BOOK TWO CHAPTER II

CONCERNING COMPREHENDING USE OF MEASUREMENT

i. PHYSICS

That branch of human knowledge which deals in measurement has been modernly in America called physics, the physical sciences, sometimes formerly referred to as the natural sciences, the science of the laws and phenomena of nature and originally used to indicate that branch of science dealing with the material world: occasionally called natural philosophy, and the phenomena of matter. "Motion is the most general and fundamental of all such phenomena, and physics is sometimes defined as the science of matter and motion." Concisely, then, physics is the science of the measurement of matter and motion.

The word, physics, came into the English vocabulary by way of the Greek, a strange noun-formation in that it is an adaptation of an adjective, physical, which is English for the Greek $\phi \nu \sigma \kappa \sigma \varsigma$, an adjective formed on $\phi \nu$, said foo, meaning to exist, the ablaut common to $\phi \nu \alpha \varepsilon$, phooae, to take origin, to be produced, to come into existence; $\phi \nu \varepsilon \nu$, phooein, to cause to become cumulatively, by compounding this root $\phi \nu$, foo, with s and inflecting with the suffix ikos. Etymologically, with ϕ , f, being the ideogram and the ideophone for light, the ability eternally to cause eternally to become, this word, sounded in English, physics, would seem to have been contrived to appelate something concerning an interrelationship of light, the ability eternally to cause eternally to become and potential, the ability eternally to become. Physical measurement, the measurement of matter and motion, etymologically speaking in terms of the proposed Naqi terminological system of expressing the zqr science, which

in the book on the living psyche is called the speech of [15], [15], is the means of coming by knowledge concerning this interrelationship of the ability eternally to cause eternally to become and the ability eternally to become. Were adherants of this which is known in American science as physics to discard its dogma of just so much energy and no more in an unchanging inability ever to become! This branch of current American learning that is called physics, the physical sciences, the natural sciences, speaks of physical nature and in so doing rouses echoes of etymon which ideaed forth to the phylum on the organized Naqi system of communication that was the organized system of hemispheral neohomozoa's inherited scientific lore as an interrelationship of light, the ability eternally to cause eternally to become and potential, the ability eternally to become, modifying gnatus, that which is of gn, periodic change, periodic alteration of periodicity without destruction of periodicity.

ii. MATTER, L. MATER

Shall one say that matter is that of which the great organism which is the manifestation of the one eternal becoming is composed? If so, then, matter is the generic term for periodic patterns of periodic movement. And physical organism is an organization of the interrelationship of light, the ability eternally to cause eternally to become and the ability eternally to become. The ability eternally to become is that of these periodic patterns of periodic movement and their interrelationships. Hence matter, that of which the physical organism that is the total manifestation of the one eternal becoming is composed, is the total of periodic patterns of periodic movement organized as an interrelationship of the ability eternally to cause eternally to become and the ability eternally to become. This is the matrix.

This same branch of modern American science speaks of material nature with the intent of indicating some relationship between the two. It also speaks of physical matter in the same manner; and produces the lay term, mother nature. Physical matter would be periodic patterns of periodic movement organized by the interrelationship of the ability eternally to cause eternally to become and the ability eternally to become. This phrase so used in the Naqi system would have applied to the total manifestation of the one eternal becoming in all three of its gamuts. As used in the American canon the phrase is caused to apply solely to the cosmic gamut as though this were the total manifestation.

This word nature has undergone another astringency. In the Aristotelian period, Greek thought, postulating the cosmic gamut as the total manifestation confined the word nature to certain limited parts of the general phenomena of the manifestation of the cosmic gamut as these were more or less vaguely understood by them, and called all else supernatural and although today the vagueness of understanding of some of the phenomena is somewhat less, this is in America the accepted connotation. But it is not correct, etymologically.

Would one retain the value with which the Naqi endowed these consonants in their formation of their zqr science terminology, one should speak of nature as the continuous genesis of the total manifestation, labeling this g n; speak of the continuous genesis of the cosmic gamut of the total manifestation, labeling this p g n; of the extracosmic gamut of the total manifestation, labeling this t g n; of the integrator or human gamut, labeling this v g n. All of this is nature.

This discriminatory usage is also necessary as concerning the words physical and material: they apply to the total manifestation. And when it is the intent to imply the physical mutation of potential and the manifestation of the law and order of the eternal becoming and the creativity of periodicity in the cosm, then correctly to convey the intent the use of the terminology: p-physics, p-matter, p-nature, the Greeks called it pan, is necessary; and for extracosmos: t-physics, t-matter, t-nature; and for the integrator gamut: v-physics, v-matter, v-nature; and for the human being: kh-physics, kh-matter, kh-nature.

iii. TO BE MEASURED

a. Duration

Sometimes Sara referred to this which is the total manifestation of the one eternal becoming as the work of deity, sometimes she referred to it as duration: in so doing she used neither the article a nor the. Insofar as I recall she explained neither term to me. She said that deity had ways of its own, regular and ordered and sometimes inscrutable to humanity but that humanity could come to understand them, if it would. And live by them consciously. And fulfill its destiny harmoniously. I gathered that in her way of thought duration is eternal. No beginning. No end. That duration is that within which time is a transcience. That this which is called time in any of its aspects is a glimpse of the eternal law and order of duration becoming eternally.

b. Time in Duration

Motion is d. This is deity. The periodic continuum is a periodic continuum of constant, incessant periodic motion. This is the deity. Duration is d r: that concerning the manifestation of the one eternal becoming which is the manifestation of movement, the manifestation of deity. R d, ordered movement: the ordered movement that is the movement of manifestation of the one eternal becoming: deity manifesting. D n is periodic movement. N d n is periodic pattern of periodic movement. Periodic patterns of periodic movement produce a periodic movement within the pattern which is an internal product of the periodic pattern of periodic movement: they also produce a movement of the periodic pattern of periodic movement as a whole.

In its completed form, the encephalized, multiconcentrically cylinderized, polarized, triregionalized biological organism that the inner organ of the homozoan hexiconcentric blastocyst builds within the hexiconcentric blastocystic morph under the organizing influence of its upper layer² is equipped with perceptive systems of receptor organs that selectively analyze periodic movement and periodic patterns of periodic movement and periodicities produced by periodic patterns of periodic movement and periodic movements of the periodic patterns of periodic movement and mutations of these, and forward their various reports of these analyses to the uperprosencephalic cortex which receives, associates, compares, measures, re-analyses, synthesizes, reasons, judges, thinks in logical form. If it be a good uperprosencephalic cortex, representative of the fulfilled co-current expectancy of its phylogenetic evolvement and of its ontogenetic development, it thereby produces an evaluation of relative periodicity of motion; makes an epicritic knowing concerning periodicity of motion from which it produces a saying of the legend of periodic motion, dividing periodic motion into periodicities of periodic motion; comparing periodicities of periodic motion, discussing that which it calls time in duration, measures time; gives names to various periodicities of periodic motion; adapts the organism which it has built and which it would govern to these periodicities of periodic motion; produces new periodicities of periodic motion that are not produced elsewise in the entire totality of the manifestation of the one eternal becoming.

By way of one system of these perceptual receptors, their in-pathways, their encephalic cellular terminals, their associations, the neohomozoan uperprosencephalic cortex knows those periodicities of the periodic movement which are produced by those complex periodic patterns of periodic movement that are now called molecules. This which it so knows it has called something the Greek of which is θερμος, theremos; the Latin, formus; the English, warmth. The consonants are d h r m: mutation, manifestation, structure, movement, an interrelationship of these: the manifestation of that mutation of movement which is effected by the structure of the periodic pattern of periodic movement that is called molecule? This which is known as warmth is also called temperature: the thermal condition; the word, temperature, is an inflection of the root of the Latin, tempus, time: the time condition. The neohomozoan uperprosencephalic cortex distinguishes exceedingly fine differences in molecular periodicity, grades these differences of periodic motion produced by intermolecular, molecular and intramolecular periodic patterns of periodic motion, measures the differences.

By way of another set of these receptors, their in-fibers, the encephalic cellular masses in which they terminate, the projections and associations of these, it brings into awareness that complex of movement which is composed of the earth's spin round its axis, its orbital translation, its axial wobble, its grand aeonic axial spiraling round its center of mass as these effect the polarized vertical cylinder: and comes thereby to an epicritic knowing of constant incessant motion and the interplay.

By way of other similar sets of apparatus it knows certain periodicities of periodic motion by that which is called sight; by still another, as that which is called sound, the to-and-fro motion of molecules. It knows certain periodicities of periodic patterns of periodic movement as its process of reasoning. It forms correct judgments concerning those periodic patterns of periodic movement that are called atoms, and those that are called atomic nuclei, and those that are the atomic subnuclear morphs, and devises ways and means of checking by the sight apparatus the correctness of its reasoning concerning some of these cosmic ones of the periodic patterns of periodic movement.

The fully evolved, fully developed, unaberrent, full functioning neohomozoan uperprosencephalic cortex knows still other periodic patterns of periodic movement by way of the conceptual and interoceptual receptor apparatus called b, which receives the periodicities of the periodic motion set up in the integrated human bicomponent psyche by the human being and forwards them to the pre-prefrontal areas of the uperprosencephalic cortex. By way of these it knows and evaluates the periodic patterns of periodic movement that form the extracosmic gamut of the total manifestation, and knows also the periodic patterns of periodic movement that are the human gamut.

These are some of the many ways in which the human person knows the periodicities of the periodic movement of the periodic patterns of periodic movement of the periodic continuum. Placing all of these separate knowings together the human person comes to an epicritic knowing of duration, dr, that concerning the total manifestation of the one eternal becoming which is the manifestation of movement: deity manifesting. The ontogenetically developing neohomozoan uperprosencephalon equips its cortex with an area, the molecules, atoms and subatomic forms of the cells of which receive and retain exactly all of these various analyses of movement, build them into their molecular, atomic and subatomic structural patterns as mosaics called memory, in such manner that it can draw on this memory as a source and integrate that which is drawn and form an awareness that is composed of timeless reality in which these separate, limited awarenesses of periodic motion which separately produce an illusion of past and present lose themselves and their illusions in an integrated awareness in which exists separately neither past, present nor future but in which these partial awarenesses are integrated into one complete awareness of motion. This, which it so knows, is duration.

Time is a limitation of awareness produced by any one or ones of these different ways of knowing duration: bits of separate awarenesses compared but not integrated into a single awareness. The neohomozoan uperprosencephalic cortex knows time and it knows duration but it measures time: it does not measure duration.

One region of the prefrontal area of the neohomozoan uperprosencephalic cortex is such that it can know itself and the total balance of the cortex and the organism which it has built and the mosaics which the receptor systems of that organism have caused to be produced in the submolecular, subatomic forms

of the memory area and the impulses of the integrated human bicomponent psyche and the human being instantaneously as a whole and in this instant know this whole in its relationship to duration. It marks such an instant, calls it, in English, now; uses now as a datum plane upon which to erect its little pieces of duration so that the assemblage that is the human person may come to know its tenure of time in duration.

c. Periodic Continuum

Movement is d, is deity. Duration is d r, is the manifestation of deity. Periodic continuum is that which manifests deity. Continuity is extent from point to point to point; from periodicity to periodicity to periodicity. Continuum is limitless continuity. A periodic continuum of constant incessant periodic movement is a limitless periodic continuity of constant incessant periodic movement. The deity; using the definitive article, the; the movement; the deity is a limitless periodic continuity of constant, incessant periodic movement. Just as the homozoan organism built under the organizing influence of the uperprosencephalic template is equipped with perceptual systems of receptor organs that selectively analyze periodic movement and forward their various reports of these analyses to the uperprosencephalic cortex, so is it equipped with perceptual receptor systems that selectively analyze perceived limits of continuity and send their various reports to the uperprosencephalic cortex which receives, associates, compares, measures, analyzes, synthesizes, reasons, judges, thinks in logical form. And if it be a good uperprosence phalic cortex, representative of the fulfilled co-current expectancy of its phylogenetic evolvement and of its ontogenetic development, its ch and b and b n and the fiber pathway from b n to the pre-prefrontal area of its cortex bring in conceptual and interoceptual reports of limitlessness of periodic continuity, and thereby produces an evaluation of relative perceived limits of continuity within a conceived limitless continuity; makes an epicritic knowing concerning relative perceived limits of continuity within limitless continuity from which it produces a saying of a legend of continuum which is limitless periodic continuity, dividing limitless periodic continuity into perceived limits of periodic continuity within limitless and interoceived periodic continuity, discussing the sum of its perceived limits as that which it calls periodic space within periodic continuum. Knowing duration, knowing periodic continuum the homozoan uperprosencephalic cortex knows periodic continuum of constant incessant periodic motion. In this manner it comes to know the deity manifesting.

That region of the prefrontal area of the neohomozoan uperorosencephalic cortex which is such that it can know itself and the total balance of the cortex and the organism which it has built and the mosaics which the receptor systems of that organism have caused to be produced in the submolecular, subatomic forms of its memory area and the impulses of the integrated human bicomponent psyche and the human being instantaneously as a whole can

in that instant know this whole in its relationship to limitless continuity. It marks such an instant, calls it in English, here; uses here as a datum plane upon which to erect its little pieces of continuum so that the assemblage that is the human person may come to know its limits of continuity within limitless continuum.

Knowing itself instantaneously as a whole in relationship to duration and as a whole in relationship to continuum, the assemblage that is the human person knows itself as a whole in relationship to the deity manifesting.

d. In Review

In review: all that was-is-shall be is one eternal becoming. The source of the becoming is light and periodicity. Light is the ability eternally to cause eternally to become. Hence the source of the becoming is the ability eternally to cause periodicity eternally to become. The source is ever present, constant, enduring, eternal. The eternal becoming is an eternal becoming of potential, —, s, esse, which is defined as the ability eternally to become: the eternal becoming is an eternal becoming of the ability eternally to become. The allerance of the ability eternally to cause periodicity eternally to cause an eternal becoming of potential occurs within the periodic continuum by means of the periodicity of that continuum. The allerance of the ability eternally to cause periodicity eternally to become manifesting in a periodic continuum produces movement, d. The manifestation of this movement, dr, is duration, eternal with no beginning and no ending. The allerance of the ability eternally to cause periodicity eternally to become manifesting in a periodic continuum produces ordered movement, r d, deity manifesting. The deity of duration is ordered movement. The order is that order which inheres in the ability eternally to cause periodicity eternally to produce an eternally becoming ability eternally to become. The deity of duration is that ordered movement which manifesting in a periodic continuum causes an eternal becoming of potential by way of that periodic continuum. The periodic continuum within which the allerance of the ability eternally to cause periodicity eternally to become manifests by means of the periodicity of that continuum, is an eternally becoming periodic continuum of constant incessant motion called ordered motion. The order of motion is specific. The periodic continuum is organized constantly, progressively, dynamically and cumulatively by that ordered movement. The constant, dynamic, progressive and cumulative organization of the periodic continuum is the expression of the law and order of that movement affecting periodicity and of periodicity, affecting that movement. The effect upon movement is that of periodicity producing ordered periodic movement. The effect upon periodicity is that of change, producing ordered periodic change, ordered periodic alteration of periodicity without loss of periodicity. The manifestation of the one eternal becoming in its production of active manifestation of ordered periodic change is an organism; an organism of a specific order: that order which effects such eternally becoming change of periodicity as is productive of eternally becoming

potential: an organism the energy of which is its capacity to cause an active manifestation of the activity which is the manifestation of l f g in connection with g n: g n is periodic change, l f g is the interrelationship of change and the allerance of the ability eternally to cause periodicity eternally to become; the energy of which then, is its capacity to cause an active manifestation of such periodic change as is the expression of the proceeding of the ability eternally to cause periodicity to produce an eternally becoming ability eternally to become by way of periodic alteration of periodicity without destruction of periodicity.

Ordered periodic alteration of periodicity without destruction of periodicity caused by ordered movement produces ordered periodic patterns of periodic movement: the order is such as is the ability eternally to cause periodicity eternally to produce an eternally becoming potential. These so ordered periodic patterns of periodic movement are periodic patterns in relation with which light manifests as the powered ability eternally to cause periodicity to produce an eternally becoming potential: an eternally becoming ability eternally to become. They are the ordered mechanism of the constant engenderment of the one eternally becoming potential. In them the ability eternally to cause potential eternally to become is transformed into the power of that eternal becoming of potential: an ordered power of a specific order. They are the ability eternally to cause periodicity eternally to produce an eternally becoming ability eternally to become transformed into the powered productivity.

These periodic patterns of periodic movement and their interrelationships are the structure of the organism: their power and the interrelationships of their power are the power of the organism.

The potential of this organism is the amount of r g n, active manifestation of periodic change, that occurs in the production of its structure. Its potency is the capability of this structure to develop according to its specificity. Its potentiality is that which because of this structural specificity it is capable of becoming. An eternally becoming potential then is implicit in an eternally becoming structure: that is, an eternally becoming ability eternally to become is implicit in eternally becoming periodic patterns of periodic movement and their structural interrelationships.

e. Dynasthai Means to be Able

Since it is ordered movement that has produced the potential of this organism, then this potential is a dynamic potential. The dynamic potential of an organism is known in the Greek as $\varepsilon v \delta v v \alpha \mu \varepsilon \iota$, endynamei, the inner dynamics. And $\delta v v \alpha \sigma \theta \alpha \iota$, dynasthai, means to be able. The inner dynamics of the organism is its inner ability eternally to produce that continuous becoming of its potential which its structure forebears in the constant transformation of its potence in the manifestation of its potentiality. Since this is ordered movement producing an ordered organism, the inner dynamics are ordered dynamics. The order is

that of the source: i. e., the ability eternally to cause periodicity eternally to produce an eternally becoming potential.

f. Perceived Spatial Limitation Within Conceived Limitless Continuity

Knowing those periodicities of the periodic movements which are produced by those complex periodic patterns of periodic movement that are now called molecules, the neohomozoan uperprosencephalic cortex knows the extent of that movement. It knows the extent of the movement of those periodic patterns of periodic movement of the cosmic gamut that are called ultraviolet waves, and produces the pre-melanin molecules of the integumentary neural system in such specificity that they receive certain specific wavelengths i.e., extent of motion, of the ultraviolet, thus analyzing extent of motion: and produces the integumentary scleral cells that overlie these neural integumentary cells in such specificity that they screen out undesired wavelengths.

Knowing itself as this, knowing this in duration as now, knowing this in continuum as here, the human assemblage that is the human person orienting itself constantly as this now here, designates all else than this as that, knows all else than now as then: all else than here is known as there. Countless thats and thens and theres, limited only by its ability to project them. By means of its conceptual and interoceptual apparatus the pre-prefrontal area of the homozoan uperprosencephalic cortex knows and evaluates periodic continuity disrelated to the perceptual organism; within this concept, by means of perceptual projections from the balance of the uperprosencephalic cortex, it knows a perceived limitation of spatial extent of the organism which it has built. Marking this organism spatially within periodic continuum the neohomozoan uperprosencephalon measures periodic space, gives names to various limits of periodic space, adapts the organism which it has built and which it would govern to these spatial limitations of periodic continuity.

g. Dimensions

Comparisons of its heres and theres, of this there and that there, of these theres and those theres, logical thinking concerning these, produces the idea which is called extent, that which continues from here to there, from point to point; and its correlary, distance between points; and direction: there, right, left, up, down, straight ahead and back, from the neohomozoan organism that orients itself as here; and produces the abstraction called dimensioned space, the describable amount of extension which this neohomozoan organism is considering, the distances from itself in all directions with which it is concerned. Calls that which extends fore and aft, length; that which extends sidewise, breadth; that which extends up-down as height-depth, usually just height, or just depth; forms the deduction six mutually perpendicular dimensions of extent³ from

here. And forms the abstraction dimensioned space. To dimension is to measure distance of extent.

These proportional relationships are called dimensional relationships and form is considered to be three-dimensional relationships. Form, morph, m v r f, the interrelationship of the ability eternally to cause eternally to become, manifestation of the one eternal becoming and mutation; this is threedimensional proportional relationship of structural patterns. In his Growth and Form, D'arcy Wentworth Thompson⁴ sees morphosis as a function of time. Morphosis is four-dimensional relationships; it comprises relative movement of three-dimensional relationship integers, which is time. Metamorphosis is fivedimensional relationship; it is evolution; that which was becomes that which is because of that which it was. Those particular morphs out of which the next and the next, and the next, ad infinitum can occur, so that the sequence is never ending, are six dimensional, they are the archetype, they comprise the human evolution of the fundamental cosmic light pattern. All of these, morphosis, morphonogenesis, anamorphosis, metamorphosis, are manifestations of integrations of constant, dynamic, progressive and cumulative mutations of light patterns. By means of the human evolution some ultimate mutation of the patternings of the total manifestation occurs. A seventh dimension? A transcendent of the patternings? The human transcendent? Something about anthropo homozoa anima sapiensis: what the assemblage that is the human

person does by means of q in b n and \square , and in the mutation of the ultimate extrahuman patterns of the cosmic and extracosmic gamuts of that total manifestation in the integration of these mutations its formation of the z pattern?

h. Extent of Movement

Moving its organism from here to a there, causing there to become here, the receptor systems of perception and conception and interoception bring in their reports, the neohomozoan uperprosencephalic cortex associates the idea periodic movement in a periodic continuum, and the idea translation through the continuum of that which is moving and forms the constellation of ideas from which the abstraction relative position within a continuum is produced. That which then was there is now here. A difference between then and now and a difference between there and here correlated with movement.

Just as that piece of duration that has been transiently outlined by movement between a postulated then and a postulated now serves the neohomozoan uperprosencephalic cortex as a unit of time within duration so that bit of continuum that has been transiently outlined by movement of translation through continuum between a there and a here serves as a unit of distance within continuum. Adding multitudes of compared units of distance together the neohomozoan uperprosencephalon produces the idea, dimensioned space

within dimensionless continuum; a dimensionable portion of that which is without dimension. Thus it contrives units of time, units of separate bits of awarenesses, and contrives units of measurement of time; units of awareness of movement; of d r, of manifestation of movement; of manifestation of deity. And by means of its devised units and methods of measurements of movement manifesting, comes to the approach of epicritic awareness of r d, the ordered movement that is the movement of manifestation by means of a periodic continuum of the one eternal becoming that is the allerance of the design inherent in the ability eternally to cause periodicity eternally to become; comes to an approach to an epicritic knowing concerning the law and order that is the law and order of deity, the periodic continuum of constant, incessant eternally becoming periodic movement.

i. Velocity

By means of other sets of receptor systems with which it has equipped itself the neohomozoan uperprosencephalic cortex can come to know itself, as moving in translation through continuum from here to there, producing distance, and through duration from now to then, producing time. It can compare its own movement of translation from now here to there then with that of some other object that is moving from here now simultaneously with it but arriving at there then dissimultaneously. Doing this many times with many different moving objects it forms the abstraction relative movement in relative time in relative space and coins the words, velocity, speed, swiftness, celerity, quickness, rapidity of motion, time-space rate of motion, and forms the further abstraction relative velocity, calls relative velocity relative rate of movement. Uses comparisons of relative velocity of moving objects to devise units of measurement of rates of movement by means of which it seeks to come by an understanding of the law and order of movement which is the law and order of deity manifesting. Time is any considered relative rate of movement within duration. Space is any considered relative extent of movement within continuum. Velocity is time in space, the time rate of motion in translation through a postulated space.

The neohomozoan uperprosencephalic cortex knows duration and it knows time: it measures time, it does not measure duration. The neohomozoan uperprosencephalic cortex knows continuum and it knows dimensioned space: it measures dimensioned space, it does not measure continuum. It also knows duration of continuum and it knows time in space, it measures time in space but it does not measure duration of continuum.

¹Webster's New International Dictionary, s.v. "physics" and also W. A. Newman Dorland, *The American Illustrated Dictionary*, 11th ed. (Philadelphia and London: W. B. Saunders Co.) 1922.

²For detailed discussion see Book One, Chapter XII, Section i, The Neohomozoan Uperprosencephalon.

³Webster, *Op cit.*, s.v. "space" and "extent." ⁴D'Arcy Wentworth Thompson, *Growth and Form*, (New York: The Macmillan Company, 1942).