

# OUTLINE SKETCH OF *MODUS OPERANDUM* OF LATTICE SYSTEMATICS

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## Preamble

The term 'systematics' relates to John Bennett's idea of 'multi-term systems'. These were given the names Monad, Dyad, Triad, and so on according to their number of terms (see *The Dramatic Universe Vol. 3*).

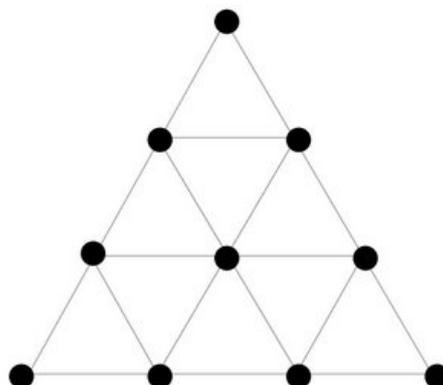
Bennett's definition of a system was: A set of independent but mutually relevant terms. I prefer not to use this definition - partly because, for example, they are not sets - and favour the more pragmatic: A combination of mutually relevant terms. This itself has some redundancy - as between 'combination' and 'mutual' - and so I tend towards: An order of mutuality.

Bennett aimed at some overall coherent 'system of systems' but failed to realise it. He did however postulate a 'Progression of Systems' implying some kind of ordered series.

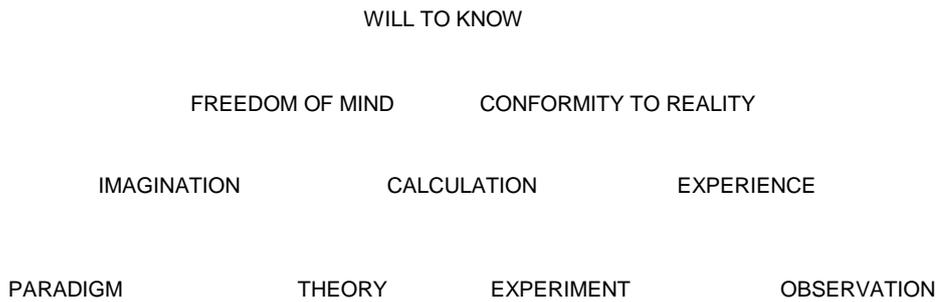
The Lattice Systematics (LS) represents the idea of multi-term systems in a progressive series. It is therefore a kind of 'system of systems' and marks an important step forward from Bennett's treatment of the systems in which they were considered apart from each other.

## Genesis of the Lattice

LS was inspired by the Pythagorean figure of the tetraktys

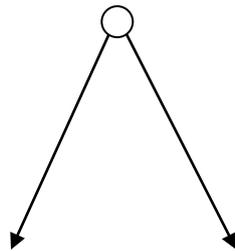


I had previously utilised this figure to depict my understanding of the ten-term system or Decad (first published in *Globalization and the Higher Systems of Systematics*, 2002). Here is a typical example, taking the subject science (to know):



I further made use of this format to create a 'meaning game' (various unpublished papers) a structured 'dialogue' between three players. An important property of the meaning game approach was that it encouraged perceiving 'lines of meaning' in all possible directions and not just up and down.

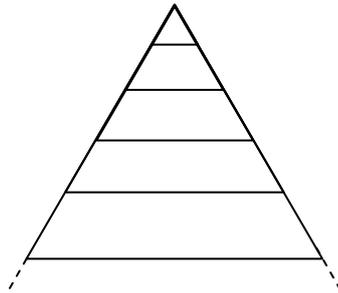
The extension of the four levels was inherent in various attempts I had made to visualise a coherent progression of systems that included the way in which the terms of succeeding systems were derived from or were related to those of previous ones (see *Systematics - A method of Understanding Complex Wholes*). Such attempts entailed a vision of enlarging complexity symbolised by a form such as:



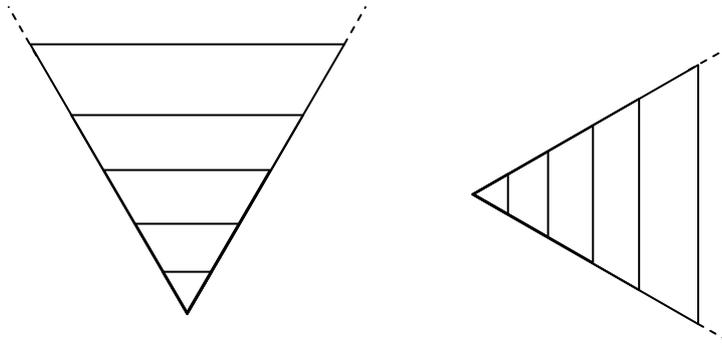
The circle is some starting point or *monad*. The arrows designate increasing differentiation, implying steps in terms of number of constituent elements. Eventually, it resonated for me with Blake's famous depiction of *The Ancient of Days*.



The emergent idea suggests a hierarchy as shown below because of our tendency to take literally what is above as 'higher'.



But it might equally well be seen in these different perspectives, as (a) evolutionary (left) or (b) emergent (right).



The final important influence on the formation of the lattice understanding came from reflections on the themes of Bennett's *The Dramatic Universe*. It seemed to me apparent that he wanted to tell a story of reconciliation and redemption through which we could sustain a vision of the significance of human life and even our own individuals lives in relation to the whole cosmos.

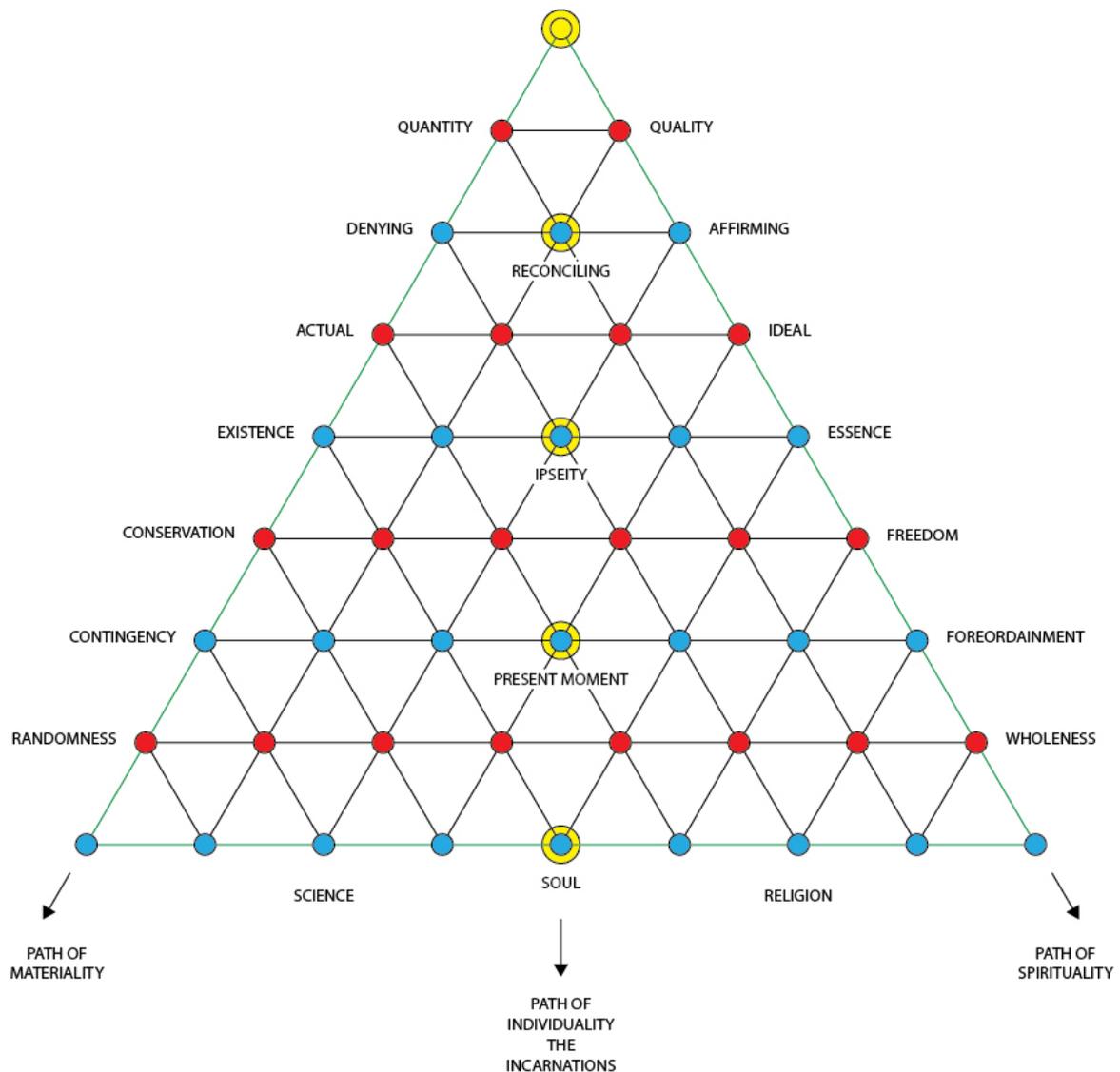
After the formulation of LS it became obvious that Pascal's Triangle gave us another useful model for thinking in these terms.

$$\begin{array}{cccccccc}
 & & & & 1 & & & & \\
 & & & & 1 & & 1 & & \\
 & & & 1 & 2 & & 1 & & \\
 & & 1 & 3 & 3 & & 1 & & \\
 & 1 & 4 & 6 & 4 & & 1 & & \\
 1 & 5 & 10 & 10 & 5 & & 1 & & \\
 1 & 6 & 15 & 20 & 15 & 6 & 1 & & \\
 1 & 7 & 21 & 35 & 35 & 21 & 7 & 1 & \\
 1 & 8 & 28 & 56 & 70 & 56 & 28 & 8 & 1
 \end{array}$$

The numbers in the rows are given by the sum of the previous two numbers above it. This is a principle we use in LS.

## Lattice Systematics

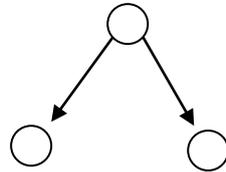
What is shown below is a *typical schematic* for LS, in which not all the terms of all the systems are shown. It follows approximately the words used in Vol. 3 of *The Dramatic Universe*. Since systematics is heavily verbal and hence relies on qualitative and not mathematical concepts, no single vocabulary can serve all purposes. The top point or starting point is not labelled because it is like 'the name of the game' or the subject matter under enquiry. Each formulation on each level conditions those that come after. This formulation echoes Bennett's concerns with reconciling science and religion. It must be emphasised that the pattern of interpretation must inevitably follow the politics or ideology of the user.



There are some general rules of procedure that can be predicated, the first of which is that:

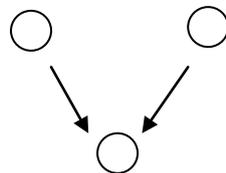
**RULE 1: *Consequence*.** Every operation generated at any stage functions in all succeeding stages.

The most obvious example of this rule is depicted at the start:

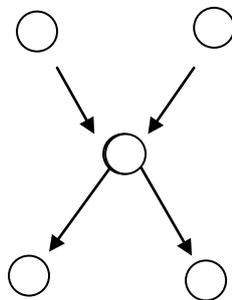


In the most neutral terms, this is an act of *discrimination*.

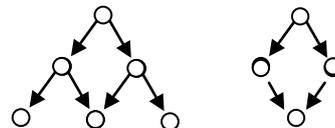
**RULE 2: *Generation*.** Middle terms of a system level are the children of the previous level's terms.



Clearly, this is the inverse of the previous example of Rule 1. Reflection on these two examples suggests firstly the *triad* and secondly the *pentad* (as depicted below, combining the two).



They also give insight into the tetrad and hexad:



And the third rule now appears necessary.

**RULE 3: *Consistency*.** The operation of the first two rules should not conflict.

The next three rules address the meaning of the linear orders that appear in the diagram. The next rule particularly addresses the succession along the outer lines of the lattice, left and right.

**RULE 4: *Similarity*.** Terms appearing along any line that can be drawn in the lattice are similar in nature but differ progressively.

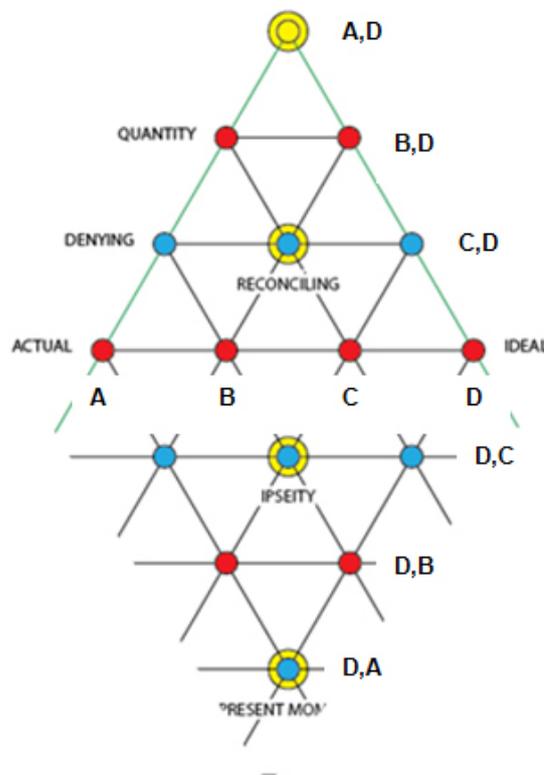
This rule supposes some *gradient* along each line. The overall gradient from the 'top' downwards was given the name *concreteness*.

**RULE 5: Structure. The terms of a system are not all equally connected.**

The terms of a system appear across the horizontal lines of LS. This arrangement is made intentionally to suggest that proximate terms are more 'directly linked' than less proximate ones. This is perhaps a radical departure from the presumed equality of terms of a Bennett system. However there cannot be any internal structure to a system without some inequality or asymmetry.

**RULE 6: Depth. Terms of a system are connected at different depths.**

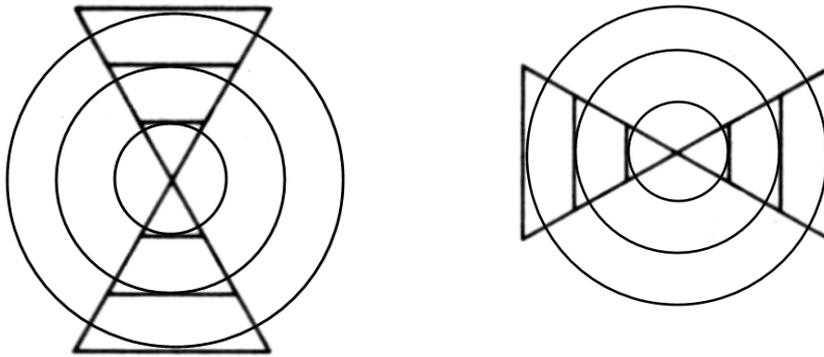
This diagram illustrates the rule. The terms of the tetrad are labelled A, B, C and D. D and C are closely connected in having the same 'parent'. D and B are less connected in having the same 'grandparent' and D and A even less so by having the same 'great-grandparent' (only three of the six possible connections have been indicated).



I make heavy use of the metaphor of ancestry and generations, so also take into account the 'progeny' of the terms as in the lower half of the figure above. The analogy of genetics is attractive and relevant.

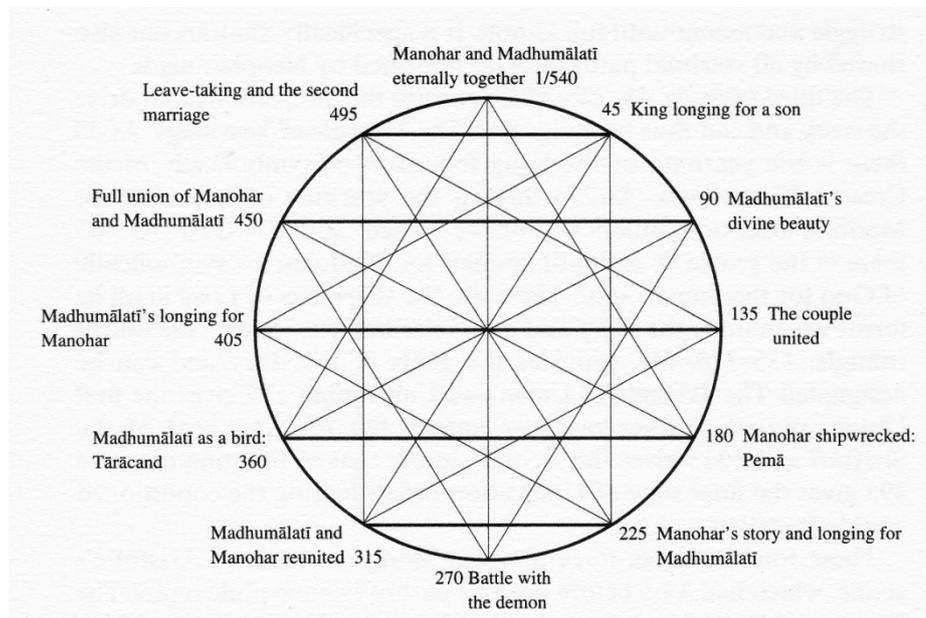
## Exemplification of Rule of Depth

I have come across examples of this rule in relation to levels seven and twelve. Sometimes the seven-term system or heptad is depicted as a series of levels in an hour glass form which emphasises the special significance of the middle term. The linear order of the different levels is also sometimes complemented by a 'nested' arrangement of circles as shown below.



This nested arrangement corresponds to the LS treatment of degrees of connectivity. In the second image the diagram is turned to fit the lattice arrangement and make the point more definitely.

The following diagram shows a twelve-term system proposed by Simon Weightman as the structure of the 15th century Sufi poem *Madhumalati*.



It exemplifies the form known as *ring composition* (see for example Mary Douglas *Thinking in Circles*) in which a narrative or exposition holds an internal circular structure, the first half mirrored in the second half. Between the two halves is what is called the *turn*, the point of crisis or core meaning while, uniting them, there is the *latch* that fuses beginning and end.

## Shape of the Whole

One can interpret the overall shape or form of LS according to one's metaphysics or as a metaphysics. It can, therefore, be as restricted or as wide-ranging as one likes. At stage 2 there are 2 lines of development or 'progress' and, at stage 3, there are 3 lines and so on. Each line defines a direction of progress. Here is one interpretation of three lines represented in the main diagram of LS above (page 4).

**LEFT: *Alpha*.  $\alpha$**  The line of atomism seeking the underlying 'ultimate particles' from which all else stems. This is precise, material and empirical.

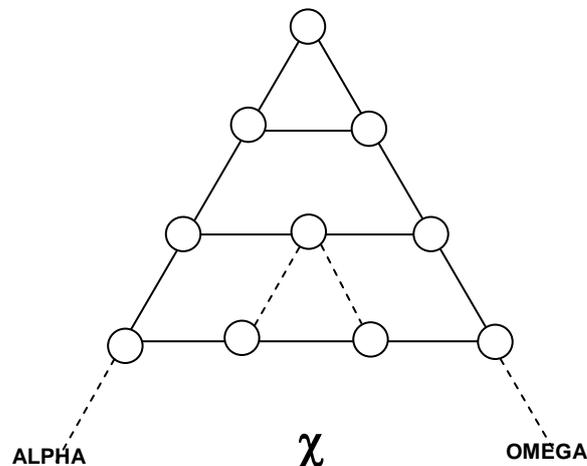
**RIGHT: *Omega*.  $\omega$**  The line of holism seeking the 'ultimate reality' from which all else stems. This is qualitative, spiritual and revelatory.

**CENTRE: *Chi*.  $\chi$**  The line of reconciliation and the concrete, seeking for liberation and deliverance. It is creative, dramatic and individualised.

Bennett's cosmology lends itself to treating these lines as: Fact; Value, and Harmony respectively.

The region *outside* the lattice (or 'cone' as it is sometimes called) is significant. Picturing the cone as analogous to a light cone as depicted in relativity theory then what is outside is the 'absolute elsewhere' of the incomprehensible. From another perspective, it is the 'raw material' on which we can draw to formulate what is inside the cone. In yet another but similar sense it is the *vocabulary* that is acceptable to us. Or the 'unconscious' - which is close to 'what cannot be put into words'.

The lattice is *fractal* in an obvious way.



**Every geometrical form provides a mapping on all scales.**

## System of Systems

There is only one system but it has infinite depth and infinite exemplification. In LS the systems are no longer isolated constructs but form one intricate and possibly *dynamic* whole. As is obvious from the diagram (page 4) we have a depiction of a *network* and can easily imagine information flowing from one node to another when each such node or term would become a critical player in the overall game. This surely is the meaning of Bennett's 'dramatic universe'?