

BOOK TWO

CHAPTER IV

THE LIVING STATE

i. DOGMAS CONCERNING LIVING ORGANISMS

a. Mistaken Identity

Because in the accomplishment of its more sublime functions, anthropo homozoa anima sapiensis gās, the organism by means of which the human being proceeding according to the established law and order of the human mutation of the light patterns of the periodic continuum achieves integration of its mutation of the patterns of the three gamuts, does also, in its terrestrial phase, and does it more obviously, sense, grow, reproduce, move, breathe,prehend, ingest, digest, assimilate, metabolize, excrete, then, at some time, or gradually, during the past 7,000 years, by a failure of logic or in a paucity of knowledge, the organism, anthropo homozoa anima sapiensis gās, became, in those Ural ethnic systems of thought in which the American scientific canon derives, simply the organism which senses, grows, reproduces, moves, breathes, prehends, ingests, digests, assimilates, metabolizes, excretes. A feckless creature. Deprived even of the fact that it takes in light patterns.

By a further, arrogant, misapplication of terms, any creature which so did sense, grow, reproduce, move, breathe,prehend, ingest, digest, assimilate, metabolize, excrete became to be called an animal organism: and, in still further decrease, the so-termed animal organism became a zoon. And, since the most immediate of the functions which comprise the continuity of these organisms seemed to be that of breathing, then oxygen became to be looked

upon as that which inspirits the organism, and breath became to be called the spirit of the organism, and the act of breathing became to be called respiration, and respiration is said to be composed of inspiration and expiration; and the animation of the anthropo homozoon organism by the human being in its proceeding according to the established law and order of the mutation of the patterns of light of the total manifestation became confused with the oxidation of that which in the progressive degradation of the etymon of this ancient scientific term of the Naqi sacred science has come to be called the zoon, and the animal organism, anthropo homozoon lost its animus and became one with all other air-breathing organisms, and nothing more, although conceded to be usually of a higher grade brain than the other organisms and hence called sapient.

b. The Non-Scientific Minded Called it God

Having, through the 7,000 years, reduced in their Uralized method of thought all self-moving, air-breathing, consuming, digesting, assimilating, metabolizing, excreting, sensing, responding, reproducing organisms to a common basis, all such organisms collectively became then, in this systemization, by a still further misapplication of terminology, the zoological or animal subkingdom of the postulated biological or organic kingdom of living organisms in the postulated distinction from a proposed inorganic kingdom of non-living organisms, of which two postulated kingdoms the cosm was proposed to have been composed.

1. *Living Organisms*

A dogma is a pronouncement. An established system of dogmas does not easily die nor does it readily alter any of its dogmatic pronouncements. During the last half of the 19th century A.D., the forming American canonical scientific system of dogmas also propounded an evolving non-living cosm and sought to establish as a dictum the existence of some presumed but undefined level of that evolvment at which some non-living microcosmic moiety became to be a living microcosmic organism; sought some level of its macrocosmic evolvment at which the dynamics of space ceased to give hypothetical still birth and began to produce living replicas of itself which the forming system of dogmas called organic forms and sought to differentiate between these postulated organic forms and all of the balance of the cosm's evolving forms to which latter it referred as inorganic; and, assuming those which it so-classified as organic to be living organisms which were called biological organisms, and all of the cosm prior to this unascertained level of organization and complexity to be non-living forms which it called non-biological and inorganic, proclaimed this dogma and used these terms, organic and inorganic, as standard nomenclature to identify and differentiate something which it could not identify and did not succeed in differentiating.

Based on the unsupported interpretation of the evolving cosm as being distinguishable into two opposite categories, the pre-existent essentially non-living total cosm and the later occurring essentially living partial cosm the related division of the forming American canon called this branch of its science which treated of those organisms which it saw as constituting this conjectural organic category, biology, and using misapplied terms of an arrogated terminology which have become standard American educational nomenclature: that department of this system of science that comprises the American canon, which is concerned with the so-called living kingdom is called biology; that phase of this department which relates to the so-called animal subkingdom is called zoology. Within this department which is called biology, a subdivision, called morphology, relates itself to the outer form of these its so-classified living organisms. Anatomy relates itself to those inner structural arrangements of its component parts which bring about the outer form of the organism. Microanatomy, histology and cytology relate themselves to the cellular and intercellular organization of the inner structural components. That phase of chemistry that is called biochemistry, relates itself to the dynamic molecular organization of molecules within the plasms and the cellular units and intercellular spaces. Nuclear biophysics relates itself to the dynamic arrangement of submolecular, atomic-nuclear moieties which comprise the molecule. Subnuclear biophysics is concerned with the atomic nucleus.

Embryology seeks the method in which each currently existing type of its so-called living organisms is formed and, being formed, develops into its natal morphological status.

Physiology relates itself to the dynamic behavioral processes which inhere in and result from and are the living manifestation of this complex spatial organizing of these moieties. Psychology was originally, and should still be the study of the nature, genesis, function of the final light patterns formed within and emitted by some specifically organized group of subatomic, atomic, molecular, cellular structures in some microanatomic organization of some anatomic structural arrangement within the morphological complex which is the neohomozoan organism, is in the American canon now become a study of adjunctives of the reproductive habits of the animal kingdom with especial focus on homozaa.

These are the terms which have been used to designate the manner in which that part of the human phylum's accrued knowledge on this subject of terrestrial organisms which Uralized Euro-American usage selectively accredits has been classified and interpreted. It does not necessarily follow that the organisms so designated fully agree with this classification and interpretation nor that they concur with the false etymological implications of the arrogated terminology: nor does it prove that the terms so arrogated and applied had not in some original systemization of the phylum's knowledge been carefully formed of isolating consonantal etymons, for the exact expression in an isolating language science terminology of exact intent, the possibility of the understanding of

which is betrayed by their usage in this Euro-American system of nomenclature. Nor does it follow that all scholars have acceded to the dogma.

Nevertheless, this branch of American science has applied and does apply itself to a search into the origin, development, structure, function and distribution of the hypothetical inaugural organism of its predicated organic kingdom and the manner in which this which it so hypothesizes may have been causative of the subsequent evolvement of that proposed living kingdom, by means of observation of those phenomena which collectively it interpreted as being their life or viability or unique biologic attribute.

Attempting to establish this classification, accepting the dynamic, progressive and cumulative evolvement of the organisms of cosmos, glimpsing warily the phenomena which their growth or time dimension or progress through time in space as progressively and cumulatively evolving dynamic form, and their reproduction manifest, arbitrarily postulating some level of evolvement at which the non-living becomes the living and seeking, therefore, this ultimate viable unit, and proposing that all of its so-classified living organisms shall have evolved from that proposed but unascertained and undemonstrated ultimate viable unit, the forming American canon organized its materials, did its thinking, taught its young to, and demanded of its scientists that they do contain their thinking within the confines of this system of dogmas. Thus the presumptions became tenets. The tenets became dogmas. The dogmas became dogmatic. Dogmatism became positivism. Positivism came arbitrarily to replace virgin search.

Studying the selected autonomies which it allocates to its proposed living, organic kingdom, morphologically, anatomically, physiologically, biochemically, reproductively and embryologically, biology, attempting an analysis of the systems into which these organisms currently arrange their moieties, produced a classification which divided the conjectured organic kingdom into two subkingdoms. Based upon its positively ordained, hence classically accepted, presumptions and the established terms of their idiom, that portion of the conjectured organic kingdom which, evolving, has produced and does produce the flora, is in this system of nomenclature named the botanical or plant or vegetable subkingdom of the biological kingdom; that portion which evolving has produced and does produce the fauna is named the zoological or animal subkingdom, each of which, in turn, is subdivided into primary divisions, etc. The decreed botanical organisms were differentiated from the decreed zoological organisms on the assumptions that the former are not automotive, they do not self-propel themselves in translation through space and that the latter are automotive, they do propel themselves in translation through space.

As, within the confines of this positivism, attempts were made to discover the organism which was the proposed beginning of life, an ultimate so-called bion was sought; first, as a pan-unicellular organism; then, as some precellular pan-protoplasm, and terms such as biophore, bioblast, pangen, plasmone, biogen

were coined in which to discuss the proposed ultimate non-cellular vital unit. Biophores were divided into submicroscopical units called determinants, microscopically visible granules of chromatin called ids, and chromosomes called idants. The decreed spontaneous genesis of the proposed organic life out of pre-existent inorganic material was called archebiosis, or archebiogenesis. Having arrived archebiotically, the decreed living organisms first reproduced themselves by a process of self-reproduction which was, then, called biogenesis, and then by the process of reproduction which needed two biologic organisms, called bio-biogenesis.

This positivistic system so produced during its 19th century A.D. became the unquestioned heritage of 20th century American thought, and the American canon of the early 20th century A.D. still decreed an essential never-living, so-called inorganic, cosmos composed of non-living inorganic moieties some of which evolving magically arrive collectively eventually at some magic stage in which life cooperatively begins, becoming evolved out of non-life; and, therefore, divided cosmos into a canonically decreed non-living kingdom which following its predecessors it called the inorganic kingdom and a living kingdom which it called the organic kingdom. The system of dogmas made the terms, living and organic, synonymous.

The division of its science which confining itself to the study of the so-called biological kingdom called itself biology has come to be a major division of modern occidental 20th century science. Its systemized attempts at the formation of dogmatic abstractions as still taught now beyond the middle of the 20th century A.D. in American kindergartens, primary schools, grammar schools, high schools, colleges and universities, have exerted during the century and their effects still do continue to exert a major influence upon the American young in their attempts at a formation of a personal philosophy within which to formulate their action patterns, and have tended and do continue to tend to encapsule the public reference.

As to what its inherited terminology might actually mean, even the meaning of the term life remained an ambiguity. The best that had been said of this which was called life was that these organisms of the proposed organic or biological kingdom were possessed of some special property, called life, of which the proposed inorganic moieties of the proposed inorganic kingdom were not in possession. Being in possession of this property, these organisms lived; deprived of it, they died. In this canon, death of a proposed living organism was defined as the irreparable cessation of the accumulation of functions which were postulated as being subserved by the property called life, so that irreversible cessation of the functions of a living cosmo-material organism and cessation of life become synonymous. This did not seem to define life.

Later, in an attempt at a more concise placement, the living organism was defined as a material entity so constructed as to carry on the activities of physical life by means of parts which are more or less separate in function and structure but are mutually interdependent.¹ Life was defined as that property

by which the component parts of a living organism considered as a whole are conceived as maintained in the performance of their functions. These functions, the maintenance of the performance of which by the organism were said to constitute that property which it called life, were tabulated in this system as growth, metabolism reproduction, adaptation. Adaptation was defined as the ability to form variations in response to the impact of environment. Environment was defined as the sum of conditions of that region of the cosmo-terre in which the proposed living organism is produced, maintains itself, grows, metabolizes, reproduces. The functions, growth, metabolism, reproduction, and adaptation were considered as being maintained by means of the specific parts of the organism which so functioned. This, still, did not seem to define life.

Within the canon the name, chemistry, was appropriated for the naming of the attempted systemization of knowledge concerning the transfer of electrons in the decreed non-living so-called inorganic kingdom. But eventually the chemists studied all cosmo-terrestrial material energy-forms, the proposed non-living and the proposed living as well. And this subbranch of modern American science known as chemistry came to be divided into so-called inorganic and organic chemistry at some arbitrarily presumed but undefined level, as which it was taught and pursued. Then organic chemistry became biochemistry and one ramification of biochemistry became physiological biochemistry and one ramification of physiological biochemistry became medical biochemistry. Then, but still thinking within the system of dogmas that decreed an early pan-inorganic non-living cosm which later produced an organic or biologic living partial cosm which it called the organic kingdom, derived of some portion or portions of the inorganic; the chemists produced the postulate that a so-called living organism was to be considered as a certain type of discrete organization of component parts which as such automatically directs a certain type of chemical action. Thence the property called life came to be considered to be a discrete maintenance of such directional organization of chemical activity as produces the allied phenomena known as growth, metabolism, reproduction and adaptation: and the property called life became to be considered as that which acts as a maintenance of a directional in those particular organizations of cosmo-material energy-forms which manifest the recited phenomena. Taking it from there, biochemists came upon the thought of calling this directed chemical activity the biological system. The non-scientific minded called it God. And at La Baule the thinking six-year-old stood then in the sunlight on the plage at the edge of the vast sea's endless movement along the shores of the coast of humankindness, examined deeply with his brain Eulamellibranchiata and its habitat, consumed earnestly, shared, then, with its elder in rapport: "God is a mystery. I mean -- this is what I think -- any mystery is God. A mystery is something that a six-year-old brain can't understand. Anything that anybody can't understand is a mystery. That's what they mean when they say God."

This child knew the light. The emanation from his head pushed the sunlight away in a clarified corona. He was never, during those earliest years, self-

confused. But progressively as he attempted to cause himself to be willing to accept the canon as taught in the American schools and colleges, he became greatly and terribly and increasingly confused because of the conditionings so wrought within him. When he took his bachelor's degree at Northwestern and came away, he was through listening. He would think for himself and decide for himself. Patiently, courageously, through ten years he dealt with his *bete noir*, alone. Then one day he came and the light was strong and almost certain; and final understanding was all but there. He said, "Now I think I know. It is the light that is the life. The mystery is something about the light." And in that moment the z light, not always prominently there, shone suddenly strongly and brilliantly above his forehead from the pre-prefrontal areas of the hemispheres of his uperprosencephalon. But then it was gone when I saw him again.

Now at 33, having made his concessions to the mores of the civilization within which he finds himself to have arrived in this incarnation, having firmly and unshakeably established his own inner foundations and himself upon them, he arrives, saying, "I want to learn all of it."

There has been so much placed in his good brain that he will have to unlearn. He does not know until he reads this that his head has always shone its glory of the integrated human bicomponent psyche steadily and uninterruptedly; nor that, always repeatedly, at times it produces this z light significantly. The science of the identity, genesis, powers and functions of the integrated human bicomponent psyche is an exact science. The powers of the integrated human bicomponent psyche functioning in relation with the assemblage called the human person produces the z light. The z light is permanent. This has something to do with the essence of the meaning of life.

Although the greatest of the advance guard in biology still adhered to the canon, and although the biochemists and biophysicists were still training their attention within the confines of a so-termed biological system, hoping therein to find the mystery of life revealing itself, still among these, although still speaking within the boundaries of the classification which divides cosmo-material organisms into postulated biological as opposed to postulated non-biological forms, the recent Dr. E. Newton Harvey, biologist, of Princeton University, in his *Living Light*, his *Bioluminescence*, his work in his Princeton laboratory, was, as are his train, concerned with the identification of the light patterns which the luminous ones of the so-called living organisms, by way of certain ones of their atomic nuclei, atoms, molecules, cells, intercellular plasmas, anatomic inner structural arrangements, morphological outer form, emit. No one as yet seems to be concerned with the light patterns which the neohomozoan organism takes in, transforms in such manner as to raise the potential, and emits in the transformed pattern. But just today [ca. 1960] Arnon² reports the adventure of himself and his associates venturing the threshold of the manner in which chloroplasts take on directly some of those of the visible range of the rays of sunlight by means of pyridine nucleotide, adenosinephosphate and phosphorous and produce the light-rich molecule adenosinetriphosphate.

Who now will venture into the nature of adenine and its relationship to this photosynthetic phosphorylation called by Arnon, photophosphorylation? The anabolism of the adenine molecule and that of melanin are related phenomena. This is eminently so in the neohomozoan organism.

Dr. Harvey, in his *Living Light*,³ suggested that “light appears to be linked with life ...” Here, Dr. Harvey was speaking of those patterns of light that are visible to the human retina. And one needs also to recall that in the modern American canon, light is used as a generic term and that sunlight as it occurs within earth’s atmosphere is usually meant. This is not the z light, but a terrestrial-solar modification of cosmically evolving light patterns; that is, of those periodic patterns of periodic movement in relation with which light manifests which are evolving in the cosmic gamut of the total manifestation.

Also, someone, whose name and identity I regret that I do not recall, within the past two or three decades, remarking that a crystal of silicum rotates light in a spiral, suggested the possibility of a relationship of this particular phenomenon of the silicum crystal to the origin of life, using the term life as then decreed within the American system of dogma; and adding an implied postulate that this life began on the earth. At least he was placing the idea of sunlight and mutation of its patterns and life together in his frontal association centers no matter how haphazardly. I am indebted to that person’s thought for the stimulus which set up an association of ideas in my own cortex which relates this fact of the spiral rotation of certain patterns of sunlight to an early stage of the terrestrial phase of the pancosmic evolution of living organisms, in its possible effect upon the evolution of the scleroproteins and their relationship to that phase of the evolution of living organisms that occurs on the earth and the exact relation of the scleroproteins of the skin of neohomozoa to the formation of melanin.

This phase of the seeking for the origins of life as produced by antecedent non-living forms that looked for this postulated origin on the earth went on. In an *Introduction to Physical Biochemistry*,⁴ J. M. Johlin quoted Albert V. Szent-Györgyi thus, “Zoologists tell us that all life originated in the ocean and water is the mother and cradle of life.” It would have been better had Szent-Györgyi discussed water as the medium within which the evolvement of life in that phase of evolvement that occurs upon earth does at one stage proceed.

During the latter part of the first half of the 20th century in America that portion of chemistry that sees itself as biochemistry investigated the precellular organisms of its so-classified living kingdom backward through the slimes, the plasmodia and the origin of life was sought somewhere among the molecules. And, ranging close upon the frontiers of their confusion, so-termed inorganic chemists, as they worked among the carbon compounds, although still bemused by the idea of nouveau biological or organic forms that have raised themselves up out of ancestral non-biologic or inorganic beginnings, saw the carbon compound systems as identifiable in some way with the possible onset of the postulated origin of the now so-termed biological system from an

antecedent, nonliving cosmic form or forms, and sought here somewhere in the carbon system of compounds to find a molecular mechanism and a procedure of continuity of evolvment and a formula of an unbroken progression of evolvment of these compounds which might explain a dynamic, progressive and cumulative progression of evolvment of their postulated living organisms from some earlier less complex and less highly organized, inorganic, non-living, state to a succeeding, organic, living, state of greater complexity and greater organization of its structural parts.

The biochemists then searched the liquid condition of terrestrial matter, and the colloidal condition. Friedel and others found a paracrystalline state called liquid crystals and mesomorphs. Starling, Needham and others mused around the essential relationship of the paracrystalline state to some essential phase of the postulated living state. Agronomists saw nitrogen in its combinations with the carbohydrates, and others see phosphorous in its combinations with hydrocarbons as significant.

In 1942 A.D., confining his thoughts concerning the possible origin of this which the dogma called life within the nucleus of a cell, yet writing with perceptive discernment concerning the inevitable continuity of biochemistry and zoomorphology, Joseph Needham, F. R. S., Sir William Dunn Reader in Biochemistry and Fellow of Gonville and Caius College Cambridge, in his *Biochemistry and Morphogenesis*,⁵ remarked, "We cannot but consider the universe as a series of levels of organization and complexity, ranging from the subatomic level, through the atom, the molecule, the colloidal particle, the living nucleus and cell, to the organ and the organism ...," and in a footnote appends the information that his fuller discussion of integrative levels can be found in his Herbert Spencer lecture at Oxford, "*Integrative Levels: a Reevaluation of the Idea of Progress.*" Thus although seeing a continuity of cosmic phenomena, still Needham sought the origin of life within the nucleus of the cell.

Thus with all of its detailed thinking, the adherence to the American canon through the first half of the 20th century did not produce an explanation of that which it called living organisms, nor a knowledge of the source of the origin of their postulated life. Search through these first years of the second half of this century delves even more deeply: even more fruitlessly.

Cultures not dominated by the system of dogmas of the American canon nor by the American mores, looking at the idea of the evolving cosm, do not find it necessary to postulate an original non-living state which magically somewhere takes on life, but see all organisms as living organisms except those out of which life has passed, and divides all cosmo-material energy-forms into the two primary classifications: living organisms and those that have been and are not now living organisms, occurring in all levels, and speak only of living organisms and the ash of living organisms which have been and are not now alive because that which was their life has left them. And sees molecules, atoms, subatomic nuclei, all the organisms between these and some primordial

cosmo-material particle and the ultimate material fragment as living cosmic organisms.

During this same quarter century, not so many years ago, physicists postulated a hypothetical sound barrier. Advancing into and, now, through the third quarter of this 20th century A D., flight engineers have reduced this hypothetical sound barrier to a phantasm. It does not exist. In the wake of this disillusion, the fantasy of the biologists concerning a cosmo-chronological bio-barrier shows signs of dissolving. Physicists and flight engineers and biochemists conjointly enter a realm of thought in which a proposed plasmatic state of earth's environmental cosm, produced by its atoms, seems to them to presage the origin of this which, still adhering to the canon, they call life; and which would then be the proposed cosmo-chrono-biological barrier. This too will dissolve. The barrier is a fantasy. The plasmatic condition, as the liquid condition, is but a stage in the constant, dynamic, progressive and cumulative cosmic evolvement of the living state. The living state and the cosm are chronologically coexistent.

ii. ATOMS

While biologists sought an ultimate living organism; physicists sought an ultimate non-living organism: sought an ultimate discrete organism which had arrived at some stage of the cosm's genesis anterior to which no organisms existed. In their personal versions of the more ancient lore, Leucippus and Democritus of Greece, between 450 B.C. and 375 B.C., taught that the total cosm is composed of ultimate discrete moieties of various orders and forms which they described as atomos, α plus τομος, indivisible, and that all of the phenomena of nature are produced by their incessant movements. By the end of the 18th century A.D., scientists knew for themselves a few invisible but chemically demonstrable iotas which they thought to be simple, uncomplex and indivisible and called these atoms, thinking they had come upon some of the ultimate indivisible cosmic moieties of Lecuippus and Democritus. In the early part of the 19th century, Dalton, the English chemist and natural philosopher, produced his rendition, postulating that the variety of ultimate discrete cosmic moieties was small indeed, called them the atomic elements. In A.D. 1869, Dimitri Mendelyeev⁶ announced his theory of the periodic occurrence of the various known so-called atomic elements predicted how the existence of as yet unknown atoms could be made known. Others in his wake established a so-called periodic atomic law which was an attempt at an analysis of the law and order of the cosmic occurrence of the so-called atomic forms. Avogadro⁷ established the fact that these organisms, then called atoms, were not indivisible forms by identifying them as molecules composed of like atoms, by identifying a molecule and separating it into its component atomic parts. Others, following, differentiated the atom and the atomic nucleus. Still others then differentiated the atomic nucleus into constituent moieties which still were

found to be not indivisible. Rutherford⁸ published his proposals concerning the internal structure of the atom describing a hypothetical dynamic three-dimensional structural arrangement of its electrons in concentric fields around the atomic nucleus. Bohr⁹ modified and amplified Rutherford's proposals. Then followed upon these Planck's¹⁰ further modification and amplification, concerning the structure of the interior of the atom, and that was followed by a young flood of exploration into the nature of the atomic nucleus. C. Jinarajadasa¹¹ wrote a meticulous, technically illustrated, book length report in French of Besant's¹² clairvoyant observation of atomic and molecular forms and their inner structural components, strange and beautiful. Much followed concerning the internal dynamic activities of these components of the atomic nucleus. Shroedinger,¹³ Heisenberg,¹⁴ Bragg,¹⁵ Eddington,¹⁶ Soddy,¹⁷ Charles Janet,¹⁸ and Gamow¹⁹ worked here. Meantime, others found that each of these organisms called an atom occurred in several varieties which came to be called isotopes.

In A.D. 1927 Charles Janet, the French nuclear physicist, in his monograph, *"La structure du Noyau de l'atome, considérée dans la Classification périodique, des Éléments chimiques,"*²⁰ wrote not of unchanging and unchangeable and indivisible ultimate atomic units of cosmic phenomena but of a dynamic cosmic process in which, in this particular cycle of the cosm's evolvment, no sooner do these organisms called the atoms appear than do they disappear in the emergence of some new form and presented his interpretation of the law and order of progressive atomic appearance and disappearance, and reappearance in a more complex form. Formulating his presentation within the confines of the idea of a periodic law he also rearranged the manner of reporting the occurrence of these dynamicities; discussed not atoms but ascending compartments of the great progression each of which has a basic compartmental pattern which he calls the proto-isotope of the compartment, and from two to six isotopes progressively and cumulatively formed on this fundamental compartmental pattern. He discussed these ascending isotopal complicities of each such pattern and presented his analysis of the transition from one compartment to the next in ascent of complexity and organization by means of isotopal mutations.

iii. LIGHT

And while biologists sought an ultimate living organism and physicists sought an ultimate non-living organism, other cohorts sought that which becomes organized. Among these, adhering to the edition of more ancient proposals taught by Leucippus and Democritus that all of the phenomena of nature are produced by incessant movement of ultimate discrete moieties, calling the organized particles of the cosm, matter, and calling a certain relative inertia of movement of translation, mass, Einstein²¹ called matter, light mass. This, then, related whatever it is that the American canon postulates as light and

movement as that which becomes interrelatedly organized.

Seeing then this something called light and alteration of movement as that which becomes interrelatedly organized in the origin of matter, physicists and mathematicians sought the nature of this something called light. Some of those who would define light made the word synonymous with the word sunlight. Others made it synonymous with heat. Others, with the movement of translation of an electron. Some, with whatever it is that affecting the human retina in a certain manner is known as light. Then it became known that it is not the retina but the upperprosencephalic projections of the occipital lobe that know awaredly this which is called light. Others, with electromagnetic waves. Two theories concerning the nature of light developed: one, that whatever it is that was being called light is waves; the other, that light is discrete corpuscles. Each of these theories was discussed in association with theories concerning electromagnetic waves, the nature of an electric field, periodicities. Waves are periodic; an electric field is a periodic field of alternating high and low potential. Eddington had this to say about light, that light is composed of discrete moieties or particles or corpuscles which he thought travel not as waves, but in an individual movement of translation, bounce from the top of one wave to the top of the next, using the wave crests as springboards, thus traveling in a rate that results from the combining of the movement of the waves and the superposed movement of the corpuscles. None of these theories lead to a definition of whatever it is that is called light in the American canon of science. But they do find a place of origin in one of the brackets of the zqr science, not as a definition of light but as that which light affecting periodicity of a periodic continuum causes to occur. Waves are periodic movement. Moving discrete corpuscles are moving elementary particles: an elementary periodic pattern of periodic movement is an elementary particle, a discrete corpuscle, although these are not good phrases, being descriptive in the allusive manner rather than definitive. Neither of these is light. Neither periodic movement nor periodic patterns of periodic movement is light. In confining its thinking within the dogma of just so much energy and no more, and an incessant maintenance of a state of equilibrium of that energy as creation's ultima thule, American science deprives itself of the possibility of arriving at an appreciation of light, and therefore cannot define light. In an eternal becoming, there is that which becomes organized constantly, dynamically, progressively and cumulatively, and there is the ability eternally to cause that which so becomes organized so to become organized constantly, dynamically, progressively and cumulatively and there is the constant dynamic progressive and cumulative organization: these: periodicity of a periodic continuum, and light, and the allurance. Light, the ability eternally to cause eternally to become. Light and periodicity, the ability eternally to cause periodicity eternally to become: this is the source of all of the phenomena of this one eternal becoming. The periodicity is that of a periodic continuum. The allurance is the proceeding of this one eternal becoming. To proceed means to move outward continuously in orderly and regulated manner, as the issuance of a source in the methodical prosecution of a design. Aler adds to this the nuance of a directed procedure over a determined

course: a course determined in the source of the procedure and directed by the conditions of the source.²² The allowance of the ability eternally to cause periodicity eternally to become transpires within a periodic continuum over a law and order inherent in the source ability eternally to cause periodicity eternally to become. Light, the ability eternally to cause eternally to become, manifesting in a periodic continuum produces movement within the conditions of that continuous and orderly issuance of a source ability eternally to cause periodicity eternally to become that is a methodical prosecution of the source design, and is a directed procedure over a course which is determined in the source ability eternally to cause periodicity eternally to become and is directed by the conditions inhering within this source ability.

This movement produces change of periodicity according to these conditionings which are the inherent law and order of the source ability. This change is an alteration of periodicity without destruction of periodicity. In its causation of alteration of periodicity within the conditions of the ability eternally to cause periodicity eternally to become, movement is the mechanism whereby the ability eternally to cause eternally to become is transformed into the ability eternally to become. By means of this ability eternally to become, so generated, the ability to cause eternally to become progresses.²³

That which becomes organized constantly, dynamically, progressively and cumulatively is the periodicity of a periodic continuum in which light, the ability eternally to cause eternally to become, affects periodicity in an allowance that is movement of a specific order of progression. In the Naqi rendition of the zqr science, the ability eternally to cause eternally to become was designated ideophonetically by the sound, f, which in Attic Greek was sounded ph, and which so sounded gave origin to the Greek phocis, that which is of ph. The word light is the Anglo-Saxon synonym of the Greek phocis: that which is of the ability eternally to cause eternally to become.

iv. THE LIVING STATE OF THE TOTAL MANIFESTATION

Call the natural condition of the total manifestation in a periodic continuum of the ability eternally to cause periodicity eternally to become, the living state. Call life, then, the active manifestation in a one eternal becoming of the ability eternally to cause periodicity eternally to become manifesting in a periodic continuum thereby producing motion of a definite order. Call the phenomena of life, the sum of the phenomena of that becoming. Call the natural condition of the total manifestation of the ability eternally to cause periodicity eternally to become an eternally becoming heightening of the potential, the potency, the potentiality of the total continuum. Call the modus operandi, periodic movement of a definite order. Call the total continuum, a constantly, dynamically, progressively and cumulatively organizing periodic continuum of periodic motion. Call the structural units of this organism, in whatever stage

of that progressive organization into which you project your thought, periodic patterns of periodic motion interrelated by periodic motion. Call this the living structure. Call potentiality, the ability of organized living structure eternally to become that which it will become because of that which it is; call this so at whatever stage. Within this frame of reference no barriers exist: the allurance is one continuous, progressive, dynamic, cumulative organization of periodic patterns of periodic motion in which a morph type appears only to disappear in the formation of the next in terms of levels of organization and complexity. See the human or integrator gamut, the extracosmic gamut and the cosmic gamut as the three major structural units of this living structure.

v. DEATH OF AN ORGANISM

That which is called death of an organism is but the phenomena of disassemblage of the parts comprising an organism. These phenomena are events of the living state which is the total manifestation: events of equal importance with those events the phenomena of which are called birth. The so-called birth and death of an organism are but affairs of the life of the total manifestation: events of the discrete manifestations of that life. They are the phenomena of assemblage and disassemblage in an overall continuity of assemblage, disassemblage, and reassemblage by means of which progressively higher levels of structural organization and complexity and therefore of higher levels of potency, potential and potentiality are constantly, dynamically, progressively and cumulatively evolved.

All organisms, being organized structural motifs comprised of $n d n \uparrow$ retain that structural organization so long, and only so long, as the interrelated motions of its unit motifs continue to maintain those structural interrelationships in a condition in which the potency, potential and potentiality are ...²⁴.

This is the "life cycle" of that organism ...

vi. THE LIVING COSM²⁵

See the living cosm as one of the three major structural parts of this total living organism which is the total manifestation. Use the phrase periodic patterns of periodic motion as the generic term for all discrete moieties, all organized particles, of the total manifestation, the human gamut, the extracosm and the cosm; in the cosm, the generic term for the discrete matter of the galaxies, for sub-mesonic morphs, for mesons, electrons, protons, atomic nuclei, atoms, molecules, plasmas, protoplasms, cells and from there on upward in the scale of terrestrial morphosis. These are progressively organized periodic patterns of periodic movement that arrive, exist, disappear in the appearance of some other pattern. Call that stage of this progression in which some of the

interrelationships of those accumulated phenomena are referred to as mass, matter, material organisms, one of the discussable phases of the living state, and call these so-discussed structural units, complexly organized periodic patterns of periodic movement, in each of which inheres some phase of the cosmic progression of the power of that progressive and cumulative engenderment of potential by means of progressive and cumulative organization which, being transiently assembled, lesser organized, periodic patterns of periodic motion, presently disassemble or reassemble or further assemble in the interests of the formation of some more complex periodic pattern of periodic movement. Call the term of its so transient assemblage, the life term of this organism. Call the state of the assemblage, the life of the organism. Call each periodic pattern of periodic motion, the mechanism of engenderment of the cumulative becoming, and see them for what they are: living units of the living state. The barriers are fantasies that have been erected by man's arbitrary limitation of thought.

The living state of a discrete organism within the living cosm is that state in which the inner structural arrangement of its component moieties is such that it fulfills its function in the general constant, progressive, dynamic and cumulative enhancement of potential which is the life process of the total manifestation in such manner that the next stage of morphosis may occur by means of this organism. Any discrete periodic pattern of periodic motion of the cosmic gamut is a living organism. A so-called living organism is a discrete continuity of the living state of the total manifestation. What those scientists who sought to find a non-living condition of the periodic patterns of periodic motion of the cosmic gamut out of which living organisms became assembled was a certain specifically conditioned phase of the living state; a phase in which the organized accumulation of phenomena which are that organism could be observed and measured with the help of those instruments which their minds and their hands had contrived. As finer instruments of precision techniques have been devised, the postulated barrier between a non-living and a living kingdom of cosmic periodic patterns of periodic motion recedes steadily and the postulate is becoming lost as new knowledge forms new stages of informed awareness.

¹Webster's *New International Dictionary*, s.v., "life."

²Daniel I. Arnon, "*The Role of Light in Photosynthesis*," *Scientific American*, Vol 203, November 1960, No. 5.

³E. Newton Harvey, "*Living Light*," (Princeton: Princeton University Press, 1940), p. 48.

⁴J. M. Johlin, *Introduction to Physical Biochemistry*, (New York: Paul B. Holbert, Inc., 1941) p. 11, quoting Albert V. Szent-Gyorgyi, *On Oxidation, Fermentation, Vitamins, Health and Disease* (Baltimore: Williams and Wilkins, 1939).

⁵Joseph Needham, *Biochemistry and Morphogenesis* (Cambridge: University Press, 1942), pp. xiv-xv.

⁶Dimitri I. Mendelyeev (1834-1907), Russian chemist.

⁷Amedeo Avogadro (1776-1856), Italian chemist and physicist.

⁸Ernest Rutherford (1871-1937), New Zealand-born physicist.

⁹Neils H. D. Bohr (1862-1942), Danish physicist.

¹⁰Max Planck (1858-1947), German physicist.

¹¹C. Jinarajadasa (1875-1953), Theosophist.

¹²Annie Wood Besant (1847-1933), English Theosophist, philosopher and political figure.

¹³Edwin Schroedinger (1887-1961), Austrian physicist.

¹⁴Werner Karl Heisenberg (1901-1976), German physicist.

¹⁵William Henry Bragg, *The Universe of Light* (London: G. Bell and Sons, Ltd., 1933).

¹⁶Sir Arthur Stanley Eddington (1882-1944), British mathematician, astronomer and physicist.

¹⁷Frederick Soddy (1877-1956), British chemist.

¹⁸Charles Janet (1849-1932), French scientist.

¹⁹George Gamow (1904-1968), Russian-born American nuclear physicist.

²⁰Charles Janet, *La structure du noyau de l'atome consideree dans la classification periodique des elements chimiques*. (Beauvais: Imprimerie departementale de l'Oise, 1927).

²¹Albert Einstein (1879-1955), German-born American theoretical physicist.

²²Excerpt from Book One, Chapter XX, Sec. v, Sub-sec. c, "l f n."

²³Excerpt from Book One, Chapter XXII, Sec. i, Sub-sec. a, "Concerning steps."

²⁴... Indicates incomplete in author's manuscript.

²⁵Author's note in manuscriptm "resay."