Dialectical Pictography:

A Pictorial Summary of ***Dialectical Ideography***

by

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PREFATORIES

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A Note to the Reader. This essay is a *partially self-exemplifying exposition of*, and *a record of an ongoing self-critique of, the ideas advanced herein*. It is a *'meta-dynamical'* and *'meta-evolving'* conceptual object. Edition index [self-edit iteration number] and last revision date are stated on the title page. The time sequence of changes in the form / content of this essay is predicted to be both an illustration and an instantiation of the 'meta-model' of 'ontological meta-dynamics' that this essay explores, as well as of the 'homeomorphic defect' of that 'meta-model'. We expect that successive editions of this document will document an *'ideo-onto-dynamasis'* rather than an *'ideo-onto-stasis'*; a *'meta-evolving ideo-ontology'*; a *'multi-meta-ontic idea-cumulum'*; an expanding, and ever "'thickening"', increasingly "inter- and intra-connected", "'inter-acted"' network of *'inter-implicatory'*, *'inter-determinate'*, *'inter-generative'* ideas, elaborated on a mounting count of *'metafinite'*, *'meta-fractal'* scales, all exemplifying a *"non-standard", Contra-Boolean logic*; the *ontologically dynamical* logic of the dialectical 'law" of cognition signified by the 'ideo-ontological', "pure-qualitative", $_{N}\underline{Q}$-algebraic *in*equation $\underline{x}^2 \neq \underline{x}$. This writing is an unpublished work, and one which is not sold or exchanged for remuneration or commercial gain of any kind, but is distributed «*samizdat*» to selected individuals and organizations, on a donation basis, free of charge. This work is a potential contribution to the collective creative property of the Terran human species: assimilate, disseminate, critique, *and surpass* at will. We, the authors, seek hereby to further neither our monetary riches, nor our public power, nor our personal fame. What we want, money cannot buy. We hope, with your help, to build a better us, and to help to do our infinitesimal part in building a better universe ["infinitesimal" differences can matter, as nonlinear dynamics demonstrates]. More monetary wealth will not buy that betterment. More political power cannot impose it. More fame would mainly distract from it. We hope that you have chosen, or will choose, to build a better you. We hold that this choice entails the profoundest consequences for one's life, as well as for the lives of others. We also hold that such choices belong to you alone. We wish to share, with you, the forthcoming conceptual riches. We will rejoice, and we will be compensated, if you teach us in turn, help us to correct our errors, and thus advance the common-wealth of all beyond this offering. We also request our readers' forgiveness in the areas of our many shortcomings, some of which, though determined to strive ceaselessly to overcome them, we will never, in a lifetime, overcome. We, the authors, are not publicly accessible, but will endeavor to continue private transmittals to you if you indicate publicly, however cryptically, and we recommend that it be cryptically, your desire that we should do so. We want not that our existences, let alone our egos, should be an impediment to that great reverberating propagation of new cognitions, and of emerging *new forms* of cognition, of which this essay is, at best, an incomplete, imperfect, transitory, and transitional manifestation. We therefore happily forego personal credit, and, by thus renouncing in advance the [remote] possibility of any notoriety resulting thereby, hope also to retain more lifetime for the continuation of this work.

Dialectical ideography as set forth herein is interpreted variously as:
(1) a calculus of ***'quanto-qualitative change'***, encompassing an *explicit, ideographical* arithmetic for the ***dimensional unit***[ie]**s** or metrical ***"monads"*** of classical ***"dimensional analysis"***, and, thereby, 'semantifying' the "meaningless" singularities [finite-time "infinite" values] of ***especially*** the "unsolvable" [in part, because of those very singularities] ***nonlinear*** integrodifferential equations and their solution-functions via their metrical ***'re-qualification'*** using those new, explicit 'metrical qualifiers' of this '***dimensional arithmetic***', concretizing and operationalizing Plato's «***arithmoi monadikoi***» & Diophantus's $\dot{M}$;
(2) an alternative, onto-logical ***contra-Boolean algebra***;
(3) an ideographic, 'onto-dynamical' "symbolic logic" for the state-space/control-parameter-space ***'meta-dynamics'*** of 'meta-finite', conversion-singularity ***'self-bifurcation'***;
(4) ***a mathematics for modeling the history of mathematical ideas*** as well as a [*psycho-*]***historical algebra*** and ***arithmetic*** for modeling the 'meta-evolution' of the sciences generally; an ideography for the [psycho-]history of ideas; an ideography of the 'meta-dynamical' logic of conceptual self-innovation and self-development; a 'philosophical algebra' or trans-Leibnizian, dialectical «*characteristica universalis*»; an arithmetic and algebra of innovative conception or of the creative conceptual process;
(5) a rules-system for an ideographical language of ***qualitative self-escalation*** in self-transcending [meta-][super"-]systems;
(6) a generic algorithm for the ***'meta'*** operation regress; for a trans-Hegelian, autopoiesic version of the «***aufheben***» operation; and for a "dynamical", 'temporalized', diachronic, *'meta-evolutionary'* version of the Russellian/Gödelian logical types hierarchy;
(7) a model for a 'meta-fractal', non-Cantorian ***theory of totalities***, of '*meta*-finite' arithmetics, and of the "foundations" of mathematics;
(8) an arithmetic, algebra, geometry, & analysis built upon certain ***"non-standard natural numbers"***, i.e., upon the ***'Gödelian 'meta-natural' numbers***', a space of *"hypernumbers"* 'of 2nd degree', 'made up out of "standard", '1st degree' natural numbers, 'instancing' those *"non-standard models of* 1*st order Peano arithmetic" implied by the* 1*st-order conjunction of Gödel's completeness & incompleteness theorems, as by the Löwenheim-Skolem theorem, yielding thereby an* ***'ontologically dynamical'***, 'de-Parmenideanized', 'de-idealisticized' actualization of Plato's *"arithmetic of dialectics"*, the «***arithmoi eidetikoi***».

This essay, in addition to that of 'ideogramic', 'pictogramic', and 'phonogramic' symbolization, draws also upon the power of neo-mythological, allegorical, and mythopoeic — that is, of "'*psycho-historical*"' — symbolization to aid in the conveyance of its most urgent messages. Dialectical ideography is, we believe, a humble but potent seed. As with the several non-Euclidean geometries that arose from the failed attempts to prove the absoluteness of Euclid's geometry, these *non-Parmenidean*, '*contra-Boolean*', and '*contra-Cantorian*', "'onto-*logical* '" and 'onto-*dynamical arithmetics*' and their *algebras of dialectics* may bear fruit for humanity only if germinated through the intra- and inter-personal dialogue, and dialectic, of assimilation, critique, refutation, and supercession. The taking to heart of the ideas "graphed", both 'pictographically', 'ideographically', and narratively ['phonogramically'], herein, can produce profound transformation in the very identity of the person so taking. Panic in response to perception of the early signs of such transformation by other perceivers of this may elicit, from some of these perceivers, a violent reaction. In particular, the intimations of the *'meta-human'*, $\underline{\Delta h}$, implications of the *'cumulum'* of human[oid] [meta-]evolution is profoundly disturbing to some. We therefore lodge the Omni-Copyright statement above together with this countervailing caveat: we recommend that you disseminate this document, its ideas, and/or related ideas of your own discovery, with careful judgment. *Give the friends of humanity a head start vis-à-vis their adversaries.* The system, more accurately, the systems, of *dialectical ideography* glossed herein continue to *evolve and 'meta-evolve'* rapidly in our research. *They burgeon beneath our feet.* Dialectics should inculcate humility. "Perfection" is not a final "'meta-*state*"' that can be finally manifested, but an open-ended, 'uncompleteable', asymptotic *process*, moving from greater to lesser imperfection. We realize that conceptual 'homeomorphic defect' is inescapable for cognizing beings such as ourselves. Even at best, we must always be partly wrong. Even at best, one cannot be finally, completely, and wholly right. One's mental constructs cannot ever be the truth, the whole truth, and nothing but the truth. But one may be right enough for one's time, for one's moment, for one's role, and for one's part; right *enough* to help one's contemporaries to live through, and beyond, one's time, that they thus, potentially, might enjoy the privilege, the pain notwithstanding, of a vital ['life-ful'] and willing participation in the succeeding epoch of imperfection.

Contents Overview -- [S]$^{2^{\tau}}$: '*The Dialectic of the Dialectic Itself*', Some Examples

Title Page -- *Dialectical Pictography*: A Pictorial Summary of *Dialectical Ideography* [Illustrative Excerpts from *Encyclopedia Dialectica*]

PREFATORIES

Omni-Copyright Statement -- A Note to the Reader

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-- Notes on "'Ideogramic"' Notation: Ideographic Notational Conventions Observed Throughout This Pictorial⊕ Essay

-- Notes on "'Pictogramic"' Notation: Pictorial Notational Conventions Observed Throughout This Pictorial⊕ Essay

$q_1 \leftrightarrow$ '«*ARCHÉ*» THESIS': "'*System-atic Dialectics*"' ['*Synchronic Dialectics*', '*intra*-System-ic' focus]: $[\,S\,]^{2^0} = S$

Section I: The Dialectic According to Plato – The «*Arithmoi Eidetikoi*»

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Section IX: *The Dialectic of Democratic Self-Governance* within the Capital-«*Aufheben*» *Social Relation of Production* of *Generalized Equity*

⊕

$q_{1+1} = q_2 \leftrightarrow$ 1st 'CONTRA-THESIS': "'*Historical Dialectics*"' ['*Diachronic Dialectics*', '*inter*-System-ic' focus]: $S \otimes S \ominus S = S^2 \ominus S = H \sqsubset [\,S\,]^{2^1}$

Section A: The Historical-*Dialectical* 'Meta-Monadology' *of Human-Social Formation(s)*

Section B: The Historical *Dialectic* of *the Human-Social Relations* [and of *the Human-Social Forces*] *of Human-Social* [*Re-*]*Production*

Section C: The Historical-*Dialectical* 'Meta-Monadology' *of Cosmological Natural History* -- "'*The Dialectic of Nature*"'

⊕

$q_{2+1} = q_3 \leftrightarrow$ 1st 'UNI-THESIS': '*Meta-System*-atic *Dialectics*' ['*Diachronico-Synchronic*', '*intra*-System-ic' focus *leads to* '*inter*-System-ic' focus]: $H \otimes S \ominus S = M$

Section 0: '*Dialectical Meta-Axiomatics*' – A Methodology for a *Marxian*, '*Dialectical Science*'

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Section 3: The *Dialectic of the Dialectical Ideographies*, Modeled in the Language of the First *Dialectical Ideography*

⊕

$q_{2+2} = q_4 \leftrightarrow$ 2nd 'CONTRA-THESIS': '*Psycho-Historical Dialectics*' [scope of theory expands to explain inter-*subject*ivity of agents / *subjects* who produce theory]: $H^2 \ominus H = \Psi \sqsubset [\,S\,]^{2^2}$

Section α: The *Psycho-Historical Dialectic* of *Modernity*

Section β: The *Psycho-Historical Dialectic* of the Major *Human Knowledge-Formation(s)* [including of the formation of "'*Psycho-History*"' Itself]

Section γ: The '*Psycho-Archaeology*' of *Written Language*-- *Dialectical-Algebraic Model* of the Emergence of the *Praxis* of *Written Language* from Pre-Literate Practices

Section δ: An $_N\underline{Q}$ *Dialectical Model* of '*The Dialectic of the Dialectic Itself*' [and thus also a *Dialectical Model* of the *Contents* of *Dialectical Pictography* as a whole]

APPENDICES

Some Key Terminology -- A Glossary of Special "'Phonogramic"' Terms

PRELIMINARIES

Notes on "'Phonogramic'" Notation:

Phonetic Notational Conventions Observed Throughout This Pictorial⊕ Essay

We delimit ***major <u>hypotheses</u>*** typically textual, and whose text will be denoted generically, here, by ellipsis dots, **'...'** as follows: ▮... ▮ [*though the majority of the material, so enclosed or not, remains conjectural*], vs. [*proven*] ***<u>theorems</u>***, derived deductively from explicit premises, via ▮- ... -▮.

Single quote-marks, **'...'**, enclose '***self-quotes***' of our *own coinages*. *Double quote-marks*, **"..."**, enclose ***exact quotes*** *of others*. *Triple quote-marks*, **'"..."'**, enclose *approximate, paraphrased quotes of others*. Double 'angle marks', **«... »** , enclose non-English words, whether transliterated or rendered in their native alphabets.

We often use '***word-embedded parentheticals***' to 'appropriate the ambiguities' in current English usages, so as to amplify the meaning of a given phrase or sentence, by creating two [*or more*] distinct, but semantically *parallel*, or semantically *convergent*, readings of that "single" line. For example, the phrase *'the dialectic of human-social formation(s)'* is intended to invoke two distinct but convergent readings: **(1)** ' the dialectic of human-social ***<u>formation</u>***', and **(2)** 'the dialectic of human-social formation***<u>s</u>***'. Likewise, the phrase '***The Dialectic of*** [the] ***Human***[ized Portion of] ***Nature***' is meant to evoke two 'mutually-supplementary' readings: **(i)** '***<u>The</u> Dialectic of <u>Human</u> <u>Nature</u>***', and **(ii)** 'The Dialectic of ***<u>the</u> <u>Humanized</u> <u>Portion</u> <u>of</u>*** Nature', i.e., of the portions of nature containing the '"***self-objectifications***"' of humanity, etched and inscribed into the [pre-human-]***natural material*** via human labor. As a final example, consider the phrase 'the ***social-<u>relations</u>-<u>of</u>***-[human-society/social-relations [self-]re-]***<u>production</u>***'. It is designed to evoke *four* convergent readings, namely **(a)** ***<u>the</u> <u>social</u> <u>relations</u> <u>of</u> <u>production</u>***; **(b)** 'the social relations of ***social <u>reproduction</u>***'; **(c)** 'the social-relations of ***social-relations-self-reproduction***', and; **(d)** 'the social relations of (a) ***human-society's <u>self</u>-<u>production</u>'***. Moreover, the concept of '"***<u>the</u> <u>social</u> relations <u>of</u> <u>production</u>***"', in the Marxian tradition, is paired with that of '"***the social <u>forces</u> of production***"', so that this multiple reading is also linked to that of the phrase 'the ***social*** [self-]***<u>force</u>(<u>s</u>)*** ***of*** [human-society/social-relations [self-]re-]***production*** [/[[self-]re-]***<u>productivity</u>***'[/'[self-]***transformativity***'].

In the quoted passages included below, all **bold**, *italic*, <u>underline</u>, and color emphasis - unless otherwise noted locally - has been added by F.<u>E</u>.<u>D</u>..

Wherever color emphasis occurs in this text, whether within quotations or otherwise, the color-coding standard is as follows: **(–1)** red text color signifies entities which conduce to the 'meta-catabolic', mutually-annihilatory species of opposition; **(0)** black text color signifies neutrality or the complementary / synchronic species of opposition [e.g., the north versus the south poles of a magnet]; **(+1)** blue text color signifies that which conduces to the supplementary, 'successory', or 'supercessory', diachronic species of opposition [e.g., 'contra-thesis' diachronically succeeds, supplements, and opposes '"thesis"'; 'uni-thesis' diachronically succeeds, supplements, and opposes both '"thesis"' and 'contra-thesis'].

We use -- in combination with the textual color-coding spectrum described just above -- an eight-segment spectrum of increasing intended intensity of emphasis:

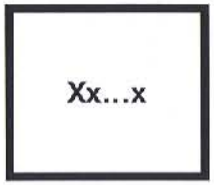
(1) plain text;
(2) <u>underlined plain text</u>;
(3) *italicized text;*
(4)□ *<u>underlined italic text</u>*;
(5) bold-faced text;
(6) <u>underlined bold-faced text</u>;
(7) *italicized bold-faced text*, and;
(8) *<u>underlined italicized bold-faced text</u>*.

Notes on "'Pictogramic"' Notation:

Pictorial Notational Conventions Observed Throughout This Pictorial⊕Essay

'Dia-***gram***-mar' is the "'***gram***mar' of dia***gram***s.

'Dialectical Dia***gram***mar' is the [dia-]***gram***mar of ***Dialectical Pictography***, or «***Dialectia Diagrammatica***».

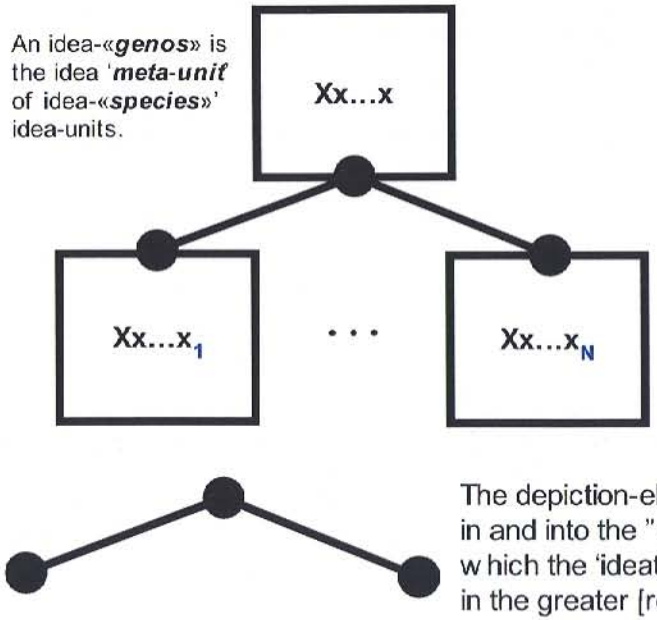


Denotes a "'***unit***"', or «***monad***» -- e.g., a "'unit-y"', a "'***category***"' or "'***system***"' grasped as a unit, or '[sub-][w]***hol***[e] a some level of some dialectical, «***aufheben***» '***Meta-Monadology***', and '**Xx...x**' denotes the name assigned to that [sub-]***hol*** generically.

→∃ ; →∋ ; → ; Denote «*autokinesis*» -- respectively, the *generic*, introspective-*ideational*, and external-physical / *historical* «*ideo-species*» of [*self*-]*progress*[ion].

The Depiction of Abstraction.

An idea-«***genos***» is the idea '***meta-unit***' of idea-«***species***»' idea-units.



Denotes the synchronic relation of ***more generic*** [above] to ***m ore specific*** [below] '***monadizations***', or '***unit-ifications***', of «ειδε» / «ιδεας». Thereby denotes the 'static-ized' results of a process of abstraction, or '«***gen***»-***eralization***', or of the '«***gen***»-***eration***' of a relatively more '«***gen***»-eral', or relative idea «***gen***os» or '«***gen***»-us' 'idea-unit', or «***monad***», from a given «***arithmos***», or multiplicity, of idea «***species***» units, or «***monads***».

That is, the image / 'dia-***gram***' to the left is a pictorial model / depiction of the results of the process of inductive '«***gen***»-***eralization***'; of the '«***gen***»-***eration***' of new idea «***gene***» as an outcome of reflected experience w ith the «***arithmoi***» of idea «***species***».

That diagram is the '«***gen***»-eric' '***dialectical diagram***' -- the idea-«***genos***»/idea-«***species***» ***systematics*** «***aufheben***» diagram -- of ***Synchronic Systematic Dialectics***; of synchronic '***Ideo-Meta-Monadology***'. It is, in its *upward* direction, ***a depiction of abstraction***; a depiction of the results of the process of inductive ***generalization*** and, at the same time, in its *downward* direction, its is '***a depiction of concretion / specification***'.

The depiction-element immediately to the left depicts, in its *upward* sense, the vanishing of *the more particular* in and into the "***vanishing point***" at its apex, at the threshold of *the more general*. That apex is the point at w hich the 'ideative' "'«***differentia specifica***»"'of the multiple [relative] 'idea-«***species***»' vanish into implicitude in the greater [relative] '«***gen***»-erality' of their [relative] 'idea-«***genos***»', above them. The relatively '«***speci***»-al', «***species***» concepts, w ith all of their ' '-relations, their qualitative differences, disappear into ***in***explicitude at the [***higher*** 'ideo-***meta-fractal***' scale /-]***level*** of the 'idea-«***genos***»' concept, w hich is there seen as hat of the ***unit***/«***monad***»/«***a***-tom». This image thus represents the '***meta-monadic***' process of the '«***aufheben***» ***self-subsumption***', or '***self-internalization***', of the more '«***speci***»-fic' into the more '«***gen***»-eral'.

Notes on "'Ideogramic"' Notation:

Ideographic Notational Conventions Observed Throughout This Pictorial⊕ Essay

⊞ denotes the generic arithmetical operation of addition, as generalized for the F.E.D. dialectical arithmetics, which encompass, at one pole, "'***non*-amalgamative**"' computational phenomena, e.g., $\underline{q}_1 \boxplus \underline{q}_2 \neq \underline{q}_n$, for any **n** in **N**, and, at their extreme opposite pole, '***hyper*-amalgamative**' such phenomena, e.g., $\underline{q}_n \boxplus \underline{q}_n = \underline{q}_n$, for every **n** in **N**. When the $\underline{q}_n$ are used to model purely conceptual, mental, "'internal"' objects, ⊕, the 'curvaceous' version of this symbol, is used; vs. the 'angular' version, ⧁, for "'external"' objects models.

$\underline{q}$ denotes the generic, "family name" component, of the 'meta-numerals' of the space ${}_{\mathbf{N}}\underline{\mathbf{Q}} \equiv \{ \underline{q}_1, \underline{q}_2, \underline{q}_3, \ldots \}$, the first of the spaces of dialectical arithmetic to emerge in the course of the F.E.D. ***immanent critique*** of the "**N**atural" arithmetic of the space $\mathbf{N} \equiv \{ 1, 2, 3, \ldots \}$, that is, in the "'categorial progression / cumulum"', 'systems-of-arithmetic progression / cumulation', or 'progression of arithmetical system revolutions', itself a "'meta-systematic"' dialectic that can be denoted by $\underline{\underline{\mathbf{N}}}^{2^{\tau}}$, for **τ** consecutively escalating within the space, or set $\mathbf{W} \equiv \{ 0, 1, 2, \ldots \} \equiv \mathbf{N} \cup \{0\}$, when $\underline{\underline{\mathbf{N}}}$ is "'modeled"' by / "'interpreted"' by, i.e., "'assigned to"', the first 'meta-number' of the space ${}_{\mathbf{N}}\underline{\mathbf{Q}}$, namely, to $\underline{q}_1$, and where $\underline{\underline{\mathbf{N}}}$ denotes the "first order" Peano Postulates based rules-system of the arithmetic of the space **N**. The arithmetic of the space **N** is an arithmetic of "'pure, unqualified ***quantifiers***"'. The arithmetic of the space ${}_{\mathbf{N}}\underline{\mathbf{Q}}$ is its opposite, an arithmetic of 'pure, unquantifiable [ontological] ***qualifiers***'. However, both arithmetics comply with the first **4**, "**1**st order" axioms of Peano, intended for **N** alone.

$\underline{q}_n$ denotes the generic individual 'meta-number' of the ${}_{\mathbf{N}}\underline{\mathbf{Q}}$ space, with $\underline{q}$ denoting the "family name" of that individual, and with $\mathbf{n} \in \mathbf{N}$ denoting the "'individual name"' of that individual. This generic, $\underline{q}_n$, form, is a ${}_{\mathbf{N}}\underline{\mathbf{Q}}$ -algebraic variable, which can denote any of the individual "constant" values in ${}_{\mathbf{N}}\underline{\mathbf{Q}} \equiv \{ \underline{q}_1, \underline{q}_2, \underline{q}_3, \ldots \}$, Thus, $\underline{q}_1$ denotes the **1**st individual 'meta-number' in ${}_{\mathbf{N}}\underline{\mathbf{Q}}$, $\underline{q}_2$ the **2**nd, $\underline{q}_n$ the **3**rd, etc., and $\underline{q}_n$ the **n**th.

⊟ denotes the generic arithmetical operation of subtraction, as generalized for the F.E.D. dialectical arithmetics, which encompass, at one pole, "'***non*-amalgamative**"' computational phenomena, e.g., $\underline{q}_1 \boxminus \underline{q}_2 \neq \underline{q}_z$, in ${}_{\mathbf{Z}}\underline{\mathbf{Q}}$, for any **z** in **Z**, and, at their extreme opposite pole, '***hyper*-amalgamative**' such phenomena, e.g., $\underline{q}_z \boxminus \underline{q}_z = q_0$, for every **z** in **Z**. When the $\underline{q}_z$ are used to model purely conceptual, mental, "'internal"' objects, ⊖, the 'curvaceous' version of this symbol, is used; vs. the 'angular' version, ⧁, for "'external"' objects models.

⊠ denotes the generic arithmetical operation of multiplication, as generalized for the F.E.D. dialectical arithmetics, which encompass, at one pole, "'***non*-amalgamative**"' computational phenomena, e.g., $\underline{q}_1 \boxtimes \underline{q}_2 \neq \underline{q}_1 \boxplus \underline{q}_2 \boxplus \underline{q}_{1+2}$, and, at their extreme opposite pole, in ${}_{\mathbf{Z}}\underline{\mathbf{Q}}$, '***hyper*-amalgamative**' such phenomena, e.g., $\underline{q}_{-z} \boxtimes \underline{q}_z = q_0$, for every **z** in **Z**. When the $\underline{q}_z$ are used to model purely conceptual, mental, "'internal"' objects, ⊗, the 'curvaceous' version of this symbol, is used; vs. the 'angular' version, ⧁, for "'external"' objects models.

Z denotes the space, or set, belonging to the "Standard Arithmetics", known as the "Integers", $\mathbf{Z} \equiv \{ \ldots, -3, -2, -1, \pm 0, +1, +2, +3, \ldots \}$, which can be formulated as a "'successor space"' to the space **W**, and to the space **N** of the "Standard Arithmetics", in a "'meta-systematic dialectical"', "'categorial-progression / cumulum"', 'arithmetical revolutions-progression' exposition of the "Standard" systems of arithmetic.

⋰⋱ denotes ***ellipsis*** in the sense of a ***consecutive***, or equal, series of values, e.g., $(1+2+ \text{⋰⋱} +6+7) \leftrightarrow (1+2+3+4+5+6+6+7)$.