

Glossary of Technical [Phonetic/Phonogramic] Terms, including Neologia

δ. words beginning with the letter 'd'.

de-cumulation = ['decumulation'; 'meta-subtraction']: ontological dis-accumulation. Term for an aspect of the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'negative valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'positive valence', and, vice versa, symmetrically, the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'positive valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'negative valence', in the models constructible using the zQ language/'epoch' of the dialectic of the Q dialectical ideography, especially under the 'meta-genealogical evolute product rule' of Q.

de-evolution = ['de-evolute-tion']: reversed evolution, or reversed 'meta-evolution'. Term for an aspect of the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'negative valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'positive valence', and, vice versa, symmetrically, the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'positive valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'negative valence', in the models constructible using the zQ language/'epoch' of the dialectic of the Q dialectical ideography, especially under the 'meta-genealogical evolute product rule' of Q.

de-generation = ['de-genera-ation']: loss of genera. Annihilation-extinction of a «genos» ['«genos»-cide'], or of more than one «genos». Term for an aspect of the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'negative valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'positive valence', and, vice versa, symmetrically, the effect of the annihilative operation upon/multiplication of Q-interpreted ontological categories/«arithmoi» of 'positive valence' upon the cumula of Q-interpreted ontological categories/«arithmoi» of 'negative valence', in the models constructible using the zQ language/'epoch' of the dialectic of the Q dialectical ideography, especially under the 'meta-genealogical evolute product rule' of Q.

densification = ['self-densification']: critical aspect of the processes of 'reproductively accumulating' or expandedly self-reproducing local populations of «monads» -- processes which we term 'self-environment' and 'self-surroundment' -- and by which such populations of physical «monads», or «arithmoi aisthetoi», typically manifest the prelude to their 'meta-finite', 'meta-fractal', 'meta-dynamical' and 'meta-evolutionary', via-'self-subsumption', or via-'self-internalization', 'meta-monadization' of those populations -- their "'primitive accumulation'" of a new, successor ontological category, or 'onto', whose 'meta-«monads»', or 'meta-units', are, in general, each made up out of a heterogeneous multiplicity of their predecessor «monads», or units. Thus, a molecule as ontological unit, or «monad», is 'meta-monadic' to an atom, each typical molecule being made up out of a heterogeneous multiplicity of atoms. An atom as ontological unit, is, in turn, 'meta-monadic' to a sub-atomic particle, each typical atom being made up out of a heterogeneous multiplicity of sub-atomic particles. A prokaryotic cell as ontic unit, is, in turn, 'meta-monadic' to a molecule, each prokaryotic cell being made up out of a heterogeneous multiplicity of molecules.

density = the measured "'concentration'" of «monads» in physical three-space, e.g., the population-count of the «monads» of a given 'onto-type' within a definite region of physical three-space, or the 'onto-mass' of the «monads» of a given 'onto-type' within that region of three-space, divided by a measure of the three-dimensional volume of that region [by standard α_μ 'metrical qualifier' assignment, densities are quantities qualified by $\hat{\mu}_0 / \hat{\mu}_{1+3\hat{J}}$, or by $\hat{\mu}_{1+\hat{J}_2} - \hat{\mu}_{3\hat{J}_1}$, respectively].

determinateness = "'thought-concreteness'"; the richness of the multiplicity characteristics and predicates 'explicitized' as having been made manifest as the unified "'intension'"/"'connotations'" of a given concept.

de-Parmenideanized ■ 're-Dynamized'; reconceptualized to reveal/'explicitize' intrinsic dynamicity.

diachronic ■ the temporal dimension/direction; the direction of change-in-general. The domain of differences observed by an observer, occupying an unchanging position in physical space, as time advances.

diachronic complement ■ the other of the 'synchronic complement'. The contrasting, complementing / supplementing, opposing, and [temporarily/locally] completing next or successor system / ontological category to any given, predecessor system / predecessor ontological category, in a 'qualo-Peanic' diachronic meta-system' categorial self-progression / systems-self-progression archeonic consecuum-cumulum.

diactic eventity ■ an 'eventity' characterized by 'intra-duality', 'self-duality', 'immanent contradiction', or 'diacticity', that is, by 'existential self-incompatibility' or 'self-changing-ness' [«auto-kinesis»].

diacticity ■ the quality, condition, nature, or essence of a diactic [ev]entity. The 'inter-mutually opposing' mutually contrary 'bi-consequentiality' of a single cause or causal activity -- of the temporal/material implications of the 'essence-ial' 'self-activity' of any given "'self-reflexive'" / 'self-refluxive' [meta-]system or 'dialectical eventity' which is characterized by 'indivi[sible]-duality', 'intra-duality' / 'self-duality', or by 'existential / ontological self-contradiction', e.g., a star, a planetary biosphere, a human society, a human body, whose [self-]activity "univocally" impends self-re-production / self-sustainment / temporal self-prolongation / self-extension / self-continuation / self-organization / self-ascendance in the shorter-term, but self-non-reproduction / self-dis-organization / self-dissolution / self-re-organization / self-revolution / self-transcendence later on. Each star, each stellar self-formation of pre-human/extra-human Nature, for example, can be comprehended as a self-development of the 'intra-duality' of self-gravitational self-implosion and thermonuclear self-explosion. A star, to 'temporally extend itself', to reproduce itself from moment to moment -- to go on shining, and to avert self-gravitational self-implosion/self-collapse -- must continue to consume the fusion fuels at its core. Yet, each moment of that self-consumption moves the star closer to the moment when its current core fusion fuel will be completely converted into higher atomic species by that atomic fusion process, which temporarily sustains the star's existence as such, as a star. When that moment of complete core conversion arrives, the star's self-gravitational self-implosion will resume -- a self-process which ultimately brings the existence of the star, as existential process or stellar eventity, to an end -- which eventuates in the self-dissolution of the star. But it does so in ways which add to the accumulation of higher atomic species in the interstellar medium that eventually give rise to planet-formation, and thus to new epochs/scales of The Dialectic Of Nature -- of 'cosmological meta-evolution'. Marx writes as follows, in the Grundrisse, about the 'diacticity' of early pre-capitalist human social formations: "The object of all these communities is preservation, i.e., the production of the individuals which constitute them as proprietors, i.e., in the same objective mode of existence, which also forms the relationship of the members to each other, and therefore forms the community itself. But this reproduction is at the same time necessarily new production and the destruction of the old form. . . The act of reproduction itself changes not only the objective conditions — e.g., transforming village into town, the wilderness into agricultural clearings, etc., — but the producers change with it, by the emergence of new qualities, by transforming and developing themselves in production, forming new powers and new conceptions, new modes of intercourse, new needs, and new speech. . . In the last instance the community and the property resting upon it can be reduced to a specific stage in the development of the forces of production of the labouring subjects — to which correspond specific relations of these subjects with each other and with nature. Up to a certain point, reproduction, Thereafter, it turns into dissolution. . ." [Eric Hobsbawm, Karl Marx: Pre-Capitalist Economic Formations, International Publishers [NY: 1964], pp. 92-95, emphasis added by F.E.D.].

diactics ■ alternative name for dialectics which, per F.E.D., emphasizes, in particular, the 'intra-duality' or 'self-duality' of every "'self-reflexive'" / 'self-refluxive eventity', whose aspect as a subject or agent, acting upon its own other aspect, its aspect as an 'object', or recipient of action, changes itself in a process anciently known, in the Occident, to Plato and others, as «auto-kinesis» -- "'self-change'" -- or, in the Orient, as «karma», so that each such 'diactic eventity' or 'dialectical eventity' is 'self-incompatible' -- incapable of stasis -- or inherently characterized by 'dynamasis', such that the cause of the [self-]force which moves that 'eventity' out of its every present '[meta-]state', into its next-present '[meta-]state', is the very 'self-]force' generated by its being [becoming] [in] that '[meta-]state' in the first place. The ensemble of this 'diacticity' is thus the cause of "time", which is therefore not some abstract, ideal clock, ticking somewhere outside the universe, but is, on the contrary, the immanent pulse or rhythm of the universal dialectic itself; of universal «auto-cum-allo-kinesis».

DIACTICOA = this work [Acronym for *Dialectical Ideography: A Contribution to The Immanent Critique Of Arithmetic.*]

diagonal = [hyper-diagonal; meta-diagonal]: The direction of the directed line-segment representing the *dialector* $\hat{q}_n^2 = \hat{q}_n \boxplus \hat{q}_{2n}$, for any n in \mathbf{N} , relative to the mutually-perpendicular *directions* of the directed line segments representing the *dialectors* \hat{q}_n and \hat{q}_{2n} . The direction taken by «aufheben»/'evolute' ontological 'cumulation' in the analytical-geometrical 'ideo-phenomenology' of the \mathbf{Q} dialectical arithmetic under its 'evolute' product rules, the '«aufheben» evolute product rule', the 'meta-genealogical evolute product rule', etc.

diagonality = [hyper-diagonality; meta-diagonality]: the analytical-geometrical character of «aufheben» or 'evolute' ontological 'cumulation' in the 'ideo-phenomenology' of the \mathbf{Q} dialectical arithmetic under its 'evolute' product rules, the '«aufheben» evolute product rule', the 'meta-genealogical evolute product rule', etc. The term 'diagonality' describes character or quality of the directionality of all *dialectors* /'*dialector cumula*' in the 'self-iteration self-progression' $\mathbf{Q}_\tau = \mathbb{I} \hat{q}_1 \mathbb{I}^{2^\tau}$, for all values of τ other than 0.

diagonalization = [hyper-diagonalization; meta-diagonalization]: the method of analytical-geometrical modeling or expression of «aufheben» or 'evolute' '*ontology-accumulation*' in the 'ideo-phenomenology' of the \mathbf{Q} dialectical arithmetic under its 'evolute' product rules.

[the] dialectic = the generic *meta-pattern* of all '*qualo-Peanic archeonic consecua/cumula*', that is, of "categorical [self-]progression", or of '*systems [self-]progression*', captured by the *rules-system* of the \mathbf{Q} *dialectical ideography* in particular, and, in general, at increasingly levels of complexity, as well as of "thought-concreteness", or *determinateness*, by every category/system in the '*qualo-Peanic archeonic consecuum/cumulum*', that is, in the "categorical [self-]progression", and '*systems [self-]progression*', which constitutes *the dialectic of the dialectical ideographies*, expressed 'formulaically' by $(\mathbf{N})^{2^\tau}$.

dialectical eventity = an '*eventity*' whose "«karma»" [*self-action*] or "*self-activity*" -- i.e., whose internal, immanent, 'self-reflexive', 'self-refluxive' '*existential self-incompatibility*' -- renders it a "*self-changing*" or '*auto-kinesic*' "process-entity" or "process-object", and one whose '*self-progression*' instantiates, or is a *species* of, the generic pattern of a '*qualo-Peanic*', '*meta-finite*', '*meta-fractal*', '*meta-monadic*', «aufheben»-'evolute' '*consecuum-cumulum*'.

Dialectical Ideography = this work [Sub-Title: *A Contribution to The Immanent Critique Of Arithmetic.*]

dialectical ideography = any ideography which embodies, mimes, or homeomorphically captures some definition of *the dialectic* or of *dialectical process*.

Any one of the specific rule-based '*designer languages*' ['artificial languages'; "symbolic systems"] set forth in this work, expressed, primarily, via 'characters', or 'phono-mnemonic ideograms', as an "arithmetic", "algebra", "calculus"/"analysis", and, also, via diagrams, "graphs", and [other] 'pictograms', as a '*geometry*', and, in general, as a "character-istic" or "*dialectical*" [and trans-Leibnizian] «*characteristica universalis*», and which is used to capture and express especially '*idea-models*' of the *self-reflexive, self-refluxive* moment[a] of the '*ideo-meta-dynamics*' or '*ideo-onto-dynamases*', of 'internal-objective' or 'psycho-historical' [subjective] "*idea-objects*" or thought-processes, or thought-/mental-*eventities*, as well as '*idea-models*' of 'external-objective' "natural" *eventities* in general, and of their '*physio-onto-dynamases*'. Generic characteristic formula: $[\forall \hat{x} \in \mathbb{I}_w \mathbf{Q} \boxminus \{q_0\}][\hat{x}^1 \rightarrow \hat{x}^2 = \hat{x}[\hat{x}] = \text{r}[\hat{x}] = [\hat{x} \text{ r} \boxminus \square \hat{x}] \frac{1}{2} \hat{x}]$, or

$$[\forall w \in \mathbf{W}][\forall \hat{q}_w \in \mathbb{I}_w \mathbf{Q} \boxminus \{q_0\}][\hat{q}_w \rightarrow \hat{q}_w^2 = \hat{q}_w[\hat{q}_w] = \text{r}[\hat{q}_w] = [\hat{q}_w \text{ r} \boxminus \hat{q}_{2w}] \frac{1}{2} \hat{q}_w]$$

The term '*dialectical ideography*' also refers to a component of the ' Δ ' term in: **arithmetic_{now}** \rightarrow **arithmetic_{now}²** = **arithmetic_{now}** \triangleleft **arithmetic_{now}** \triangleright = $\text{r} \triangleleft$ **arithmetic_{now}** \triangleright = **arithmetic_{next}** = \triangleleft **arithmetic_{now}** $\text{r} \boxplus$ Δ \triangleleft **arithmetic_{now}** \triangleright ; **dialectical ideography** \square Δ \triangleleft **arithmetic_{now}** \triangleright .

dialectical axiomatics, or [**dialectical**] **meta-axiomatics** [vs. **Platonic axiomatics**] = a dialectical strategy encompassing deductive axiomatization in which the axioms or premises, the rules of inference, and the primitive terms, of a rules-system are adopted, not as absolute and unaccountable, but provisionally, such that the consequences derived from them are iteratively fed back upon, or "refluxed" upon, those very premises and "primitives", validating them, invalidating them, or, more commonly, modifying/amending them to expand the *always imperfect and partial* coherence, self-consistency, completeness, and scope of said system, in a kind of 'Newton-Raphson Method' for continually improving/expanding/evolving said axiomatic system as an ever-approximation to the unarrivable asymptote of axiomatic "perfection"/stasis/"eternal equilibrium"/'fixed-point-ality'. If we denote, by \underline{A}_0 , the ontology -- the ontological commitments -- of the 0th, or initial, "guess" at the "perfect" axioms for some axiomatic system, then the 'immanent-critique-' or 'self-critique-driven' 'meta-evolution' of this axioms-meta-system, via the encounter with and the overcoming of a succession of internal, immanent "insolubilia" -- unsolvable equations, and undecidable propositions asserting their unsolvability -- i.e., 'syntactico-semantic discrepancies' or 'syntax-exceeding-semantics lacunae', and instantiating a 'Gödelian Dialectic' [which we also term a 'Gödelian Ideo-Meta-Dynamic'], may be 'meta-modeled', with $\underline{A}_{\tau+\Delta\tau}$ as a "'conservative extension'" of \underline{A}_τ :

$$\underline{A}_\tau \rightarrow \underline{A}_{\tau+\Delta\tau} = \underline{A}_\tau^2 = \underline{A}_\tau(\underline{A}_\tau) = \mathcal{C}(\underline{A}_\tau) = (\underline{A}_\tau \oplus \Delta\underline{A}_\tau) \ddagger \underline{A}_\tau, \text{ and as: } \underline{A}_\tau = \underline{A}_0^{2^\tau}.$$

dialectical [self-]contradiction = the "'internal'", "'inherent'", 'essence-ial', 'existential' or 'ontological' [**self-]contradiction**, or subject/object '**self-duality**', of a system which generates, powers, or '**dynamizes**' that system's 'self-meta-evolution'; its 'meta-dynamic', i.e., its '**meta-system**', that is, its diachronic, '**qualo-Peanic**', «**aufheben**»-'**evolutive**', '**meta-fractal**' progression, or '**consecuum-cumulum**', of successor systems, as distinct from '**propositional [self-]contradiction**'. If $\hat{\mathcal{X}}$ denotes a system-category, system-kind, **ontological category**, system-population of **monads**, or 'system-onto' generically, then **Dialectical Ideography** asserts its self-relation of **dialectical contradiction** by $\hat{\mathcal{X}} \# \hat{\mathcal{X}}$. **Self-change** -- the system/'eventivity' in its aspect as **subject**, acting upon itself as **object**, through its aspect as a specific, characteristic, system-'essence-ial' **verb** -- "contradicts" that system's capacity for **stasis**, is incompatible with that system's remaining in the same [meta-]state. This '**existential self-incompatibility**', or, in other words, this "'self-reflexive'", 'self-refluxive', "'self-activity'", as "'**auto-kinesis**'", is the root meaning of '**dialectical contradiction**', '**self-contradiction**', '**internal contradiction**', '**immanent contradiction**', or '**self-contra-kinesis**'.

[the] dialectical function = a function which applies an «**aufheben**»-operation to its operand.

dialectical negation = the system of rules regarding "'what follows [from] what'" that captures **dialectics**.

dialectical negation = «**aufheben**»-negation, or '[self-]internalization'/'[self-]subsumption', whether (1) induced *internally*, by the 'self-internalizing' and thus 'self-meta-monadizing' population of "units", i.e., by a [local] «**arithmos**» of «**monads**», *itself*, operating *endogenously* upon/within itself, as the "subject" or "agent" of that *auto-«aufheben»* process, or whether (2) induced *externally*, by another population of "units", i.e., by an ontologically-different [local] «**arithmos**» of «**monads**», operating *exogenously* upon the operand population of "units", or «**arithmos**» of «**monads**», as the "subject" or "agent" of that *allo-«aufheben»* process, so that the operand «**arithmos**» of «**monads**» is thereby being induced to undergo 'internalization'/'subsumption' to/by that *other*, operator, or «**arithmos**» of «**monads**».

[the] dialectic of [the] dialectic = '**dialectic squared**' or '**dialectic of the second degree**'. '**Dialectics**' qua the name for the 'meta-patterns' of '**meta-evolutionary**' change -- 'meta-patterns' which can be abstracted, by '**psycho-historical**' or *human[oid]*-epoch **subjects**, from the empirical **content** of the concrete movement of 'universe'/'totality'/Nature/Natur[e-]al History as these **subjects** have experienced it to-date, via its *causa cognoscendi* -- does indeed *itself* have a history. Likewise, '**dialectical logic**', as the name for the ongoing, ever-developing, indefinitely-progressing, human [re-]cognition, *conceptualization/comprehension*, and *codification/linguistic representation* of those 'meta-patterns' of 'categorical followership' or 'systems followership'; of '**meta-evolutionary change**' to-date, 'following' and attempting to 'keep up with' their empirical manifestation, must decidedly also have a history.

Thus, there is indeed a '*dialectic of dialectic*', both as a '*meta-evolution*' of the very system of '*meta-patterns*' of '*meta-evolutionary*' change themselves, as extant in universal natural history, and as a '*meta-evolution*' of the human[oid] cognition and representation of those '*meta-patterns*':

$\underline{\text{dialectics}}_x \rightarrow \underline{\text{dialectics}}_{x+1} = \langle \underline{\text{dialectics}}_x \rangle^2 = \underline{\text{dialectics}}_x \langle \underline{\text{dialectics}}_x \rangle = \langle \underline{\text{dialectics}}_x \rangle =$
 $\langle \underline{\text{dialectics}}_x \rangle \rightarrow \langle \underline{\text{dialectics}}_x \rangle \langle \underline{\text{dialectics}}_x \rangle = \langle \underline{\text{dialectics}}_x \rangle \langle \underline{\text{meta-dialectics}}_x \rangle \rightarrow \dots$, where --
 $\underline{\text{dialectics}}_0 \rightarrow \underline{\text{dialectics}}_1 \rightarrow \underline{\text{dialectics}}_2 \rightarrow \underline{\text{dialectics}}_3 \rightarrow \underline{\text{dialectics}}_4 \dots$, and where --
 $\underline{\text{dialectics}}_0 \frac{1}{2} \underline{\text{dialectics}}_1 \frac{1}{2} \underline{\text{dialectics}}_2 \frac{1}{2} \underline{\text{dialectics}}_3 \frac{1}{2} \underline{\text{dialectics}}_4 \dots$

Thus 'dialectics', meaning either (i.) the '*in situ*' modes of concrete change, or (ii.) the human[oid] formulation thereof, is subject to its own self-activity, its own self-reflexion and self-refluxion, and so to 'self-change' as a consequence of these self-re-flexive/self-re-fluxive 'self-forces'. Thus, also, 'dialectics', in the latter sense of human linguistic formulation, is subject to change due to 'mere flexion' or 'allo-fluxion' as well. I.e., the reception, by communities of human[oid] *subjects*, of information regarding '*ontological news*' of new, emergent phenomena and '*meta-patterns*' of '*meta-dynamical*' change in their own midst, or anywhere in the universe, can, should, and indeed does tend to induce [quanto-]qualitative changes/refinements in the human[oid] formulation of *universal dialectics*.

[the] dialectical operation = the «*aufheben*»-operation. [E.g., the 'physio-operations' and 'ideo-operations' of '*self-internalization*', of '*self-subsumption*', of '*self-subscriptization*' in the '*meta-numeral*' neo-ideogram formation processes of the '*meta-system-atic dialectic*' of the systems-self-progression of the dialectical arithmetics, of the resulting '*meta-fractal-ization*' -- of new, '*meta-fractal*' scale/level formation -- and of the '*meta-monadizations*' in the '*physio-ontological*' and '*ideo-ontological*' '*Meta-Monadologies*' of both the *historical*, '*physio-dialectics*' and the [*psycho-historical*] '*ideo-dialectics*' of Nature [including human[oid] Nature], not to mention the '*evolute*' product-rules of the \underline{Q} arithmetic, which define each \underline{Q} '*meta-numeral*' as an «*aufheben*» operator].

dialectical operations stage of human[oid] cognitive development = that stage in the cognitive development of an *individual* human[oid] when the categorial rigidity of either/or, "black-or-white" «*dianoia*», or '*dianoesis*' -- the "*formal operations*", '*dianoetic*' thought-processes of "The Understanding" or of «*verstand*» reasoning -- are «*aufheben*»-transcended. The stage of cognitive development initiated by the internal/self-identity self-revolution of the emergence of capacity to exercise the «*dialektiké*» thought-technology/«*organon*»; the higher, «*vernunft*» processes of *dialectical reason*. Also, that stage in the development of the *collective-human[oid]* '*Phenome*' when a critical mass of the human[oid] individuals constituent in the human[oid] population of a given planetary civilization *contemporaneously* enter the dialectical operations stage of their personal development -- the process whose '*quanto-quality*' largely determines the outcome of the '*meta-Darwinian*'/'*Phenomic*' '*Planetary Selection Test*' for that global civilization, or '*planetized humanity*', and for its '*noosphere-biosphere*'.

dialectical operator = an operator which applies an «*aufheben*»-operation to its operand.

dialectical set theory = the theory of 'auto-dynamical' 'ideo-«*arithmoi*»', or «*arithmoi eidetikoi*», made up out of a heterogeneous multiplicity of '*ideo-«monads*»', or «*eide*»-[as-]units -- «*ιδεα*»-units, *concept*[s-as-]units, or '*categories as ideo-ontological units*', which may be useful to model/represent ideas about the dynamics and 'meta-dynamics' of '*physio-units/-objects*' in the external-/physical-objective world, and one which recognizes the 'auto-dynamism', or '*ideo-onto-auto-kinesis*', of *the set of all sets*, whose «*arché*» is the *finitary* "'univers[e][al] set'" as the 'set of all [*constructible*] objects', 'set of all logical «*monads*»', 'set of all *units*', or 'set of all logical individuals' that are '*constructed*' to form the given universe of discourse, as the *dialectic of the set*, also recognizing *the set of all sets as the fundamental idea-object of set theory* itself -- *the set-theoretical definition of the concept of the set* itself; the extension of the intension of the term "'set"'.

dialectical totality = a *synchronic super*^w-system «*aufheben*» *meta-fractal*, involved in a *diachronic meta-system's* *qualo-Peanic temporal self-progression*.

dialectical totality-theory = a *dialectical set theory* whose sets are conceived as representing "*dialectical totalities*", i.e., 'hols', or "[meta-]organic systems", grasped as "non-reductionistic" 'eventities', and as "autocatalytic", "autopoietic", "self-organizing" [and as eventually 'self-dis-organizing' / 'self-re-organizing' / 'self-transcending'] 'self-constructing eventities'.

dialectic of the set = the impact, upon the originally 'Parmenidean' and "*atomistic*" / "*reductionist*" concept of the *set*, of the realization that *the set of all sets*, whose «arché», \mathbb{S}_0 , is the *finitary* "*universal set*" as the '*set of all objects*' constructible via a finite number of *finite operations*, the '*set of all logical individuals*' for a given *universe of discourse*, is the *fundamental idea-object of set theory* itself; is the *set-theoretical definition of the concept of the set* itself; is the *extension of the intension of the term "set"*, is also a "*paradoxical*", '*intra-dual*', definitionally, '*essence-ially*' self-changing, or '*ideo-auto-kinesic*', self-«aufheben»-dialectical "*idea-object*" or '*ideo-eventity*', a *self-movement* modelable, via the *Power-Set Evolute Product of Sets*, as $\mathbb{S}_x \rightarrow \mathbb{S}_x = \mathbb{S}_x(\mathbb{S}_x) = \mathbb{S}_x^2 = \mathbb{S}_{x+1} = \mathbb{S}_x \cup 2^{\mathbb{S}_x}$. The *immanent critique*, or *self-critique*, of *reductionist* / *Parmenidean set theory* arising from the «*reductio ad absurdum*» *self-refutation* of its implicit '*Parmenidean Postulate*' of '*ideo-stasis*'.

dialectics = [for an extended definition of "*dialectics*", see the F.E.D. "Brief" entitled 'A [Brief] Definition of Dialectics']: generically, [the «*genos*» of] "*dialectics*" embraces all of those "*categorial self-progressions*" -- whether "*historical-dialectical*", "*systematic-dialectical*", or '*metasystematic-dialectical*' -- which can be aptly, fittingly *character-ized* as being species of '*qualo-Peanic Archeonic Consecua/Cumula*'.

Specifically, expressed '*meta-systematically*': $\mathbb{S} \rightarrow \mathbb{S} \oplus \mathbb{H} \rightarrow \mathbb{S} \oplus \mathbb{H} \oplus \mathbb{M} \oplus \mathbb{P} \rightarrow \dots$

(1) [$\hat{\mathbb{S}}_1 \leftrightarrow \hat{\mathbb{S}}_S = \mathbb{S}$]: '*Systematic Dialectics*', as a 'sub-«*genos*»' or "*species*" of "*dialectics*"-in-general, embraces, as its own sub-species, all those "*categorial self-progression*" methods of exposition/presentation, or 'meta-organs-of-meta-organisms self-progression' methods of exposition/presentation, for the [typically zenith-maturation-phase time-slice/-layer] "*synchronics*", or 'meta-anatomy'/meta-physiology', of the apparently stable-cyclical self-reproduction of a given 'meta-organism', 'meta-organic-system/[sub-]totality', or "[super-]system", whose expositions/presentations can be '*character-ized*', or expressed ideographically, as '*qualo-Peanic Archeonic Consecua/Cumula*' descriptions of the "*synchronic*", or 'zenith diachronic slice/layer/cross-section', 'meta-anatomy'/meta-physiology' of the expanded self-reproduction of the given "[sub-]totality", or "[meta-]organic system", already known "chaotically" to both "presenter" and 'presentees', in ways which abstract from the ever-present moment[um] of its post-zenith finality, and of its continual, immanent, diachronically-pervasive tendency to 'self-dis-reproduction' / "self-transformation" / self-transcendence / "meta-system transition" [cf. Turchin]. [*synchronic dialectics*].

(2) [$\hat{\mathbb{S}}_2 \leftrightarrow \hat{\mathbb{S}}_{SS} = \mathbb{H}$]: '*Historical Dialectics*', as a 'sub-«*genos*»' or "*species*" of "*dialectics*"-in-general, embraces, as its own sub-species, all of those "*categorial self-progression*" models/'[[meta-]super-]system self-progression models of *diachronic*, historical processes, which can be fittingly *character-ized* and modeled as '*qualo-Peanic, Meta-Finite, Meta-Fractal, Meta-Monadic, or «Aufheben»/Evolute Archeonic Consecua/Cumula*', punctuated by '*Meta-Evolutionary, Self-Bifurcation, Ontological Self-Conversion Singularity Meta-Dynamics*' at the temporal boundaries between each "*ontological category*" [*onto*], or "[super-]system"/"[meta-]organic system [sub-]totality", and its successor "*ontological category*" / "[super-]system", in the '*diachronic meta-system*' in which both inhere. [*diachronic dialectics*].

(3) [$\hat{\mathbb{S}}_3 \leftrightarrow \hat{\mathbb{S}}_{HS} = \mathbb{M}$]: '*Meta-Systematic Dialectics*', as a 'sub-«*genos*»' or "*species*" of the '*super-species*' or «*genos*» of "*dialectics*"-in-general, embraces, as its own sub-species, all those "*categorial self-progression*" / "*super-systems self-progression*" models which aptly model both a *diachronic* self-progression of successor [super-]systems as a '*qualo-Peanic, Meta-Finite, Meta-Fractal, Meta-Monadic, or «Aufheben»/Evolute Archeonic Consecua/Cumula*', and also the *synchronic* 'internities' of each successor *system* / "sub-totality" / 'meta-organism' as a multi-scale 'super^w-system' or 'sub^w-system' [$w \in \mathbb{W}$] of holistically/transitorily self-reproducing [meta-]organs, and which, hence, as a whole, involves the '*diachronico-synchronic*' description/modeling of a '*meta-super^w-system*'. [*diachronico-synchronic dialectics*].

(4) [$\hat{\mathbb{S}}_4 \leftrightarrow \hat{\mathbb{S}}_{HH} = \mathbb{P}$]: '*Psych[e]o-Historical Dialectics*', as a 'sub-«*genos*»', or "*species*", of the '*super-species*' or «*genos*» of "*dialectics*"-in-general, embraces, as its own sub-species, all of those dialectical theories, or models, which seek to account for the very concepts and theories employed in historically previous theorizations/ideologies, that are ingredient in their own, 'pre-sent' theorizations/ideologies, as well as for their own theorizations/ideologies, in terms of the *historical, collective* [memetic/'Phenomic'/social, cognitive and affective] *psychology*, or '*psycheology*', of the human[oid] species/'*Phenome*' of which those theories/models form a part. [*psycheo-diachronic dialectics*].

dialector ■ the 'meta-geometrical' concept of a one-dimensional, "'directed'" or 'oriented' line-segment, or of an "'oriented object'" of dimensionality other than one, used not for the representation of three-dimensional, physical space, but for the modeling of dialectical categorial-self-progressions/systems-self-progressions, that is, for the representation of (1) 'synchronic super-systems', of (2) 'diachronic meta-systems', as well as of (3) 'diachronico-synchronic meta-super-systems'. Term applies also to the 'phono-mnemonic/ ideographic symbols', i.e., to the 'meta-numerals' and '[quanto-]qualitative variables symbols' used to represent these various 'meta-geometrical'/'picto-graphical' ideas "'algebraically'", or 'character-istically'.

dialector analysis ■ a rules-system for 'dialectical-mathematical' analysis, involving '[quanto-]qualitative' computation, which utilizes dialectors.

dialector calculus ■ a rules-system for 'dialectical-mathematical', '[quanto-]qualitative' calculations, which utilizes dialectors.

dialector cumulum ■ an ontologically inhomogeneous/heterogeneous sum of Q-type dialectors, which may be used to model an 'ontological cumulum', or 'ontology accumulation'.

dialector product ■ a rule for generalized, [quanto-]qualitative "'multiplication'", within a rules-system for 'dialectical-mathematical', '[quanto-]qualitative' calculation, in which the multiplier and/or the multiplicand are dialectors.

dialector space ■ a mentally-envisioned, imagined, and mentally-constructed «locus», conceptual space, or «arithmos» of locations/positions, *not* limited to a representation of three-dimensional physical space, whose uses/transformations are ruled by a rules-system for 'dialectical-mathematical', '[quanto-]qualitative' computations which involve dialectors, or whose positions or locations stand for individual dialectors.

dialector variables ■ a dialector-valued variable; a 'meta-algebraical' symbol, which may denote more than one 'meta-arithmetical [quanto-]qualitative' or "'ontological'" value / substituend.

«**dialektiké**» ■ [Ancient Greek] *the dialectic*[al] artifice or *art* [«techné»]; the art, artifice, or technique of dialectic(s); dialectical thought-/speech-technique; dialectical thought-/speech-technology; the «organon», or "'instrument/tool of thought'", of dialectical reason, or «vernunft» [Hegel]; the «logik» or '*rules of what follows what*' for the assertion of an initial/initiating "'[hypo]thesis" precipitating/provoking/evoking/outering the counter-assertion of a 'contra-[hypo]thesis', in turn precipitating/provoking/evoking/outering/enabling the counter-counter-assertion of a 'uni[fying hypo]thesis', . . .

diametrical ■ of, or pertaining to, the *diameter* of a circle as a geometrical "'idea-object". Also: 'diametral'.

diametrical opposition ■ full, fully-mature, fully-ripened, extreme, maximal, or complete opposition.

dianoesis ■ the characteristic thought-process, pattern, or "law"/«logik» of the pre-/sub-dialectical category of reasoning known as «dianoia» [Plato], as "The Understanding", and as «verstand» [Hegel].

dianoetic ■ like, 'meta-fractally similar to', or pertaining to the characteristic thought-process, pattern, or "law"/«logik» of the pre-/sub-dialectical category of reasoning known as «dianoia» [Plato], as "The Understanding", and as «verstand» [Hegel].

dianoia ■ the pre-/sub-dialectical category of reasoning known as «dianoia» [Plato], as "The Understanding", and as «verstand» [Hegel].

dichotomy ■ division into two parts, whether conceived as *mutually-internal* [as in 'auto-dichotomy'; 'homeo-dichotomy'; 'self-dichotomy'; 'intra-dichotomy'; 'intro-dichotomy'; 'endo-dichotomy'], or as *mutually external* [as in 'allo-dichotomy'; 'hetero-dichotomy'; 'other-dichotomy'; 'extra-dichotomy'; 'extro-dichotomy'; 'exo-dichotomy'].

dimension ■ 'non-quantitative' or "'qualitative" distinction, having some *degree of freedom* of partially independent variation, or change-"autonomy", in relation to other such "'dimensions".

dimensional = pertaining to, or having to do with, 'non-quantitative' or "'qualitative'" distinction.

dimensional analysis = a tradition, and 'rules-system', of implicit 'quanto-qualitative' "syncope-ated" 'arithmetic' and of 'quanto-qualitative' "syncope-ated" 'algebra/analysis', which developed within physics, pioneered by James Clerk Maxwell, among others, and which rules computational operations with "physical [qualo-]quantities", that is, with 'metrically-qualified quantifiers', or, equivalently, with 'quantified metrical qualifiers', e.g., with "sec.", as "syncope" of "seconds", for the 'qualitative units, or «monads», of the "physical dimension" called "Time", with "gm.", as "syncope" of "grams", for the 'qualitative units, or «monads», of the "physical dimension" called "Mass", and with "cm.", as "syncope" of "centimeters", for the 'qualitative units, or «monads», of the "physical dimension" called "Length", such that, e.g., $1 \text{ cm.} = 1 \text{ cm.}$, but, on the contrary, such that $1 \text{ cm.} \neq 1 \text{ gm.} \neq 1 \text{ sec.}$, and indeed, such that $1 \text{ cm.} \frac{1}{2} 1 \text{ gm.} \frac{1}{2} 1 \text{ sec.}$, and, furthermore -- although $1 \text{ cm.}^1 < 2 \text{ cm.}^1 < 3 \text{ cm.}^1 < \dots$, and $1 \text{ cm.}^2 < 2 \text{ cm.}^2 < 3 \text{ cm.}^2 < \dots$, and $1 \text{ cm.}^3 < 2 \text{ cm.}^3 < 3 \text{ cm.}^3 < \dots$ -- such that, on the contrary, $1 \text{ cm.}^1 \frac{1}{2} 1 \text{ cm.}^2 \frac{1}{2} 1 \text{ cm.}^3 \frac{1}{2} \dots$, so that the [qualitative] units or «monads» of the «arithmos» of dimensional analysis fit the 'contra-Boolean' "law" or 'rule of generalized self-multiplication' which we symbolize by $\hat{X}^2 \neq \hat{X}^1$ in the form of $\hat{X}^2 \frac{1}{2} \hat{X}$. Per the standard metrical qualifier assignments, the 'de-syncope' of the above 'in-equations' via dialectical ideography translates them as follows: first, $1_{\hat{M}_T \hat{U}_J} \frac{1}{2} 1_{\hat{M}_T \hat{U}_J} \frac{1}{2} 1_{\hat{M}_T \hat{U}_J}$, next, $1_{\hat{M}_T \hat{U}_J} < 2_{\hat{M}_T \hat{U}_J} < 3_{\hat{M}_T \hat{U}_J}$, third, $1_{\hat{M}_T \hat{U}_J} < 2_{\hat{M}_T \hat{U}_J} < 3_{\hat{M}_T \hat{U}_J}$, fourth, $1_{\hat{M}_T \hat{U}_J} < 2_{\hat{M}_T \hat{U}_J} < 3_{\hat{M}_T \hat{U}_J}$, and, $1_{\hat{M}_T \hat{U}_J} \frac{1}{2} 1_{\hat{M}_T \hat{U}_J} \frac{1}{2} 1_{\hat{M}_T \hat{U}_J}$.

dimensionality = the quality or condition shared by non-quantitative or qualitative distinctions. The quantity, or number, of dimensions, or of semi-autonomous qualitative distinctions, 'capacitating' a given space.

direction = orientation within a space -- within a dimension or complex of dimensions; order of progression.

dialectical = ['intra-dual-ectical'; 'self-dual-ectical']: 'sided' synonym for the term 'dialectical', emphasizing the 'cruciality' of the concepts of 'immanent duality', 'intra-duality', or 'self-duality', as opposed to those of 'mutually-external duality', 'exo-duality', or 'inter-duality', in theories of dialectics.

duality = dichotomy, "'external'" or "'internal'".

duals = aspects, parts, or units/«monads» of a totality, involved in a dichotomy.

dynamasis = the antonym of "'stasis'" in the F.E.D. parlance.

dynamical geometry; dynamical space; [meta-]dynamical state/control [meta-]space = any anisotropic "abstract geometry", or "abstract space/set", formed as a mentally-envisioned/imagined, and mentally-constructed «locus», conceptual space, or totality/«arithmos» of locations/positions, not limited to a representation of three-dimensional physical space, e.g., a space of dialectors, a dialector space, which is conceived as being mutable, susceptible to changes, not only in its "flow" or "vector field", but in its very content/dimensionality, whether those changes are conceived of as being/becoming due to internal/immanent causes/agenc[y][ies] within that space -- to self-operation or 'intra-operation' of the space in question -- or as being/becoming due to external causes/agenc[y][ies], e.g., to 'inter-operation' with other spaces, outside that space, or as being/becoming due to both.

dynamic = a "'law'" or "pattern" of the [externally-induced] change and/or [internally-induced] self-change of a system.

dynamical-ness = the quality of a [meta-]system/[sub-]totality of being [self-]changing, [other-]change-able, and other-changing.

dynamical algebra = an algebra including "limit processes" grasped as "'finitary'" processes in a "'constructive'" sense, since limits are "'constructible'" in procedures involving only finitely-many, 'algorithmized', steps.

dynamical analytical geometry = the non-static, time-varying analytical geometry of phase-spaces/state-spaces.

dynamical arithmetic = an arithmetic incorporating known functions "of time", e.g., "time-varying" known values.

dynamical system ■ a *system* that changes, or is capable of change, self-induced and/or other-system(s)-induced, and/or of inducing change(s) in other *systems*.

dynamical systems theory ■ that field of modern, '*mathematico-science*' which aims at the quantitative, mathematical modeling of the *dynamic* of the "evolution" of each *dynamical system*, typically formulating its "'evolution equation"' in the language of "ordinary" *differential equations*, or "total-differential" *equations*, as 'contra-distinct' from that of "partial-differential equations", and typically using "'state-space geometry"' as the '*dynamical analytical geometry*' corresponding to the '*dynamical arithmetic*' and '*dynamical algebra*' of the systems of differential equations that model each *dynamical system* and its system *dynamic*.

dynamicality = *dynamical-ness*.

dynamics ■ that field of modern, '*mathematico-science*' which aims at the quantitative, mathematical modeling of "*time-varying*" variables; of changes in the "*states*" of *systems*, e.g., as driven/induced by the "*action*" of internal, or, especially, of external "*forces*". ■ The "*attractors*" or "asymptotically stable" state-space '*solution-geometries*' of *linear* dynamical systems, known as "equilibrium solutions" or "fixed points" ['fixed states'] are analogous to the terminating decimal representations/generations of *Natural Numbers*. The "*attractors*" or "asymptotically stable" *state-space 'solution-geometries'* of some *nonlinear* dynamical systems, known as "asymptotically periodic solutions" or "*limit-cycle attractors*" [asymptotic "attracting" '*fixed trajectories*'] are analogous to the potentially forever repeating decimal representations/generations of *Rational Numbers*. The "*attractors*" or "asymptotically stable" *state-space 'solution-geometries'* of certain other *nonlinear* dynamical systems, known as "asymptotically *quasi-periodic* solutions" [asymptotic 'quasi-periodic trajectories'] are analogous to the potentially non-terminating, never-repeating decimal representations/generations of *algebraic irrational numbers*. The "*attractors*" or "asymptotically stable" *state-space 'solution-geometries'* of still other *nonlinear* dynamical systems, known as "asymptotically *a*-periodic solutions" [asymptotic *aperiodic* trajectories'], and also sometimes as "*strange attractors*", are analogous to the potentially non-terminating, never repeating decimal representations/generations of *transcendental irrational numbers*. ■

«*dynamis*» = [Ancient Greek]: *power*, *energy* [F.E.D. connotations]: *self*-powering; also *self*-multiplied, or '*self*-multiplying'; *self*-operating, *self*-operated, or *self*-operative, hence '*self-reflexive*' and/or '*self-refluxive*', i.e., '*auto-dynamical*', or '*autokinesic*' [see the later Platonic tradition of ancient Occidental philosophy], and "'*karmic*'" [see the philosophical tradition of the ancient Orient]; [*self*]-*squared* [cf. Benoit Mandelbrot on the Mandelbrot *fractal set*]; the *self*-function or *self*-operation of '*self-squaring*' as ideographical syntax for '*intra-duality*'/*self-duality*' as *cause* of 'dynamasis' -- i.e., of both '*onto*-dynamasis', and '*meta*-dynamasis', or '*meta-system*asis' -- the emergence of a *successor system*, and of its incremental '*neo-ontology*', from out of the '*intra-duality*' of its *predecessor system*, in a '*qualo-Peanic*' -- i.e., a dialectical -- self-progression.

dynamized = *de-Parmenideanized*.

dynamizes = *de-Parmenideanizes*; *powers* or *energizes*. The verb which describes/characterizes that which constitutes the "'*energizing principle*'" of a given '*eventivity*', [*meta*-[*super*-]]*system*, or «*arithmos*».