Encyclopedia Dialectica

Brief #2

'Meta-Monadology':

The Universality Of The «Aufheben» Process.

Part III. A.:

Three 'Meta-Monadological' Models in Historical Dialectics.

The Dialectic of [the] Human [Part of] Nature, One View --

The Historical Dialectic of the 'Meta-Monadology' of Human-Social Formation(s).

Distributed «*Samizdat*» by Foundation <u>Encyclopedia</u> <u>Dialectica</u>



Distributed «Samizdut» by Foundation Encyclopedia Dialectica

<u>Model Characterization</u>. This first example of a '*meta-monadological* '''<u>historical</u> dialectical''' model describes, using the medium of the \mathbf{NQ} dialectical-ideographic language, a '<u>self</u>-«aufheben»' temporal or historical <u>self</u>-progression, one which exhibits the 'Qualo-Peanic', 'meta-fractal', 'meta-«monad»-ic' 'archeonic consecuum' process / structure of 'continual emergence', as captured by expressions of the Seldon-Function

form $[\underline{\alpha}]^{2}$. In that Seldon Function, $\underline{\alpha}$ denotes the originating, or «*arché*», human-social socio-ontological category of this <u>self</u>-induced, <u>self</u>-driven historical-chronological progression. The value of the epoch-variable, denoted by τ , escalates from **0** to **0**'s consecutive higher [, positive,] Whole number 'Peanic' successors.

The specific Seldon Function which expresses this model constitutes a 'dialectical model' which is also [an aspect of] the [his-and-her-]story of Terran humanity itself, to-date.

The most fundamental thing to notice about that accumulated "'psycho-historical material" on the history of human-*social <u>forms</u>* that forms the evidentiary basis of this model, is that this material reflects, not at all a 'socio-*onto-<u>stasis</u>*', but, on the contrary, a 'socio-*onto-<u>dynamasis</u>*'.

That is, that "psycho-historical" evidentiary material is characterized by a repeated, continued emergence of <u>un</u>precedented *social forms*; by a recurring *transcendence of the precedented* in terms of *social forms* ontology.

That [psycho-]history evinces, <u>not</u> a serial approximation of a single, <u>static</u>al, "Platonic" human social form, but a process of social formation, in which new, previously <u>non</u>-extant, previously <u>non</u>-existent, and previously <u>non</u>-present «species» and «gene» of social formations continually emerge as the '<u>self</u>-«aufheben»' <u>self</u>-negations, or 'meta-«monad»-ic', conservative, 'meta-finite' <u>self</u>-transcendences, of previously extant, previously existent, and previously present social formations.

Thus, the Seldon-Function model, of the form $\left[\underline{\alpha}\right]^{2^{\tau}}$, for "'human[-social] nature'", is, in this case, a model of the *continual emergence* of new human-social ontology; a model of a process of '*socio-onto-dynamasis*'.

The $[\underline{b}]^2$ model of the historical dialectic of human-social formation, described in what follows in this <u>Part</u>, in that it uses the \underline{NQ} dialectical ideography as its modeling language, is pretty much the most abstract, most simple, least complex, least concrete, version of this *model of human history*, that is available within the F.<u>E.D</u>. <u>self</u>-progression of dialectical-*ideographic* / dialectical-*ideogramic* ["mathematical"] languages.

That is, the $[b]^2$ model, as a *generic / nomothetic model* of human[oid] history, leaves out a lot of "local color"; leaves out a lot of idiosyncratic detail; leaves out / abstracts from most of the "idiography", of specifically <u>Terran</u> human[oid] history, because the expression of such detail is beyond the *unified* expressive capability of the initial dialectical-ideographic language, denoted by \mathbf{NQ} .

'Explicitization' of more of this concreteness of detail, of this greater "determinateness" [cf. Hegel], in a model of the human historical dialectic, especially for an "encyclopedic" treatment, requires recourse to the

later languages generated in $F.\underline{E}.\underline{D}$.'s $[\underline{N}]^{T}$ <u>self</u>-progression of dialectical-mathematical languages, and is beyond the scope of this present text.

<u>Characterization of the Phenomena and of the Phenomenology to be Modeled</u>. This example is one of a '<u>phys</u>-ical <u>dialectic</u>', or '<u>«physis» <u>dialectic</u>' [although the Ancient mind might have called it "'the [his]<u>story</u> of the <u>«anti-physis</u>»"] — is, indeed, one of an aspect of '<u>The Dialectic of Nature</u>' within its 'human-social' epoch. It is an aspect of '<u>The Dialectic of Human Nature</u>'; of the '''Historical Dialectic''' of the Human <u>part</u> of Nature. It is the '<u>dialectic</u> of human-social formation(s)', in terms of the <u>«monads</u>» of the <u>«arithmoi</u>» of human settlement / governance structures.</u>

We view these successive "'social formations'" [cf. Marx], as 'archaeological / meta-geomorphological sedimentary layerings', and as '*meta-geological formations*' of the Earth's surface — 'human-<u>natur</u>[e-]<u>al</u>', 'megalithic meta-encrustations of the Earth's crust'.

The "'dynamics'" of the "evolution" of these <u>multiple</u>, successive human social formations / "'dynamical-<u>systems</u>", and the '<u>meta</u>-dynamics' of the '<u>meta</u>-evolution' of the <u>single</u>, still-continuing '<u>meta</u>-dynamical metasystem' of human social formations which, together, in their totality, these formations constitute, is an «autokinesis», and is also an «auto-onto-dynamasis» at the level of 'human-social ontology'.

These systems' system<u>s</u>-progression, or 'diachronic <u>meta</u>-system', is a 'self-«aufheben» <u>self</u>-progression', one exhibiting a 'Qualo-Peanic', 'meta-fractal', 'meta-«monad»-ic', 'archeonic consecuum' process / structure. It is so when we grasp each of its successive «arithmoi» of human social formation «monads» as a 'collective human <u>subject</u>[-ivity]', a 'collective human <u>agent</u>[-ivity]', i.e., as a kind of 'meta-self'. This social-formations system<u>s-self</u>-progression is thus also one that qualifies as an '<u>historical-dialectical process</u>' per our definition.

The reader is referred to the F.<u>E</u>.<u>D</u>. Introductory Letter, Supplement B [Example 4., page B-23], for a brief <u>Q</u>-ideographical rendition of the '<u>dialectical model</u>' of this 'meta-monadological' historical dialectic [link: Supplement B Part III - including a Psycho-Historical Model of The Dialectic of Human Nature (.pdf)].

""Formal Subsumption" versus "Real Subsumption". The foregoing phrases arise from Marx's usage in an unpublished chapter of <u>Capital</u>, vol. I. [Ref: Karl Marx, Frederick Engels, <u>Collected Works</u>, vol. 34, "Results of the Direct Production Process", Internat'l. Publishers [NY: 1994], pp. 355-471], regarding the transition, during the emergence of the "Capital-relation" as the dominant "social relation of production", from the "<u>formal</u> subsumption of labor under capital" to the

"<u>real</u> subsumption of labor under capital". Quite generally, throughout this text, interpreting any $\mathbb{N}Q$ model of an historical-dialectical process of 'onto-dynamasis' / 'meta-evolution', we will refer to each epoch in which an unprecedented "ontological category", or 'onto'; a new, '<u>self</u>-subsumption'-generated '<u>self</u>-hybrid' «arithmos» of '<u>self</u>-«aufheben» meta-«monads»', first makes it appearance, as the epoch in which that new 'onto', as the 'meta-meristem' of that 'onto-dynamasis' to-date, achieves a "<u>formal</u> subsumption" of all earlier-extant 'ontos'; of all earlier-emerged ontology. We will refer to the immediately <u>next</u> epoch of that model's representation of that historical dialectic, in which terms appear that combine the subscript denoting that new 'onto' with the subscripts denoting every singleton occurrence, and every combination, of the subscripts denoting each earlier-emerged such 'onto', as the epoch in which that new 'onto' may achieve the

""real subsumption" of all previous ontology. The "hybrid" term corresponding to the NQ 'meta-numeral'

whose subscript **N**-value is one unit less than that of the 'meta-numeral' corresponding to the <u>mext</u> '<u>self</u>-hybrid' «arithmos» of '<u>self</u>-«aufheben» meta-«monads»', will have, as its interpreted subscripts, the characters denoting <u>every</u> 'onto' of lower '<u>self</u>-involution' than that <u>mext</u> '<u>self</u>-hybrid' 'onto'. This '''hybrid''' term, denoting the fullness of '''<u>real</u> subsumption''', as complete integration of all prior ontology "under" and "into" the formerly merely '<u>formally</u> subsumptive' new 'onto', is also known as a '<u>culminant</u>' term. Thus, in the context of the social formation(s) model, for example, the $\underline{\mathbf{Q}}_{vcb}$ 'onto', corresponding to the 'meta-numeral' $\underline{\mathbf{q}}_7$, or $\underline{\mathbf{q}}_8 - \underline{\mathbf{1}}$, marks the '''<u>real</u> subsumption''' <u>culminant</u> for the $\underline{\mathbf{V}}$, or $\underline{\mathbf{q}}_v$, 'onto', the latter two symbols both corresponding to the 'meta-numeral' $\underline{\mathbf{q}}_4$, while $\underline{\mathbf{q}}_8$ corresponds to the <u>mext</u>, $\underline{\mathbf{q}}_{vv}$, or $\underline{\mathbf{f}}$, 'onto', as we'll see below.

E.D. Brief #2. Meta-Monadology [v.2.07.12.2008]

<u>Model Presentation</u>. The "'[psycho-]*historical dialectic*'' of the '<u>self</u>-«*aufheben*»' 'meta-monadology' of human social formation(s) is described narratively, and "'pictogramically'', as well as ideogramically, below. It is described by a coordinated, generic, "'nomothetic''' [''non-idiographic'''], 'ideo-picto-phono-gramic' model, deployed in seven distinct epochs of 'social-formations ontology' and of 'socio-onto-dynamasis', *epoch* **a** [*assumed* to be extant as of initial-, or «*arché*»-, epoch-variable-value $\tau = 0$] to *epoch* η [*emergent* within epoch-variable-value $\tau = 6$].

α. "Bands". Let us define the *originating «arithmoi»*, or *«arché»-«arithmoi»*, of human settlement formations to be those of the <u>non</u>-settlement-pattern "populations" of small, mobile, "<u>nomadic</u>" "<u>bands</u>" of [proto-]human predators / foragers / scavengers / hunter-gatherers.

<u>Note</u>: By "population", in this context, we do <u>not</u> mean the count of [proto-]human "biological individuals", whether of the typical or average "band", or of the totality of all "bands" extant as of a particular value of some time parameter. The [minimally 'memetically-emerged', phenomically 'proto-ic', proto-]human individual is not the *unit*, or «*monad*», of counting, for this '<u>dialectical model</u> narrative. The "band" itself, *whatever* its size in terms of [proto-]human individuals, is that *unit*, or «*monad*». This model thus eschews the usual "'human individual-ism / -reductionism" so typical of capitalist, ideological "social science".

Suppose that the "populations" of some of the "**bands**" «*arithmoi*» — the "populations" of which each individual "**band**" is a «*monad*» / *unit* — reproduce themselves *with expansion*, i.e., *grow*, in certain localities of the planetary biosphere.

Then, as the nomadic 'monadic populations' of "bands"-as-«monads» 'densify' themselves in those localities, a condition of "critically" high "bands" density may arise, which we term the 'self-surroundment' of the "bands" (monad), the 'self-environment' of the "bands", or 'surroundment- / environment-by-likes', created, for the "bands", by the "bands".

This condition would arise, first, and especially, within the 'centerward' sub-population of "**band**" «*monads*» of each of the key/core such localities, or 'meta-meristemal' / "'vanguard'" social-formations-innovation "nucleation zones'".

Achievement of this "criticality" means that there has arisen a condition of "**bands**" densely surrounded by [other] "**bands**" at the heart of each such locality.

This condition would have thereby supplanted, in intensity / 'intensivity', within those key/core loci, the 'precedingly-dominant' condition of the 'surroundment' of "**bands**" «*monads*». This condition would have supplanted the 'surroundment' of "**bands**" «*monads*» <u>only</u> by accumulated 'monadic populations' of various <u>predecessor</u> scales / levels / layers of <u>pre</u>-human-natur[e-]al ontology, especially of the immediate ontological <u>predecessor</u> of 'taxonomy level one' "<u>human societies</u>" «*arithmoi*», in the form of the «*arithmoi*» of 'multi-meta-zoan' "<u>animal societies</u>", and of 'multi-meta-phytan' plant communities.

A new innovation in the human-social settlement / governance patterns' taxonomy of 'socio-ontology' is thereby seeded.

The former condition was dominated by and characterized by 'merely-hybridizing' reactions / <u>inter</u>-actions -i.e., 'ontological conversion' '<u>hetero</u>-actions' -- of "band" «monads» with the accumulated 'monadic populations' of various <u>predecessor</u> scales / levels / layers of '<u>pre</u>-human-natur[e-]al' ontology. The new condition — in the 'ontological innovation nucleation zones' — is dominated by and characterized by '<u>self</u>-hybridizing' interactions, '<u>self</u>-interactions', or '<u>intra</u>-actions', of "**band**" «*monads*» with [*other*] "**band**" «*monads*», which become more and more frequent / increasingly '<u>self</u>-frequentized', as the "population density" of "**band**" «*monads*» grows therein, in those zones.

The formerly-predominant modes of monadic interaction — that is, of 'ontological <u>other</u>-conversion', or '<u>hetero</u>-conversion' — had partially converted <u>pre</u>-human-natur[e-]al biomass, and animal-society 'socio-mass', into [proto-]human 'socio-mass', in the form of these nomadic 'monadic populations' of "<u>bands</u>" «arithmoi».

This process of *pre*-human '<u>socio</u>-mass'-and-""<u>bio</u>-mass",' to *proto*-human '<u>socio</u>-mass', ontological conversion was '<u>self</u>-catalyzed' by, or '<u>auto-catalyzed</u>' by, and '<u>self</u>-celerated', in direct proportion to the presence of / inherent activity of -- and to the density of / 'physical-spatial concentration' of -- the therefore and thereby ""[<u>self</u>-]expanding"" "<u>bands</u>" «arithmoi».

But as the — therefore growing — 'physical-spatial concentration' of the «*monads*» of the "**bands**" «*arithmoi*», in a[ny of the] key/core "'nucleation zones'" of human-social formation, crosses its "critical mass" /-"'critical density" threshold, the process of 'ontological <u>hetero</u>-conversion', of the conversion of previouslyarisen monadic sub-populations, into the growing "**bands**" monadic populations, *shifts*.

The "<u>other</u>-conversion" process *shifts* into a new and previously <u>un</u>precedented process, a process of the nascent 'ontological <u>self</u>-conversion' <u>of</u> [part of] the burgeoning 'socio-ontology' of the "<u>bands</u>" «arithmoi», <u>by</u> that burgeoning "<u>bands</u>" «arithmoi» 'socio-ontology'. It shifts to a '<u>self</u>-conversion', which is also an «aufheben» '<u>self</u>-subsumption', and '<u>self</u>-internalization'; to '<u>self</u>-conversion' into the 'socio-ontology' of a new, '<u>self</u>-involutively higher', previously <u>un</u>exampled "<u>onto-logical type</u>", a new increment of human-social 'socio-ontological' innovation in the history of human-social formation(s).

That is, the '<u>self</u>-frequentization' of this new mode of action — of "<u>self-inter</u>-action", or "<u>intra</u>-action" — of "<u>bands</u>" with other "<u>bands</u>", then, as it exceeds its critical frequency / density threshold, precipitates the irruption of yet a new, previously <u>non</u>-extant, previously <u>non</u>-existent, higher '<u>meta-fractal</u>' scale / level / layer of human settlement / governance patterns and practices, namely, that of the multi-"band" — and episodically <u>non</u>-monadic and incipiently <u>anti-nomadic</u>, semi-sedentary — "<u>camps</u>" human-social formation(s).

A "camp", grasped as a human-social formations *unit* / «*monad*», is a 'meta¹-«*monad*»', 'meta¹-*unit*', or 'super¹-*unit*', relative to a "band", grasped also as such a human-social formations *unit* / «*monad*».

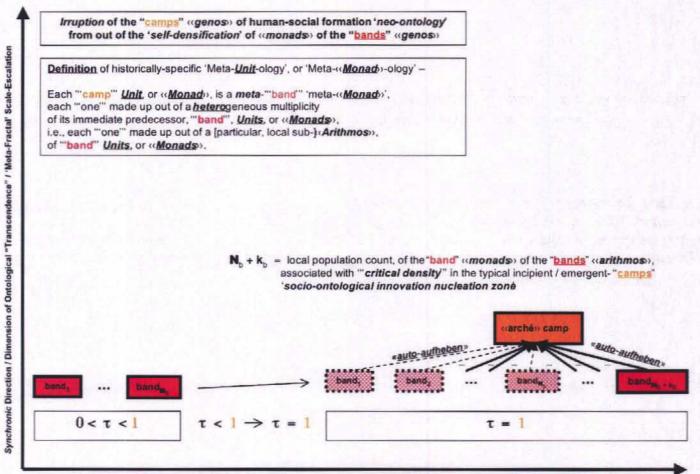
Each typical "camp" is a 'meta-"band"', made up out of a [particular, local-][sub-]«arithmos» of "bands". That is, each camp is made up out of a <u>heterogeneous</u> multiplicity of "bands" units / «monads», by means of a 'meta-ontic', 'meta-monadic', '<u>self</u>-«aufheben» <u>self-internalization</u>', or '<u>self-subsumption</u>', and by means of '<u>self-hybridization</u>', of that local, predecessor sub-«arithmos» of "bands" as predecessor «monads».

This '<u>self</u>-«aufheben»' <u>self</u>-operation — <u>of</u> a local sub-«arithmos» of "band" «monads», as collective humansocial "'<u>subjects</u>"' / <u>agents</u> of [<u>self</u>-]action, acting / operating <u>upon</u> / <u>within</u> themselves, via those "band" «monads» operating among themselves — gives rise to an ontologically, qualitatively, behaviorally new and different, previously <u>un</u>precedented «genos» of «arithmoi», one that has "<u>camps</u>" as its «monads». Thus, this <u>self</u>-operation gives rise to the «arithmoi» of the — initially multi-"band" — "<u>camps</u>". <u>'Ideographized' / 'Ideogramized' "Shorthand" Summary</u> [in the following formula, **b** denotes the ontological category of the "bands" «*arithmoi*» and **c** denotes the ontological category of the "camps" «*arithmoi*»]:

$\underline{b} \rightarrow \underline{b}[\underline{b}] = \underline{b}^{"'}of^{"'} \underline{b} = \underline{b}^2 = \underline{b} + \underline{\Delta}\underline{b} = \underline{b} + \underline{c}.$

[Link to supplementary information: If you would like more information about the rules of 'qualitative calculation' that are used in the "shorthand" expression above — i.e., about the rules of 'ontological multiplication', of 'multiplication of qualities' [of 'multiplication of ontological qualifiers' as represented by purely qualitative 'meta-numbers'], of 'categorial multiplication', or of '«aufheben» multiplication' — then click on the following link: http://www.dialectics.org/archives/pdf/Fract1-1.pdf, and scroll down to page 4.]

Diachronic «Aufheben» Diagram: "'Historical-Dialectical" 'Meta-Monadology' of Human-Social Formation(s) for Epoch t = 1



Diachronic Direction / Dimension of Self-Proliferation, of "Auto-Catalysis", or of Expanded Self-Reproduction, of Monadic Populations

β. "<u>Camps</u>". Suppose, as the next, consecutive emergence in this 'Qualo-Peanic' '<u>self</u>-«aufheben» succession' / 'consecuum-cumulum' of human-social-formation emergences, that the "populations" of some of the "<u>camps</u>" «arithmoi» — "populations" of which each individual "camp" is a «monad» / unit — reproduce themselves with expansion, i.e., grow, in certain localities of a planetary biosphere.

Then, as the 'monadic population' of the "camps"-as-«monads» 'densifies' itself in those localities, a condition of "critically" high "camp" density may arise, which we term the 'self-surroundment' of the "camp" «monads», the 'self-environment' of the "camps", or the 'surroundment- / 'environment-by-likes', created, for the "camps", by the "camps".

This condition would arise, first and especially, within the 'centerward' sub-population of "camp" «*monads*», within each of the key/core such localities, or 'meta-meristemal' / "'vanguard'" social-formations-innovation "nucleation zones".

Achievement of this "criticality" means that there has arisen a condition of "camps" densely surrounded by [other] "camps" at the heart of each such locality.

This condition would have thereby supplanted, in intensity / 'intensivity', within these key/core loci, the 'precedingly-dominant' condition of the 'surroundment' of the "camp" «monads» by their immediate-predecessor, 'inverse-consecutive' «monads» -- i.e., by «monads» of the «arithmoi» of "bands".

A new innovation in the human-social settlement / governance patterns' taxonomy of 'socio-ontology' is thereby seeded.

The former condition was dominated by, and characterized by, 'merely-hybridizing' reactions / <u>inter</u>-actions, by 'ontological conversion' '<u>hetero</u>-actions', of "camp" «monads» with immediate predecessor, "band" «monads».

The new condition — in the 'ontological innovation nucleation zones' — is dominated by, and characterized by, '<u>self</u>-hybridizing' interactions, '<u>self</u>-interactions', or '<u>intra</u>-actions', of "camp" «monads» with[in] / upon [other] "camp" «monads». Such '<u>self</u>-subsuming' '<u>self</u>-actions', or '<u>self</u>-operations', become more and more frequent /increasingly '<u>self</u>-frequentized', as the "'population density'" of "camp" «monads» grows therein.

The formerly-predominant modes of monadic interaction — that is, of 'ontological <u>other</u>-conversion', or '<u>hetero</u>-conversion' — had partially converted the still-extant "**band**" 'socio-ontology' / 'socio-mass' into "camp" 'socio-ontology' / 'socio-mass' [the process of the ``<u>real</u> subsumption``' of **b** by **c**, denoted by **g**cb]. This process, of the 'ontological <u>hetero</u>-conversion' of [part of] the remaining «monads» of the immediately precedingly-<u>self</u>-manifested «arithmoi» — of the "band" «arithmoi» — is '<u>auto</u>-catalyzed' by, and 'celerates' itself, in proportion to the presence / inherent activity of, and to the density of / 'physical-spatial concentration' of, the therefore "'[<u>self</u>-]expanding"" "camps" «arithmoi».

But as the — therefore growing — 'physical-spatial concentration' of the «*monads*» of the "camps" «*arithmoi*», in the key/core "nucleation zones", crosses a "critical mass" / "critical density" threshold, the process of 'ontological <u>hetero</u>-conversion', of the predecessor monadic sub-population, into the growing "camps" monadic population, *shifts*.

It shifts into a new and previously unprecedented process.

This new process is that of the nascent 'ontological <u>self</u>-conversion' <u>of</u> [part of] those burgeoning "<u>camps</u>" «arithmoi» 'socio-ontology', <u>by</u> those burgeoning "<u>camps</u>" «arithmoi» 'socio-ontology', <u>into</u> something <u>else</u>. It shifts to '<u>self</u>-conversion', into the 'socio-ontology' of a new, '<u>self</u>-involutively higher', previously <u>un</u>exampled "'<u>onto</u>-logical type", a new increment of 'socio-ontological' innovation in the history of human-social formation(s).

That is, the '<u>self</u>-frequentization' of this new mode of action — of "<u>self</u>-"inter" - action", or of "<u>intra</u>-action" — of "<u>camps</u>" with [other] "<u>camps</u>", then precipitates, as it exceeds its critical frequency / density threshold, the irruption of yet a new, previously <u>non</u>-extant, previously <u>non</u>-existent, higher '<u>meta-fractal</u>' scale / level / layer of human settlement / governance patterns and practices, namely, that of the — multi-"<u>camp</u>" — "village" human-social formation(s).

A "village", grasped as a human-social formation *unit* / «*monad*», is a 'meta¹-«*monad*»', a 'meta¹-*unit*', or a 'super¹-*unit*' relative to a "camp" «*monad*», or "camp" *unit*, grasped also as such a human-social-formation *unit* / «*monad*», and is a 'meta²-«*monad*»' relative to a "band", grasped also as such a human-social-formation *unit* / «*monad*».

Each typical "village" is a 'meta-"camp"', made up out of a [local-][sub-]«arithmos» of "camps", i.e., made up out of a heterogeneous multiplicity of "camps", by means of a 'self-«aufheben» self-internalization', or 'self-subsumption', of that local, predecessor «arithmos» of "camps" as predecessor «monads».

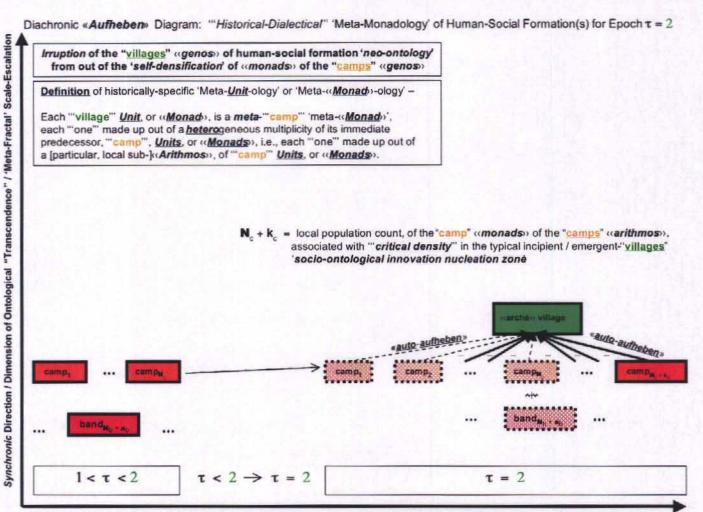
This '<u>self</u>-«aufheben»' <u>self</u>-operation — <u>of</u> a sub-«arithmos» of "camp" «monads», as collective human-social "<u>subject</u>" / <u>agent</u> of [<u>self</u>-]action, acting / operating <u>upon</u> / <u>within</u> itself; via its "camp" «monads» operating <u>among themselves</u> — gives rise to an ontologically, qualitatively, behaviorally new and different, previously <u>un</u>precedented «genos» of «arithmoi», one that has "<u>villages</u>" as its «monads». It gives rise to the «arithmoi» of multi-"camps", i.e., of the — initially 'many-camp' — "villages".

<u>'Ideographized' / 'Ideogramized' "Shorthand" Summary</u> [in the following formula, \underline{V} denotes the ontological category of the "<u>v</u>illages" «*arithmoi*»]:

$\underline{\mathbf{b}} + \underline{\mathbf{c}} \rightarrow [\underline{\mathbf{b}} + \underline{\mathbf{c}}][[\underline{\mathbf{b}} + \underline{\mathbf{c}}]] = [\underline{\mathbf{b}} + \underline{\mathbf{c}}]^2 = [\underline{\mathbf{b}} + \underline{\mathbf{c}}] + \underline{\Delta}[\underline{\mathbf{b}} + \underline{\mathbf{c}}] = \underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{v}}.$

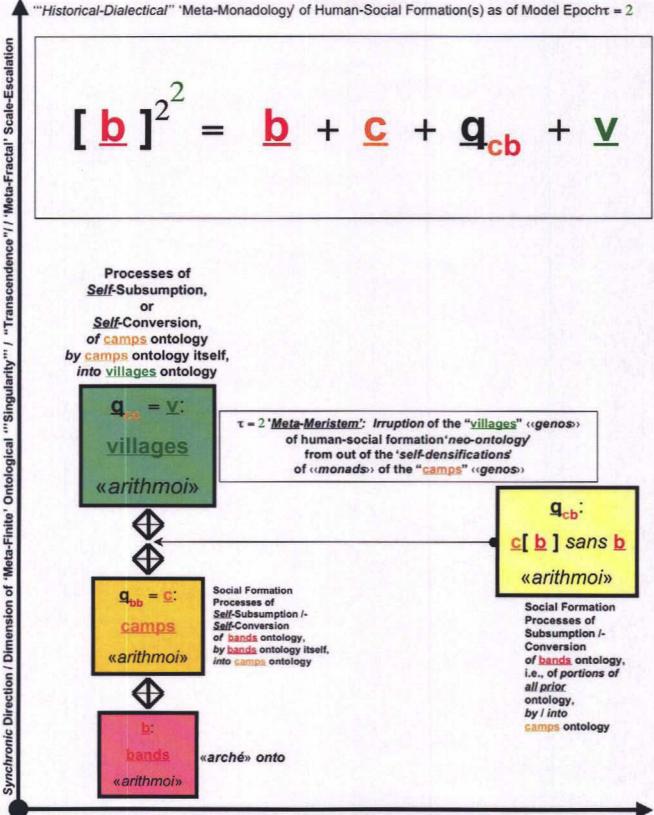
[Note: "'Hybrid", 'ontological conversion formation', "'<u>real</u> subsumption'" «arithmoi», such as those denoted by **g**_{cb}, above, are specially depicted in the 'ontology diagrams' introduced in this Brief. Such "'hybrid'" or cross-product terms denote partial or total dialectical <u>synthesis</u> formations, which convert the «monads» of earlier-emerged ontological categories into the «monads» of the most recently-emerged ontological categories; which "'synthesize", and "output", in this case, **C** «monads», by means of an "input" of **b** «monads».]

[Note: What "'Squaring''' Signifies in this Model. It is the 'self-confrontation', or 'intra-confrontation', of physical-spatially-local «arithmoi», and of their «monads», that is signified, and symbolized, in the dialectical-ideographical rendering of this model, by 'self-function-ing', or 'self-argument-ing', i.e., by 'self-operand-ing' of an operator, or "squaring"' -- by the 'self-product-tion', by the ontic, qualitative 'self-multiply-ing', by the function-argument-identical, operator-operand-identical syntax, modeling the subject-verb-object-identical meaning – of the expressions for the 'product-tion' of the incremental [Δ] ontological-category content of each successive model-epoch. That is, indeed, the standard F.E.D. interpretation / 'semantification' of this syntax.].



Diachronic Direction / Dimension of Self-Proliferation, of "Auto-Catalysis", or of Expanded Self-Reproduction, of Monadic Populations

Ontological Categories ['Ontos'] Diagram for [**b**]^{2^{τ}} at $\tau = 2$:



GRADIENT: from Formal Subsumption of Past Social-Formations Ontology, to Its Real Subsumption

γ. "<u>Villages</u>". Suppose, as the next, consecutive emergence in this 'Qualo-Peanic' '*self-«aufheben»* succession' / '*consecuum-cumulum*' of human-social emergences, that the "populations" of some of the "<u>villages</u>" *«arithmoi»* — "populations" of which each individual "village" is a *«monad» / unit* — reproduce themselves with expansion, i.e., grow, in certain localities of the planetary biosphere / emergent "noosphere".

Then, as the 'monadic populations' of the "villages"-as-«monads» grow and 'densifies' themselves in those localities, a condition of "critically" high "villages" density may arise. We describe this condition as being that of the 'self-surroundment' of the "village" «monad»; as that of the 'self-environment' of the "villages", or the 'surroundment / environment-by-likes', created, for the "villages", by the "villages".

This condition would arise, first and especially, within the 'centerward' sub-population of "village" «monads» of each of the key/core such localities, or 'meta-meristemal' / "'vanguard" social-formations-innovation "nucleation zones".

The achievement of this "criticality" means that there has arisen a condition of "**villages**" densely surrounded by [other] "**villages**" at the heart of each such locality.

This condition would have thereby supplanted, in intensity / 'intensivity', within these key/core loci, the 'precedingly-dominant' condition of the 'surroundment' of "village" «monads» by their immediate-predecessor, 'inverse-consecutive' «monads», namely, by «monads» of the «arithmoi» of "camps".

A new innovation in the human-social settlement / governance patterns' taxonomy of 'socio-ontology' is thereby seeded.

The former condition was dominated by and characterized by 'merely-hybridizing' reactions / <u>inter</u>-actions, by 'ontological conversion', via '<u>hetero</u>-actions', of "village" «monads» with immediate predecessor, "camp" «monads», and with [any] still-persisting earlier-predecessor «monads» — predecessor ontic «monads» as yet unassimilated to any higher "'degree'" of ontological '<u>self</u>-involution' / '<u>self-internalization</u>' /- '<u>self</u>-subsumption' / '<u>self</u>-complexification' / '<u>self</u>-hybridization' — i.e., with "band" «monads».

The new condition — in the 'ontological innovation nucleation zones' — is dominated by and characterized by '<u>self</u>-hybridizing' interactions, '<u>self</u>-interactions', or '<u>intra</u>-actions', of "village" «monads» with [other] "village" «monads», which become more and more frequent / increasingly '<u>self</u>-frequentized', as the "population density" of "village" «monads» grows therein.

The formerly-dominant modes of monadic interaction — of monadic 'ontological <u>other</u>-conversion', or monadic '<u>hetero</u>-conversion' — had partially converted the still-extant "camp" 'socio-ontology' / 'socio-mass' into "village" 'socio-ontology' / 'socio-mass' [the process of the "<u>real subsumption</u>" of <u>C</u> by <u>V</u>, denoted by $\underline{q_{vc}}$], as well as converting part of any still-extant "band" 'socio-ontology' / 'socio-mass' likewise into "village" 'socio-ontology' / 'socio-mass' [the process of the "<u>real subsumption</u>" of <u>b</u> by <u>V</u>, denoted by $\underline{q_{vc}}$].

This process of 'ontological <u>hetero</u>-conversion' of [part of] the remaining «monads» of all of the precedingly-<u>self</u>-manifested «arithmoi» — i.e., in this epoch, of the "camps" «arithmoi», and of the "bands" «arithmoi» — is '<u>auto</u>-catalyzed' by, and 'celerates' itself, in proportion to the presence / inherent activity of, and to the density of / 'physical-spatial concentration' of, the therefore ["'<u>self</u>-] expanding"'' "<u>villages</u>" «arithmoi». However, as the — therefore and thereby growing — 'physical-spatial concentration' of the «*monads*» of these "<u>villages</u>" «*arithmoi*», in the key/core "'nucleation zones", crosses a "critical mass" / "'critical density" threshold, the process of the 'ontological <u>hetero</u>-conversion' / assimilation, of [portions of] all earlier-manifested monadic sub-populations into the growing "<u>villages</u>" monadic populations, *shifts*.

The "<u>other</u>-conversion" process *shifts* partially into a new and previously <u>un</u>precedented process, a process of the nascent 'ontological <u>self</u>-conversion' <u>of</u> [part of] the burgeoning "<u>villages</u>" «arithmoi» 'socio-ontology', <u>by</u> that very burgeoning "<u>villages</u>" «arithmoi» 'socio-ontology'. The process *shifts* to a '<u>self</u>-conversion' into the 'socio-ontology' of a new, '<u>self</u>-involutively higher', previously <u>un</u>exampled "'<u>onto</u>-logical type", a new increment of 'socio-ontological' innovation relative to the previous history of human-social formation(s).

That is, the '<u>self</u>-frequentization' of this new mode of action — of "<u>self</u>-inter-action", or "*intra*-action" — of "<u>villages</u>" with "<u>villages</u>", then, as it exceeds its critical frequency / density threshold, precipitates the irruption of yet a new, previously <u>non</u>-extant, previously <u>non</u>-existent, higher '<u>meta-fractal</u>' scale / level / layer of human settlement / governance patterns and practices, namely, that of the — typically multi-"village" — "chiefdom", or "<u>tribal</u>", human-social formation(s).

A "chiefdom", grasped as a human-social formation *unit* / «*monad*», is a 'meta¹-«*monad*»', 'meta¹-*unit*', or 'super¹-*unit*', relative to a "village", grasped also as such a human-social formation *unit* / «*monad*». Each "chiefdom" *unit* / «*monad*» is a 'meta²-«*monad*»' relative to a "camp" «*monad*», grasped also as such a human-social formation *unit* / «*monad*», and is also a 'meta³-«*monad*»' relative to a "band" «*monad*», grasped also as such a human-social formation *unit* / «*monad*», and is also a 'meta³-«*monad*»' relative to a "band" «*monad*», grasped also as such a human-social formation *unit* / «*monad*».

Each typical "chiefdom" is a meta-"village", made up out of a [local-][sub-]«arithmos» of "villages", i.e., made up out of a <u>heterogeneous</u> multiplicity of "village" «monads», by means of their coalescence into a new 'internity / externity', i.e., by a <u>self</u>-induced, '<u>self</u>-«aufheben» <u>self-internalization</u>', that is, a 'meta-monadic <u>self-subsumption</u>', of that local, predecessor sub-«arithmos» of "villages" as predecessor «monads» / units.

This '<u>self</u>-«aufheben»' <u>self</u>-operation — <u>of</u> local sub-«arithmoi» of "village" «monads», as <u>collective</u> / holistic human-social "<u>subject</u>" / <u>agent</u> of [<u>self</u>-]action, acting / operating <u>upon</u> / <u>within</u> themselves, via their "village" «monads» operating <u>among</u> themselves — gives rise to an ontologically, qualitatively, behaviorally new and different, previously <u>un</u>precedented «genos» of «arithmoi», one that has "<u>chiefdoms</u>" as its «monads»: the «arithmoi» of — multi-"village", '<u>meta</u>-village' — "<u>chiefdoms</u>".

'Ideographized' / 'Ideogramized' "Shorthand" Summary [in the following formula, **f** denotes the ontological category of the "chiefdoms" «arithmoi»]:

 $\underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{V}}$

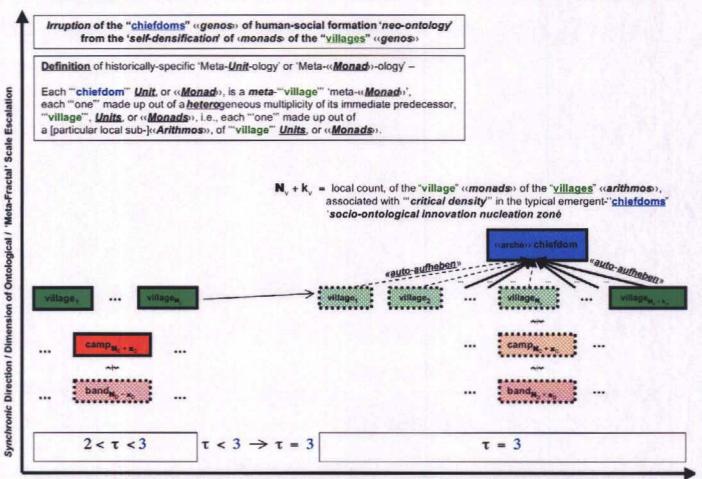
 $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right]\left[\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right]\right] = \left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right] "of" <u>itself</u> =$

 $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right]^2$

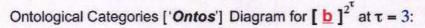
 $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right] + \underline{\Delta}\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right] =$

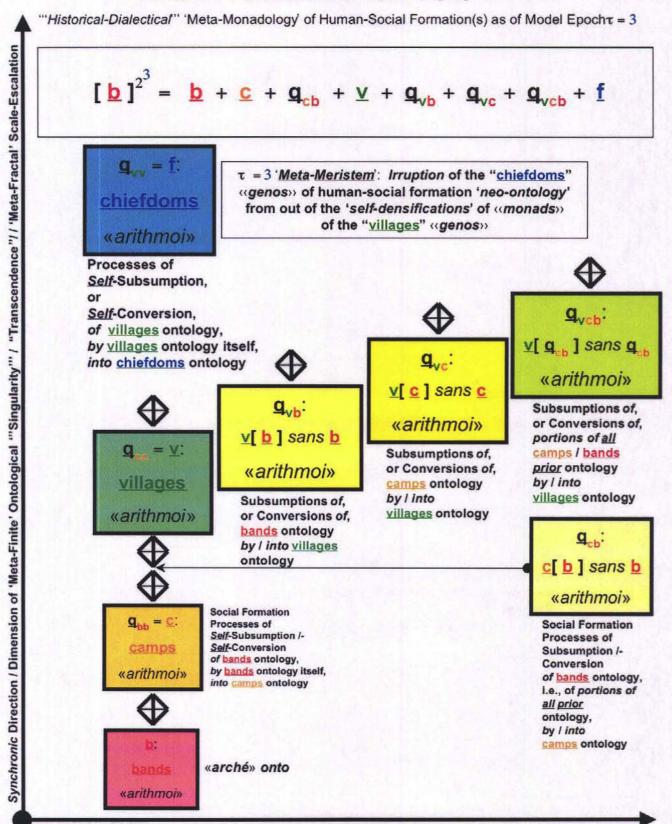
 $\underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{v}} + \underline{\mathbf{q}}_{vb} + \underline{\mathbf{q}}_{vc} + \underline{\mathbf{q}}_{vcb} + \underline{\mathbf{f}}.$

Diachronic «Aufheben» Diagram: "Historical-Dialectical" 'Meta-Monadology' of Human-Social Formation(s) for Epoch T = 3



Diachronic Direction / Dimension of Self-Proliferation, of "Auto-Catalysis'", or of Expanded Self-Reproduction, of Monadic Populations





GRADIENT: from Formal Subsumption of Past Social-Formations Ontology, to its Real Subsumption

δ. "<u>Chiefdoms</u>". Suppose, consecutively next, in this '<u>self</u>-«aufheben» <u>self</u>-progression'; in this '[Qualo-] Peanic' succession of human 'socio-onto-dynamasis', that the "populations" of some of the "chiefdom" «arithmoi», or "<u>tribes</u>" «arithmoi» — the "populations" for which each individual "chiefdom" is a «monad» /unit — reproduce themselves with expansion, i.e., ""grow", at least in certain localities of the planetary biosphere / emergent "noosphere".

Then, as the 'monadic populations' of the "chiefdoms"-as-«monads» 'densify' themselves in those localities, a condition of "critically" high "chiefdom" density may arise.

We describe this condition as that of the '<u>self-surroundment</u>' of the "chiefdom" «monad», as the condition of the '<u>self-environment</u>' of the "chiefdoms", or of the '<u>surroundment</u> / <u>environment-by-likes</u>', created, <u>for</u> the "chiefdoms", <u>by</u> the "chiefdoms".

This condition would arise, first and especially, within the 'centerward' sub-population of "chiefdom" «monads» of each of the key/core such localities, or 'meta-meristemal' / "'vanguard"' social-formationsinnovation "'nucleation zones".

The achievement of this "criticality" means that there has arisen a condition of "chiefdoms" densely surrounded by [other] "chiefdoms" at the heart of each such locality.

This condition would have thereby supplanted, in intensity / 'intensivity', within these key/core loci, the 'precedingly-dominant' condition of the 'surroundment' of the "chiefdom" «monads» by their immediate-predecessor, 'inverse-consecutive' «monads», the "village" «monads» of the «arithmoi» of "villages".

A new innovation in the human-social settlement / governance patterns' taxonomy of 'socio-ontology' is thereby seeded.

The former condition was dominated by and characterized by 'merely-hybridizing' reactions / <u>inter</u>-actions, 'ontological conversion' '<u>hetero</u>-actions', of "chiefdom" «monads» with their immediate predecessor «monads», and with [any] still-persisting earlier-predecessor «monads» — predecessor «monads» as yet unassimilated, or 'unsubsumed', to any higher "'degree'" of ontological '<u>self</u>-involution' / '<u>self-internalization</u>' / '<u>self</u>-complexification' / '<u>self</u>-subsumption' — i.e., "<u>inter</u>-actions" with "village" «monads», with "camp" «monads», and with "band" «monads».

The new condition — in the 'ontological innovation nucleation zones' — is dominated by, and characterized by, '<u>self</u>-hybridizing' ''*inter*'''-actions, '<u>self</u>-'''*inter*'''-actions', or '<u>intra</u>-actions', of "chiefdom" «monads» with [other] "chiefdom" «monads», becoming ever more frequent / increasingly '<u>self</u>-frequentized', as the '''density''' of "chiefdom" «monads» grows therein.

The formerly-dominant modes of monadic interaction — of 'ontological <u>other</u>-conversion', or ontological '<u>hetero</u>-conversion' — had <u>partially</u> converted still-extant "<u>villages</u>" 'socio-ontology' / 'socio-mass' into "<u>chiefdoms</u>" 'socio-ontology' / 'socio-mass' [the process of "'<u>real</u> subsumption"' of \underline{V} by <u>f</u>, denoted ideographically by <u>**G**_{fv}]; [part of] still-extant "<u>camps</u>" 'socio-ontology' / 'socio-mass' into the emergent "<u>chiefdoms</u>" 'socio-ontology' / 'socio-mass' [the process of the "'<u>real</u> subsumption"' of <u>c</u> by <u>f</u>, denoted by <u>**G**</u>_{fc}], and [part of] [any] still-extant "<u>bands</u>" 'socio-ontology' / 'socio-mass' into the emergent "socio-ontology' / 'socio-mass' [the process of the "'<u>real</u> subsumption"' of <u>c</u> by <u>f</u>, denoted by <u>**G**</u>_{fc}], and [part of] [any] still-extant "<u>bands</u>" 'socio-ontology' / 'socio-mass' into the emergent "socio-ontology' / 'socio-mass' [the process of the "'<u>real</u> subsumption"' of <u>b</u> by <u>f</u>, denoted by <u>**G**</u>_{fb}].</u>

This process of 'ontological <u>hetero</u>-conversion', or subordination / assimilation, of [part of] the remaining «monads» of the precedingly-<u>self</u>-manifested «arithmoi» — of the "villages" «arithmoi», of the "camps" «arithmoi», and of the "bands" «arithmoi» — is 'auto-catalyzed' by, and 'celerates' itself, in proportion to the presence of / inherent activity of, and to the density of / 'physical-spatial concentration' of, the therefore and thereby ""[self-]expanding"" physical-spatially-localized "chiefdoms" «arithmoi».

But as the — therefore and thereby growing — 'physical-spatial concentrations' of the «*monads*» of the "<u>chiefdoms</u>" «*arithmoi*», in the key/core "nucleation zones", crosses their "critical mass" / "'critical density" thresholds, the process of 'ontological <u>hetero</u>-conversion', of past monadic sub-populations into the growing "<u>chiefdoms</u>" monadic population, *shifts*.

This process partially *shifts* into a new and previously <u>un</u>precedented process, the process of the nascent 'ontological <u>self</u>-conversion' <u>of</u> [part of] those burgeoning "<u>chiefdoms</u>" «arithmoi» 'socio-ontology', <u>by</u> [part of] those burgeoning "<u>chiefdoms</u>" «arithmoi» 'socio-ontology'.

This process partially *shifts* to '<u>self</u>-conversion' of "<u>chiefdoms</u>" 'socio-mass' and 'socio-ontology' <u>into</u> the 'socio-mass' and 'socio-ontology' of a new, '<u>self</u>-involutively higher', previously <u>un</u>exampled "'<u>onto-logical</u> type", a new, previously <u>non</u>-present increment of 'socio-ontological' innovation in the history of human-social formation(s).

The '<u>self</u>-frequentization' of this new mode of action — of ""<u>self</u>-"" action", or "<u>intra</u>-action" — of "<u>chiefdoms</u>" with "<u>chiefdoms</u>", then precipitates, as it exceeds its critical frequency / density threshold, the irruption of yet a new, previously <u>non</u>-extant, previously <u>non</u>-existent '<u>meta-fractal</u>' scale / level / layer of human settlement / governance patterns and practices, namely, that of the — initially multi-"chiefdom" — "city-state" human-social formation(s).

A "city-state", grasped as a human-social formation *unit* / «*monad*», is a 'meta¹-«*monad*»', 'meta¹-*unit*', or 'super¹-*unit*' relative to a "chiefdom", grasped also as such a human-social formation *unit* / «*monad*»; is a 'meta²-«*monad*»' relative to a "village", grasped also as such a human-social formation *unit*; is then also a 'meta³-«*monad*»' relative to a "camp", grasped also as such a human-social *unit*, and is then, finally, also a 'meta⁴-«*monad*»' relative to a "band", grasped also as such a human-social formation *unit*.

Each typical "city-state" is a 'meta'-"chiefdom", or 'meta'-"tribe" — often founded as the result of a local alliance of "tribes"; an alliance of formerly disparate and formerly mutually-warring <u>local</u> "tribes" against <u>less local / more distant</u> "tribes" — i.e., is made up out of a [local-][sub-]«arithmos» of "chiefdoms" or "tribes"; is made up out of a <u>heterogeneous</u> multiplicity of "chiefdoms", by means of a '<u>self</u>-«aufheben» '<u>self-internalization</u>', or '<u>self</u>-subsumption', of that local, predecessor sub-«arithmos» of "chiefdoms" as predecessor «monads».

This '<u>self</u>-«aufheben»' <u>self</u>-operation — <u>of</u> a sub-«arithmos» of "chiefdom" «monads», as collective / holistic human-social "'<u>subject</u>" / <u>agent</u> of [<u>self</u>-]action, acting / operating <u>upon</u> / <u>within</u> itself, via its "chiefdom" «monads» operating <u>among themselves</u> — gives rise to an ontologically, qualitatively, behaviorally new and different, previously <u>un</u>precedented «genos» of «arithmoi», one that has "<u>city-states</u>" as its «monads»: the «arithmoi» of — [initially] multi-"tribe", multi-"chiefdom" — "city-states".

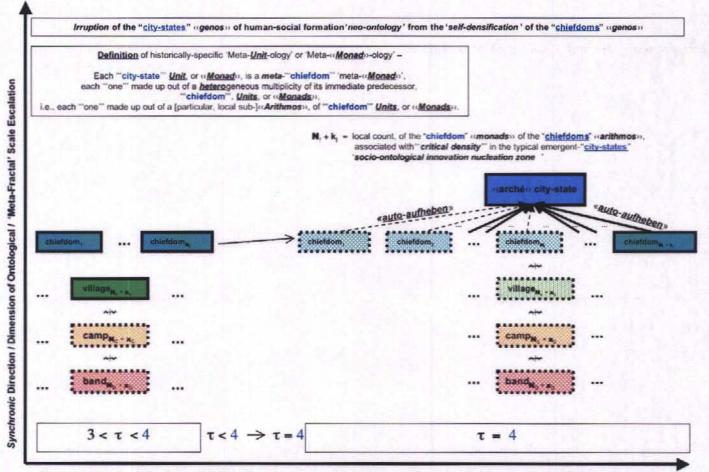
'Ideographized' / 'Ideogramized' "Shorthand" Summary [in the following formula, S denotes the ontological category of the "city-states" «arithmoi» of «monads»]:

 $\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \longrightarrow$ $[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f}] "of" <u>itself</u> =$

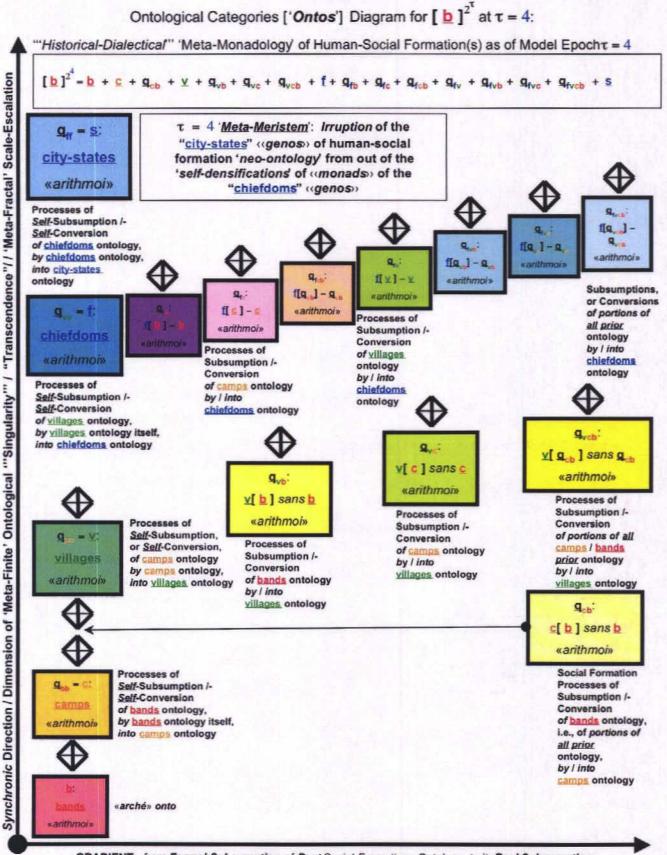
 $\left[\underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{v}} + \underline{\mathbf{q}}_{vb} + \underline{\mathbf{q}}_{vc} + \underline{\mathbf{q}}_{vcb} + \underline{\mathbf{f}}\right]^2$

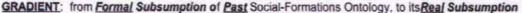
 $\underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{v}} + \underline{\mathbf{q}}_{vb} + \underline{\mathbf{q}}_{vc} + \underline{\mathbf{q}}_{vcb} + \underline{\mathbf{f}} + \underline{\mathbf{q}}_{fb} + \underline{\mathbf{q}}_{fc} + \underline{\mathbf{q}}_{fcb} + \underline{\mathbf{q}}_{fv} + \underline{\mathbf{q}}_{fvb} + \underline{\mathbf{q}}_{fvc} + \underline{\mathbf{q}}_{fvcb} + \underline{\mathbf{s}}.$

Diachronic «Aufheben» Diagram: "'Historical-Dialectical" 'Meta-Monadology' of Human-Social Formation(s) for Epoch τ = 4



Diachronic Direction / Dimension of Self-Proliferation, of "Auto-Catalysis", or of Expanded Self-Reproduction, of Monadic Populations





ε. "<u>City-States</u>". Suppose, as the next, consecutive emergence in this 'Qualo-Peanic' '<u>self</u>-«aufheben»' succession / 'consecuum-cumulum' of human-social emergences, that the "populations" of the "<u>city-states</u>" «arithmoi» — the "populations" of which each individual "city-state" is a social formation «monad» / unit — reproduce themselves with expansion, i.e., "'grow'', in certain localities of the planetary biosphere / emergent "noosphere".

Then, as the 'monadic populations' of the "city-states"-as-«monads» 'densifies' themselves in those localities, a condition of "critically" high "city-state" density may arise, which condition we term the 'self-surroundment' of the "city-state" «monad», the 'self-environment' of the "city-states", or the 'surroundment- / environmentby-likes', created, for the "city-states", by the "city-states".

This condition would arise, first and especially, within the 'centerward' sub-population of "<u>city-states</u>" «*monads*» of each of the key/core such localities, or 'meta-meristemal' / "'vanguard" social-formationsinnovation "'nucleation zones'". This means that there has arisen a condition of "<u>city-states</u>" densely surrounded by [other] "<u>city-states</u>" at the heart of each such locality. This condition would have thereby supplanted, in intensity / 'intensivity', within these key/core loci, the 'precedingly-dominant' condition of the 'surroundment' of the "city-state" «*monads*» by their immediate-predecessor, 'inverse-consecutive' «*monads*», namely, the «*monads*» of the «*arithmoi*» of "chiefdoms".

A new innovation in the human-social settlement / governance patterns' taxonomy of 'socio-ontology' — of human 'socio-systematics', or 'socio-taxonomics' — is thereby seeded.

The former condition was dominated by, and characterized by, 'merely-hybridizing' reactions / <u>inter</u>-actions, 'ontological conversion' '<u>hetero</u>-actions', of "city-state" «monads» with their immediate predecessor «monads», and with [any] still-persisting earlier-predecessor «monads» — predecessor «monads» as yet <u>un</u>assimilated to any higher "'degree''' of ontological, 'meta-monadic' '<u>self</u>-involution' / '<u>self-internalization</u>' / '<u>self</u>-complexification' / '<u>self-subsumption</u>' / '<u>self</u>-hybridization' — i.e., interactions with "chiefdom" «monads», with "village" «monads», with "camp" «monads», and with "band" «monads».

The new condition — in the "ontological innovation nucleation zones" — is dominated by and characterized by '<u>self</u>-hybridizing' *"inter"*-actions, '<u>self</u>-*"inter"*-actions', or '<u>intra</u>-actions', of "city-state" «*monads*» with [other] "city-state" «*monads*», which become more and more frequent / increasingly '<u>self</u>-frequentized', as the "population density" of "city-state" «*monads*» grows therein.

The formerly-dominant modes of monadic interaction — modes of monadic 'ontological <u>other</u>-conversion', or '<u>hetero</u>-conversion' — had <u>partially</u> converted, or subordinated, still-extant "<u>chiefdoms</u>" 'socio-ontology' / 'socio-mass' [in]to "<u>city-states</u>" 'socio-ontology' / 'socio-mass' [the process of the '''<u>real</u> subsumption''' of **f** by **S**, denoted by **G**_{sf}]; [portions of] still-extant "<u>villages</u>" 'socio-ontology' / 'socio-mass' [in]to "<u>city-states</u>" 'socio-ontology' / 'socio-mass' [in]to "<u>city-states</u>" 'socio-ontology' / 'socio-mass' [the process of the '''<u>real</u> subsumption''' of **V** by **S**, denoted by **G**_{sv}]; [portions of any] still-extant "<u>camps</u>" 'socio-ontology' / 'socio-mass' [in]to "<u>city-states</u>" 'socio-ontology' / 'socio-mass' [the process of the '''<u>real</u> subsumption''' of **g** by **S**, denoted by **G**_{sv}], and [portions of any] still-extant "<u>bands</u>" 'socio-ontology' / 'socio-mass' [in]to "<u>city-states</u>" 'socio-ontology' / 'socio-mass' [the '''<u>real</u> subsumption''' of **b** by **S**, denoted by **G**_{sv}].

This process of 'ontological <u>hetero</u>-conversion' of [part of] the remaining «monads» / units of the precedinglyself-manifested «arithmoi» — of the "chiefdoms" «arithmoi», of the "villages" «arithmoi», of the "camps" «arithmoi», and of the "bands" «arithmoi» — is 'auto-catalyzed' by, and 'celerates' itself, in proportion to the presence of, and to the density of / 'physical-spatial concentration' of, the therefore and thereby "[self-]expanding"" "city-states" «arithmoi». However, as the — therefore and thereby growing — 'physical-spatial concentration' of the «*monads*» of the "<u>city-states</u>" «*arithmoi*», in the key/core "nucleation zones", crosses its "critical mass" / "critical density" threshold, the process of 'ontological <u>hetero</u>-conversion', of past monadic sub-populations into the growing "<u>city-states</u>" monadic population, *shifts*.

It *shifts* into a new and previously unprecedented process, of the nascent 'ontological <u>self</u>-conversion' <u>of</u> [part of] the burgeoning "<u>city-states</u>" «*arithmoi*» 'socio-ontology', <u>by</u> that burgeoning "<u>city-states</u>" «*arithmoi*» 'socio-ontology', <u>by</u> that burgeoning "<u>city-states</u>" «*arithmoi*» 'socio-ontology', into something new: its '<u>self</u>-conversion' into the 'socio-mass' and the 'socio-ontology' of a new, '<u>self</u>-involutively higher', previously <u>un</u>exampled "'<u>onto-logical type</u>"; its '<u>self</u>-conversion' into a new increment of 'socio-ontological' innovation in the history of human-social formation(s).

That is, the '<u>self</u>-frequentization' of this new mode of action — of "<u>self</u>-"inter" - action", or "<u>intra</u>-action" — of "<u>city-states</u>" with "<u>city-states</u>", then precipitates, as it exceeds its critical frequency / density threshold, irruption of yet a new, previously <u>non</u>-extant, previously <u>non</u>-existent '<u>meta-fractal</u>' scale / level /- layer of human settlement / governance patterns and practices, namely, that of the multi-"city-state" "empire" human-social formation(s), e.g., the Incan, Mayan, Aztec, Babylonian, Egyptian, Persian, Athenian, Carthaginian, Macedonian, and Roman "<u>empires</u>" of Terran human[oid] history.

Note: The word "empire" is used, herein, only in its earlier meaning, to describe a *pre-<u>nation-state</u>*, ancientcivilizational, multi-<u>city-state</u> governance / settlement formation, i.e., primarily of the *ancient*-historical world.

This social formation involved <u>city-state</u>-colonization, and tributary, etc., conquest, [partial-]enslavement, and/or other subjugation of, especially, other / rival "<u>city-states</u>", by a dominant / "'central"" "city-state", as seen, for example, in those "<u>empires</u>" that emerged, in the Medi<u>terran</u>ean planetary 'sub-hemisphere' of planet *Terra*, during the period of "'classical antiquity", such as the rapacious / parasitical "<u>empires</u>" centered upon the transiently-dominant / "'central"" "<u>city-states</u>" of Akkad, Persepolis, Athens, Carthage, Macedon, Alexandria, and Rome, in Terran human history.

The word "empire" is <u>not</u> used herein to describe that qualitatively, ontologically, behaviorally, and "categorially" <u>different</u> — systematically / taxonomically qualitatively <u>different</u> — 'meta-fractally' higher scale / level / layer of the later-to-emerge imperialist formations of the "nation-states" epoch.

The "<u>nation-states</u>" epoch of "'[national] empires" — the "<u>nation-states</u>" epoch / scale / level / layer of the multi-<u>nation</u>-al, or multi-"nation-state", '<u>nation</u>-al / colonial imperialisms — is higher in 'ontic dimensionality' — but nonetheless '*meta-fractally <u>analogous</u> to*' — the earlier-to-emerge formations of the herein-modeled multi-<u>city-state</u> "<u>empires</u>" epoch.

The former, <u>national</u>, "empires", are typically centered in a single, dominant transitional / mercantile-capitalist, or industrial-capitalist, "nation-state", such as the rapacious / parasitical inter-[proto-]national imperialisms centered upon the transiently-dominant "central" [proto-]"<u>nation-states</u>" of medieval Portugal, medieval Spain, and of the Dutch *United Provinces*, or, later, those of modern France, England, Russia, Germany, Italy, Japan, the *so-called* "Soviet" Union, the *so-called* "Peoples' " "Republic" of China, and — last, but far from least, in rapacity — the North American *United States*.

An "empire", grasped as a human-social unit / «monad», is a 'super¹-unit', 'meta¹-unit', or 'meta¹-«monad»', relative to a "city-state", grasped also as such a human-social formations unit / «monad»; is a 'meta²-«monad»' relative to a "chiefdom", grasped also as such a human-social formations unit / «monad»; is a 'meta³-«monad»' relative to a "village", grasped also as such a human-social formations unit / «monad»; is a 'meta⁴-«monad»' relative to a "camp", grasped also as such a human-social formations unit / «monad»; is a 'meta⁴-«monad»' relative to a "camp", grasped also as such a human-social formations unit / «monad», & is a 'meta⁵-«monad»' relative to a "band", grasped also as such a human-social formations unit / «monad», & is a 'meta⁵-«monad»' relative to a "band", grasped also as such a human-social formations unit / «monad».

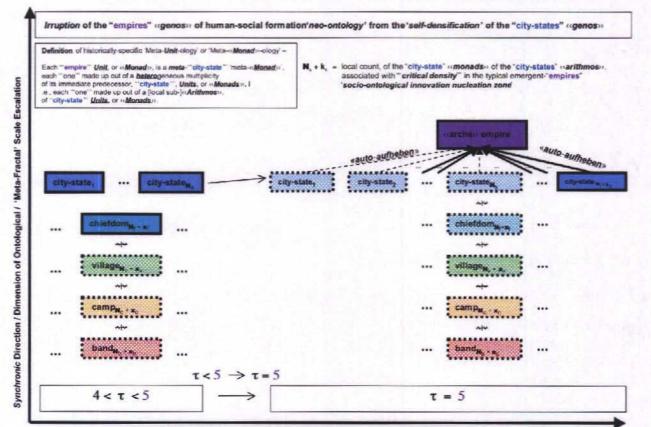
Each typical "empire" is a meta-"city-state", often founded via the military and commercial conquest, by a single, "central", dominant, "imperial" "city-state", such as ancient Macedon, or ancient Rome, of a multitude of other "city-states". It is a 'meta-"city-state" ', made up out of a [local-][sub-]«arithmos» of "city-states", i.e., made up out of a <u>heterogeneous</u> multiplicity of "city-state" «monads» / units, by means of a 'self-«aufheben» 'self-internalization', or 'self-subsumption', of that local, predecessor sub-«arithmos» of "city-states" as predecessor «monads» / units.

This '<u>self</u>-«aufheben»' <u>self</u>-operation — <u>of</u> a local sub-«arithmos» of "city-state" «monads», as collective human-social "<u>subject</u>" / <u>agent</u> of [<u>self</u>-]action, acting / operating <u>upon</u> / <u>within</u> itself, via its "<u>city-states</u>" «monads» operating <u>among</u> themselves — gives rise to an ontologically, qualitatively, behaviorally new and different, previously unprecedented «genos» of «arithmoi», to one having "<u>empires</u>" as its «monads»: noneother than the «arithmoi» of the multi-"city-state" "<u>empires</u>".

'Ideographized' / 'Ideogramized' "Shorthand" Summary [in the following formula, <u>e</u> denotes the ontological category of the multi-"city-state" "empires" «arithmoi»]:

 $\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} \rightarrow$ $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} \right]^2 =$ $\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} \right]^2 =$ $\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} +$ $\underline{q}_{sb} + \underline{q}_{sc} + \underline{q}_{scb} + \underline{q}_{sv} + \underline{q}_{svb} + \underline{q}_{svc} + \underline{q}_{svcb} + \underline{q}_{sf} + \underline{q}_{sfb} + \underline{q}_{sfc} + \underline{q}_{sfcb} + \underline{q}_{sfv} + \underline{q}_{sfvb} +$ $\underline{q}_{sfvc} + \underline{q}_{sfvcb} + \underline{q}_{sv}$

Diachronic « Aufheben» Diagram: "Historical-Dialectical" Meta-Monadology of Human-Social Formation(s) for Epoch t = 5



Diachronic Direction / Dimension of Self-Proliferation, of "Auto-Catalysis", or of Expanded Self-Reproduction, of Monadic Populations

ζ. "Empires". We have arrived at the relative "ultimate", or «terminus», for this particular, [meta-]finite [self-]regress, or [meta-]finite 'self-progression', of human-social formation(s), with regard to both the model of full 'self-internalizations', and that of full 'self-meta-«monad»-izations'. The multi-city-state "clash of empires" was, in Earth's history, not the only driving force — or even the principal driving force — behind the next irruption of a new 'socio-ontological' category, the new/next «arithmoi» of human-social formation(s).

The planetary "population" and 'densification' / physical-spatial "concentration" of such multi-city-state "<u>empires</u>"-as-«*monads*», remained too "few and far between", particularly in relation to the attained level of transportation technology of their epoch.

The global interaction of "**empires**" with [other] "**empires**" remained rather tenuous, infrequent, and rarefied, across physical-<u>spatial</u> / duration-of-travel <u>temporal</u> distances that were large in relation to the transport capabilities of those times.

In the larger Mediterranean world of the ancient Occident, the Roman "empire" subjugated, and incorporated into itself, most of the Carthaginian and Macedonian "empires", as well as numerous other pre-"city-state" human-social terrains of the rest of western and Eastern Europe, and of the islands later to be known as the British Isles. Thereafter, not so much *inter-*"empire" processes, as '*intra-*[Roman-]"empire"' processes, precipitated the protracted path which, *at length*, led to the appearance of the new, previously-unprecedented "genos" of the «arithmoi» of "nation-states".

It was more the internal «*lysis*», into Eastern and Western Roman "**empires**", and other aspects of the internal, immanent, 'meta-catabolic', interior 'self-dis-organization' — the human-social-reproductive 'self-entropy' accumulation — of the ancient Roman [*in*]human-social-formations, in parallel with, in counter-point to, and in "co-evolution" with, their mutually-destructive 'hybrid' interactions with the surrounding "barbarian" 'mobile-chiefdoms', etc., that led to the collapse of "**empires**" in Europe / 'Mediterranea'. The result was an Occidental "Dark Ages" that catastrophically and protractedly-delayed the emergence of the consecutively next, "'modern''' "nation-states" epoch / 'socio-ontology' and stage of human-social formation.

That next epoch eventually arose, <u>not</u> from out of the <u>zeniths</u> – as, typically, with the previous emergences of our model -- but, on the contrary, from out of the <u>ruins</u>, of the "ancient" "<u>empires</u>".

In that sense, then, the [[mercantile+]-capitalist] "<u>nation-states</u>" «*arithmoi*» might even be categorized as constituting a new «*arché*»-«*genos*», for a new, separate, successor – 'meta-epochal' – '''<u>historical</u> dialectic''' of human-social formation(s), for planet Terra.

All that we can find, in favor of the *post-"empires" continuity* of the *old 'dialectic'* of human-social formation, is that each typical "nation-state" is a *partial* 'meta-"empire" ', made up out of a [local-][sub-]«*arithmos*» of '*ruin*-ed' "empire-*fragments*", i.e., made up out of a heterogeneous multiplicity of the, often-overlapping, *ruins*, or *ruined-remains*, of the social, memetic terrains of multi-city-state "empires", by means of an '«*aufheben*» '*internalization*' of the local *debris* of *fallen* "empires" as predecessor «*monads*».

η. "<u>Nation-States</u>". Even so, were such a model, with the "<u>nation-states</u>" «genos» as its «arché», expected to see its own 'consecuum', for even one next, successor ontological category of «arithmoi», then a major new "singularity" in Terran, human-social history, must also be expected. It must be so if the history of planet Terra is to participate in – that 'consecuum' / succession / '<u>self</u>-progression'.

All of the epochs of human-social formation as yet considered, and '<u>dialectically</u>-derived', or '<u>self</u>-«aufheben»derived', via our paradigm, of the '<u>self</u>-«aufheben»' process as a process of '*meta-monadization*', in the aboverendered model-narrative, so far, were, in concept, confined to the theatre of a single planet's "geo"-logical ["'planet-ological"', planetary-]formation *platform*, as their ''*natural basis*''' [cf. Marx].

Is it still plausible to assume that the entirety of this phase of the '<u>self</u>-meta-evolution' of this cosmos — of this human[oid] part of '<u>The Dialectic of Nature</u>' — namely, '<u>The Dialectic of</u> [the] <u>Human</u>[-ized Portion of] <u>Nature</u>', should be forever confined to a single planet for each and every "'human[oid] species'" that arises in every given stellar / planetary system in every given galaxy?

Even if given that a successor social-formations «genos», for planet Terra, after the "<u>nation-states</u>" «genos», is the «genos» of "'<u>world-poli</u>", and <u>not</u> that of a singleton "'world-polis'", e.g., on planet Terra alone — a single «monad», instead of a new local «arithmos», of such "'<u>global-poli</u>", or "<u>planetary-poli</u>" «monads» — then the "ecosphere" of Terran humanity, of the Terran human[oid] «species», must first expand beyond the confines of planet Terra.

If, locally, there is to be even a mere <u>pair</u> of "**planetary-poli**" «*monads*», i.e., in the 'Terra-proximate' part or locus of the cosmological, galactic, «*arithmoi*» of "**planetary-poli**", then the vast human '«*species*»-*project*' of the colonization and "'Terra-<u>re</u>-forming" of, e.g., Mars, must emerge in Terran humanity's future.

Indeed, competent human-«*species*» extinction-risk 'human-*social risk management*' would require such a "diversification" of the [initially-]Terran human «*species*»' 'planets portfolio': an outspreading of our «*species*»' population to the nearby, other-to-Terra, planets of this solar system, and, eventually, beyond.

We might thus be led to frame the hypothesis that human[oid] «*arithmoi*» that continue the '*self-consecuum*' of '*self*-progressive' cosmological «*auto-kinesis*» — of cosmological "*self*-evolution" and '*self-meta-evolution*' — also continue into a "**multi-planetary**" phase / stage of human-social formation(s), with respect to this "taxonomy level two" view of cosmological "*onto-dynamasis*", as a process going on *within* the "taxonomy level one" 'cosmo-ontological category' that $F.\underline{E}.\underline{D}$. symbolizes by ' $\frac{1}{2}\underline{h}$ ', denoting thereby the "*onto*" of the cosmological <u>h</u>uman[oid] «*species*».

We might also wonder what the emergence of such "planetary engineering" levels of growth of the human "social-productive forces" and capabilities might have to do with a possible '<u>self</u>-continuation' of the «arithmoi»-'consecuum' of '<u>The Dialectic of Nature</u>' with respect to its 'taxonomy level one' view, already broached above, viz. [listed below such that only the 'meta-meristemal' cosmo-ontological category of each successive epoch of ''taxonomy level one''' cosmological '<u>self</u>-meta-evolution' is mentioned, neglecting the accumulating 'cumulum' of 'hybrid ontos'] —

pre-nuclears ->

nuclear Sub-atomics ->

<u>eukaryotic cellulars</u> →

meta-biotics ->

 \underline{animal} -societals \rightarrow

<u>human-societals</u> \rightarrow . . .

We mean a '<u>self</u>-continuation' beyond the present, planet Terra ecosphere epoch / ontological category / «*arithmos*» of cosmological «*autokinesis*», or '<u>self</u>-meta-evolution', that has "<u>human societies</u>" as its «*monads*», to a possible, consecutively next epoch / ontological category / «*arithmos*» of the post-human "'<u>meta-human</u>", symbolized, by F.<u>E.D</u>., via the '''cosmo-ontological category''-symbol $\frac{1}{\sqrt{\Delta h}}$, denoting the F.<u>E.D</u>.-predicted '''taxonomy level one''' next irruption of new 'cosmo-ontology'.

For more information on the above-sketched <u>NQ</u> dialectical-ideographic model of "'taxonomy level one" cosmos "<u>self-meta</u>-evolution", see the F.<u>E.D</u>. *Introductory Letter*, *Supplement B*, Example 3., pp. B-20 to B-22 [link: 'http://www.dialectics.org/archives/pdf/F.E.D.%20Intro.%20Letter,%20Supplement%20B-1,%20pp.%2012-22,%20v.2.pdf']. The Human Social Formation(s) Model as a Whole, from epoch $\tau = 0$ through epoch $\tau = 6$.

 α . **Bands** as the "'Historical Premiss'" of the process of human, social formation: $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^{\tau}}$ as of $\tau = 0$. $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^{0}} = \begin{bmatrix} \underline{b} \end{bmatrix}^{1} = \underline{b}$.

β. <u>Camps</u> emergent [epoch of "<u>formal</u> domination" by the <u>camps</u> formations]: $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^{\tau}}$ as of $\tau = 1$. $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^{1}} = \underline{b} \begin{bmatrix} \underline{b} \end{bmatrix} = \underline{b}$ "of" $\underline{b} = \underline{b}^{2} = \underline{b} + \underline{\Delta} \underline{b} = \underline{b} + \underline{c}$.

γ. <u>Villages</u> emergent [epoch of "<u>formal</u> domination" by the <u>villages</u> formations]: $[\underline{b}]^{2^{\tau}}$ as of $\tau = 2$.

 $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^2} = \begin{bmatrix} \underline{b} + \underline{c} \end{bmatrix} \begin{bmatrix} \underline{b} + \underline{c} \end{bmatrix} = \begin{bmatrix} \underline{b} + \underline{c} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} \end{bmatrix} + \underline{\Delta} \begin{bmatrix} \underline{b} + \underline{c} \end{bmatrix} = \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}.$

δ. <u>Chiefdoms</u> emergent [epoch of "<u>formal</u> domination" by the <u>chiefdoms</u> formations]: $\begin{bmatrix} \underline{b} \\ \underline{b} \end{bmatrix}^{2^{\tau}}$ as of $\tau = 3$. $\begin{bmatrix} \underline{b} \\ \underline{c} \end{bmatrix}^{2^{3}} = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} \end{bmatrix} \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} \end{bmatrix} = 1$

 $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right]^2 = \left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right] + \underline{\Delta}\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v}\right] =$

 $\underline{\mathbf{b}} + \underline{\mathbf{c}} + \underline{\mathbf{q}}_{cb} + \underline{\mathbf{v}} + \underline{\mathbf{q}}_{vb} + \underline{\mathbf{q}}_{vc} + \underline{\mathbf{q}}_{vcb} + \underline{\mathbf{f}}.$

 $\mathbf{\epsilon} \cdot \mathbf{\underline{City-States}} \text{ emergent [epoch of ```<u>formal domination</u>''' by the <u>city-states</u> formations]: <math>\begin{bmatrix} \underline{b} \end{bmatrix}^2$ as of $\tau = 4$. $\begin{bmatrix} \underline{b} \end{bmatrix}^{2^4} = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{c} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{cb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} \end{bmatrix}^2 = \begin{bmatrix} \underline{b} + \underline{c} + \underline{q}_{vc} + \underline{q}_{vc} + \underline{q}_{vc} + \underline{q}_{tc} + \underline{$ ζ . Empires emergent [epoch of "*formal domination*" by the empires formations]: [b] as of $\tau = 5$.

[<u>b</u>]^{2⁵} =

 $\left[\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s}\right]^2 =$

 $\underline{b} + \underline{c} + \underline{q}_{cb} + \underline{v} + \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} + \underline{q}_{sb} + \underline{q}_{sc} + \underline{q}_{scb} + \underline{q}_{sv} + \underline{q}_{svb} + \underline{q}_{svc} + \underline{q}_{svcb} + \underline{q}_{sf} + \underline{q}_{sfb} + \underline{q}_{sfc} + \underline{q}_{sfcb} + \underline{q}_{sfv} + \underline{q}_{sfvb} + \underline{q}_{sfvb} + \underline{q}_{sfvc} + \underline{q}_{sfvc} + \underline{q}_{sfvcb} + \underline$

η. Nation-States emergent [epoch of the merely "formal subsumption", by the nation-states formations,

of all previous social-formations ontology]: $\begin{bmatrix} b \\ b \end{bmatrix}^{2^{t}}$ as of $\tau = 6$.

[<u>b</u>]²⁶ =

 $\left[\underbrace{b} + \underbrace{c} + \underbrace{q_{cb}} + \underbrace{V} + \underbrace{q_{vb}} + \underbrace{q_{vc}} + \underbrace{q_{vcb}} + \underbrace{f} + \underbrace{q_{fb}} + \underbrace{q_{fc}} + \underbrace{q_{fcb}} + \underbrace{q_{fv}} + \underbrace{q_{fvb}} + \underbrace{q_{fvc}} + \underbrace{q_{fvcb}} + \underbrace{s} + \underbrace{q_{sb}} + \underbrace{q_{sc}} + \underbrace{q_{scb}} + \underbrace{q_{svc}} + \underbrace{q_{svcb}} + \underbrace{q_{sf}} + \underbrace{q_{sfb}} + \underbrace{q_{sfc}} + \underbrace{q_{sfcb}} + \underbrace{q_{sfv}} + \underbrace{q_{sfvb}} + \underbrace{q_$

 $\underline{b} + \\ \underline{c} + \\ \underline{q}_{cb} + \underline{v} + \\ \underline{q}_{vb} + \underline{q}_{vc} + \underline{q}_{vcb} + \underline{f} + \\ \underline{q}_{fb} + \underline{q}_{fc} + \underline{q}_{fcb} + \underline{q}_{fv} + \underline{q}_{fvb} + \underline{q}_{fvc} + \underline{q}_{fvcb} + \underline{s} +$

 $\underline{q_{sb}} + \underline{q_{sc}} + \underline{q_{scb}} + \underline{q_{sv}} + \underline{q_{svb}} + \underline{q_{svc}} + \underline{q_{sf}} + \underline{q_{sfb}} + \underline{q_{sfc}} + \underline{q_{sfcb}} + \underline{q_{sfv}} + \underline{q_{sfvb}} +$

 $\underline{\mathbf{q}}_{eb} + \underline{\mathbf{q}}_{ec} + \underline{\mathbf{q}}_{ecb} + \underline{\mathbf{q}}_{ev} + \underline{\mathbf{q}}_{evc} + \underline{\mathbf{q}}_{evcb} + \underline{\mathbf{q}}_{ef} + \underline{\mathbf{q}}_{efc} + \underline{\mathbf{q}}_{efcb} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{q}}_{efv} + \underline{\mathbf{q}}_{efvb} + \underline{\mathbf{$

<u>The</u> [<u>Self-]Growth of the</u> [[Human-]<u>Social</u> [<u>Self-]Force(s) of</u> [Human-Society / Human-Social-Relations] [<u>Self-[Re-]]Production</u> [/ [<u>Self-[Re-]]</u>Productivity / [<u>'Self-</u>Transformativity']].

If the above-narrated '<u>dialectical model</u>' of the history of human-social formation(s) is one which appropriates the Marxian theory of "social [meta-]evolution", then the driving force of the 'socio-ontological' epochal transitions that it portrays must be –

"The Growth of the Social Forces of Production".

Indeed, it is so, *implicitly*.

The '<u>self</u>-growth' of the '<u>self</u>-numerosity' and the '<u>self</u>-density' of the 'meta-meristemal' social-formations «monads», assumed at every step of this model, as the driving '<u>self-force'</u> / '''[<u>self-]energizing principle</u>''' of every epochal transition, is, precisely, the product of the growing effectiveness, efficiency, and <u>self</u>-productivity of their 'quanto-qualitatively', 'quanto-ontologically' changing repertoire of human, social-<u>self</u>-reproductive practices, within every stage. The "*social forces of production*" concept does <u>not</u> refer only to the [labor-]time / durational-productivity, and other-inputs-productivity, of human activity with respect to the <u>products</u>, the "<u>goods</u>"-objects output thereby, conceived atomistically, and in isolation.

If these 'goods-objects' are "good", are truly "goods", and not "'bads"' — if they truly represent use-value, not merely from the atomistic, immediate-subjective, "individual / atomized consumer" point of view, but also from the 'mediate-subjective' point of view of contributing, by their '''[re-]productive consumption', to the maintenance and advancement of human-«species» social organization, of human-social order, of "'human-social negative entropy", or ''human-social negentropy'' — then the human-social consumption of such goods, including by the human producers of such "goods", must both sustain, and add to, productivity of / for further goods production, as produced by those human producers, which, in toto, adds to the self-support capability of the human population, by 'quanto-qualitatively' advancing the "'human-nature", the '''objectified humanity'', the '''self-object}ified collective human [inter-]subjectivity'', the '''humanized nature''', the "'meme-pool", the "'Phenome" of that, therefore 'quanto-qualitatively' growing, population of such producers.

The Marxian "social forces of production" must, thus, refer to the level / rate / scale of the 'quanto-qualitative' '<u>self-productivity' of humanity</u>. It must refer to 'human socio-mass <u>self-[re-]productivity</u>'. This <u>self-expanding</u> 'human-social <u>re-production</u>', and <u>self-expanding</u> 'human-social <u>self-re-productivity</u>', should both be comprehended in a way which encompasses the «*aufheben*»-conserved "'moment'" of <u>biological</u> *reproduction* -- of the [*re-]embodiment* of biological-individual human 'subject-ivity', or 'agent-ivity'. These two concepts should also be comprehended in a way which comprehensively encompasses the "'moment'" of 'econo-psycho-<u>cultural re</u>-production'. This means the continual, cumulative, self-expanding re-creation of the human «species»' collectively "<u>self</u>-materializing" artefactual and "'meme-ic'" [or '''meme-etic'''/-'''Phenomic'''], '<u>endo</u>-somatically' assimilated, conceptual, spiritual, ethical, aesthetic, and emotional wealth, as well as our '<u>exo</u>-somatic', concomitants and other '''tools'' and accoutrements -- our self-developing *human-natur*[e-]al '''mentalities''' and '''*instru*mentalities''', both.

The growth of this human-social '<u>self-force</u>' of <u>self-expanding</u> 'humanity-production' — comprehended as the growth of the '<u>self-[re-]productivity</u>' of the 'human-social <u>self</u>-forces of human-<u>society[</u>'s] <u>self</u>-expanding, <u>auto</u>-catalytic, '<u>auto</u>-poiesic', '<u>auto</u>-kinesic', <u>self-[re-]production</u>', is manifested by the '<u>qualo-quantitative</u>' <u>self-expansion</u>, and by the physical-spatial '<u>self</u>-densification', of the populations of social-formation «monads» at every level / 'meta-fractal' scale addressed by the preceding model narrative / narrative model.

For an <u>explicit</u> <u>N</u>Q-ideographical, '<u>dialectical model</u>' of the '<u>self-meta-evolution</u>' of the human-social ''<u>forces</u> of production''', see the F.<u>E.D</u>. Introductory Letter, Supplement B., Example 6. [forthcoming.]

E.D. Brief #2. Meta-Monadology [v.2.07.12.2008]

<u>""Social Formations"</u> versus "Social Relations of Production". The model of the 'self-meta-evolution' human social formation(s) rendered narratively — and in dialectical-ideographical "shorthand" — above, is <u>supplementary</u> to the one which Marx formulated. Marx's model of the historical "thuman social relations revolutions" describes [what F.<u>E.D.</u> terms] 'the <u>historical-dialectical self-meta-evolutions</u>' of the human "social relations of production". The model set forth above owes more to archaeological-anthropological findings accumulated since Marx's lifetime.

But suppose that we reach outside of Marx's known writings to define the *first two historical epochs* of these "[human-]social <u>relations</u> of production"".

Suppose that we take the *quasi-ecological* human-social relations of human-social re-production of the foraging / scavenging / hunting-and-gathering "**band**", i.e., of its "*predation*" technology, to be the initially-predominant mode of human-social reproduction — characterized by the immediate Appropriation of "raw" nature, with only a near-vanishing contribution of human labor to the "refining" and/or to the "*refinement*" of such directly-appropriated natural products, in the sense of *refinement for* human consumption. Suppose that we take this A-*relation* to be the *social relation of production* characterizing the first, «*arché*» historical epoch of human-*social relations of production* 'socio-ontology' '*self-meta*-evolution'? Suppose, further, that we take the human-*social relations of* the *production* [and of the [*re-]distribution*] of intra-tribal Goods / obligatory Gifts as characterizing the <u>second</u> historical epoch of the '*self-meta*-evolution' of the human-*social relations of* production [and of the '*self-meta*-evolution' of the human-*social relations of* production [and of the '*self-meta*-evolution' of the human-*social relations of* production [and of the '*self-meta*-evolution' of the human-*social relations of* production [and of the '*self-meta*-evolution' of the human-*social relations of* production [and of the '*self-meta*-evolution' of the human-*social relations of* production ontology, involving human-labor-modified, human-labor-improved-for-human-use, <u>deeper</u> Appropriation, <u>by</u> '*proto*-human-nature', <u>of</u> '*exo-proto*-human nature'; <u>of</u> the rest of nature.

We then have, per hypothesis, the following historical-dialectical '<u>self</u>-progression' of the aperiodic, episodic, accelerating '<u>self</u>-revolutionizations', or '<u>self</u>-meta-evolutions', of the human-social <u>relations</u> of production <u>side</u> of human 'socio-ontology', driven by the <u>self</u>-expanding <u>self</u>-development of the human-social forces of production <u>side</u> of human 'socio-ontology'. This 'socio-ontology' succession is listed below such that only the 'meta-meristemal', '<u>self-hybrid</u>' '''socio-ontological category''' 'formally dominating' each successive epoch is mentioned, while neglecting to explicitly express the accumulating 'cumulum' of 'hybrid ontos' —

"raw" Appropriation-relation →

<u>Goods-/obligatory</u> Gifts-relation \rightarrow

<u>Commodity-/Barter-relation</u> \rightarrow

Money-/Circulation-relation →

«Kapital»-Equity-relation \rightarrow

Generalized «Equity»-relation $\rightarrow \dots$

You can explore an *explicit* <u>Q</u>-ideographical, '*dialectical model*' of the '<u>self-meta</u>-evolutions' of the human social <u>relations</u> of production in these terms, via the F.<u>E.D</u>. Introductory Letter, **Supplement B**, Example 5. [link: <u>Supplement B Part III - including a Psycho-Historical Model of the Dialectic of Human Nature (.pdf)</u>], by scrolling down to pp. 24 through 33. <u>Part III</u>. C. of the present "'Brief'" [forthcoming] addresses this model in greater detail. :<u>A "Purely-Objective", "Subject-Less" / "Agent-less" Dialectic</u>? The above-rendered model is <u>not</u> one of "a purely <u>object-ive</u> <u>dialectic</u> without <u>subjects</u> / <u>agents</u>".

The above-rendered model is also <u>not</u> one which naively, after the fashion, and the fantasies, of "rugged individualist" 'human-biological-individual atomism', takes the individual human as the invariable, irreducible, trans-historical **subject** / **agent** of all of human history, acting in accord with a fixed and invariable, rigidly genomically-determined "human nature".

This model's **subjects**, or **agents of action**, are "*social-relations-of-production*" <u>holisms</u>, collectives of human social individuals, at progressively-advancing levels of "Phenomic" <u>self</u>-development, whose <u>concerted</u> and relationally-varying actions produce the qualitatively, ontologically different consequences seen at each level /- layer / scale per this human-made, generic, nomothetic 'model of human history'.

The behaviors and consequences of which "**nation-states**" are capable differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-city-state "**empires**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-village "**chiefdoms**" are capable, which, in turn, differ dramatically, qualitatively from the behaviors and consequences of which multi-village "**chiefdoms**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-camp "**villages**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-band "**camps**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-band "**camps**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-band "**camps**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which multi-band "**camps**" are capable, which, in turn, differ dramatically, qualitatively, ontologically, and '*meta-finitely*' from the behaviors and consequences of which proto-human[oid] "**bands**" are capable.

We don't find, for example, "**bands**", or "**camps**" — or even "**villages**" or "**chiefdoms**", for the most part — producing monumental, architectural works of stone, though some more modest 'megalithic' monuments may inhere in the 'religio-politico-economic' dynamics of the "**chiefdoms**" «*arithmoi*».

True, a <u>relatively</u> stable human genome, and including the psychological predispositions to which that genome tends to incline each human biological individual, is «*aufheben*»-conserved in each and every one of the 'socio-*meta-fractal'* / 'socio-ontological' archaeological layerings and horizons narrated above.

But this genome is also «*aufheben*»-conserved within a dramatically different "phenome", a drastically different system of motivation, of rewards and punishments, of positive / negative reinforcement structures and processes, in each and every 'socio-ontologically' distinct, human-"*social-relations-of*-[human-society / human-social-relations <u>self-re-]production</u>" human-social formation narrated above.

The [sentential] **subject** [and the sentential **object**, as well as the 'essence-ial' sentential **verb** "moment" of that **subject-object**-identical], as the <u>content</u> of cosmological, '<u>dialectical</u> «auto-kinesis»', itself '<u>self</u>-evolve(s)', and '<u>self-meta</u>-evolve(s)', with the <u>self</u>-propelling '<u>self</u>-progression' of that very '<u>dialectic</u>', as does, therefore, that '<u>dialectic</u>' itself.

Supplementary Oppositeness and Human-Social Antagonism. The contrasts of human-social ontology represented by **bands** vs. **camps**, by **camps** vs. **villages**, by **villages** vs. **chiefdoms**, by **chiefdoms** vs. **city-states**, and by **city-states** vs. **empires**, belong to that «species» of the «genos» of mutual opposition, or of mutual oppositeness, which F.<u>E</u>.<u>D</u>. categorizes as "supplementary oppositions".

We may therefore wish to ask: "¿to what degree does this kind of human-social "oppositeness" translate into human-social, collective-emotional antagonism?"

Whatever collective-emotional social antagonism was associated with the earlier parings, listed above, of **predecessor** vs. **successor** 'contra-thesis' social formations ontology, we can at least state, from a '"psycho-historical'" point of view – from the vantage of **F**.<u>E</u>.<u>D</u>.'s "*psycho-historical materialism*" – that the direct phenomena, or forms of manifestation, of any such social antagonisms have long since sunken out of recent social memory for contemporary human society at large, submerging into the depths of the "*social unconscious*"; *of the inter-subjective, socio-historical collective sub-conscious mind of contemporary humanity.*

Therefore, to address this question, we should have recourse to the archaeological literature, to the surviving ancient-historical literature, and even to the ethnographic literature of more-recent or still-extant social formations that are, in part, at least, "*living* human-*social fossils*" of our archaic past.

It would be well to survey that literature for signs of such past social antagonisms. It would be well, as well, to survey that literature for signs of the <u>actual</u> existence of the <u>possible</u>, "possibility-space" social ontology of the "hybrid" social formations. A total of fifty-seven such "'hybrid ontos" occur in the F.<u>E</u>.<u>D</u>. historical-dialectical category-sum[mation] for the socio-ontological "cumulum" which is also expressed, so compactly,

by the Seldon 'self-reflexive function', [b]', which models that dialectic.

Certainly the social antagonisms between individual <u>city-states</u> and multi-city-state <u>empires</u>, as also between multi-city-state <u>empires</u> and mobilized-nomadic, "barbarian" <u>chiefdoms</u>, are still storied in the lore of the ancient Mediterranean ""clash of civilizations", that remains «*courant*» for us today.

Transition: From a 'Dialectic of Human Nature' Model to the "Dialectic of Nature'" Model Entire.

The model expressed by the Seldon Function, $[\underline{b}]^{2^{\tau}}$, from $\tau = 0$ to $\tau = 6$, is a "taxonomy level two" historical-dialectical model, expressed, per a somewhat-more-complete rendition of the full <u>Encyclopedia</u> <u>Dialectica</u> notation, by $\begin{bmatrix} 2 \\ h \\ b \end{bmatrix}^{2^{\tau}}$. The "pre-<u>super</u>script" in the latter rendition of that model-expression, the '2' in the ' $_{h}^{2}$ ', signifies the "taxonomy level 2" location of this model within the 'encyclopedic' «kosmos»-model overall. Likewise, the associated "pre-<u>sub</u>script" in this latter model-formula, the 'h' in the ' $_{h}^{2}$ ', specifies that this model describes an aspect, at least, of what goes on "*inside*" the "taxonomy level 1" ontic category denoted by $\frac{1}{2}$. The latter ideogramically represents the cosmological "ontological category", or «genos», of <u>h</u>uman societies; the <u>h</u>uman[oid] «kosmos-genos». Its component-symbol ' \forall ' refers to the «kosmos» as a whole.

The ontic category denoted $\begin{pmatrix} 1 \\ y \end{pmatrix}$, which stands for the *«arithmoi»* of the planetary <u>h</u>umanities, arises as the culminating *'onto'* – so far as we know – within the *"<u>self-propelling self-progression</u>"* of the "primary level" model of the historical-dialectic of the *«kosmos»* as a *totality* – the model for *"The Dialectic of Nature"* as a whole. This model is posited by the F.<u>E.D</u>.'s "level one" Seldon Function, $\begin{bmatrix} 1 \\ n \end{bmatrix}^2$, from $\tau = 0$ to $\tau = 8$. It

is to the ideogramic elaboration, to the phonogramic narration, and to the pictogramic visualization of the dialectical "*meta-monadology*" of the latter model that we next turn.

E.D. Brief #2. Meta-Monadology [v.2.07.12.2008]