

APPENDIX VIII

THE CONCEPT OF ENERGY
IN RELATION TO PHI, ϕ

TOWARD A META-ENERGY

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ALTHOUGH THE MODERN WESTERN DEFINITION OF ENERGY, AS THE ABILITY TO DO WORK IN RELATION TO SOME SPACE-TIME UNIT, DID NOT EMERGE UNTIL THE INVENTION OF THE FIRST PRACTICAL STEAM ENGINE AND THE THERMODYNAMIC THEORIES OF SADI CARNOT IN THE 19TH CENTURY; THE ATTEMPT TO EXPLAIN MOTION GOES BACK IN WESTERN CULTURE TO THE ANCIENT GREEKS.

ARISTOTLE DEFINED THE MOTION OF THE MATERIAL UNIVERSE AS A DYNAMIS [OR POTENCY] WHICH WAS THE SOURCE OF POWER TO EFFECT CHANGE, AND AN ENERGEIA [OR ACT] WHICH WAS THAT MODE OF EXISTENCE WHEN THE CHANGE MANIFESTED AS MOTION WAS FULLY REALIZED - THE ENTELECHY. IN AN ALTERED WAY THE CONCEPTS OF POTENTIAL AND KINETIC ENERGY STILL REFLECT ARISTOTELIAN THOUGHT.

IN THE 17TH CENTURY NEWTON INTRODUCED A DEFINITION OF FORCE AS THE CHANGE IN MOMENTUM OF A BODY DIVIDED BY THE TIME OF THE CHANGE, OR MASS [AS THE QUANTITATIVE MEASURE OF INERTIA] TIMES THE ACCELERATION OF A GIVEN BODY.

IT WAS NOT UNTIL THE 20TH CENTURY THAT NEWTON'S SECOND LAW OF MOTION BECAME SUBSUMED BY EINSTEIN, WHO IDENTIFIED ENERGY AS POWER WHICH IS EXPENDED WITH THE QUANTITATIVE MEASURE OF INERTIA TIMES THE VELOCITY OF LIGHT MULTIPLIED BY ITSELF: $E=mc^2$. I HAVE ALWAYS INTERPRETED THIS EQUATION AS MEANING ENERGY IS CAPABLE OF EXISTING IN A CONDITION THAT TRANSCENDS THE SPEED OF LIGHT. THIS IS THE CONCEPT THAT THE SOURCE OF ENERGY IS THAT WHICH IS BEYOND ALL MOTION - CONSCIOUSNESS. THIS IS NOT THE IDEA OF CONSCIOUSNESS AS WE AS HUMANS DEFINE IT, AN EXPERIENCED SYSTEM WHICH INTERACTS WITH SYSTEMS OF MATTER, BUT CONSCIOUSNESS IDENTIFIED WITH TIME AS A SYSTEM OF MONADS - CHRONONS: THE ULTIMATE UNITS OF TIME. BUT TIME ITSELF, AS THE MATRIX OF ALL CHANGE, IS IN TURN EMBEDDED IN ETERNITY - A CONCEPT WHICH TRANSCENDS EVEN THE IDEA OF SUBSTANCE.

THE BELIEF THAT ALL ENERGY IS PSYCHIC IN NATURE AND ONLY INSTRUMENTALLY MATERIAL, HAS A HISTORY WHICH BEGAN IN THE 19TH CENTURY AT THE SAME TIME AS CARNOT'S THOUGHT.

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THE TWO SOURCES OF THIS BELIEF, WHICH APPEARED SEPARATE AT THAT TIME, HAVE CONVERGED NOW, FOR THE MOST PART: THE FIRST SOURCE WAS THE SCIENTIFIC EVOLUTIONISTS WHO FELT THE CONCEPT OF ENTROPY [THE PROCESS, GRADUAL UNAVAILABILITY OF ENERGY WITHIN A SYSTEM] AS AN INDICATION OF AN ABSOLUTE DIRECTION OF TIME WAS ONLY HALF THE TOTAL VIEW OF ENERGY PROCESSES. THE OTHER HALF OF THE SITUATION COULD BE SYNTROPY [THE GRADUAL INCREASE WITHIN SYSTEM OF MORE COMPLEX ENERGY QUANTA]. THIS WAS A CONCEPT THAT IMPLIED A MULTI-DIRECTIONALITY TO TIME AND THAT THE ENERGY ASSOCIATED WITH LIFE [ÉLAN VITAL] WAS PSYCHIC. THE EVOLUTIONISTS IN ESSENCE IDENTIFIED ENERGY WITH INFORMATION AND NOT WITH THE MECHANICS OF IMPACT, IMPULSE, OR MOMENTUM OF MATERIAL PHYSICS. THE CONCEPTS OF SYSTEM/RANDOM OR ORDER/DISORDER, THE EQUATIONS OF UNPREDICTABILITY^{OF} SYNERGY, EVENTUALLY ALLOWED, TO THE EVOLUTIONISTS, PHYSICS TO BE DEFINED^{BY}, THE STRUCTURES OF A MORE "CONSCIOUSNESS-ORIENTED" SCIENCE SUCH AS SOCIOLOGY, RATHER THAN A SCIENCE LIKE SOCIOLOGY BEING SUBSUMED WITHIN THE MECHANISMS OF TRADITIONAL PHYSICS; THE SECOND GROUP OR SOURCE BASED ENERGY WITHIN THE REALM OF REVELATION. THIS WAS THE GROUP OF INVENTORS AND THEORISTS WHO DERIVED THEIR ENERGY IDEAS FROM RELIGIOUS AND ESOTERIC TRADITIONS. THEY CREATED MANY DIVERSE NAMES [IN MANY CASES SIMPLY ADOPTED NAMES] FOR A REVEALATORY ENERGY THAT WAS AT BASE THE SAME. SOME OF THE NAMES WERE? ODIC FORCE, LIFE ENERGY, BIOPLASMIC ENERGY, PRANA, MANA, ANIMAL MAGNETISM, MAGNAE MAGNUM, AURIC ENERGY, N-RAYS, ETHERIC FORCE, KUNDALINI, TELLURIC ENERGY, PSYCHROTRONIC ENERGY, KI, CH'I, PURE OR FREE ENERGY, TUMO, VIOLET FLAME, ORGONE ENERGY, Q-ENERGY, "VIBRATIONS", VRIL, PYRAMID POWER, PENDULUM POWER, DREAM POWER, PSI FIELDS, THE HOLY SPIRIT, HOLISTIC HEALING ENERGY, EN-SOF, ELIXIR VITAE, ABRAXAS, THE PHILOSOPHER'S STONE, EMANATIONS, AZOTH, THE QUINTA ESSENTIA, PNEUMA, SHAKTI, ETC. THE VARIED NAMES REVEAL CONNECTIONS WITH HINDUISM, TAOISM, WESTERN ALCHEMY, TEUTONIC MYTHS, THE OCCULT, PARANORMAL PHENOMENA, PSYCHOLOGY, THE KABBALAH, ARCHAEOLOGICAL RESEARCHES, PYTHAGOREANISM, ETC.

CONCEPTUALLY THE CONVERGENCE OF THESE TWO SOURCES WAS ACHIEVED IN THE 1920'S AND 30'S BY TEILHARD DE CHARDIN, WHO PROPOSED A TOTAL COSMIC OR META-ENERGY. THIS COSMIC ENERGY WHILE PSYCHIC AT BASE HAS TWO MODALITIES, WHICH HE CALLED:

① TANGENTIAL ENERGY - THE ENERGY OF MOMENTUM OF THE PHYSICISTS LINKS ELEMENTS WITH ALL OTHERS OF THE SAME ORDER [THAT IS OF THE SAME LEVEL OF SYSTEMIC COMPLEXITY AND CENTRICITY] BY RADIATION OR ARRANGEMENT ; ② RADIAL ENERGY - THIS DRAWS ELEMENTS TOWARD EVER GREATER INTERNAL COMPLEXITY AND CENTRICITY. THIS IS THE NEURERGY OR PSYCHERGY WHICH GUARANTEES THE TIME DIRECTIONALITY WHICH TANGENTIAL ENERGY DOES NOT.

THESE TWO MODALITIES OF META-ENERGY ARE MANIFESTED AS MIND AND MATTER OR THE "WITHIN" OR "WITHOUT" OF THE UNIVERSE.

TODAY EXPERIMENTERS IN WHAT COULD BE CALLED "MIND-PHYSICS" OR "THE PHYSICS OF CONSCIOUSNESS" ARE ATTEMPTING TO FIND A QUANTITATIVE LINK BETWEEN THE TWO MODALITIES OF ENERGY. THIS WOULD MEAN FOR INSTANCE THAT A QUALITATIVE AND QUANTITATIVE LINK COULD BE DISCOVERED BETWEEN THE PHYSICAL CONCEPT OF WORK AND THE SUBJECTIVE CONCEPT OF FATIGUE. THE EMOTIONAL ENERGY OF LOVE, HATE, ANGER, JOY, ETC. COULD BE DIRECTLY CONNECTED TO PHYSICAL CONCEPTS OF VELOCITY AND ACCELERATION AS PURPOSE, AS HAS BEEN SUGGESTED BY ARTHUR M. YOUNG, AUTHOR OF THE REFLEXIVE UNIVERSE.

THE IMPETUS FOR THE DIRECTION OF THIS SEARCH STEMS FROM THE CHALLENGES TEILHARD DE CHARDIN POSED. IN "THE PHENOMENON OF MAN", HE SAID, "... THE VARIATION OF RADICAL ENERGY IN FUNCTION OF TANGENTIAL ENERGY IS EFFECTED, ACCORDING TO OUR HYPOTHESIS, BY THE INTERVENTION OF AN ARRANGEMENT, IT FOLLOWS THAT AS MUCH AS YOU LIKE OF THE FIRST [TANGENTIAL] MAY BE LINKED WITH AS LITTLE AS YOU LIKE OF THE SECOND [RADIAL] - FOR A HIGHLY PERFECTED ARRANGEMENT MAY REQUIRE AN EXTREMELY SMALL AMOUNT OF WORK." FURTHER ON HE SAID, "... WE ARE PARADOXICALLY

LED TO ADMIT THAT COSMIC ENERGY IS CONSTANTLY INCREASING, NOT ONLY IN ITS RADIAL FORM, BUT - WHICH IS MUCH MORE SERIOUS - IN ITS TANGENTIAL ONE [FOR THE TENSIONS BETWEEN ELEMENTS INCREASES WITH THEIR CENTRICITY ITSELF]. THIS WOULD SEEM TO BE IN DIRECT CONTRADICTION WITH THE LAW OF CONSERVATION OF ENERGY."

HE GOES ON TO OBSERVE THAT THE INCREASE OF TANGENTIAL ENERGY OF THE ARRANGEMENT FORM - THE FORM TROUBLE SOME FOR TRADITIONAL PHYSICS - BECOMES APPRECIABLE WITH VERY HIGH FORMS OF RADIAL ENERGY. THIS WOULD BE IN FORMS SUCH AS SOCIAL TENSIONS. ALSO A CERTAIN PRIMORDIAL QUANTUM OF FREE TANGENTIAL ENERGY WILL BE USED UP ENTROPICALLY AS UNIVERSAL CENTRATION TAKES PLACE.

IN ESSENCE TEILHARD DE CHARDIN OFFERS A VISION OF ENERGY NOT OF DECOMPOSITION TOWARD EQUILIBRIUM, BUT AN EVER INCREASING TENSION PRODUCING COMPLEXITY, FROM ABOVE - USING HIS METAPHOR.

SO FAR THERE ARE ONLY HINTS AS TO THE QUANTITATIVE RESOLUTION OF TANGENTIAL ENERGY WITH RADIAL; AND THESE HINTS ARE FROM SOURCES WHICH AIM AT THE TRANSDISCIPLINARY BUT HAVE THEMSELVES NOT YET CONVERGED. PROMINENT DIRECTIONS ARE: (1) BIOPHYSICS, MATHEMATICAL BIOLOGY, CYBERNETICS, ETC., REPRESENTED BY DARCY THOMPSON AND R. BUCKMINSTER FULLER, AND (2) "MIND-PHYSICS" [THE PROPOSED BODY OF THEORETICAL EXPLANATIONS FOR PARAPSYCHOLOGICAL PHENOMENA], REPRESENTED BY LEONARD T. TROLLAND AND OLIVER REISER.

I SHALL SIMPLY LIST THESE HINTS IN ORDER NOT TO LIMIT THE POSSIBILITIES SURROUNDING THIS SUBJECT [THIS LIST IS NOT EXHAUSTIVE]:

(1) THE VELOCITY OF LIGHT OR $[C]$ IS CONSIDERED THE LIMITING VELOCITY OF ALL MATTER AS PARTICLES. AS A PARTICLE APPROACHES $[C]$, ITS MASS INCREASES LOGARITHMICALLY. THEREFORE ANY VELOCITY WHICH IS SAID TO EXCEED $[C]$ MEANS ENERGY IS EXPRESSED AS CONSCIOUSNESS. ALSO WE DO NOT KNOW WHETHER $[C] = 0$ OR ∞ BECAUSE THE VELOCITY ASSIGNED TO $[C] = 299796 \pm \frac{\text{KM.}}{\text{SEC.}}$ IS IN RELATION TO CERTAIN GYROSCOPIC PROPERTIES OF THE EARTH.

(2) ENERGY EXISTING BELOW $[C]$ OCCURS IN PROPAGATED WAVE FRONTS. THE CONFIGURATIONS OF THESE WAVE FRONTS ARE IN THE FORM OF THE PYTHAGOREAN CONVEX SOLIDS: THE TETRAHEDRON,

THE OCTAHEDRON, THE HEXAHEDRON, THE ICOSAHEDRON, THE DODECAHEDRON. THESE FORMS ARE PATTERNS IN NATURE WHICH RELATE TO PHI OR THE "DIVINE PROPORTION" TO THE ATOMIC STRUCTURE.

- ③ ENERGY EXISTING ABOVE [C] IS NOT PROPAGATED BY WAVES BUT IS SIMPLY EVERYWHERE AT ONCE.
- ④ THERE ARE LEVELS OF REALITY ABOVE AND BELOW THE VELOCITY OF LIGHT:
 - Ⓐ THE OCTAVE OF SPATIALITY: SUB-SPACE [POINT-LINE-PLANE-SOLID] [THE VELOCITY OF LIGHT] SUPER-SPACE [SOLUOID-VOSOLID-VOID-RAUM];
 - Ⓑ THE OCTAVE OF TEMPORALITY: SUB-TIME [INSTANT-INTERVAL-SUCCESSION-DURANCE] [THE VELOCITY OF NOW] SUPER-TIME [TIME-ETERNITY-NYPARXIS-ZEIT].
- ⑤ WHEN A PENDULUM SWINGS, ITS OSCILLATION PATTERN IS REST-SWING-REST. THE SWING OCCURS AT LEVEL 3 [SOLID-DURANCE], THE REST POINTS OCCUR AT LEVEL 4 [SOLUOID-TIME] AND ARE THEREFORE NATURAL CONNECTIONS TO A HIGHER ENERGY LEVEL.
- ⑥ "THE BLACK-WHITE-HOLE AND ITS MICRO-VERSION [WHICH IS IN BETWEEN GEONS OR GRAVITY-WAVE PACKETS] THE WORM-HOLE, AND THE PHOTON ALL INVOLVE A DESCRIPTION OF THEIR BEHAVIOR IN RELATION TO ANGULAR MOMENTUM WHICH INCREASES WITHOUT LIMIT AS THE CENTROID IS APPROACHED. THEY ARE NATURAL CONNECTIONS TO A HIGHER REALITY PLANE.
- ⑦ THE ANGULAR MOMENTUM OF ELEMENTARY PARTICLES [SUCH AS AN ELECTRON] = $\frac{1}{2} \left[\frac{h}{2\pi} \right]$, h = PLANCK'S CONSTANT.
 ϕ [phi] AND π [pi] ARE RELATED: $\pi = \phi^2 \left[\frac{6}{5} \right]$.
 ϕ IS THE POSITIVE SOLUTION TO THE EQUATION $x^2 - x - 1 = 0$, OR $x = \frac{1 + \sqrt{5}}{2} = 1.61803398\dots$, $\pi = 3.1459265\dots$
 THUS ϕ IS RELATED TO h BY ANGULAR MOMENTUM:

$$A = \frac{1}{2} \left[\frac{h}{2[\phi^2 \left[\frac{6}{5} \right]]} \right].$$

THE BASE e OF NATURAL LOGARITHMS [2.71828...] IS RELATED TO ϕ . THE VALUE a THAT SATISFIES THE EQUATION:

$$N^a + [N+a]^a = [N+2a]^a \text{ AS } N \rightarrow \infty \text{ IS } a = \log_e \phi \text{ OR}$$

$$a = \log_e \frac{1 + \sqrt{5}}{2} \text{ OR } e^a = \phi.$$

PLANCK'S CONSTANT CAN CONTAIN ANY AMOUNT OF ENERGY. A PHOTON IS A PACKET OF ANGULAR MOMENTUM THAT DECREASES IN SIZE ON THE PATH OF A LOGARITHMIC SPIRAL AND IS RELATED TO [h].

A PHOTON CAN STORE AN UNLIMITED AMOUNT OF ENERGY BY SIMPLY GETTING SMALLER, SINCE IT HAS NO MASS. THIS IS TANGENTIAL ENERGY BECOMING RADIAL.

⑧ ϕ OCCURS AS AN ORDERING PRINCIPLE ALL THROUGH NATURE IN FORMS SUCH AS THE LOGARITHMIC SPIRAL, IN THE SUNFLOWER'S FLORET PATTERN, IN THE PATHS OF INSECTS DRAWN TOWARDS A LIGHT SOURCE, IN PLANT GROWTH IN CURVE OF HORNS, IN SHELLS LIKE THAT OF THE CHAMBERED NAUTILUS, ETC.
 ϕ ALSO OCCURS AS A NUMERICAL ORDERING PRINCIPLE AS THE FIBONACCI SERIES: [EACH TERM IS THE SUM OF THE TWO PRECEDING TERMS, AND THE RATIO OF SUCCESSIVE TERMS APPROXIMATES ϕ AS THE TERMS APPROACH INFINITY, AND IN THE ^{ABSENCE} OF ANY RESTRICTION ON THE TWO INITIAL MEMBERS OF THE SERIES IT IS: 0-1-1-2-3-5-8-13-21-34-55-89-...]. THE SERIES SHOWS UP IN, BREEDING SEQUENCES, LEAF "DIVERGENCE", BRANCHING IN PLANT LIFE, THE WAVELENGTH SERIES OF THE MUSICAL CHROMATIC SCALE [FROM C TO C] OF THE 12 SEMITONES PLOTTED AS RADII OF A LOGARITHMIC SPIRAL, THE NUMBER OF EMERGENT LIGHT RAYS FROM MULTIPLE REFLECTIONS ON TWO SHEETS OF GLASS IN CONTACT, THE HISTORY OF AN ELECTRON AS IT GAINS AND LOSES QUANTA ENERGY FOR ITS ATOM, THE PLOTTING OF THE ATOMIC ISOTOPE OCCURRENCES [2-8-20-50-82-126...] AGAINST POLAR COORDINATES FORMING A LOGARITHMIC SPIRAL, ETC.

⑨ THE TRADITIONAL INTERPRETATION OF THE LOGARITHMIC SPIRAL IN NATURE IS THAT IT IS CHARACTERISTIC NOT OF LIVING OR MOVING TISSUE BUT OF THE DEAD OR NON-MOVING TISSUE.

IN THE GREAT PYRAMID AT GIZA [ESSENTIALLY A TOMBSTONE] ϕ IS THE ORGANIZING PROPORTION AND IS SAID TO BE THE SOURCE OF "PYRAMID POWER". THE SLOPE ANGLE OF THE TRIANGULAR FACETS IS $51^\circ 52'$ WHICH IS PRODUCED BY ϕ , $\sqrt{\phi}$, AND $\sqrt{\phi^2 + 1}$.

THE EGYPTIAN MYTHS OF DEATH ARE BALANCED BY THEIR MYTHS OF LIFE ESPECIALLY OF THE SUN. THE PYRAMID IS ALSO A SYMBOL OF THE SPREADING RAYS OF THE SUN, BRINGING ENERGY TO THE EARTH.

ϕ IS, THEREFORE, THE DIVINE PROPORTION WHICH CONNECTS LIFE AND DEATH, MIND AND MATTER. ϕ IS THE MANIFESTATION FROM THE LEVEL OF REALITY CALLED ^{TIME} OR THE OPENING TO TIME AS THE FORM OF ENERGY WHICH CONTROLS MOVEMENT.

THERE IS AN "ABYSS OF TRANSITION" [THE SEPARATION IN TIME AND SPACE BETWEEN A CAUSE AND ITS EFFECT] WHICH IS, THEREFORE, FILLED WITH THE CONTROLLING POWER OF ϕ .

⑩ EINSTEIN'S EQUATION FOR ENERGY [$E=mc^2$] COULD BE CHANGED TO READ: $E=mc\phi$, AND, IN MY OPINION, WOULD BE MORE IN CONFORMITY WITH NATURAL PATTERNS.
 • 618... WOULD REPRESENT MASS IN MOTION, AND THE OTHER PORTION OF THE CONVERGENCE OF THE FIBONACCI SERIES,
 • 382... WOULD REPRESENT CONSCIOUSNESS AS TIME.

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THE CONCEPT OF META-ENERGY, THEREFORE, WHEN FULLY DEVELOPED WILL BE ABLE TO ACCOUNT NOT ONLY FOR THE BAFFLING INVENTIONS OF PEOPLE LIKE WILHELM REICH OR NIKOLA TESLA, BUT IT WILL MAKE THE ANCIENT CONCEPTS OF INVISIBILITY, LEVITATION, IMMORTALITY, BI-LOCATION, PERPETUAL MOTION, TIME TRAVEL AND THE REST, SEEM LIKE JUST THE TIP OF THE ICEBERG OF WHAT IS TO COME IN THE FUTURE.