TAXONOMIC FORMULAE CONSTRUCTION RULES

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GUIDANCE FOR CONSTRUCTING LABELS & FORMULAE

Use *hyphens* to improve readability of formulae or to make an emphasis within them.

e.g. sPH-1 = s-PH1 = sPH1 = structural hierarchy defined by the 1st primary hierarchy; similarly PH'1-QC3- Φ2 is identical to PH'1QC3Φ2, but the two formulae draw attention to the components differently.

Use " • " as a wildcard to represent an undefined (but not unlimited) range of possibilities.

e.g. PH•L2 stands for 2nd level in all 7 primary hierarchies; Q•1 stands for the typology (Qt1), the spiral (QS1) and the hierarchy (QH1) in an expansion of a typology hierarchy.

Indicate *hierarchy* by an "**H**".

e.g. RH = root hierarchy, sH = structural hierarchy, MH = modal hierarchy

Note: Hierarchies, when unqualified, refer to 7-level structures only. Other hierarchies are qualified cf. modal hierarchy.

Place numbers **after** letters i.e. numbers qualify the letters immediately preceding them.

e.g. L3 and not 3L; in PH2L4, the 2 refers to the PH and the 4 to the L.

Indicate *root* by an "**R**" prefix.

e.g. RH = root hierarchy, RL3 = third level in root hierarchy, RM = Root modes.

Note: **R** on its own refers to the Root as the entity (or cell) from which everything else unfolds.

Indicate *levels* of all Root and Primary 7-level hierarchies by an "**L**" prefix

e.g. RL2 = RHL2 = second level in root hierarchy; L6 = sixth level in a hierarchy; PH4-L1 = first level in the 4th primary hierarchy.

Note: Indicators of *levels* in other hierarchies (e.g. modal, structural) have different prefixes

Indicate *primary hierarchy* by "**P**" prefix.

e.g. PH = primary hierarchy; sPH = structural primary hierarchy.

Note: PH3 is identical to RL3, but PH3 formula specifies a 7-level structured entity, while RL3 formula specifies a particular entity within the root hierarchy.

Indicate *structural hierarchy* by "**s**" prefix.

e.g. sH = structural hierarchy; sPH3 = structural hierarchy derived from the 3rd primary hierarchy;

Indicate *level* in structural hierarchies by "**G**" prefix

e.g. G1 = first level in a structural hierarchy; sPH4G2 = second level in the structural hierarchy based on the 4th primary hierarchy.

Indicate *grouping,* i.e. number of adjacent levels combined to generate a structural hierarchy, by "**G**" prefix.

e.g. G4 = the tetrads (grouping 4 adjacent levels) in a structural hierarchy; sPH2G6 = grouping of six adjacent levels in the structural hierarchy based on the 2nd primary hierarchy; sRHG2 = grouping of two adjacent levels in the root hierarchy's structural hierarchy.

Note: Greek-based labels are used for groups of adjacent levels within a structural hierarchy e.g. *monad* = level taken singly (i.e. 7 in all), *dyad* = group of 2 levels (6 in all), *triad* = group of 3 levels (5 in all), *tetrad* = group of 4 levels (4 in all), *pentad* = group of five levels (3 in all), *hexad* = group of six levels (2 in all), *heptad* = group of 7 levels (only one).

Indicate a particular *group* in a structural hierarchy by a **superscript** number placed after the grouping numeral.

e.g. G-3^4 = 4th triad; sPH2-G6^1 = lower hexad in the structural hierarchy formed from the 2nd primary hierarchy.

Note: Groups are counted in alignment with levels ie lower groups contain lower levels.

Indicate level within a particular group by a **subscript** number following the superscript in the group formula.

e.g. G-3^{4}_{2} = 2nd level in the fourth triad of the hierarchy under consideration.

Note: That the same level in a hierarchy may have different formulae reflecting subtly different qualities of the entity when existing as part of a more complex entity e.g. L3 is identified by all of the following: G-1^{3}_{1}, G-2^{2}_{2}, G-3^{1}_{3}, G-3^{2}_{2}, G-3^{3}_{1}, G-4^{1}_{3}, G-4^{2}_{2}, G-4^{3}_{1}, G-5^{1}_{3}, G-5^{2}_{2}, G-5^{3}_{1}, G-6^{1}_{3}, G-6^{2}_{2}, G-7^{1}_{3}.

NOTE: refer to a particular *level* within a number of groupings with a "**g**" prefix.

e.g. g4 = fourth level in groupings within a structural hierarchy); it defines a common quality which requires distinctive identification for both practical purposes and formal testing.

g4 does not appear in any formula because it relates to the quality of a large number of cells within a structural hierarchy e.g. g4 would exist in 10 groupings out of a total of 28 . It refers to the 4th level within each of the 4 tetrads, the 4th level within each of the 3 pentads, the 4th level within each of the 2 hexads, and the 4th level within the heptad. g2.

Indicate *typology hierarchy* (formerly called a 'principal typology', 'secondary hierarchy' or 'secondary nested hierarchy') by a **superscript 2** after the P and before the H (handled in .xls files using a prime mark " **'** ", after the L or PH).

e.g. P^{2}H2-L1 = first level in a nested hierarchy within the second primary hierarchy; or ^{2}L-1 if PH can be assumed.

Indicate tertiary hierarchy by **superscript 3** after the P and before the H (handled in .xls files using a **double prime** " **"** " after the L or PH).

e.g. P^{3}H1 = first level in a tertiary hierarchy; or ^{3}L-1 if PH can be assumed.

sP^{3}H4-G3 = second level (or grouping) of a structural hierarchy formed from a tertiary hierarchy based on PH4.

Indicate quaternary hierarchy by **superscript 4** after the P and before the H: probably only applies to P^{4}H6 (handled in .xls files using " º ", after the L or PH).

Indicate a 4-level Style Hierarchy (as formed by expansion of a Root Hierarchy level or a level in a typology hierarchy into its modes) by " **M** ".

e.g. RL3M = style hierarchy (4 levels or types) within 3rd level of the Root Hierarchy; P^{2}H6-L4MH = style hierarchy in the 4th type or level of the 6th typology hierarchy.

Note: The root hierarchy is unique in that its levels are both holistic (i.e. 7 combinable levels) and discrete (i.e. each forms 7 levels) and capable of a modal expansions. RL6 also contains a nested typology hierarchy. The **style hierarchy** expansion (or Q-expansion) of a nested typology hierarchy generates 28 levels.

Number the four modes (ie levels in a style hierarchy) using lower case Greek alphabet: α, β, γ, δ.

e.g. M-α = Style α; RL5β = the 2nd style of the 5th level in the Root Hierarchy; L4γ = the 3rd style of the 4th system; P^{2}H3L4Mα = 1st style of the 4th level/type of the nested typology within the 3rd primary hierarchy.

Indicate a subsidiary type in the modal expansion of the primary typology, by "**t**". t is used (rather than L or M when the reference is to a distinctive human identity or theoretical approach as apart from the underlying function.

e.g. P^{2}H2QH5t6 = 6th subsidiary type in the fifth hierarchy within the modal expansion of the 2nd principal typology.

Label all 7-element structures (typologies, spirals and hierarchies) formed from the full modal (i.e. 28 level) expansion of a typology hierarchy with " **Q** " (for quasi-). The Q structures (Qt, QS, QH) are formed by taking 4 levels from one mode and adding 3 more consecutive levels from the next mode. At the 7th mode, this means adding levels from the 1st mode.

e.g. RHQ = root hierarchy modal expansion forming 28 levels RHQ-L1-L28; P^{2}H7QH4 = 4th hierarchy formed from the 7th primary hierarchy; PH^{2}1Qt6 = 6th subsidiary typology in the modal expansion of the the nested typology within the 1st primary hierarchy (i.e. includes MH6α–δ + MH7α–γ). P^{2}H3QS5 = 5th spiral formed from modal expansion of the typology within the 3rd primary hierarchy

Note: Q hierarchies (QH) can have their levels influencing each other, leading to formation of trees and to derived structural hierarchies based on grouping adjacent levels i.e. they are holistic.

Indicate spiral of growth by " **S** ".

e.g. P^2H1S = spiral derived from the 1st primary hierarchy (ie from the nested typology within L6).

Indicate stages or phases in the spirals of growth by "**ϕ**".

e.g. $P^2H4S\text{-}\phi3$ = third phase in a spiral from the 4th primary hierarchy.

Note: Phase 1 is re-entered twice and hence requires 3 descriptors. These are indicated by subscripts: **o** for origin, **i** for intermediate, and **m** for maximum e.g. **PH'4S-ϕ1ᵢ**

Indicate a duality by "**D**": all D's require qualification to indicate the type of duality. Sometimes, the duality has distinctive components as well. Qualify dualities as follows:

"**oD**" for oscillating dualities, whose poles are the odd versus the even levels in hierarchies.

e.g. oD. If identification is required, use suffix o for odd and suffix e for even.
So PH5oD = the odd-even alterations in the 5th Primary Hierarchy. PH5oDo = odd levels, PH5oDe = even levels.

"**eD**" for executing dualities, whose poles are the X and Y axes used to plot types, so X & Y are placed as subscripts

e.g. eD with its poles: aD_X vs eD_Y
So $RH'SeD_x$ = X-axis of the Root Hierarchy Typology spiral.

"**iD**" for internal (or immovable/static) dualities which are found to split trees (and related hierarchies) into an upper 3 levels which are a controlling context for the lower 4 levels. One example are adjacent levels in typology hierarchies.

e.g. iD in the primary spiral hierarchies are the adjacent types/levels of the principal typologies;

"**aD**" for approach dualities, whose poles are the diagonals which result from plotting types on an appropriate 2x2 graph defined by an executing duality; and where the poles are R-subscript for the diagonal going from near the origin to top right, and L-subscript is the for the diagonal running from top left to bottom right.

e.g. aD with its poles: aD_R vs aD_L
So P^2H3aD_R = diagonal running from bottom left to top right in the 2x2 table generated by the 3rd Nested Typology hierarchy. $P^2H1QN6\ aD_R$ = diagonal running from bottom left to top right in the 2x2 table generated by the 6th typology hierarchy formed from modal expansions of P^2H1-L6 and P^2H1-L7

Types on each approach duality change in a particular quality as the diagonal is ascended or descended. By convention the ascending quality is chosen for definition. This quality is referred to by "**q**".

eg $P^2H3QS2aD_Rq$

"**uD**" for unfolding dualities, whose poles are either the core (C-subscript) or the potential (P-subscript)

e.g. uD with its poles: uD_C vs uD_P
So P^2H3uD = unfolding dualities in the Nested Typology of the 3rd Primary Hierarchy. P^2H3uD4_C = core element of the duality of 4th Type in the Nested Typology of the 3rd Primary Hierarchy.

"**kD**" for dynamic dualities which create distinct centres within levels 3, 5 & 6 in the major hierarchies: the generic sign for the dominant centre (shown on the right in diagrams) is M-subscript; and F-subscript is used for the other centre (shown on the left in diagrams).

e.g. sPH7kD = dynamic duality for creating the tree in the Structural Hierarchy of the 7th Primary Hierarchy.
$P^2H4sQH2kD$ is the dynamic duality to create the tree from the 2nd structural Q hierarchy formed from the modal expansion of the nested typology of the 4th Primary Hierarchy. Dualities have a different feel at each level: so the two forms of the duality in L-6 of this entity would be shown as follows:
$P^2H4sQH2\text{-}L6_M$ and $PH^24sQH2\text{-}L6_F$

Indicate a tree by "**K**"

e.g. PH2K is the tree generated by the second primary hierarchy); $P^2H4sQH2K$ is the tree defined by the structural hierarchy developed from the 2nd hierarchy revealed by the full modal expansion of the nested typology within the 4th primary hierarchy.

Indicate a centre on a tree by "**O**"

e.g. PH2KO1 is the single centre at 7th level of the Tree created from the second primary hierarchy;

Notes:

a) The centres are counted from 1-10 starting with 1 in the single centre in the 7th level down to 10 which is the single centre in the 1st level. (This convention may need to be reviewed.)

b) Where levels are already pre-defined there is an equivalence: so P^2H5-sQH6KO5 is equivalent to P^2H5-sQH6-$L5_F$ ie the less dominant form of the 5th level of the 6th structural hierarchy etc.

Indicate a channel joining tree centres by "**c**"

e.g. P^3H2Kc1 is the first channel from •O1 to •O2 in the tree P^3H2K; and $P^3H2Kc22$ is the last (ie 22nd) channel running from •O9 to •O10.

Indicate a matrix by "**Z**"

e.g. a matrix of entities is formed by plotting the entities revealed by the Q hierarchies against each other .

Note: possibly use conventional mathematical notation for this set.

MEANING OF SYMBOLS

Letter	Position	Meaning
A		=
a	prefix	= **approach**, qualifying a **duality**
α	suffix	= first (lowest) level, stratifying a **mode**
B		=
B	subscript	= **balanced**, qualifying a **centre** and implying fusion of an **oscillating duality**
β	suffix	= second level, stratifying a **mode**
C		=
c		= **channel**, in a **tree**.
c	subscript	= **core**, pole of an **unfolding duality**
D		= **duality**
d		=
δ	suffix	= fourth (top) level, stratifying a **mode**
E		=
e	prefix	= **executing**, qualifying a **duality**
e	suffix	= even level quality in an **oscillating duality**.
F	subscript	= female, qualifying an **dynamic duality pole** and forming a **centre**
f		=
ϕ		= **phase**, within a **spiral**
G		= grouping (i.e. level) forming a **structural hierarchy**
g		= group (i.e. level), stratifying a grouping
γ	suffix	= third level, stratifying a **mode**
H		= hierarchy
h		=
I		=
i	prefix	= internal (immovable, static), qualifying a **duality**
i	subscript	= intermediate, qualifying first phase in a **spiral**
J		=
j		=

K		= **tree**
k		= **dynamic** (kinetic), qualifying a **duality**
L		= level in a **hierarchy**
L	subscript	= diagonal—lower right to upper left, pole within an **approach duality**
l		=
M		= **style**, qualifying a type
M	subscript	= male, qualifying an **oscillating duality pole** and forming a **centre**
m		=
m	subscript	= maximum, qualifying first phase in a **spiral**
N		=
n		=
O		= **centre**, an element of a **tree** and derived from a level
o	prefix	= **oscillating**, qualifying a **duality**
o	suffix	= odd level quality in an **oscillating duality**
o	subscript	= origin, qualifying first phase in a **spiral**.
P		= **primary,** qualifying **hierarchy** and **typology.**
p		=
p	subscript	= **potential**, pole of an **unfolding duality**
Q	prefix	= modal expansion of a typology hierarchy, qualifying spiral, typology, hierarchy.
q	suffix	= quality of an entity (eg duality diagonal; or internal level in groupings)
R	bold/alone	= **root**, the entity cell which contains all.
R		= **root**, qualifying many terms
R	subscript	= diagonal—lower left to upper right, pole within an **approach duality**
r		=
S		= **spiral** of growth or development
s	prefix	= **structural**, qualifying a **hierarchy**
T		=
t		= **subsidiary type**, emerging from modal expansion of a typology level or root hierarchy level.
U		=
u	prefix	= **unfolding** (or progressive), qualifying a **duality**
V		=
v		= version
W		=
w		=
X	subscript	= X-axis pole of **executing duality**
x		=
Y	subscript	= Y axis **pole** of **executing duality**
y		=
Z		= **matrix**
z		=

Number	Position	Meaning
Cardinal	suffix	= level in a hierarchy
Roman		= *(unused)*
Greek	suffix	= level in a mode
Cardinal	superscript	= group within a grouping; or order of hierarchy.
Cardinal	subscript	= level within a group

Number Sets

1-10	Centres in trees
1-22	Requisite channels between centres in trees
1's	The Root ; Heptads in structural hierarchies
2's	Dualities of all varieties; Hexads in structural hierarchies
3's	Pentads in structural hierarchies
4's	Tetrads in structural hierarchies; Modes with each system in a typology
5's	Triads in structural hierarchies
6's	Dyads in structural hierarchies
7's	Key hierarchies (ie root, primary, structural, Q-, tertiary); Typologies; Stages in spirals