1012.30 **Indestructibility of Tetrahedron:** We have here a pumping model of the vector equilibrium. It consists only of the vector lines of the system formed by 12 uniradius spheres closest packed around one sphere of the same radius. The interconnecting lines between those 13 spheres produce the pumping vector equilibrium model's skeleton frame. We have also removed the vector equilibrium's 12 internal double radii to permit the vector equilibrium system to contract; thus we have for the moment removed its nuclear sphere. Every vector equilibrium has eight tetrahedra with 12 common edges, a common central vertex, and 12 common exterior vertexes. Each tetrahedron of the eight has four planes that are parallel to the corresponding four planes of the other seven. Each of the vector equilibrium's eight tetrahedra has an external face perpendicular at its center to a radius developed outwardly from the nucleus. Each of the eight external triangular faces is interconnected flexibly at each of its three comers to one other of the eight triangles. It is found that the whole vector equilibrium external-vector framework can contract symmetrically, with the four pairs of the eight external triangles moving nontorquingly toward one another's opposite triangle, which also means toward their common nucleus. As they do so, each of the four pairs of exterior triangles approaches its opposite. When the eight separate but synchronously contracting tetrahedra diminish in size to no size at all, then all eight planes of the eight triangles pass congruently through the same nuclear center at the same time to form the four planes of the vector equilibrium. (See Sec. 623.)

1012.31 Because each of the eight triangles had converged toward one another as four opposite pairs that became congruent in pairs, we seemingly see only four planes going through the center in the model. There are, however, really eight planes passing through the same vector-equilibrium nuclear point at the same time, i.e., through the empty, sizeless nucleus.

1012.32 As the eight tetrahedra diminished in size synchronously, their edges became uniformly smaller at a velocity of the first power; their areas became smaller at a velocity of the second power; and their volumes became smaller at a velocity of the third power— which are three very different velocities. Finally, they all reached zero velocity and size at the same time. As they became smaller, however, there was no change in their respective foumess of faces; sixness of edges; foumess of vertexes; nor equilateralness; nor equiangularity. These are changeless constants. So what you see in the model is eight sizeless tetrahedra that became one empty, sizeless, congruent set, with all their mathematically constant tetrahedral characteristics unaltered, ergo, conceptually manifest as eternity.

1012.33 What we speak of as a point is always eight tetrahedra converged to no size at all. The eight tetrahedra have been brought to zero size and are abstracted from time and special case. They are generalized. Though the empty vector-equilibrium model is now sizeless, we as yet have the planes converging to intercept centrally, indicating the locus of their vanishment. This locus of vanishment is the nearest to what we mean by a point. The point is the macro-micro switchabout between convergence and divergence.

1012.34 We also have learned that a plurality of lines cannot go through the same point at the same time. Therefore, the eight perpendiculars to the centers of area of the triangle faces and the 12 lines that led to their 12 common outer vertexes, like the tetrahedra's volumes and areas, have come to common zero time-space size and can no longer interfere with one another. We find operationally, however, that there never was any paradoxical problem, such as Zeno's "never completable approach" concept, for we have learned of the fundamental torque or twist always present in all experientially explored system realization, and we find that as each team of opposite triangles apprehended the other just upon their nearing the center, each is whirled 180 degrees, or is "half spun" about, with its three corners never completely converging. Whereafter they diverge.

1012.35 Take three round rods of the same diameter and nest them together in parallel triangulation. They are now closest-possibly-packed together. Now slip a triangular-shaped ring tightly around them and glide it to their midlength point. Now twist the ends of the three in opposite directions; the ends will open outwardly from one another as triangles. Stand the group on one three-point tripod end with wires between those opposite ends to limit their spreading. But they could also have twisted clockwise for the half-spin. They could half-spin alternatively to produce whole-cycle coverage. We find that three lines converge to critical proximity, then twist, and spin around one another. This happens also with all six of the diameters (or all 12 of the radii) of the vector equilibrium. (An articulating model of this can be made with four sets of three stiff brass wires each, laying the four sets in parallel, closest-packed bunches and soldering together the three wire ends at one end of each of the four bunches; it will be found that their total of 12 free ends may be lead through one another's mid-girth in a symmetrically progressive manner, after which these led-through, four sets of ends may be respectively sprung together in sets of three and soldered together; which model then provides a number of very exciting intertransformabilities elucidating the vector equilibrium's significance.) In the vector equilibrium, the "whole cycles" are accomplished in four planes corresponding symmetrically to one another as represented by the great-circle planes of the empty-state vector equilibrium or of its eight empty-state tetrahedra.

1012.36 Because the nuclear center of the vector equilibrium is also the generalized volumetric center of the spheres in the closest-packed condition, as well as of the spaces between the spheres, all of which correspond to all the vertexes (or all possible system convergences) of the isotropic vector matrix, we learn that all three vectorial lines of Universe can twist by one another producing half-spin, half-quantum, wave bulgings as they do without frustrating any form of intertransformative event development in Universe, and while also disclosing an absolute compatibility to, and elucidation of, wave- quanta behavior in generalized conceptuality.

1012.37 Reviewing the same phenomenon once again, we make further discovery of the utter interrelatedness of synergetic accommodation, as we find the half-spin "tepee" twist also turning the tetrahedron inside out. (See Sec. 621.20.) Here we find that the vector equilibrium, or the vector equilibrium's eight tetrahedra's external vertexes, all converged toward one another only to suddenly describe four half-great-circle spins as they each turned themselves inside out just before the convergence: thus accomplishing sizeless invisibility without ever coming into contact. Eternal interval is conserved. Thus the paradox of particle discontinuity and wave continuity is conceptually reconciled. (See Sec. 973.30.)

1013.00 **Geometrical Function of Nine**

1013.10 **Unity as Two: Triangle as One White Triangle and One Black Triangle**

1013.11 Fish fan their tails sideways to produce forward motion. Snakes wriggle sideways to travel ahead. Iceboats attain speeds of 60 miles per hour in a direction at right angles to wind blowing at half that speed. These results are all precessional.

1013.12 The minialtitude tetrahedron seen as a flattened triangle has a synergetic surprise behavior akin to precession. We can flip one simple white triangle over and find that the other side is black. One triangle must thus be considered as two triangles: the obverse and reverse, always and only coexisting almost congruent polar end triangles of the almost zerolong prism.

1013.13 Polarity is inherent in congruence.

1013.14 Every sphere has a concave inside and a convex outside. Convex and concave are not the same: concave reflectors concentrate energy; radiation and convex mirrors diffuse the radiant energy.

1013.15 Unity is plural and at minimum two. Unity does not mean the number one. One does not and cannot exist by itself.

1013.16 In Universe life's existence begins with awareness. No otherness: no awareness. The observed requires an observer. The subjective and objective always and only coexist and therewith demonstrate the inherent plurality of unity: inseparable union.

1013.20 **Complementarity and Parity**

1013.21 Physics tends to think of complementarity and parity as being the interrelationship characteristics of two separate phenomena. Complementarity was discovered half a century ago, while parity was first recognized only 20 years ago. In fact the non-mirror-imaged complementations are two aspects of the same phenomenon. The always-and-only-coexisting non-mirror-image complementations also coexist as inseparable plural unity.

1013.30 **Eight Three-petaled Tetrahedral Flower Buds**

1013.31 We can interconnect the three mid-edged points of an almost-zero-altitude tetrahedron, a thin-material triangle, thus subdividing a big triangle into four smaller similar triangles. We recall that the big triangle must be considered as two triangles; the obverse may be white and the reverse may be black. We can fold the three corner triangles around the three lines separating them from the central triangle, thereby producing two different tetrahedra. Folding the corner triangles under or over produces either a white tetrahedron with a black inside or a black tetrahedron with a white inside. Since the outside of the tetrahedron is convex and the inside is concave, there are two very real and separate tetrahedra in evidence. Eight faces (four black, four white) have been evolved from only four externally viewable triangles, and these four were in turn evolved from one (unity-is-plural) triangle—an almost-zero-altitude tetrahedral system or an almost-zero-altitude prismatic system.

1013.32 Both the positive and negative concave tetrahedra have four different black faces and four different white faces. We can differentiate these eight faces by placing a red, a green, a yellow, and a blue dot in the center of each of their respective four white inside faces, and an orange, a purple, a brown, and a gray dot in the center of each of their outside black triangles successively.

1013.33 Each of the two tetrahedra can turn themselves inside out as their three respective triangular corners rotate around the central (base) triangle's three edge hinges—thus to open up like a three-petaled flower bud. Each tetrahedron can be opened in four such different flower-bud ways, with three triangular petals around each of their four respective triangular flower-receptacle base faces.

1013.34 The four separate cases of inside-outing transformability permit the production of four separate and unique positive and four separate and unique negative tetrahedra, all generated from the same unity and each of which can rank equally as nature's simplest structural system.

1013.40 **Nine Schematic Aspects of the Tetrahedron**

1013.41 Every tetrahedron, every prime structural system in Universe, has nine separate and unique states of existence: four positive, four negative, plus one schematic unfolded nothingness, unfolded to an infinite, planar, neither-one-nor-the-other, equilibrious state. These manifest the same schematic "game" setups as that of physics' quantum mechanics. Quantum mechanics provides for four positive and four negative quanta as we go from a central nothingness equilibrium to first one, then two, then three, then four high-frequency, regenerated, alternate, equiintegrity, tetrahedral quanta. Each of the eight tetrahedral quanta also has eight invisible counterparts. (See Figs. 1012.14A-B, and 1012.15.)

1013.42 When the four planes of each of the eight tetrahedra move toward their four opposite vertexes, the momentum carries them through zerovolume nothingness of the vector equilibrium phase. All their volumes decrease at a third-power rate of their linear rate of approach. As the four tetrahedral planes coincide, the four great-circle planes of the vector equilibrium all go through the same nothingness local at the same time. Thus we find the vector equilibrium to be the inherent zero-nineness of fundamental number behavior. (See color plate 31.)

1013.50 **Visible and Invisible Tetrahedral Arrays**

1013.51 **Visibly Demonstrable: Physical**

Four white, three-petaled flowers 1 red base 1 green base 1 yellow base 1 blue base
Four black, three-petaled flowers 1 orange base 1 purple base 1 brown base 1 gray base

1013.52 Invisible But Thinkable: Metaphysical

Four white, three-petaled flowers 1 orange base 1 purple base 1 brown base 1 gray base
Four black, three-petaled flowers 1 red base 1 green base 1 yellow base 1 blue base

1013.60 **Quantum Jump Model**

1013.61 All of the triangularly petaled tetrahedra may have their 60-degree corners partially open and pointing out from their bases like an opening tulip bud. We may take any two of the 60-degree petaled tetrahedra and hold them opposite one another while rotating one of them in a 60-degree turn, which precesses it axially at 60 degrees, thus pointing its triangular petals toward the other's 60-degree openings. If we bring them together edge to edge, we will produce an octahedron. (Compare Sec. 1033.73.)

1013.62 The octahedron thus produced has a volume of four tetrahedra. Each of the separate tetrahedra had one energy quantum unit. We now see how one quantum and one quantum may be geometrically joined to produce four quanta. Another quantum jump is demonstrated.

1013.63 Each of the two tetrahedra combining to make the octahedron can consist of the eight unique combinations of the black and the white triangular faces and their four red, green, yellow, and blue center dots. This means that we have an octahedron of eight black triangles, one of eight white, and one of four white plus four black, and that the alternation of the four different color dots into all the possible combinations of eight produces four times 26—which is the 104 possible combinations.

1013.64 Where N = 8 and there are four sets of 8, the formula for the number of combinations is:

$$\frac{4(N^2 - N)}{2} \therefore \frac{4(64 - 8)}{2} = \frac{4 \times 56}{2} = 112$$

This result has a startling proximity to the 92 unique regenerative chemical elements plus their additional non-self-regenerative posturanium atoms.

Next Section: 1020.00
