarchy upon hierarchy* which indicate at each stage of development the record of its earlier evolution, the hierarchies of form and the hierarchies of energy evolving from the interplay of polarity and rotation.

Form thus finds its own form, extending feelers, gills and tentacles to the world around it, in its *rotational* tensioning, expanding its magic circle to new concepts of space—from the first articulation of fin or finger to the spiritual dimensions of human creativity.

Form finds new *helical* dimensions, elongating to differentiate intake and output, strengthening backbone between tusk and tail, head and anal poles, articulating the tensions between spirituality and sexuality, stretching to new concepts of *time* between awareness of darkest origin and highest aspiration, between the depths of the unconscious mind and conscious thought.

Form stretches to elaborate both length and breadth in *spiralling* shells and branches, antennae and antlers, dividing and subdividing into the intricate filigree of blood vessels and delicate nerve ends, tensioning in *space and time* toward an infinity of matter.

In the fleeting moments of balance between the tension of rotation and polarity, the *tensions of space and time* are resolved in *bilateral* living form, the transformation of the end of complexity to a new beginning of *simplicity*—a higher order—the *discovery of the cycle*.

The life cycle of the butterfly is clearly defined in four phases: the *rotational* symmetry of its eggs, the *helical* symmetry in its form as a caterpillar or larva, the *spiral* symmetry of the pupa or chrysalis form and its dramatic rebirth in a magnificent form of bilateral symmetry. The frog follows a cycle from the *rotational* symmetry of the zygote, to *helical* embryonic bodystalk, to *spiral* form of the tapering tadpole to bilateral symmetry of the mature frog. The *bilateral* human being evolved from numberless hierarchies of cycles of form, from the primordial ordering of atoms and molecules, goes through the cycle again in the early stages of embryonic development from the *bilateral*, then *rotational* cleavages of the ovum, to the *helical* bodystalk of 18 or 19 days, to the *spiral* embryo of about 4 weeks to the miniature complexity integrated into ultimate *bilateral* form as a 10 week 2 inch embryo of potential human being.

