GERMINATING BOOK THEMES

PREFACE: ***This is a list of potential ideas, paragraphs, or even chapters of the book, which are germinating conceptually or verbally.***

(5)

"DIVERSE IDEONOMIC nMDS IDEAS"

(1) *Great idea:*

Internal structures and <u>subsets of things on nMDS maps *can*</u> *subsequently* <u>*themselves be scaled*</u>, say for perceived analogousness or relatedness of nature or interest. For example, different mapped clusters, sub-clusters, and super-clusters of ideas. Scaled not just for their diagramed morphology, but for (*e.g.*, correlative) semantic content.

In other words, so-called "microcinematography" (nMDS scaling of points, qua perspectives, in a scene) can be done for the internal structure of nMDS plots (idea-spaces).

Moreover, the results of this can be scaled in turn, and so on <u>for many iterations</u>.

Successive (and directed) iterations <u>can generate : hierarchies, networks</u>, series, and *all other* metastructures : of the scalings, and of ever higher and different concepts, logical relationships, etc.

(2) *Great idea:*

The <u>Triadic Method</u> (of nMDS) can be used <u>to</u> multidimensionally <u>scale</u>, not <u>things for their</u> analogousness, say, but the <u>open-ended (self-evolving)</u> set of all the <u>*kinds of interest*</u> that things have *or can have*.

Thus for the pole *A* respecting the things *B* and *C*, it could be asked: "Is the interrelationship of *A* and *B*, or *A* and *C*, of greater [logical, empirical, ideonomic, cognitive, *vc*] *interest?*"

The effect would be, not to scale things for their unidimensional interest, but rather for their *qualitatively multidimensional interest* (or their *interests*).

<u>Whole new</u> (and transcendently universal) <u>categories</u> (taxa) <u>of interest could be discovered in this way: Universal</u> (Actual and Potential) <u>Interest Space</u> would be progressively : mapped, differentiated, classified, described, etc.

That which was just described bears analogy to my proposal elsewhere that the Triadic Method (actually hexadic, in this case) be used to discover and map universal logical relationships, say by asking:

"Is the [logical, or the general] relationship of *A* to *B* more analogous [or homologous, *e/vc*] to the relationship of *C* to *D* or of *E* to *F?*"

Or more compactly:

"Is the relationship of *A* to *B* or of *A* to *C*, most analogous [or related, *e/vc*] to [or higher than, *e/vc*] the relationship of *B* to *C*?"

Moreover, perhaps the latter could be taken further or specialized in the following way (or in yet other ways):

"Is that 'most analogous relationship' {*whose selection I have just described, and representing stage one*} in turn most analogous {*or whatever*} to the relationship of *D* to *E* or of *D* to *F* {*or else*: of *D* to *E*, *D* to *F*, or *E* to *F*; *or else*: of *A* to *D* or of *A* to *E*}?"

Progressions or series could result in this way.

One might even pursue hierarchies:

For example, "Is [the relationship of (the relationship of *A* to *B*) to (the relationship of *C* to *D*)] most analogous <or related> to [the relationship of (the relationship of *E* to *F*) to (the relationship of *G* to *H*)] or to [the relationship of (the relationship of *I* to *J*) to (the relationship of *K* to *L*)]?"

And so on.

Once again, the results of this nMDS scaling *can themselves be scaled*, in successive and ever more profound and diverse iterations.

(3) *Great idea*:

<u>All the different idea-spaces</u> and idea-structures that have been <u>cumulatively</u> generated by ideonomic nMDS, *can* subsequently *themselves be* multidimensionally *scaled*--say <u>for mutual analogousness, relatability, or relevance</u>--<u>to create a</u> great *ideospace-of-ideospaces*.

Multiple iterations could follow, creating adinfinitely complex scalings of scalings of scalings...

Again, [hierarchies, networks, series, fractals, and other metastructures] could evolve into useful existence out of this adinfinitely dense cognitive plexure (interweaving and reweaving).

(4) All of these iterations could generate ever more logical and intelligent ideonomic structures and processes.

The mappings of all ideonomic mappings could direct people through the [artificial or natural] ideocosm.

They could help to steer so-called "firefly choreography" in ideonomy.

They could generate a vast network of maximally coherent and vergent semantic sequences or movements through the ideocosm, based on concatenated ideic spaces and structures.

(5) The proposed <u>mappings of mappings</u> (or *meta-mappings*) might give rise (or be *made* to give rise) <u>to dynamic instabilities</u>, to reciprocal interactions, to orbits, <u>and to many-body systems</u>, in the interrelation of the original to the subsequently superimposed maps.

(6) Note that <u>similar</u> [metastructural, exploratory, anamorphic, recursive, meta-logical, ideogenetic, and noogenetic] <u>nMDS remappings could be done for</u> interesting <u>mMDS</u> or multivariate analysis patterns (<u>*e.g.*</u>, <u>seismic event patterns</u>) in the <u>software *MacSpin*</u>.

That is, the purported phenomena (or relevant spatiotemporal clusters, etc) could themselves be mapped (say for analogousness or relatedness) via nMDS, and the results could be reshown on *MacSpin®* through N-many iterations.

(7) *Great idea:*

Once an ideonomic <u>Triadic Method-type</u> nMDS ideomap of a given thematic idea-set exists, it will thereafter always be possible for single novel items [ideas or things], that are judged to be [analogous or otherwise related] to the original idea-set, to [instantly and effortlessly] be : added to or mapped onto (*injective mapping*) <u>or by</u> (*retro-projective mapping*) : that existing map simply by first scaling the entrant via the relatively small set of [*e.g.,* 10-100] Triadic scaling dyads.

The foreign items can also be simultaneously mapped onto sets of 2-n independent extant ideomaps selected in advance, or seriatim, as having [disjoint, complementary, or supplementary] relevance to the original items.

When ideomaps are originally created, pains might be taken to select for nMDS mapping the subset of items, of an [actual or potential] set of ideas, that are either [judged *a priori* or empirically found to be] the most: [primary, irredundant, representative, complete, 'mutually closed', canonical, minimal, familiar, normal, easy to evaluate or directly evaluatable, orthogonal, collectively multidimensional, *e/vc*].

This *primary or strong ideomap* could then be used to injectively map [1-n of] the more [obscure, problematic, difficult, exotic, complex, or secondary] residual members of the full idea-set, as well as [ideas and things] external thereto.

<u>Two or more</u> (2-n) [novel or external] monads : preparatorily treated as scaling poles : could <u>simultaneously</u> be projected onto an ideomap {both the process and its result might be termed *symprojective mapping*} to clarify the external (private) [interrelationship and reciprocal logic] of the new set of things {such clarification could be spoken of as *external co-illumination*}: say via *co-relevance* to the environment provided by the preexistent ideomap.

By means of such *addable poles*, distinct ideomaps could be [quickly, cheaply, heuristically, progressively, and coevolutionarily] mapped [onto one another or onto the totality of existing ideomaps]. The cross-mapping could lead, reciprocally, to *inter-mapping* and *anamorphic allelo-morphism*.

(8) *Great idea:*

Assume that one has a set $(A, B, C, ...\Omega_n)$ of N-many visual textures, say, and that one does nMDS scaling of them using the following sort of Tetradic Method.

Although various (nominal) Scaling Relations, such as *'Relatedness'* or *Analogousness*, might alternatively be used in this case, arbitrarily assume that *Analogousness* is used.

For the first Scaling Pole, texture *A*, the *first* Scaling Question asked is: "Is the {qualitative or holistic} analogousness of the Polar texture *A* to General Referent texture *B*, more like the {qualitative or holistic} analogousness to *B* of the Intra-dyadic Scaling Monad *C* or of the coalternative Intra-dyadic Scaling Monad *D*?"

For the next Scaling Dyad, *E/F*, the formally identical question asked is: "Is the analogousness of the Polar texture *A* to General Referent texture *B*, more like the analogousness to *B* of the Intra-dyadic Scaling Monad *E* or of the coalternative Intra-dyadic Scaling Monad *F*?"

This continues to the last Scaling Dyad, of the pre-experimentally appointed set of Scaling Dyads (which, of course, represents a subset of the set of all possible Scaling Dyads). Always for the same Scaling Pole, *A*, and for the same General Referent, *B*.

After this first run through the Set of Scaling Dyads has been completed, and Pole *A* has been scaled as a result, a **new** Scaling Pole, say *G*, is substituted in all the Interrogatory Tetrads for the old Pole *A*, while the old General Referent, *B*, is retained. A second run through the Scaling Set is executed on this basis.

All of this is repeated for however many Poles (or visual textures) one wishes to map, **but always for the same General Referent texture, *B*.**

However, after this run-of-runs, or *meta-run*, is concluded, one does *indeed* replace (in the new meta-run that is to be executed next) the old invariant General Referent texture *B* with a new invariant General Referent texture, *H*.

This higher-level substitution is repeated, however many times one wishes, so that one executes a run-of-runs-of-runs (or *meta-meta-run*).

What is to be emphasized is that the nMDS scalings and mappings--of the Polar ideas--that result from the use, or substitution, of different General Referents, will not be the same, but on the contrary will differ *inter se* in meaningful yet cognitively coherent ways.

This is a fascinating fact, and it has important consequences for what can be done in ideonomy, or for its future powers and possibilities.

These different mappings might either be, [1]directly compared, and their implications deduced in this way; or, [2]the computer could mathematically meld the different scalings to produce a much more powerful, integral scaling and mapping of the Polar ideas; or, [3]the computer could enable a viewer to move about exploratorily within a complicated ideonomic hyperdimensional space or manifold (whose complexity or dimensionality would reflect the number and diversity of the General Referents that were employed in the original human scaling of, *e.g.*, the set of visual textures).

(9) *Stereoscopic and spatiotemporal serpentine representations:*

Intrasentential nMDS of the mutual semantic (NOT grammatic) relatedness (NOT analogousness) of all words.

---> Serpentine semantic map (3-D model) of any sentence (or text) in 3-space.

---> Sliding temporal window (fixed-word-length) to show temporal change [self-structure, self-referentiality, morphodynamics, morphogenetic behavior] : i.e., 4-D spatiotemporal map : of any text (e.g., one of Shakespeare's sonnets or Lincoln's Gettysburg address) in multidimensional space.

---> Possible features of same:

(1) Fade function;

(2) Color octave or brightness to indicate 1-D word order and aging;

(3) Simultaneous 2-D semantic sonic map to show incremental differential [semantic or ideo-structural] change of textual time window as each word is added and synchronously subtracted.

===> Language is inherently multidimensional [N-dimensionally projective] and when erroneously treated (unsuccessfully reduced) to unidimensional representation or interpretation (which in fact is 'all' that linguists have *ever* done) there are many fallacious consequences.

---> The appearance of that being imagined would be serpentine, rather *a la* a protein molecule. The *temporal* appearance would be that of a serpentine form [squirming, folding, coiling, knotting, etc] in 3-space; or even pulsating or seeming to exhibit peristalsis: *e.g.*, if simultaneously (perhaps independently?) co-mapped in [1-D, 2-D, fractal-D, *e/vc*] space, say for [1-D crypto-MDS local or clusteral order, time-averaged <energy or entropy> change, inertia, self-adjustment or reciprocal adjustment of the size of the manifold, *e/vc*]. Or there could even be differential-topologic representational <structural or other> features, *a la* Klein bottles.

---> ALSO: The technique of Principal Components Analysis could be used to continuously--rotationally--change the coordinate axes.

Superimposed, colored but diaphanous, surfaces (hypersurfaces) could be used to represent manifold boundaries and their semantically protean structure (and texture!).

===> DITTO FOR OTHER THINGS. For example:

Music: say in terms of an N-D semantic spatiotemporal, or even hypertime, map of the notes of a melody, and also the atemporal or micro-temporal self-structure of a chord.

Painting: say in terms of the atemporal or virtual-temporal ("mimo-temporal", if you will) [semantic or ideonomic] [self-structure or "self-potential" {sic!}] of a painting.

===> In a sense, these methods would bring to light the exquisite holographic-like (but also dynamically recursive) interdependence and inter-reactiveness of all words; words would be shown to resemble monads and even organisms.

(10):

Assume that an idea-set is nMDS-mapped, producing a complexly clustered configuration.

REMARK: I predict that *any* idea-set possesses an "*infinite* [virtual or anti-spectral] self-clustering"!

The nMDS will "discover" [explicitly or implicitly] ideonomic [axes, dimensions, regions, tendencies, extremes, poles, opposites, organizing centers, attractors, clusters, etc].

---> The latter elements, such as clusters, can then all be separately and iteratively scaled by a person to [explicitly or implicitly] [deemphasize or transcend] the features already found, and to discover and map *new* ones: *i.e.,* new [supplementary and serial or catenulate] [dimensions, axes, rotations, symmetries, symmetry-transformations, clusters, subregions, networks, hierarchies, curves, vectors, "potentials", e/vc]. There can be any number of variations and the number can vary in (or be appropriate for) the different [regions or clusters]. The result could be an nMDS *super-map* with [hierarchic, network-like, e/vc] features. Or such a penultimate result might then be [structurally integrated or self-adjusted], so as to exhibit more [natural, organic, useful, familiar, inter-equivalent or fractal, universal, ideonomic, anthropomorphic (*i.e.,* "encephalo-morphic", if you will), information-theoretic, e/vc] features. Or the [secondary, tertiary, etc] [features, structures, sets, e/vc] could be mapped backed [onto or into] the original (primary) map [say by something like T. Kohonen's geometrically self-organized topology-preserving 2-D mapping of complex hierarchical relations found in high-dimensional spaces, via a neural-network algorithm; see pp 141-2 of his book <u>Self-Organization and Associative Memory</u> (1981)].

===> In this way, finer (ultrastructural) and subtler [qualitative or conceptual] [dimensions, properties, patterns, e/vc] could be discovered that normally are [confused with or hidden behind] other ones that are by nature more [gross, stereotypical, superficial, standard, known, understood, logically simpler, illusory, interferential, 'common denominator-*like*', expedient, introductory, e/vc].

===> A computer can be programmed (*e.g.,* with the help of certain mathematical methods) to, in real time, generate [ugly sounds, badness measures, warning signs, e/vc] if [and in the degree and way that] one's [ongoing or iterative] 'weightings' of an idea-set become [repetitive, redundant, random, and/or wrong] [dimensionally, multidimensionally, morphismically, information-theoretically, logically, e/vc]. Such feedback to the human 'weighter' can then steer him in directions that are [new, novel, better, higher, more ordered or indefinite, more synergistic, more heuristic, more protean, more creative or productive, transcendent, more "isoporic", more self-revelatory, more metanoiac or noetic, more orthogonal or adjoint, more hierarchic or metastructural, e/vc].

(11):

Just as one can use nMDS to self-map the internal semantic or ideonomic structure of a sentence or painting (in spatio-temporal hyperspace), <u>one can also use it to so map</u> [*e.g.,* for analogy, relatedness, interdependence, antagonisticness, symmetries, tangencies, co-probabilities, commmonalities, e/vc] <u>and investigate such things as, for example</u>:

(1) A set of proposed or proposable [rival, alternative, or complementary] [analogous or different] : [theories or hypotheses] [*e.g.*, in geology] explaining some specific [phenomenon, process, problem, or observation]. As is perhaps inevitable in ideonomic nMDS hyperspace, this would reveal unexpectedly profound [interrelatedness, analogousness, interdependence, equivalence, intertransformability, homology, *e/vc*] of the different proposals;

(2) A single phenomenon's set of different [properties, dimensions, levels, sub-phenomena, events, manifestations, consequences, <forms, types, taxons, occurrences, variations, specializations, or alterations>, laws, causes, components, quantitative parameters and values, *e/vc*];

(3) The *"intra-appearance"* [*i.e.*, the visually perceptible or representable internal appearances; *e.g.*, of structure, texture, or other site-specific properties] of, say: the microcrystalline electronmicroscopic structure of a rock (in geology); or the mosaically photographed structure of an animal's territory (in evolutionary or taxonomic zoology); or the different body parts or sites (external or internal) of a biont of an animal species; or the different x,y or x,y,z spatial coordinates of a storm system (in meteorology); or the different 1-D or 2-D (*e.g.*, frequency versus flux or amplitude) points in physical or astronomical spectra--or even in brain waves (or representing <randomly, intuitively, or mathematically> chosen EEG intervals or events).

(12):

A <u>new method</u> of nMDS, which <u>might</u> even <u>surpass the Triadic Method</u>, would be to choose for each "pole" just that subset of things (say 20%-50%), of the full set of [either intra-set or extra-set] things, that one deemed most analogous to (or else most fulfilling of some prespecified relation, or relations, to) the pole [*or inversely*, that one deemed the *pole* most analogous, or whatever, to].

These ["bonds, identifiers, or key"] could then be used to scale the overall interanalogousness (or 'interrelatedness'--or whatever) of the 'scaled' things to one another: say via sorting of their pairwise sums or differences, or, more subtly or sophisticatedly, their "co-probabilistic structure".

REMARK: Because of the technical idiosyncrasies of some computer programs, the remaining unchosen things might be assigned zeros to facilitate the comparisonal sort.

(13):

It is possible to program a computer mathematically so that, during the very time that one is using the Triadic Method to give nMDS 'weights' to a set of things, the computer will be <u>experimentally substituting alternative "virtual dimension (scaling) dyads"</u> and using the statistical results to maximize the irredundant covariation (or the informational result or efficiency), and hence to minimize the 'work', of the set of dyads with respect to the poles.

What one would want would be dyads with a maximal tendency to be differentially assigned to the poles : in terms of all possible combinations, or sets of combinations, of dyad elements [of total number N_t] taken $2\text{-}N_t$ at a time : while *simultaneously* being maximally interdependent.

Perhaps this means that one wishes to antisyzygially co-maximize the self-similarity *cum* self-dissimilarity--to maximize the *vergence*, in other words--of the set of 'weighting' dyads.

(14):

The possible [encephalic and mental] [importance or naturalness] of the global cross-mapping for hyperdimensional [gestalt or holonomic] [analogousness, relatedness, interactiveness, *e/vc*] of idea-sets, is suggested by the lessons of the ray-path tracing technique of computer graphics, which gives immeasurably the most realistic simulations of [scenes and objects] of any such technique to date.

Other ideonomic methods are implied to be important by, *i.a.*: (1) Edwin Land's color reflectance discovery or technique, (2) fractals and Hausdorff space, (3) nonlinear dynamics [strange attractors and repellors, chaotic transitions, etc], and (4) cellular automata.

(15):

It is possible to *explore* ideospaces by investigating the nMDS maps produced--or transformations induced--when one thoughtfully cuts up the idea-set being used into various *set-variables*: *i.e.*, when one [nonoverlappingly or overlappingly] clusters simple variables into [aggregate-variables or *co-variables*; some, *e.g.*, as *meta-variables*].

Note that there can be [multilevel hierarchies and other metastructures] of variables; both ones that are [deliberately, intuitively, or heuristically] constructed, and automatically-constructed ones.

What would happen if one introduced analogous [cuts, surgeries, permutations, groupings, distortions, etc], not in (at the stage of) the tabulated but unmapped variables, but instead directly into the mapped ideospace (and its idea-structures)?

Such experimental dumpings of, for example, sets of emotions, could turn out to be extremely interesting and revealing. New *macro-structure* might even result.

One could investigate what might be termed *groups of canonical covariation nMDS maps*.

(16):

Some form of computer-graphical *Triangular Interface* should perhaps be the primary means by which people make their Triadic Method-based nMDS scaling decisions and enter them into the computer. This would mean that the nMDS scaling process would *start* with a spatial and structural (geometric) representation.

Three ideas being scaled : A, B, C [*perhaps* with A operating as a Scaling Pole, and B and C serving as its Scaling Dyad] : would be represented by the three vertices of a triangle. This Triangular Interface could be either virtual (graphed on the screen and manipulated via the external mouse) or real. In either case, the legs of the triangle would be of freely alterable length. Possibly one would effect such changes by pulling a vertex of the triangle out or about in 2-D space. The computer program could *alternatively* allow one to move: 1) just one vertex [presumably representing the Scaling Pole], 2) either of just one particular pair of vertices [presumably those representing the Scaling Dyad's monads], or 3), all three vertices.

Notice the conjugate motions and the positional possibilities here: the Scaling Pole A could be moved toward B and away from C; away from B and toward C; toward (or away from) both B and C <u>at once</u>; into either a maximally "related" but neutral, or an indifferent but minimally "related", position with respect to B and C; etc.

(17):

Triadic Method nMDS programs : if extended to include the *exhaustive*, approximately quadratic set of dyads [*actually*, total irredundant dyads = $\underline{n}! + 2(\underline{n}-2)!$, where $\underline{n}$ = total monads], and hence a decision set approximately equal to the cube of the number of Scaling Poles [*actually* total decisions = $\underline{n}! + 6(\underline{n}-6)!$, where $\underline{n}$ = total Poles] : allow incredibly specific and full semantic characterization of objects [*e.g.*, of fifty emotions via $50^3 \approx 125{,}000$ decisions; *or to be precise*, via $50! + 3!(50-3)! = 19{,}600$ informationally irredundant decisions].

Moreover, no comparable richness of characterization is humanly possible by conventional means, such as essays or <u>direct</u> nMDS rank-ordering of the full set of objects.

(18): <u>Three procedural observations regarding ideonomic nMDS:</u>

1. It is critical to decide *in advance*, and 'generically', whether the items that are to be scaled or compared are to be treated in a *quantitative* sense or instead in a *qualitative* sense!
2. It is also critical to decide *beforehand* whether to generically treat opposites of a Scaling Pole [*i.e.*, whatever concepts are potentially opposite, semantically or cognitively, to the Polar concept] as more analogous *(or related)* to the Pole than what is neutral to the Pole!
3. When making Dyadic decisions based on the Scaling Relation *analogousness* [*e.g.*, for emotions], a helpful trick can be to mentally prefix the Scaling Pole with "anti-" (to mean *antonymous to*), in cases where both the things in the Dyad are close to the opposite of the Pole, and therefore hard to compare to one another for analogousness to the Pole.

Thus "anti-dullness" can mean *enthusiasm*.
There may also be many other such tricks!

(19):

My impression is that ideonomic Triadic Method nMDS programs can be used to create fabulous pieces of educational software.

Witness the need to decide, in one Triadic Method exercise, whether the emotion *envy* is most analogous to *enthusiasm* or *serenity*; or again, to *suspicion* or *bewilderment*.

(20):

An electromechanical computer-controlled device could be created to show in physical 3-D space the computed 3-dimensional (**x,y,z**) positions of ideas scaled via MDS.

Such a device might employ an iron plate with an **x,y**-coordinates grid, along with small metal rods automatically moved over the plate by the computer. The rods would be graduated so that a sliding attachment, perhaps holding a tiny paper rectangular sign with the name of the idea ("variable"), could be put in its proper vertical (**z**) position.

(21):

There could be a Triadic Method of nMDS 'weighting' [or what would actually be an *hexadic* method, since it would make use of a triad of dyads: *A, B, C, D, E, F*] whose recurring Scaling Question, asked of variables *A, B, C, D, E, F*, would be:

"Is [the **logical** relationship of *A* <u>to</u> {or <u>and</u>} *B*] {the Polar Dyad of the hexad} more analogous to [the relationship of *C* <u>to</u> {or <u>and</u>} *D*] or to [the relationship of *E* <u>to</u> {or <u>and</u>} *F*]?"

The computer program in this case would be designed so that the cumulative hexadic questions and decisions would use combinatorial formulas to insure a proper '*connective coverage*' by ranging over the 'full' set of variables in the course of time.

The purpose of this nMDS program would be to discover <u>the **logical** relationships</u> (and not simply the analogies, say) of arbitrary sets of things treated via the method.

It could also help to discover and classify [new and all] *types* of logical relationships, both of particular types of things and of things universally, as well as a taxonomy of such relationships.

More generally, nMDS could be used to [classify, clarify, and progressively <ever more fundamentally and usefully> organize] *all* [types, degrees, and analogs] of logical [relationships, relations, arguments, procedures, transformations, symmetries, potentialities, etc].

In fact, everything of a 'logical character' [*e.g.*, all <considerations and cases> bearing on the nature of logical possibilities in situations; *e.g.*, all 'probability phenomena'] could be treated in this way.

The all-importance of hyperdimensional methods to logic should have been obvious to everyone all along!

(22):

The lexical definition of tableau vivant is: "a sustained pose; a static depiction usually presented on stage with appropriate costume."

But **tableau vivant** can *transname* [*i.e.,* can also be used to name] an ideonomic nMDS technique wherein, for example, nMDS [*co-plots* or *polyideic states*] : as, semantically, canonically (*ideogroupwise*) polar : dramatize diachronic nMDS states [*i.e.,* <cognitive or ideonomic> <energy, tensional (stress), or activity> minima].

(23):

Nonmetric MDS ['weighting' and consequent mapping] can be done [*e.g.,* for the relations *Relatedness* or *Analogousness*] of [random, intuitive, archetypal, or exploratory] ***differential tableaux*** : defined as [spatial, set-theoretic, or even diachronic] [permutations or arrangements] of [objects or ideas] : either [with or sans] some background [coordinate system, structure, or context].

Webster's III defines tableau as "a striking effect or artistic grouping : ARRANGEMENT, SCENE"; also as a tableau vivant (*vide supra*).

Thus important [logical and ideonomic] permutations could be [discovered, mapped, classified, "grouped" (*sensu* mathematics), e / *vc*].

The results could also enable nMDS to produce [finite and infinite] [linear, branched, anastomotic, metastructural, hyperspatial, etc] [sequences, series, structures, *"generators"*, etc]. Here generator is used in a sense analogous to its definition in the same dictionary: "a mathematical entity that when subjected to one or more operations yields another mathematical entity or its elements; specif : GENERATRIX".

Perhaps in this way there could also be produced what could be termed *ideonomic perspectives or perspective-groups*: *i.e.,* [structures, devices, or procedures] able to orient the mind so that it can [see or create] new things or see things in [new, coalternative, synergistic, or multidimensionally-parallactic (*hyper-parallactic*)] ways.

(24):

Consider the map titled "Forty-Three Examples and Sources of Beauty Scaled and Plotted For Mutual Analogousness Via the Triadic Method of nMDS", that is analyzed at length elsewhere (*vide* pp___-___):

One can map into this Beauty map countless other idea-sets. For example, not just Emotions but many other types of things, including: Character traits, Life moments, Generic functions, Musical things (various), Textures, Abstract designs (!), "Temporal textures" (and temporal abstract designs), Archanalogons, Etc.

If a set of Emotions, say, are mapped into the Beauty map, they can either be allowed to vary the Beauty map or else the structure of the latter can be *frozen*, with the positions of the Emotions determined one at a time and independently; or, as a third option, the Emotions [*i.e.,* their nMDS

relatedness to the dyadized Beauties] can be made the *sole* determinant of the Beauty map, with the prior Beauty-Beauty decisions *frozen-out.*

Moreover, transformatively jumping, or *blinking,* back and forth between these two or three co-alternative mappings of the Beauties would be especially illuminating, for they are mutually irredundant and complementary.

In addition, the converse mapping of the Beauties into an Emotion map could likewise be done, *in all of those ways,* and could be illuminating as well.

Only small subsets of variables in idea-sets are necessary to map, by means of nMDS, their idea-set-structure [*i.e.,* basic dimensions, dimensionalities, and N-D patterns], and to intermap, in the above ways, the different maps.

(9)

"IDEOCHEMISTRY NOTE"

Many chemical [phenomena, principles, methods, relations, dimensions, terms; —even theories, structures, molecular families, procedures, transformations, primitives <such as forces, *e.g.* Van der Waals>] can be carried over [directly or adaptedly] to ideonomy.

An example of such ideonomically translatable chemical things would be *metathesis* (Gk. "exchange or transposition") syn. *double decomposition* syn. *double replacement reaction:* defined as a chemical reaction in which atoms or ions exchange partners, or as a reaction between two compounds in which part of the first compound becomes united with part of the second and the remainder of the first compound becomes united with the remainder of the second [as in **AB + CD → AD + BC**].

This has obvious analogs in [phenomena, methods, and operations] of combinatorial ideonomy.

For instance, where all of the four distinct morphemes *(or semantemes)* of two words, each comprised of two of the morphemes *(AB, CD),* are transposed or completely rearranged to produce two new words [**AB + CD → AD + BC**]: words that potentially represent [one or two] new concepts: concepts [possibly but not necessarily] related in a *'logical expansion'* to [one or both] of the two earlier words.

Actually, the case cited [*i.e., AB + CD →* **?**] permits the formation of two other (or four) potentially meaningful words: [*AB + CD* ☞ *AD*], [*AB + CD* ☞ *BC*], [*AB + CD* ☞ *AC*], [*AB + CD* ☞ *BD*].

And as many as eight words permutationally: [(*AD, BC, AC, BD*), (*DA, CB, CA, DB*)].

It is easy to proceed further and make [other, stronger, and more complex] chemical analogies.

For example, by [adding or allowing] [or by simulating]:

1. Massive multiples of the molecules of the different species;

2. Different reaction pathways;

3. Many more simultaneous species;

4. Many different types of relationships [by analogy to diverse chemical bonds; both quantitative and qualitative; *e.g.,* [1]inclusion, [2]OR, [3]XOR, [4]NAND, [5]NOR, [6]*sensu*—, and [7]the effect of countless alternative prepositions];

5. Analogs of molecular structures;

6. Analogs of intermolecular structure;

7. Sequences [finite or infinite] [*e.g.,* divergent, vergent, cyclic, metastructural, etc] of *recombinations, hyper-combinations, meta-permutations,* and *hyper-combinations*];

8. Chemical [learning and evolution] [*e.g.,* via natural selection, criteria, goals, etc].

(10)

"THE DISCOVERY OF INTERTRANSFORMATIONAL COLLINEATIONS IN nMDS IDEOSPACES, VIA MacSPIN® 3-SPACE ROTATIONS"

One can rotate Generic Forms in nMDS analogical 3-space, using the software MacSpin®, and find very good [numerous and diverse] [rectilinear or curvilinear] *collineations (i.e.,* concatenations) of the Generic Forms.

These chains turn out [to give directly, or to strongly suggest,] simple [linear or nonlinear] [sometimes nonmonotonic] progressive stepwise transformations between the aligned Forms, notably the opposite end-members of the chain.

Chained structures of this sort of course regularly appear in ordinary 2-space nMDS idea-set plots, where they are also significant.

One might use rotations in MacSpin® 3-space to find collineations that interest one because of their: outstanding rectilinearity, 45° placement with respect to the proper orthogonal axes (MDS dimensions) of the plot, **internal angular merits**

[*e.g.,* angular singleness or fewness, clarity, orthogonality, meaningful alignments with the external coordinate axes, logical rectitude or appeal, *textural* strengths, *e/vc*],

pair or systemic interrelations and interrelationships

[*e.g.,* mutual symmetries and asymmetries, orthogonal or diagonal angles, convergences or divergences, asymptotes, cotangents, intersections, anastomotic branchings, superpositions, paralinear or coplanar aspects (whether rectilinear or curved), paralinear or para-surficial *stratification (periodic or nonperiodic echoes),* surficial integrality (*co-partness*), inversions or contrary directions, metastructures [*e.g.,* <partial or complete> <regular or irregular> <simple or compound> <homogeneous or heterogeneous> <conjoint, adjoint, dual, and/or disjoint> <*iso-level* or multilevel> <univocal or ambiguous> <installations, polygons, polyhedra, polytopes, loops, rings, trees, radiations, networks, circuitries, lattices, matrixes, hierarchies, fractals, knots, line-

clumps, imbrications, *crystalloids* or soils, clusters, spheroids or blobs, conoids, spirals or helicoids, egagropilas or Peano curves, onions, tunications, waves, chaotic structures, catastrophes, tessellations or *jigsaw puzzles* or myrioramas, self-dissimilar structures, attractors or repellers, *e/vc>*], mutual <distortions, interferences, or interruptions>, contextures, contradictoriness, *interdescriptiveness* (or even existential unisolability or *synreality*), sequential analogy, analogical divergences, *e/vc*],

self-relationships

[*e.g.*, symmetries, asymmetries, intersections, anastomoses, circularities, coiling, *e/vc*],

order taxons, convexity or concavity, central or peripheral locations, centroids, neighborhoods, distances, singularities, significant <wholeness or incompleteness>, **internal structure**

[*e.g.*, sequential periodicity or clustering, integrals, derivatives, inflections, unipolar or bipolar character, nonmonotonicity, nonlinearity, logical recursiveness, scale-invariance, invariance, *e/vc*],

metastructures (*vide supra*), **and so forth.**

One might start out with known [specific or general] [motivations or goals], or simply conduct experiments that [might or might not] lead to [one or more] [goals, purposes, or discoveries].

Thus one's purpose might be to find the most : [direct, unique, fundamental, low-order or high-order, best, elegant, interesting, optimal, appropriate, independent or isolated, autonomous or autotelic, peculiar, contra-intuitive, revealing or significant, reusable, well-understood or comprehensive, lawful (or operationally or procedurally definable), iterational, consistent or inconsistent, perfectible or reinforceable, compositionally elementary, symmetric, traditional, familiar, heterodox, unidimensional, multidimensional, *uni-level* or multilevel, delomorphic, incremental (tiniest-*cum* most-stepped), broad or narrow, divisible or indivisible (self-complete), long, exhaustive, meandering (space-filling), partitioning, dense-*cum*-short, describable and communicable, monotonic, well-aimed, nondivergent (*uni-serial*), unbranched and nonanastomotic, unambiguous, inexorable, *e/vc*]

: **collineations** : [of, between, among, or through] [one or more] [specific or arbitrary] : nMDS idea-space : [regions, coordinate loci, structures, variables, ideas, or idea-sets].

One might seek the [simplest or best] way to construct a given Form from an [arbitrary, distant, opposite, or spatially antipolar] Form, or by [partly or exclusively] using [two or more] specified intermediate Forms. Or one's purpose might be limited to determining whether [any or some alternative] [path or sequence] of this sort [exists or does not exist, or exists in conformity with certain <parameters or criteria>].

This would be accomplished in MacSpin® by rotationally exploring MacSpin®'s 3-space representation of the nMDS structure of the Generic Forms idea-set, in any of various ways: *e.g.*, [random, constrained, procedural, intuitive, heuristic or experimental, <continuous or saltatory>, <synchronic or diachronic>, <convergent or divergent>, <minimal or exhaustive>, <automated or volitive>, <standard or *ad hoc*>, <contextual or noncontextual>, *e/vc*].

The MacSpin® nMDS space might have its Euclidean structure [locally or globally] [distorted, 'massaged', or supplanted] [geometrically or even topologically] by [one or more] non-Euclidean [spaces or functions]: if only for a moment, heuristically.

The examination of an nMDS 3-space for [striking or significant] collineations might begin in the simplest fashion, say with one dimension (*e.g.*, dimension **1**) graphed vertically and kept invariant, while rotating over 90° or 180° between dimensions **2** and **3** graphed horizontally. At the outset the horizontal axis might show the full extension of dimension **2**,

which would gradually be supplanted by dimension 3 as the rotation proceeded.

Higher nMDS dimensions than 3, and idea-set representations of dimensionality greater than 3, could also be [sequentially and systematically] explored via MacSpin®'s [spatially bidimensional and spatiotemporally tridimensional] graphs. From an ideonomic perspective, these hyperdimensional models are to some [very important] extent [irredundant and complementary], and constitute a [hierarchic continuum or obpyramidal structure] that should be investigated from the ground upwards, to the limit of [informational or logical] noise--or of man's cognitive power--at some maximal [dimension and dimensionality].

These discontinuous, archipelagic collineations scattered in N-dimensional ideospaces, it may be conjectured, are like the gristle that holds flesh together, but that here holds the mind together. Such humble striae may be equivalent to the average--or special--discoveries of scientists; [illuminated and illuminating] *finite* strands in a circumambient sea of darkness. However, the present methods may permit the instantaneous discovery of such strands *en masse*.

But let it be confessed that the infantile science of ideonomy is ignorant of many relevant things, including:

(1) What [dimensions and dimensionalities] are [minimal, optimal, and maximal] in the nMDS scaling of ideas;

(2) The [degrees and ways] in which such things are universal or, instead, are dependent upon particular [idea-sets, data-sets, mathematical and computational techniques, human 'weighting' techniques and procedures, types of ideonomic scaling relations, etc];

(3) Whether it is [sometimes or generally] more appropriate to begin at certain [dimensions and dimensionalities] and work [upward, downward, or in both directions], or to emphasize [transitional or other special] [co-plots, or combinations of co-plots,] [for a given <dimension or dimensionality> or for sets of <dimensions and dimensionalities>];

(4) The [degree and aspects] of [redundancy and irredundancy] of the different possible [dimensions, dimensionalities, co-plots, samples, courses of procedure, and <combinations and permutations> thereof];

(5) The [mental understanding and principles] that should be joined to the examination of nMDS idea-maps.

There are many other ways in which [collineations, or other structural concatenations,] of Generic Forms can be [found, examined, and tested].

[Random or selective] [ideas or subsets of ideas] can be [dropped from, or added to,] the idea-set being mapped by nMDS to see if the ensuing structural changes in the MacSpin® graphs cause old apparent collineations to [weaken, vanish, metamorphose, strengthen, grow, relocate, fission, unite, shift in cartographic dimensionality, etc], and to see whether new <related or unrelated, and homologous or analogous> collineations emerge, in either small or vast number, in ideonomically redundant or irredundant ways.

The number of possible combinatorial subsets, and hence coalternative nMDS mappings, of the ideas in idea-sets soars past a googol even for small collections of ideas, but fortunately various [mathematical and

computational] tools exist that can enormously expedite the examination, and simplify the representation, of the myriad alternatives. Hence the [discovery, analysis, and synthesis] of the sort of collineations that are of interest here could be done [on a large scale and efficiently].

What happens when different people independently scale the same idea-set? Or when their weighting decisions are synthesized? What occurs when the same person weights the idea-set *at a later date*? Or, say, when a different subset, or a different quantity, of Triadic Method scaling dyads, or a different set of dyadic combinations of the same dyadized monads, are used for the same idea-set?

In what (ordered) ways will the resultant collineations be altered, in these cases?

When a collineation of Generic Forms is found in MacSpin®, each graph point corresponding to each Form can be assigned a different color to distinguish that Form from its collinear fellows and from the sub-set of Forms lying outside the collineation or comprising the background sea.

One can use the "Nearest Neighbor" function in MacSpin® to skeletally interconnect the members of the collineation with prominent white lines revelatory of its axial identity and sequential (transformational) nature. The same function can then be used to reveal, but with contrasting dimmed or colored lines, the connections of the highlighted collineation (monaxial constellation) with the other Generic Forms.

Subsequent rotation of the accentuated collineation causes its decomposition, or the ideonomically insightful dispersal of its members (constituent Generic Forms) into the [dynamic and holistic] field of other [smaller or larger] [implicit or explicit] [collineations and configurations] of Generic Forms.

A morphologist might use these means to find the manifold of [natural or humanly meaningful] [paths and modes] of [interclassification, change, development, and intertransformation] of the total world of [known or possible] forms, and therefore also of morphic [states, laws, features, properties, etc]. [Fascinating and vitally important] morphological principles might spring from the progressive [study and evolution] of such set-theoretic patterns of Generic Forms.

By a process of *logical* [interpolation and extrapolation], the MacSpin® nMDS collineations of Generic Forms can be used to [deduce the existence of, predefine, or even construct] additional form [species, genera, and higher taxa] that are *not* included in the set of scaled genera.

Where a collineation is purely suggestive, one can usually think of ways to adapt the apposed Forms to make the implied [axis or law of transformation] more [realistic, direct, logical, practical, or fertile]. But the collineations are almost necessary to have such insights in the first place, and the [surveyal or use] of such collineations may greatly facilitate the future progress of morphology.

Very often a MacSpin nMDS Generic Form collineation shows how to go from one Form to another via intermediate steps in which one must first [encounter or come to terms with] [one or more] Generic Forms that [represent or imply] a transient : [complication, simplification, deviation, retrogression, antisyzygy, decomposition, supplementation, specialization, generalization, symmetry transformation] <*e.g.*, reversal, inversion, mirror-reflection,

eversion, stretching, bending, warping, tilting, twisting, or anamorphosis>, topologic surgery, transmutation, negation, metaphorization, synecdochic abstraction, duplication or self-combination, morphism <*e.g.,* endo-autmorphism>, *e/vc*] : [*en route* to the final Form or with respect to the two Generic Forms at opposite ends of the chain].

One may be surprised to learn in this way of an [unsuspected, paradoxical, or contra-intuitive]: [interform, set of transition rules, nonlinearity, <covariant or set of co-covariants>, contravariance, mathematical <functor or category>, *e/vc*].

The set of 23 Form Genera, whose nMDS [mapping and study] prompted these [discoveries and reflections], actually represents a mere 10% subset of a larger set of 230 so-called Generic Forms.

Moreover, within each of these genera [100 or more] quasi-canonical species (or important [variants and covariants]) should probably be recognized.

When these [additional genera, or vastly more numerous species,] are all coscaled on one immensely [large and rich] MacSpin® nMDS "Forms' Analogousness" map, there should be [an at least proportionate, and possibly a *terribly disproportionate,*] proliferation of [various and sundry] other detectable [collineations and configurations], and even [anastomoses and meta-configurations] of the same.

In an augmented MacSpin® nMDS space: the various forms will [dovetail in countless ways or be more <concinnous, interdeterminate, and multifariously symmetric>]; the manifest [collineations or splines] will be less transilient; and the individual [steps or nexuses] involved in the catenae will be [closer, denser, more elementary].

One might first use MacSpin® nMDS spaces to identify best [or most interesting, *cointeresting,* or reciprocally interesting] collineations, and then insert these into neural nets as preferentially organizing associative [poles or structures] that would help to drive the nets into [logically ideal or useful] [configurations, states, or processes].

Finally, let it be emphasized that everything that has been imagined here in terms of "forms" must be equally [applicable to, or true for,] any other [ideonomic subdivision or idea-set].