

Nexial-topologic deployment of perspectives

The perspectives and models, previously classified in <Many perspectives>, can be organised visually, as a progressive change of shape, a ‘spreading’ that is also a ‘gathering’—a ‘deployment’. The following images are based on topology, but the topologic ‘space’ that alters is not a conventional *physical* space, although it is strictly grounded in the body (including sensations and the brain-mind). Nor is it an abstract, ideal, or theoretical space with distortions described by complex mathematics (eg knot theory or strings). This topologic space is an undifferentiated ‘nexus’ of physical human daily living, hence the descriptive method is called ‘*nexial-topology*’. Anything not directly relevant to this nexus is found to belong to conventionalised perspectives derived from the 2 fundamental parameters I defined. The present nexial-topologic description does not need to take into account whatever particular expressions are normally (or extraordinarily) derived from separating or combining the parameters *Axis Mundi* and *Primus Movens*. Doing this produces perspectives characterised by conventions such as space-time, systemic separation of body-environment or self-world, specific or generalised contexts, universals-particulars, or evaluations of ill or not-sick. In contrast, nexial-topology is a non-differentiating ‘situation modelling’ for a non-defined ‘situation’: for example, without defining a health case with causes for an individual body or personal history discerned from the global human world and history of the physical body. The following description may appear very abstract or general, but recalling iconic images, analogies, and metaphors of daily life can bring out the wide-ranging application and implications of the images. What the images ‘show’, or ‘lay out’, affects general ideas and theories, but it is also extremely concrete: I found the topologic properties I describe by

observing sensations, what others and I say when we speak of illness or stress, and the human world in general.

Materials supported by this chapter: Power Point presentations

- The Power Point presentation <PPT1 Body> is designed to demonstrate how practical all this is for bodily sensation as well as general notions of health.
- The selection of imaged models gathered in <PPT2 Models collected> will help follow the developments listed in this chapter.
- The ways of framing described in <PPT3 Geometry of perspective> are presented below as *differentiating expressions* of nexial-topologic apprehension, and their apparently ‘primary’ nature as a topologic deployment.
- The images of <PPT4 Einstein> are included to relate the following explanation to both fundamental science (Einstein) and philosophy (Abbott), as well as daily life (my images).
- The diversity of images gathered in <PPT5 Nexial-topologic imaging> is aimed at showing various applications of nexial-topology, and various circumstances in which this kind of imaging is useful.
- The rules of thumb for geometric deployment are summarised in <PPT7 Three geometric rules of Nexial-topology>.

All these images describe general ways for creating models, from which the various types of specific *perspectival* models and perceptions are derived, as will be explained. Perspectival analysis can map and explain these limited *developments* into various types (as shown in <Many perspectives>), but my interest in this chapter is not in the categorisation of models. Rather, my aim is to describe the process by which the ‘apprehending’ through animated-imaging becomes expressed in and limited to ‘creating models’, general or specific representations, and ‘manifesting’, ‘acting out’, or ‘finding’ the realities of our explained experience. What these ways leave out is highlighted by (a) reducing the ‘animated imaging’ to flat images for the purpose of explanation, or description, and by (b) demonstrating ‘activity’ through 3-dimensional reconstructions of ‘movement’ or ‘motion’, which have ‘extension’ in spaces. Both are ruled by perspective (eg computer animation or perception),

and something is lost from the nexial-topologic imaging, in thus conventionalising, ‘reducing’ (Sc-compacting) it.

The order of deployment presented here could be different for the derived general and specific models (for example, beginning with general duality and ending with modal perspectives on the body, but in reverse, beginning with activities of the mind to finish on the cognitive patterns and physical networks of the brain). The order of deployment of all derivations that I use for the following sequential explanation is what makes sense to me globally. That is, it expresses an undifferentiated apprehension of human living in general, and mine in particular, without ‘personal’ bias, but given the ‘human-physical instrument’ I have (a female body-brain) and its ‘orienting’ (see below, and <Validity and valuing>). The order would be inverted if the basic orienting made the head-brain-mind (eg consciousness, be it ‘embodied’, or culture) ‘primary’ and the physical-animal body-brain ‘secondary’, as is the case in most theorising in any field I reviewed.

‘Deployment’ of general perspectives: ‘unfolding’ & ‘enfolding’

The term ‘deployment’ is topologic, and so graphic, geometric in nature. It is sometimes used intuitively, without clear definition. Bohm (1980) used the linguistic split of ‘unfoldment’-‘enfoldment’ to express it in describing his ‘implicate order’, and ‘undivided universe’. To ‘unfold’ means to bring out, spread, develop, or grow, and to ‘enfold’ means to wrap up, envelop into a folded state (Macquarie dictionary 1981). A wholistic or integrative image often used is the naturalistic analogy of an acorn growing into a tree, which then produces more acorns, or a new acorn. The philosophical term ‘extension’ and the scientific notion of ‘localisation’ (see <Extract F5\ Gauging thinkers>) seem equivalent to the idea of ‘deployment’. In conventional contexts, ‘deployment’, is expressed as unfolding-enfolding, development-regression, generation-degeneration, abstraction-concretion, expression-manifestation, creation-destruction, growing-dying, etc. Unfolding-enfolding may be considered a device of the method of nexial-topology to explain in words or images, or ‘lay out’ the meaning of ‘deployment’ which, in turn, is a device to model, or extract and compact in image, the animated ‘likeness’ of the situation apprehended by ‘native gauging’.

This modelling (nexial-topology) is not 'precise' in the scientific terms of calculation, nor 'approximate', but is a H-global, or Sc-'non-local' imaging and applies like a generic notion. The following images provide an artificial and necessarily partial breakdown of a non-differentiated situation. There are various ways of operating the descriptive breakdown to show different things. This particular breakdown may appear clumsy, to a geometer or topologist, and even inadequate at times, but my aim here is not exactitude in the particular details of the images or to mention all the specific associations with or expressions of the models. Rather, I am attempting to show how topology may underlie the geometries we use to create theoretical models and practical representations, and to build the icons that rule both culture and our 'civilised' behaviours. It is sufficient to see that the 'deployment' is both an 'unfolding' of generalities and an 'enfolding' of specifics, and how this works in creating all the particular systems of what we consider to 'exist'. The list of models is far from exhaustive, and there are countless other variations and derivations, particularly as icons in the arcane or 'secret' knowledges related to religion, such as those found in Chinese inner alchemy or the Bible. Some words attached to icons are listed in the large table 9, and my study of them introduced there. Focusing attention on the inadequacies of my understanding of others, or on the details of my *exposé* in words, to understand my 'original meaning', would detract from apprehending the imaging and its global meaning. It will be more useful to the reader to sense intuitively the workings of topology in the global realm that can be apprehended locally, and that underpins his or her personal lifeworld and health

Order 1: Two fundamental parameters and generic properties

Generic notion: Primus Movens and N3p-polarised activity

Generic notion: Vertical Axis Mundi and N2d-dualised direction

The two fundamental parameters of perspectives, N2dual- and N3polar-, representing projection and activation, or direction and polarisation, are widely accepted meanings. In <Many perspectives>, the most generic names introduced for them are: *Axis Mundi* and *Primus Movens* respectively. 'Axis' and 'moving' are what I will call 'global' notions (in <Ancient perspectivalism>) are less differentiated than our modern ideas of direction and

activation. The latter are habitual ways to consider *either* ‘how it all came to exist’ or ‘what happened at the origin’ – appearance and occurrence, or cause and change – to separate and discern them. They are used also in combination and for integration. These distinctions are found in the writings of both those who enquire through scholarly tracing back to ‘deep’ or discerning philosophies, and through tracking forward subtle clues and precise details. They are however, conventions learned by collective ‘enculturation’ (intellectual, experiential, cultural habits), and just two separate ways of apprehending the same generic situation, or rather undifferentiated, which I image in figure 12. These two fundamental parameters (N2d- and N3p-) are symmetric, or equivalent, or ‘work the same way’, but lead to different ways of constructing both explanations *and* experience. To make this symmetry apparent, the 2 fundamental parameters may be considered as different generic properties of the same undefined or undifferentiated situation, and represented geometrically as in figure 13. These images are at the origin of the symbolic notation (presented as 2 and 3 points in <Many perspectives>):

(1) for *Axis Mundi*: N2d-orienting (2) for *Primus Movers*: N3p-spinning-up.

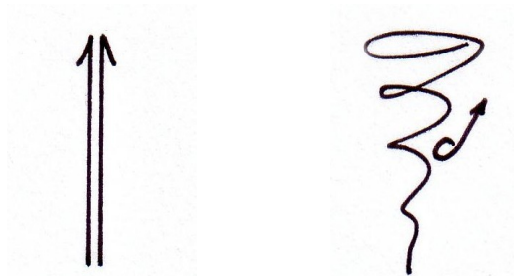


Figure 13: ‘Orienting’ and ‘spinning up’

Generic properties of the undifferentiated ‘situation’

An ‘orienting’ (in the language of mathematicians) is different from a ‘direction’. What direction (eg arrow) is to ‘orienting’ (eg line or axis), is what one-sided ‘development’ is to ‘deployment’ that unfolds and enfolds. This ‘oriented deployment’ is a way of differentiating basic aspects of an undifferentiated ‘the situation’. For the ‘native gauging’, the most basic ‘deployment’ is a ‘swelling’ that ‘spreads’ at the surface, like a bubble welling up to the surface of a pond, expanding in size, until it bursts through the surface. (This will be

explained further below). ‘Spinning up’ involves both turning and increase, together. They can be imagined as a spiral of increasing diameter and speed, like a 3D-spiral. In figure 12, the two parameters of figure 13 vary concurrently, in the same way (named ‘covariant’, below), but they are usually understood as separate. That is, the ‘fundamental’ explanations of appearance and occurrence involve only one of the generic parameters. In more complex models, the one parameter may be doubled to describe interactive processes. I will now present in parallel, two ways of building deployments, one based on explanation, the other based on experience, and their integration, as a ‘framing’ that produces models. This will allow me to demonstrate the equivalence of the generic parameters and the consequences of the construction into general models. This ‘construction’ has two aspects that can be viewed as ‘unfolding’ and ‘enfolding’. The difference between unfolding-enfolding will appear more clearly with images than worded explanations. Distinguishing 3 orders in sequence, and then repeated steps can also show these constructions. Some general models, drawn from the literature, are presented in the Power Point presentation <PPT3 Geometry of perspective>, which it will be useful to peruse while reading this, and again afterwards. From the viewpoint of explanation, the fundamental parameter that is the most obvious is projection, and so the topologic or generic property to use is ‘orienting’. The other parameter of activation or ‘increase’ is more significant to experience, and the topologic or generic property to use is ‘spinning-up’.

Order 2: Flows: linear and circular

- The ‘orienting’, as topologists explain it, is difficult to represent without a surface. To show how this topologic property is involved in model making, I will reduce it to a double-version of the common notion of ‘direction’, which is 1-dimensional. It can then be developed into greater dimensions (or orders, in the jargon of human sciences). Hence, I

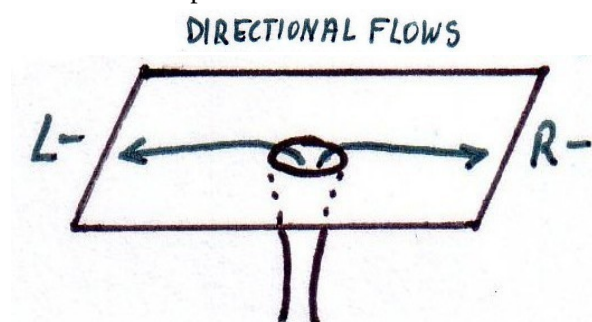


Figure 14. Directional flows and division

represent ‘orienting’ as a set of two arrows in opposed ‘directions’ on a surface or plane.

This set (figure 14) operates a division of ‘orienting’ in two direction-arrows. When this orienting property is applied to an undifferentiated or undefined situation, it ‘spreads’ on a surface and splits in two, thus creating 2 ‘directional flows’ that separate. If the 2 flows, which are H-directions, are interpreted as having one *mathematical* Sc-dimension, they define a 1-dimensional ‘line’. Hence a ‘line’ of ‘transport’ is Sc-H- notion derived from topologic ‘orienting’, but the topology has become a surface topography. In archaic literature, these ‘flows’ are often named ‘rivers’. In modern literature, the bi-directional or double flow is understood as a splitting or division, and associated, in complex contexts, with reductionism or linear thinking, or with a re-integrating notion of interaction. Such splitting or spreading flows can be gestured with a movement of the hands separating from each other, palms of hands up. In this case, the topologic notion of ‘spreading into a surface’ is still there, whereas it is not in the word ‘transport’. One crucial characteristic of these directional flows is that the most basic way of construing them is as dual opposites, and to gesture or speak of going ‘left and right’ (see text extracts in <Extract F10\ Left- and Right->) (now the ‘spreading surface’ notion is gone). The directional flows of figure 14 can be interpreted in many limited and conventional ways. As a duality – a single line of transport with directions–, they define dual relations such as stereo vision, cause-effect, or symmetry (eg opposition, divergence, complementarity, etc. – see table 4 in <Many perspectives>, which can then be differentiated further into 3 fundamental types of symmetry). The image underlies many binary representations such as before-after, activation-deactivation, going and returning, making and unmaking, etc., and the thinking we call ‘linear’, from which all ‘patterns’ are derived.

- The typical image of an ‘increasing spinning’ is that of a widening spiral-cone. The more it increases, the wider the opening of the cone and the more the circular turning motion becomes obvious. This can be understood as a ‘circular flow’, and I represent it by the



Figure 15. Circular flow and spiral cone

image of figure 15: The cone is a typical icon in modern theories and abstract models (Gould 1995 pp.37-68). The spiral-cone is a typical image in naturalistic analogies (see Nersessian 1995, and <PPT3 Geometry of perspective\ slide 12>). In archaic literature, it is associated with a twister wind, and is typical of the ‘East’ framework (see <Ancient perspectivalism, The Earth, and The East>). This moving shape is also common in gesture when we speak of stress or explain a cyclical ‘flare up’ in a chronic condition, of things ‘getting out of hand’, or a child ‘getting into a spin’. A crucial characteristic of this imaging is the notion of turning circularly – of cycle. This may be considered a basis for the idea of natural cycles of seasons, of time, of female menstruation, etc. In fact, in archaic literature,

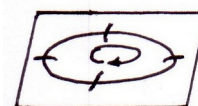


Figure 16. Synthesis of direction & circulation

the framework of the ‘East’ is associated with the Female as fertile Mother, and with Nature, producing ‘Mother Nature’. In the chapter <Ancient perspectivalism>, I detail a few correspondences with colours and bodily states, to what came to be called the ‘East wind’ (see <Ancient perspectivalism>), used in the old medical idea of ‘wind disease’. Both the directional flows and the circularity, as images (reduced from topology to geometry), can be combined, into a synthetic model (figure 16), in which two sets of opposites, rather than one, are generated.

The symmetry of explanation □ experience, and perspectival circularity

This combination can also be understood in terms of abstract symmetry (□) or circularity (□) (figure 17), which can be interpreted in various ways. The most fundamental consequence, for theorising and modelling, resides in the symmetry between the general perspectives that

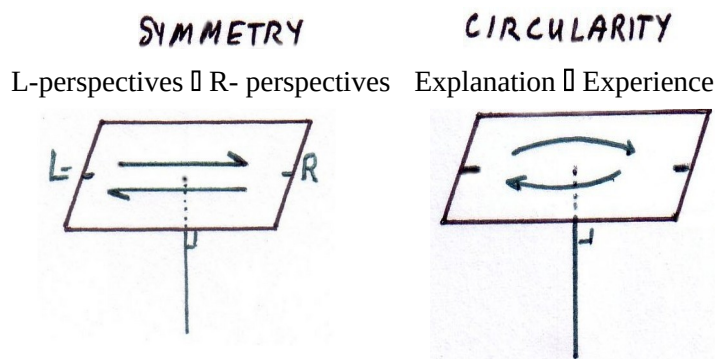


Figure 17. Symmetry and circularity

we derive from this topologic 'spreading at surface', and in the circularity that exists between one's explanatory framing and one's experience, each reinforcing and validating the other. The first was particularly obvious in the symmetric vocabularies used by L-perspectives \leftrightarrow R-perspectives. For example, a L-transport can mean the same thing as a R-communication (and a M-interaction), with only a change of context.

The circularity is what makes any general set of explanation \leftrightarrow experience, any general perspective logically self-consistent, and a workable practical paradigm. Otherwise, observations would not match explanations, and theories could no predict experience. This makes it, however, very difficult, without geometry, to detect the biased internal logical circularity of a perspective, and its externalised duality (eg physical-human) that is considered fundamental. Without images, it is not easy to see that this self-consistency does not mean the general perspective is valid for *all* aspects of human living for everybody universally, or that it represents everything. This symmetry-circularity is used, in particular, to rationalise the necessity, or inevitability of many things, including for health (eg the self-world interaction for survival). The symmetry means that Left- and Right- thinking are most often considered opposite in the human domain, and as one shifts from one to the other (either way), the second usually appears better. Yet it also means that Left- and Right-derived specific perspectives are equivalent, at this surface, in the general shape. For example, science uses both structural and functional concepts for its explanations. This is equivalent to the human concepts of objective and subjective: they 'work the same way' (same rules) and give the same image, whether interpreted in human or scientific terms. The circularity, nevertheless, is becoming known in the human domain, through the study of theoretical assumptions and experiential biases, as separate bases for paradigms of research. An implication is that quantitative and qualitative research methods are equivalent in the models they produce, and arise from the same geometry, despite the many claims that put one above the other.

Order 2: The topographic 'FlatLand'

From a topologic viewpoint, the 'surface phenomena' of directional and circular flows, described in figures 14 to 17, represent a single topologic situation. They are various aspects of how to define, extend, or localise a global territory that is a flat surface out of an undifferentiated topologic 'space'. This generic flat surface, I call a 'FlatLand' (figure 18), in the terminology of Abbott (1884). The plane, surface, or FlatLand, is at a square angle to the *Axis Mundi* 'orienting' (see a summary of my geometric rules of deployment in <PPT7 Three nexial-topologic rules of deployment>).

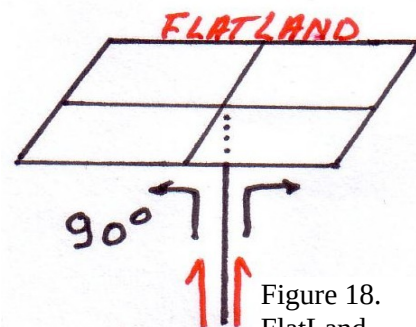


Figure 18.
FlatLand

Order 2 derivations: flows to establish or stabilise

The many possible combinations all have, however, something in common. They represent some kind of edge, or limit conditions that are valued in general culture. The combined image of figure 16 (or some related imagery), and the associated notions, are fundamentally put in correspondence with two ideas that rule all aspects of our lives:

- **Dual relations to establish.** For example, structural bounds establish mechanical integrity, knowledge recognised as valid is established, flows between the brain and body establish normal adult health. This occurs in particular during puberty.
- **Circular flows stabilise.** For example, scientific knowledge is stabilised by interactions in the scientific community, creating an accepted paradigm. In daily life, our cycles of work and rest, job and holiday stabilise both health and societal living. Regular eating is part of the basic body-training we undergo in childhood, and this is related to fitness, also called 'physical conditioning' that has to be kept stable ('use it or loose it', loosing it means illness). For women, cyclical menstruation is widely considered a necessity for stable female health (not menstruating is associated with disease, extremes of athletes, and infertility). The

importance of these notions becomes clear in perusing the literature (see the selected sampling in <Extract F8\ Establish and forms of stability>).

Virtual reality: real to the senses and 'sensate' mind constructions

The circularity (and circulation) introduces limitations on explanation and constraints on experience, and on lifestyles in which both reinforce each other, creating a collective 'virtual reality'. Its existence is known by a few (see <Extract F15\ Virtual reality>). It 'represents' the world to the senses, whose perceptions are constructed in the brain, interpreted the mind and psyche, and real to the self [or else, it disappears entirely, for consciousness.]. This reality relates to the physical senses, 'sensate' imagination of real things, and 'psychic' senses. Several parts of this thesis address this sensory basis, and it is an association with vision that gave the generic name 'perspective' (for the set of our experiences, explanations, and other expressions). From a nexial-topologic viewpoint, a perspective, specific or general, is simply the self-based reality and naturalistic physicality produced when the body and lifeworld are ruled by the brain and self-mind, by sensory perception (or sensory shutdown), and the head, activated through the vertical axis.

Stable ▯ Established normalisation

Combining N2d-dualised establishing and N3p-polarised stabilising is what makes us 'normal'. (Note that this word means 'at square angle' in geometry). These processes are also two different ways of understanding the same normality. Two consequences of normalisation, in health, are the compensatory adaptation noticed by Williamson and colleagues (eg Williamson & Pearse 1980), and the selective adaptation described by Selye (1976), named differently by others. These are known to rely on our neuro-endocrine systems (which 'transport' substances and 'communicate' signals). Stabilisation and establishment are the main goals of most medical treatments in our dominant culture, and of the larger part of practices in any domain. This framework is also the basis for the *physical* adaptive selection of individuals in other animal species (Gould 1995 pp.42-43, and Darwin. There is, here a problem in the transfer of the idea to the *human* domain – see

<Conclusions>). The view of daily living afforded by frameworks of this kind is both limited and constraining. This is visible in particular in the over-simplifications of left-right thinking (L-linear and R-relational), and in the rejection of this normality and simplification in marginal circles.

Order 2: Flat geographies and geometries

Interpreted in terms of patterns (Left- thinking), this ‘FlatLand’ produces the most enduring general model found in archaic literature, which we still use for both explanation and experience – that of the ‘4 directions of the Earth’ (East-West-South-North; figure 19a). Unlike other models, this one exists, it seems, in all traditions. It governs the world of normal living, the ‘natural’ or ‘physical world of humans’, in which we have body-object, self-subject, and other relations. It stood out enough for me to make a particular study of it.

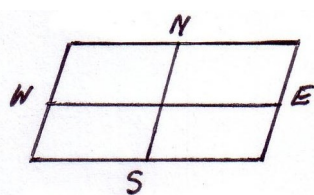


Figure 19a.
East-West-South-North

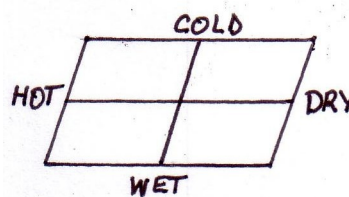


Figure 19b.
Wet-Dry-Cold-Hot

This ‘FlatLand’ is, among other qualities, a geography of explanation of the objective ‘physical’. Strangely, I could find no logically valid explanation of the origin of this framework to represent the physical world we live in (see <Ancient perspectivalism>). Nobody seems to know whence it comes. It is taken for granted, and even spiritual frameworks explain only its developments into the traditions they carry on. This ‘FlatLand’ is the ‘Land’ or ‘Dry Land’ in the Bible. It is the basis or baseline of both representations. I gather this is a case of the incapacity of a framework to explain itself. This idea, usually attributed by philosophers to Gödel’s theorem of incompleteness (Weisstein 2006a), confirmed my findings. In such frameworks of ‘FlatLand’ notions of reality, the appearance and occurrence of reality, space, or the physical world, becomes invisible because the representations are geometric rather than topologic and cannot take into account the oriented ‘origination’ of ‘existence’, or the result of spinning-up (the surface-land they describe

comes by ‘swelling’ and ‘spreading’). This stage of deployment of perspectives is the basis for the quadratic models in many analytical frameworks (symbolised by M4, see <PPT2\ Models collected\ slide 2>). One of these dominated Western medicine from antiquity to the medieval period: ‘Dry-Hot-Wet-Cold’ (figure 19b), and is necessary to understand old explanations of the syndrome of instability. This ‘FlatLand’ is a landscape, a limitation of topology to topography.

Order 2 further derivations by repetition of details:

‘The Many’ in colours or spectrum

The combination of linear and circular flows (figure 16) can be repeated. This produces models of ‘The Many’ in spiritual philosophies (many ‘particulars’, in philosophy.) They are often explained through specific models formulated in terms of colours, in both modern and ancient times (eg many forms, rays, rivers, or names, or colours, as in particle physics and ‘spiral dynamics [Beck & Cowan 1996]). This can also be formulated as a ‘continuous’ spectrum (as in Willer’s 1977 framework, or the continuous series of numbers). If the ‘many’ are mapped onto a FlatLand, they may be concretised into specific models (iconic images), as abstract modelling of transport, realistic models of flowing (eg physics of fluids), naturalistic rivers, or be interpreted as real spreading or expansion, as a multiplicity or multiplying (eg of languages), a complication, etc.

The notion of repetition in itself plays a major role in our lives. Endless repetition of details is the basis for the widespread idea that the reality of human living is ‘all a matter of repetition’, and for the maintenance of that reality itself. It manifests most visibly in our habits and repetitive or patterned behaviours, in the aimless repetitions of the ‘monkey mind’ (the ego’s unstoppable mental rambling or the echo of a song). In particular, in schools this transforms spontaneous and ‘organic’ ways of learning by active doing, into the drudgery of repetitive learning practices that kill the ‘love of learning’ they purports to encourage. In daily life, repetition is ubiquitous, in our lifestyles, in the endless stream of problems to solve, and obstacles to evade, in our attitudes to the body.

Perspectival circumnavigation

The 'FlatLand' imaged in figure 18 gives rise to many different perspectives, each with a theoretical and an experiential side, with a circulation. I circumnavigated these perspectives during Phase one of this research, and the entire circulation represents the exploration of the dominant paradigms relative to health (eg regulation, or 'freeing blocks' in alternative medicines). Dualisation leads us to view human reality most often in terms of a limited perspective, each associated with a set of problems-solutions addressed through a general strategy for improvement (eg illness-healing by selective adaptation). The perspectival circularity of explanation \square experience brings the consequence that we keep shifting from one set to another, each new solution creating a new problem and challenge with it. We just keep shifting problems from one sphere to another, to eventually come right back to where we started, the same first strategy, with a slight difference. This manifests in shifts between scientific and human views, between mind and brain views of health, always coming back to the basics; including the recognition that there are 'problems'. This going around in circles is particularly obvious in politics, but has been noticed in ecology as well:

'Rice is increasingly replacing traditional cereal crops. But the new rice fields are ideal habitats for the vectors of diseases like malaria and schistosomiasis. Changes in the size of livestock herds can, in turn, modify the population densities of biting and blood-sucking insects. The use of new pesticides entails new risks of poisoning. Sometimes we even go in circles. In South-East Asia, after deforestation destroyed the habitat of the most important vector of malaria, new plantations of rubber trees, oil palm, and fruit trees recreated even more favourable conditions. In the agricultural sector, the Ecohealth approach aspires to create synergy between the improvement of agricultural practices and the improvement of human health while ensuring the ongoing viability of agricultural ecosystems.' (Lebel 2003 p.41)

Order 3: Unifying diversity: 'crossing' or 'passing'

The diversity of models (and perspectives) produced by deployment to order 2 leads to a need to unify the diversity and multiplicity, or integrate the many aspects. One way to do this is to introduce bindings between the many parts. If these are lines or flows, the image that comes is that of a lattice, or net, with the lines 'crossing' each other. This idea produces

models based on net, mesh, network, braids, knots, etc. This seems directly related to inventions. For example, some myths from the archaic oral traditions mention such words. Archaeological objects from prehistory anywhere in the world (Mithen 2003, Rudgley 1999) also recall these shapes, suggesting that some such model-shapes in the human mind play a role in invention as well. A technical metaphor for unifying diversity is a 'fabric with crossings' (an expression from topology). Some such notions in medicine are the knots of 'chakras' the networks of our neuro-endocrine biochemistry, the mesh of connective tissues, etc. – these do not make sense of the syndromes of instability studied here.



Figure 20. Spring or 'passing' through the 'eye'

More relevant is another meaning of the word 'crossing', as 'passing' or 'jumping through' (see the long table 9). Medieval and archaic texts are replete with images of jumping through or 'passing through the Eye' (figure 20), passing or crossing a 'gate' or door. These ancient images are interpreted as metaphors. A common symbol for this in human philosophies is the circle with a point that is a centre of emergence (figures 20 & 21). The image can be sophisticated by using that of figure 16, adding the central point to the circulation, thus representing an 'origin' of the expanded FlatLand, or an 'end', a 'completion' by 'returning' to the origin (the point), or both, depending on the tradition. This is the basis for the spiritual models of 'the native wheel' (pictured in perspective, in figure 21), which helps the seeker circulate around the 4 cardinal points of the Earth and find the centre, which was their origin. The idea is to 'undo' what appeared-occurred, but it is only on that surface. This model (figure 21, a Right-thinking interpretation) also seems to exist in all traditions, with various attached words and meanings. It is still a basis of thought and experience in Eastern cultures (eg in China). If the centre is considered separately as *both* beginning and end, but separately, it effectively adds one point to M5 models, or two points to M4 models, and thus yields M6-models (see <Many perspectives>) that are understood as more 'complete' (see <PPT2 Models collected>).



Figure 21.
Native wheel

Order 3: Nexialist quantic jump

Figure 20 suggests also another analogy – that of a ‘spring’ (figure 22a). This is a fundamental idea in pre-archaic frameworks of ‘The East’ (see <Ancient perspectivalism>), and is related directly to water (and later the fountain of ‘Life’). ‘Spring’ is also another way of saying ‘jump’ (a metal spring, for example). From a topologic viewpoint, the sudden ‘passing’ that integrates can be imaged as the reduction, focus, or convergence of a spiral to a point (red dot in figure 22a). Modern terms such as ‘quantic jump’, ‘chaotic emergence’, or ‘sudden shift’ would be adequate to name it, and the colloquial ‘coming to a head’. This particular expression, together with the image, recalls a totemic story of the Dreamtime in Aboriginal Australia, that of Snake who comes out of a water hole (figure 22b). (‘Dreamtime’ or ‘The Dreaming’ is a ‘global notion’



Figure 22a.
‘Jump’ or sudden shift



Figure 22b.
Snake out of water hole

as discussed in <Ancient perspectivalism>, and may be approached as a conventionalised interpretation of an undifferentiated or topologic ‘place’ – see also text extracts in <F9> and <F12>.). Figure 22a, however, poses some difficulty in modelling with flat drawings, because the spiral is inverted, compared to that of figure 15 (circular flow), and yet what it represents is the result of the same ‘activation’ (eg a striking snake) as expressed in figure 15. One simple way to resolve the difficulty is to not differentiate the processes presented in figures 15 and 22a, and represent them with the same spiral, for a single topologic property (figure 23).

The notion of vortex is a common one in daily life (water swirling in the sink), and in ‘advanced’ science. In abstraction, the vertex represents

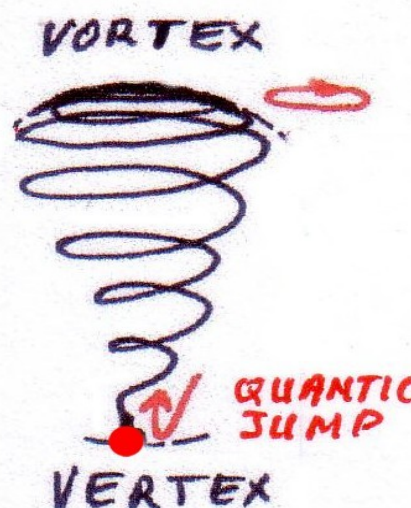


Figure 23. Vortex-Vertex

well another notion common in the human domain, that of focus, convergence, or targeting.

Together they image two of the ways for ‘boundary phenomena’ to happen (circulate – figure 15 –, or hit, invert, and jump – figure 23). The second is of interest next.

Nexial ‘turn upside-down’: critical point of inversion and chirality

The point of inversion of the direction is a discontinuity, a singularity. It represents a critical event, and this is of relevance to daily life and health. For example, we say, ‘I have *hit* rock bottom, but I kicked back up’, and, ‘I am so weakened that the slightest noise makes me *jump* right out of my skin’, we speak of a breakthrough, or hitting a wall or ceiling. (Turn the spiral image to match the analogies.) A number of related iconic concepts are discussed later.

Nexialist¹ derivations: The nexial spiral-cone in figure 24 is turned upside-down, compared to that of figures 20, 22a and 22b. In conventional terms, this, too, is an inversion of the geometrical projection of ‘twisting’ or ‘spinning-up’. Such inversion is found, in particular, in linguistic meanings associated with historical periods that are wide apart, or



Figure 24.
Nexial inversion and chirality

considered different eras (eg from archaic times to antiquity, the gender of ‘wisdom’ changed – see <Extract F13\ San Jiao & inversion>). An etymologic dictionary can show this: if one tracks all the developments of a particular root from Indo-European, at some stage, the positive or negative value (or male-female) is inverted, bringing a new set of meanings. The nexial inversion gives rise to various ideas, such as ‘rise and fall’, ‘dexter and sinister’ characters, (drawn from archaic texts – see <PPT5 Nexial-topologic imaging\ slides 8 & 9) and derives into dyads (see slides 3 & 4) such as ‘rise-and-rise again’, strong and Great, human and ‘Fully Human’ (or ‘Real Human’ in Chinese culture), Earth and Heaven, high mountain and highest mountain (or ‘most high’, in the Bible). In <Appendix A\ Table 9: Nexial-topologic vocabulary>, I have gathered a sampling of quotations, mostly from archaic texts, and a few others, in which key words can be interpreted by using nexial-topologic properties such as those described here. The meaning of such texts is often

¹ ‘Nexialist’ designates conventionalised interpretations of ‘nexial’ changes of shape or activation.

considered ‘obscure’ and subject to many biased interpretations. Nexial-topology gives them a clear and definite meaning, although it is not realistic or naturalistic, nor related to geometric measured precision.

The words ‘sinister’ and ‘dexter’ may be considered derived from the geometry. The shift or inversion in figure 23 can be seen as a change of direction of the spinning. Ignoring the vertical axis (up/down) leads to the nexialist distinction of Left-Right (in 3D, ‘going left’ is different from ‘going right’). One scientific topographic term for this is ‘chirality’ (the inversion of the twisting produces still images that do not coincide). This is differentiating the shift into 2 directions, and laying them out sequentially (‘going’) or spatially (chiral images). The result is a model that can evaluate differently the 2 directions (eg right as better than left – see <Extract F10\ Left-Right>). This produces many different derived models (eg direction of folding in proteins, and the ‘right hand of god’ – see <F10>). Some of the most common related iconic images are imaged in <PPT5\ slides 8 & 9>. In the chronic syndrome studied experimentally, there was chirality of pain: it appeared left or right (this phenomenon is known among physiotherapists) correlated with a degree of activation or stage of vertical projection (I have not read or heard of such observation).

Order 3: Topography: integrative completion

The generic directional parameter (vertical axis) produces a topographic image of this nexial-topologic order 2: The interpretations of both flows of figure 14, as a one-directional line, only works if the plane is considered limited, finite – that is, if it looks like a flat square. If one wants to take into account the bi-directional flows then, automatically, this plane has to be seen as expanding, and the square is not quite flat. Taking this to its conclusion means that the square spreads over the surface of a sphere, since the original ‘spreading’ was bent (figure 12), until it closes in on itself, thus completing the sphere (figure 25). (The sphere, of course is an idealisation – see figure 30 and 31 below.) This ‘completion’ occurs in an integration ‘event’ when the spreading flows meet, and the original vertical axis of deployment is ‘restored’. The completed sphere is the source of a number of models derived from spherical geometry. Some of them are discussed below.

The problem of One and 1

There are two conventionalised interpretations of the completion.

- In the human domain, the sphere can be viewed as the 'One', a name given to non-contained and non-dual global cohesion of the world (including oneself). The name 'One' is not quite adequate, but it is the positive label that

seems to most easily come to mind to say 'not-separated' into many things or aspects, 'undivided', or 'undifferentiated'. This is also a human state (non-deployed), in which there is a sense of 'unbounded' freedom, ease ('effortlessness'), including physical (see <EEs> in Appendix E), no particular pain (or pleasure) or 'need', no 'oriented activity' (targeted 'want'). It occurs spontaneously, or happens as a result of stringent practice, can appear triggered by body, mind, or circumstances. The experience does not last: the experiential literature confirms that it seems to last on average six or eight weeks before a more normal state returns (I could find no formal study of this delay). It would be an ideal state if it were not so unstable (this, however, is known in spiritual circles: the 'EE' has to be stabilised by repeating it). There are, of course, other interpretations of 'The One', but none relevant to modelling: they are either anthropomorphic or physicalised.

- In science (specialised papers in physics), 'one' is the numerical value '1'. In relativity equations it leads to a 'badly behaved' solution that has to be eliminated, or to representations of the world that 'do not make sense', and are 'counter-intuitive' to the 'self-evidence' of the philosopher of science (see 'the Below', further down).

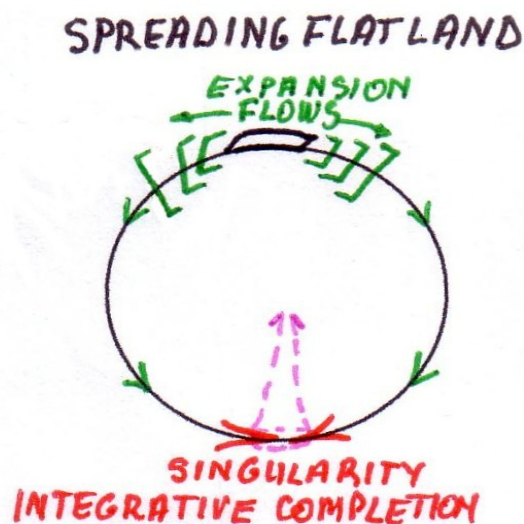


Figure 25.
Completion of the 'spreading'

Topographic reversal: bubble-skin containment, 'bubble-world making'

After the 'completion' in figure 25, the process restarts again. The square (at the top in figure 25) that spreads, and *unfolds*, reaches completion by creating a finished boundary (the spherical surface). The spreading then resumes, restarting a second process of spreading, but this time, of *enfoldment*, from another square that has an inverted bending (bottom left of figure 26).

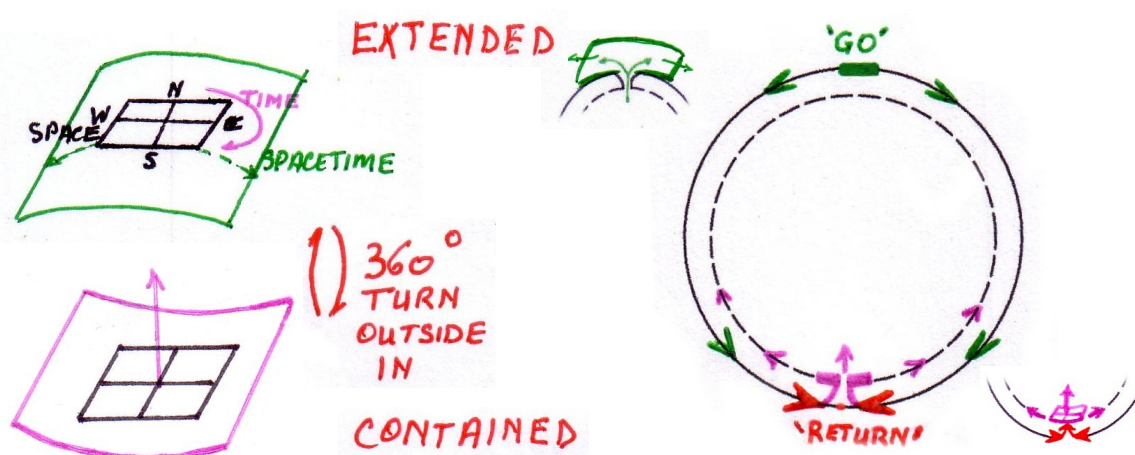


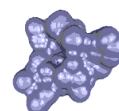
Figure 26: 'Tearing the fabric' and 'bubble-skin' making

The best example of this undoldment-completion-enfoldment is the development of our models of 'the earth'. The first square (unfolding) looks like the archaic model of 'The Earth', which includes a 2D space (of 4 directions) and circular time (green square). The 'completed sphere' looks like our modern geographical 'planet earth' (completed 3D sphere), which is defined as a surface for the purpose of calculating coordinates. (Think also of the spherical models of the cosmos in antiquity). The second square (enfolding) looks the same as the shape of the '4D curved spacetime' (mauve square, and figure 28 below) of modern physicists, a 3D space that is a flat square, with a perpendicular line, direction or 'arrow of time' (geometric 'normal'). In sequence, these 3 frameworks of 'the earth' are governed respectively by flat, spherical, and hyperbolic geometries. These 3 'possible geometries of the universe' (<PPT3 Geometry of perspective\ slide 6>) appear like a development of *dimensions* (2D, 3D, 4D), yet, they are equivalent for nexial-topology. The

old framework of 'the Earth' develops the outside surface, and the modern framework redevelops, the inside surface of a spherical 'skin' (a word found in some ancient texts). The two frameworks are the outside and the inside of a single spherical 2-sided bubble-skin. The second, enfolding, is 'turned outside-in' with respect to the first unfolding one, in the same way as this first unfolding surface is 'turned inside-out' compared to the undeployed image (figure 31 below). This unfoldment-enfoldment is what I call 'bubble-world making' because the bubble-skin contains an 'inside' surface. This process creates containment. The stages are presented in sequence here, but in some contexts, they are simultaneous. Either way, they are symmetric: one does not occur without the other, if the situation is taken globally.

I understand this 'turn outside-in' of the second square as geometrically like (a likeness of) a 360° turn that does not result in no-folding, because the surface is not just flipped over, it is shifted from the top to the bottom of the spherical surface. It is flipped over, and flipped over again. In the literature, this 'turn outside-in' is understood as a 'reversal'.

I could not find a satisfactory computer-generated animation for this 'bubble-world making'. Those I found are very complex deformations in succession that look nothing like the simple way I 'see' it. One animation (<Bubble up-down>, <PPT5\ slide 16>), based on 'statistics of shape', can represent half the process (part of 'turn inside-out', then part of 'turn outside-in'). (See also <PPT4 Einstein\ slide 5>).



This bubble-making, surface hole ('return' in figure26) and 'turn outside-in', constitutes the limit of nexial-topology, the limit it cannot 'pass' (break or make). It is the end of its relevance and of its capacity for description. It can model no further than order 3 and the other images I use are only different geometric projections (see <PPT5\ slide 2> for examples of such 'projections'). The animated imaging only describes the *approach* of boundary, or *formation of topologic* surfaces. Once *reached*, analytical topology, topography, nexialism, and other conventionalised analytical means such as linguistics and mathematics, take over. This limit corresponds, in figure 30 below, to the green dotted lines reaching back down to form the shape of a drop of water (or an idealised sphere in the

present explanation) – a critical point. Nexial-topology could not deal with a virulent disease, a volcanic eruption, a life-threatening defect, colonisation, etc., but I find it far more effective in understanding *most* situations of daily life, and the syndrome of instability, than any framework I have reviewed and tried.

Inversion – reversal – return

In terms of modelling, this stage (order 3) corresponds to the step in which a theorist or philosopher thinks, “Too many models, the understanding is completely opposite to the original meaning (‘oneness’), we are getting caught up,” An integrative model – a ‘onescape’ – must be created to ‘restore’ the ‘lost’ meaning, subtle enough to account for contemporary complexities. The new model ‘inverts back’ the H-meaning, to ‘reverse’ (retrace) the Sc-effects, and allow to Sc-H-‘return’ to what was not fragmented. This translates into philosophically driven experiential practices based on a paradigmatic integration via the new world model. Sc-Reversal and Sc-H-return are cognate, and with the H-inversion mentioned for figure 24, each in different conventionalised terms. In the arcane technical knowledges of core culture (eg alchemy), it is a ‘return to Below’. The world model is a logical abstraction, rooted in *patterns* of geometry. It is therefore derived topographically rather than topologically. The result is that, despite great care to ‘go back to origin’ (which is a ‘trace’), it is *only approximately equivalent* to what was being represented (non-fragmentation). From a topologic viewpoint, its re-integrative role makes it, create a ‘bubble-world’, a *new* containment, as in figure 26. Something important is lost in approximating, which conventionalised representations cannot model (even measured topology): non-fragmentation and non-containment (neither parts nor ‘whole’). I have found this confusing difficulty expressed in both the Bible (Old Testament) and Chinese texts which both use the term ‘return’, as well as medieval and modern literature. Paradoxically, this is how some great ‘new advances in understanding’ have been made, soon corroborated by proofs of existence in our realities (eg particles of physics, DNA, the self), and new real things (inventions). H-Inversion, Sc-reversal and Sac-H-return are conventionalised forms of what I

call (not respectively, and in various conditions) ‘turn around’, ‘turn inside-out’, ‘turn upside-down’.

Onescapes, wholes, and systems (worlds, selves, bodies... ‘things’)

One form of the sphere (spherical geometry) is an integrative ‘onescape’ model (a ‘-scape’ projected as a flat representation), usually involving an origin and an end that can be made to coincide to represent ‘One’ (eg ‘the alpha and the omega’). It takes into account both outside and inside spherical surfaces of figure 26, but only topographically, as separate spheres (eg objective ‘without’ and subjective ‘within’ in the New Paradigm, or H-‘depth’ an Sc-heights [eg skill or power], and in medicine: the mind inside the physical body-machine/temple [both sensory-derived and at the core of the ‘external world’]). Usually, in the human domain this is envisioned iconically as a geometric sphere with an outside-surface (FlatLand of normality), and an ‘inside’ (volume) that is full or empty (valued in spiritual circles, devalued for dominant normality). Such onescapes can be very confusing if they are used to describe the non-deployed state that feels like ‘One’, which is usually the case. A ‘one’ or ‘whole’ is a *self*-contained entity [circularity in definition], far from a sense of no-containment and no-constraint. The difference is similar to that between a surface-sphere (1 or 2 sides) and a mathematical ‘ball’ that has no surface-sphere edge at all. Because of this, such onescapes are not equivalent to the state of no-deployment (inadequately named ‘One’). Instead, they describe critical phenomena (in 2 orders if there are 2 separate sphere-surfaces), which go through a ‘zero-point’. Topologically they describe ‘surface phenomena’ rather than no-surface. Onescape models are inclusive, perspectively self-consistent (symmetry and circularity), and considered ‘complete’² (in H-terms), but technically, they are ‘approximate’ (in Sc-terms). They are only a half-story (of double-surface, of high and low criticality).

² They represent adequately ‘Human’ exPERIENCE (this script is explained in <Ancient perspectivalism>), but not all that our living can be.

Onescapes have a clear tendency to anthropomorphism, to what I call ‘physikemorphism’³, and to be self-fulfilling prophecies (new property of self-organisation). Much of their scientific and human inquiry aims to demonstrate the necessity or inevitability of the properties we ascribe to ‘Nature’, physical and human. I came to understand this self-fulfilling and critical nature of onescape models by observing the effects of the last two years of writing in detailed words and of the related necessity to seek the graphic vocabulary of archaic and core cultures related to onescapes and their derivations. This led to my developing⁴ more *advanced* symptoms of three physical diseases⁵ now diagnosable.

Further derivations and perspectives: In frameworks further derived, the full or empty geometric sphere of the onescape may be drawn as 2 spheres (in alchemy – see <PPT5\slide 11>), or half-spheres (alchemical crucible: container and lid). The numbers 0 (for ‘empty’) and ∞ (for ‘full’) are often used to represent the ‘integrated one’ or ‘un-bounded’ (reversed boundary), and words such as symmetry (for non-dual), harmony (for non-polar), and even (for no L-R- twist), or completion, perfection, and ‘advanced’. As collective paradigms, they prescribe practices that can be beneficial in human terms and yet, result into the Sc-technical disaster of instability and ‘bad behaviour’.

It is these numbered or named frameworks that produce the abstractions of the 2 parameters – N2d-duality and N3p-polarity – that are fundamental for the perspectives and generic for topology (separate and describing critical surface phenomena). They produce the simplest but most generalised perspectives: M2 models of duality (eg creation-destruction, female-male, which denote the vertical axis as a *single direction*: ‘up’ evolution, ‘down’ source, origin to end, below to above, female as < male); M3 models of modal polarity (eg structure-function-operation in the Sc-domain, subject-relation-connection in the H-domain, L-Human/M-Nature/R-Life in daily life and medicine – see <Many perspectives\ Models ‘by

³ Physikemorphism is attributing ‘physical’ form, ‘spatialising’, localising in physical space, one degree remote from a ‘physicalist’ attitude.

⁴ Not willingly: it is a ‘badly behaved 1’ side-effect.

⁵ Chronic Pulmonary Obstruction Disease, Fibrocystic Disease (breast), Spondylosis (spinal growths); others are not yet diagnosable, plus ‘WasteLand’ aspects (see <Conclusions>).

the Number'>)). They produce the topographic mapping 'of everything', 'of all ways' (see <Ancient perspectivalism>), or 'of all perspectives' that left unexplored areas in my research. These are (N2d-, N3p-) or M6 'world-models' (like my perspectival maps: see <PPT1 Body\ slides 3 & 6>). Further derivations transform them into 'stories', as Sc-cosmologies and H-cosmogonies, eschatologies, and views involving a catastrophic doomsday (often characterised as dark, black or red) or a chaotic emergence (yellow, gold, silver, or white: light or energy).

- The onescape model type seems to also be the basis for notions of 'system', which appear only in 'advanced' frameworks, although they are then 'fed down', taught to learners as obvious and 'basic' truths about 'wholes'. The multiplication of real 'systems' and systemic true explanations is related to repeated re-deployments (see section on this, below), which 'return' only to the FlatLand of habit, in which systems, objects and subjects, become the norm. Physical 'bodies', anthropomorphic 'selves', concrete 'worlds' such as the physical planet-home of humans or a 'private world' home, and the integrated 'body-mind', are 'systems', which is a fancy name for complex 'things' and 'bodies'. They are 'bubble-worlds', large or small. A linguistic problem with them is that a 'many' is required to add everything up into a 'whole' in words or experience, and vice versa to multiply a 1 into many in numbers or explanation. Hence an 'undifferentiated' cannot be called a 'whole', a 'system', and the label 'One' produces unnecessary confusion. This multiplication of worlds (and perceived systems) results in all the spaces in which we are 'encultured', such as cities, walled buildings, bordered countries, fenced fields, private room, etc., and into the objects of civilised living, such as the physical object-'human body', which is 'skin-encapsulated' (Watts, undated). Its only 'immunity' operates as an extrinsic 'immune system' of 'self-defence', resulting in intrinsic 'immune' auto-destruction and wasting away to one degree or another. It seems to me that our mechanisms for representing 'the world out there' or 'the self in here' play tricks on us, but also have dire actual consequences. Many of our models, including closed and open systems, are an expression of 'bubble-world making' (and 'tearing the fabric', as we see next). Yet, this is what we teach our young children (eg object-body,

subject-self, and defence against ‘colds’). Is it any wonder we ‘wear and tear’ physically from birth?

Breaking-making boundary: topologic ‘tearing the fabric’

The ‘turning outside-in’ in figure 26 is a singularity. The conical development from the ‘passing’ in figure 25 is contained in the sphere, but that sphere only has one surface-side. There is not really (except in the imperfect picture) an ‘inside’ to ‘contain’. Looking at the more complete imaging of figure 26 (looking from both the inside and the outside), this singularity, or turn outside-in, breaks the boundary (in a nexial process) to restart a new boundary (topographic inside) to create a double-surface skin, a bubble-world. In fact, it makes *and* breaks ‘boundary’ (according to 2 different parameters): it *makes a hole*, and so ‘tears’ the 2-sided surface or bubble-skin. With this imaging, the singularity no longer appears contained. In figure 25, the hole appears to *not* be a tearing only from the viewpoint of either one of the outside *or* inside. It seems to be a coming back together, a return, a mending of fragmentation, or correction (both ‘return’ and ‘correction’ are found in the biblical Old Testament) or an opening, an expansion.

A common image for this hole in physics is the wormhole. A prehistoric image would be puncturing a hole in a 2-sided material object that has a flat thickness, or (with some distortion) the tubular entrance of a cave – an image also common in arcane knowledges (eg a bottleneck). Topographic images of cylindrical tube or tunnel, rod, staff, pole, or line, are limited derivations. My observation is that any perspective (modern theoretical, experiential, and practical) that is a further deployment beyond order 3 is longer *topologic* (although they may use the mathematical geometry developed for Sc-topology), but *topographic* (or *‘nexialist’*). The notion of ‘critical boundary’ can be expressed (among other ways) as ‘crossing’ or ‘passing’ a boundary, ‘reaching’ boundary-surface (rather than ‘approaching’), making a ‘hole’ that is also making a ‘whole’, breaking-and-making boundary or a bubble-skin, ‘bubble-world making’ (and destroying), and ‘tearing the fabric’ of a topologic surface. Judging from the literature concerning the difficulties experienced with models of spatial reality created with modern mathematical topology, it seems that the tearing is a point of

contention among mathematicians and theoretical physicists, as the following statement shows.

‘At present [1933] it appears that two other very general mathematical disciplines will be used increasingly in the future. One of them is the *theory of groups*; the other is *analysis situs*. In the latter we study only these characteristics of figures that are unaffected (invariant) by continuous deformation produced without tearing. Two structural points are relevant for us in this connection: namely that the analysis situs is fundamentally a *differential* and also an *ordinal* discipline, based on asymmetrical relations. In the next chapter, as an illustration of the actional, behaviouristic, functional operational, differential, contact method a short account will be given of the way Einstein structurally treated “simultaneity”.’ (Korzybski 1933 p.658)

Shaping, not shapes: ‘geometria situs’, not ‘analysis situs’

There is a major difference between nexial-topology and complex modelling. Complex models use analytical mathematics, and represent reality as topographic ‘shapes’ that ‘transForm’ according to dual and polar, or statistical and probabilistic principles. Nexial-topology shows a ‘likeness’ to the ‘shaping situation’ as it ‘presents’, and is purely an animated imaging (no measured size or number of named shapes or of their motions). As such it fits better the oldest name from which topology derived, ‘*geometria situs*’, than the later name ‘analysis situs’. Nexial-topology is a global ‘situation modelling’ that does not differentiate analytical parts or *genera*. It just ‘images’, ‘shows’ the situation ‘as it presents’, rather than ‘rePresent’ it. The problem of our deployed, measured and named perspectival deployments is that the shapes they show are those of our own sensory modelling rather than the ‘shaping’ of the situation:

‘The ruler is the bowl; when the bowl is round, the water is round. The ruler is the basin; when the basin is square, the water is square (12 Jun Dao p.162).’ (Allan 1997 p.49)

This ‘shapes’ both the physical and anthropomorphic realities we perceive – and which become our ‘home’ and imprisonment, including the very real unstable ‘health’ of ‘wear and tear. This has a number of implications. In <PPT1 Body>, I gathered intuitively (before I wrote the complicated explanation in this chapter) some pictures to represent the various notions that the medicines have of ‘fluids’ in the body, and of the role of water. The

simplest, and most obvious to me, simply is not there at all. The following sections will justify my empirical observation of the fundamental implication of water with respect to our notions of gravity (in daily life, it is what we feel when not in ‘ease’).

Global covariance versus N2d- / N3p- compensation

In perspectival analysis and geometric mapping (fixed images), generic or H-global parameters are discerned separately. In contrast, to see in this a ‘situation in shaping’, one must remain aware that, not generically separate, the Sc-non-local properties necessarily vary in the *same* way and so *cannot compensate for each other*. Yet, in conventional views, this is the dominant strategy used in many spheres of human existence. Direction is often used to compensate for extremes of activation (eg ‘sublimation’), and activation (eg hormones) is used against lack of brain directive orders to the body (eg to trigger breathing). I represent such compensation as $N2d- \square N3p-$ and $N2d- \square N3p-$ (depending on how it is applied). This is the source of many cycles deemed vicious or virtuous, including addiction and habit. This is not valid in nexial-topology, because it assumes that N2d- and N3p- can be separated and used as counter-variants. They can, in conventional terms, in bubble-worlds, but in nexial-topology, this *creates* the bubble-worlds. Varying and deploying the same way is the general (a)symmetry of *both* that is modelled as Korzybski’s ‘asymmetrical relations’, using topology. The *global* properties are not separable but ‘covariant’, just as the explanations of animation <1 Trefoil> do not split the animation itself. Separating the parameters is the ‘*beginning*’ of the mechanism of ‘deployment’ (‘stirring’ in archaic terminology). I use the 2 generic parameters merely to provide different *ways of looking* at the *same* situation, not to reduce it to parts and systems, and justify the compensations that give rise to the syndromes of instability.

The *covariant* N2d-direction/N3p-spinning-up is an imaging of *orienting-at-boundary* (‘swelling’ and ‘spreading’). A graphic interpretation (figure 27) of this covariance would represent it as the ‘integration of the 2’ general parameters into the idea of an *oriented-at-boundary* (a compaction, limitation, or reduction of ‘swelling’ to ‘spreading’).



Figure 27. Covariant orienting and spinning describe orienting-at-boundary

A number of dyads of general notions are deployed in covariance: unfoldment-enfoldment, N2d-synMetrics and N3p-harMonics, differentiation-integration, degeneration-generation, time-space, exPlanation-exPERIence, left-right, up-down, brain-mind, intellect-psyche, visual-auditory sensory perception. The meanings do not necessarily correspond from dyad to dyad, because they belong to different frameworks, different conventions of framing and represent different contexts. The ‘spreading’ at the top of the image on the right, can be limited further, and ruled by Flat symmetry and circularity.

Deploying again & again: derivation of infinite variations

The deployment can be summarised into a scheme of appearance of perspectives and complex models, by both unfoldment and enfoldment involving quantic jumps in various ways. Further derivation occurs by re-deployment. The latter may be construed as repetition of deployment, or as reversing deployment. Either way, the resulting models are not equivalent to non-deployment or to undifferentiated deployment of the 2 generic properties.

The word ‘quantisation’, used by Saunders (1991), seems adequate, geometrically, to cover nexial ‘jump’ (boundary breaking) and topographic boundary making (or normalisation, establishment, stabilisation), and their repetitions, because ‘quantum’ can be interpreted as a N3p-process (eg electrons jumping orbits in the atom) or a N2d-system (eg a ‘quantum’ of light that is ‘a photon’), and as a N2d-singularity or N3p-discontinuity. The resulting models are governed by flat, spherical, and hyperbolic geometries. All three ways are sources for the basic icons of culture (three different domains of culture).

Repeated quantic jumps: ‘thick’ landscapes

The ‘quantic jump’ effect (nexial: figure 24 or topographic: figure 25) seems to be automatically produced by combinations or permutations of previously derived perspectives.

It is intrinsic, built-in. For example, strategies of stabilising and establishment, are only effective ‘for a time’, and have to be repeated, and eventually the system ‘reset’ (eg thyroid control of body temperature). The complex models, here, describe bound, constrained, entangled systems, with boundary phenomena as a recurrence rather than occurrence. This is the basis of many modern views, and is fast becoming the standard of enculturation in thought and experience, including physical ‘health’. In the chronic syndromes, repeated quantic jumps are far from feeling like a positive emergence. Recurring acute crises and events of metabolic shut-down that force sleep, sometimes almost instantly (one of my correspondents called this ‘pay back’, after activity she found exhausting), are a plague of instability, and make it impossible to predict one’s own behaviour or mood next week or next year (a problem for appointments).

One positive term used by theorists for this is ‘punctuated equilibrium’. This is represented with the image of a ‘landscape’ with a ‘mountain’ (eg epigenetic landscape; Waddington 1975 – see <PPT2\ slide 13> and examples in <Extract F7\ Landscape vocabulary>). I call such models ‘thick landscapes’ to discern them from the FlatLand landscapes of order 2, which describe a baseline (a basis with nothing ‘below’, like a limit-ceiling in coming down). Such deployments describe statistical but approximate normality and probabilist chance or risk (of disease, for example), which require periodical ‘resetting’. The stability is ‘punctuated’, rather than permanent (eg alternative or alternation, oscillation). A mathematical form comes as ‘best fit’ models. A human form of this exists in the complex dreamscapes of the mind or ‘inner eye’ (see <F20\ published EEs>). Thick landscapes are double-sided, have an ‘oriented’ surface (two sides: top & bottom of mountain). Thus, they have a vertical dimension, but it is a one-sided diRection, which manifests as a preference for H-‘up’ or Sc-‘ground’.

The most obvious such ‘thick landscape’ is the quadratic representation of the modern space-time (figure 28). The ‘arrow of time’ is equivalent to the direction bottom-to-top for the mountain, and corresponds to the ‘orienting’ of the ‘bubble-world making’ in figure 26, from ‘outside’

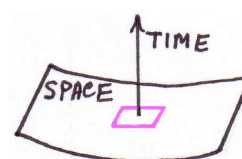
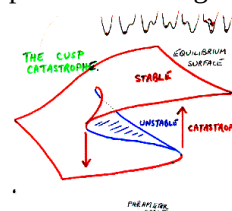


Figure 28.
‘Thick’ landscape

to 'inside'. For nexial-topology, this bent 'space-time' and the other 'thick' landscapes models, are a reformulation of the basic space-and-circular time of 'The Earth', but with a crucial difference: the containment, and the critical jumps. This is more complex, but more limited. In figure 26, it is the bottom square that is contained inside the sphere. One image (<PPT2\ slide 11\ folding into critical>) shows the correlation between *topologic* surfaces and criticality: if they fold to touch (or make a hole), this corresponds to a critical event (a 'catastrophe'). The models of this



stage represent a reality of repeated critical events: patterned stability alternates with nexial instability (in whichever dimensions chosen to formalise). They invert the bending of the surface (refer to the squares in figure 26)

rather than unbend it. Figure 29 is an extension of previous figures. Repeating the process (going from outside to inside to outside, etc.) can be interpreted as an endless cycle, an endless path, endless refinement or fine-tuning, or an 'eternal return'.

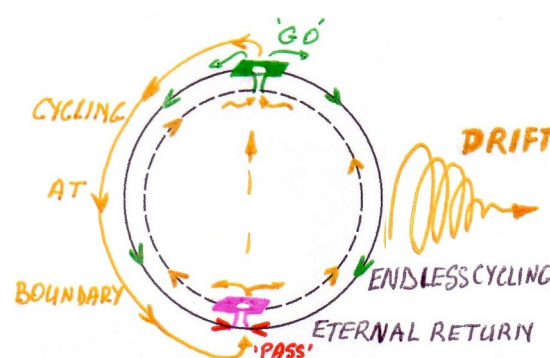


Figure 29. Repeated jumps

Endless fine-tuning & refinement ad infinitum

With repetition and redeployments, thick landscapes become derived into models of fine-tuning and a refinement of detail that never ends. This is often useful in understanding highly specific circumstances or to simplify a problem. Sometimes, however, the endless complication is pointless (eg <PPT2\ slide 22>) and may even confuse the situation as in this study of daily life health. For example, the workings of immune defence are detailed according to which inflammation-promoting substances and killing cells affect which tissues in which organs. These details are of little use to deal with a condition in which the entire body-system hovers between a pre-inflammatory 'swollen' state (congestion) and intermittent localised inflammations (eg boils, or brain infestation), with correlates in the lifeworld (eg all-inclusive urgency). In a textbook, out of 15 pages, of highly detailed

description of the immune system, only one and a half are devoted to inflammation, and the ‘first line of defence’, the non-specific immune response, is awarded twelve lines, less than a quarter of a page (Baynes & Dominiczak 1999 pp.435-449). Water is not even mentioned except as an effect of inflammation. Increasingly small types of ‘attacking bugs’ (viruses, bacteria, mites, parasites, etc., and in the archaic literature: beasts and locusts) are being found, involving increasingly complicated mechanisms of immune aggressive-defence and critical containment. Yet, specifically focused treatments based on this tend to have systemic side effects that produce ageing-like general degeneration related to dehydration. The systemic damage causes *later* focusing of other symptoms *somewhere* else, into worse diseases. Globally, the refinement of our techniques and drugs is correlated with the appearance of new ‘big diseases’. Globally, this endless approach only shifts the problem, even if localised improvements are more obvious. Size reduction and increase – ‘the small’, ‘the large’ – is significant in both the abstract and concrete manifestations of deployment (this is related to seeing ‘outside’ of bubble as big, ‘inside’ as small). For example: larger and smaller systems, more inclusive and more abstract models, miniaturisation and impressive building or machines, small clues and ‘big picture’, smaller ‘causes of disease’ with bigger effects on the body, size of animals and plants after prehistoric domestication and shifts in human size [Mithen 2003], shrinking size of the urban house block in bigger cities, shrinking ageing body that also grows fat, etc.). Endless refinement has the down side of making constant work necessary for fine-tuning, of increasing work and making it inevitable, for little added benefit in most cases. The models of repeated deployments are ruled by an analytical geoGraphy of the inevitable □ necessary that appears well tied together, a representation of the way ‘everything’ is. The consequence, however, is that such models tend to justify that their description ‘best fits’ the way ‘everything’ is (Wigner’s ‘uncanny fit’ 1960, see ‘A simpler view’, below), and circularly, that everything is ‘best’ that way, or even has to be that way. They end up imposed on every ‘body’.

Endless paths, endless cycling

From a geometric viewpoint, endless fine-tuning is an ‘endless path’ (think of the constant small corrections of a plane’s autopilot to stay close to a direction). It never quite reaches the goal, or the target of ‘perfect’, ‘finished’, ‘complete’; it is only ever ‘advancing towards’ them. It is an asymptotic *di*Rection rather than a topologic ‘orienting’, and this is very different from ‘not reaching boundary’). Many human philosophies involve endless paths (eg Romanes 1888, line-ladder of evolution, ‘the important is the journey’ of the ‘spiritual path’, endless series of ‘mountains to climb’, endless ‘stream of thought’ in consciousness). Many technical and practical models involve endless expansion or growth (eg economic growth, expansion of the universe, increase of physical, mental, social, or machine power). This is the basis for the ‘expansionisms’ of our world (eg sprawling cities, swelling wealth and power, overpopulation, expanding empires, globalisation, cultural colonisation...). It also manifests in reality in our endless population growth. This causes problems with infinities: ‘where does the expansion stop?’, ‘how much growth is ‘good’?’, ‘where is the final end?’ and ‘where/when/how did ‘it all’ begin’? In physical health, infinite growth is not necessarily good (cancer). The problem of diversity is replaced by that of having no grounding in reasonable limits, no clear idea of what ‘enough’ looks like, and no means of stopping ‘the race’: ‘increased productivity... knows no limits [and leads] to the degradation of person and planet’ (Hill 1985). Notions of infinite, absolute, ultimate etc, are derived from the iconic H-image of an endless path – that is, of a Sc-approximation, the asymptotic approach, but the full image (a H-‘big picture’) of approximation-probability given by the Sc-models is a cup or bell, mountain, valley or cone with *two* asymptotes (see <PPT2\ slides 8, 10, & 13>). In other words, repeated deployments are ruled by a hyperbolic geoMetry of expansion \square shrinking, or of ‘the large’ \square ‘the small’, whether this is an alternation, oscillation, or concurrent aspects. An endless path can be an overwhelming practical impression: progression from unease to stress and degeneration, illness and disease is such a path. The increase in global struggle and necessity of effort with age is another. Endless cycling, the polar version of the dualist path, is addressed later in the section on ‘The Below’).

Combining the ideas of endless path and cycles produces knots related to the M6 models (eg the Tibetan *shirivasta* ‘endless knot’ – <PPT2\ slide 5>).

ReFormulated perspectives

A major consequence of the endless cycling is that we keep deploying and redeploying our explanations and forms of experience, into endless paths, cycling, and perspectively biased bubble-worlds. When these run their course, we start the whole thing all over again, without ever coming any closer to resolving the most basic of our difficulties or even just doing something about it. (See ‘eternal return’ in section ‘Grav-wave’, below).

Ultimate end of deployment: haze, glue, & endless-scattering-wasting

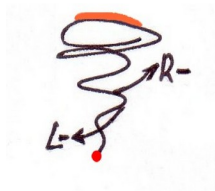
The ultimate end of this deployment of models and perspectives into the oversimplified complications of too many limited perspectives, seems to always be some kind of amorphous or ‘discontinuous continuum’ (imagine many droplets). It comes under various guises, which all have in common that there is no longer any clear shape (eg chaos is ‘formless’): there is scattering. In explanation and experience, it is a haze, mist, cloud (in archaic literature), or vapour (in Chinese inner alchemy: the spirit-body). These remind me of the cognitive dysfunction event, common in CFIDS, that is often called ‘brain fog’ or ‘cotton in the head’, in which one can no longer remember names, find words to speak, make a decision, or think effectively, and feels disoriented. The complex details of human and scientific realities come to look like an impenetrable and unmanageable bag of knots. This can also be a jumble, tangle, or foam of rings, that no longer has any physical reality (see <PPT2\ slide 23>). These can be very concrete experiences: ‘being in a tangle’, a ‘jumble of problems’, a body full of ‘trigger points’ that are ‘knotted’ muscles. In modern terminology is a soup (eg quantum soup, the water soup of the origin of life), or simply a mess. Haze, considered ‘formless’ but material also takes the name of amorphous glue (eg glue of the universe). It is significant that ‘amorphous glue’ (or jelly) is the quality attributed to the most basic, and all pervasive, connective tissue in the body, the ‘ground substance’ (see <PPT1\ slides 27 & 28). It has become non-existent to the ‘physical’ science of medicine to such an extent that it

does not enter into accounts of health at all. It seems to be considered mostly irrelevant, as is water (only an ‘inert carrier’). It is little studied, except in jellyfish, too far from the status of ‘Human’ to be considered. Another form of this stage of scattering is ‘wasting’, which is discussed in <Conclusions>. In health, it manifests in the ‘wasting away’ of the body in a chronic syndrome (most visible in the face), its falling apart after menopause, its ‘melting away’ in profuse sweating. The endless-scattering-wasting is a non-local property, and so its ‘manifestations’ are global, any-‘where’ or ‘when’, not just in the body or any other kind of place. From the local-viewpoint of a person, the ‘wasting’ affects all aspects of the personal ‘lifeworld’, from bodily health to material living conditions (eg what happens next door, wasted money), to human events and behaviour (eg wasting food, wasting time, wasted potential, a wasted life), etc. Even what is ‘seen locally’ of ‘the world’ in general takes on this property: consumerist waste, human lives wasted throughout history in slavery, disease, war, work drudgery, or marginalisation), wasting planetary resources, wilderness wasting away now again as it did ten thousand years ago (Mithen 2003). This is the situation in which we say, “It is all falling apart”. One can no longer manage the scattered waste, and cope with the complications of life, whether physical (health) or material-human, and it becomes impossible, practically, to ‘keep it all together’.

Other problems and implications of deployment

The problem of periodic instability

The concern with establishment and stability (<Extract F8>) mentioned earlier demonstrates a widely spread need to counter instability in many spheres of culture and civilisation, including theoretical modelling and health (see <Extract F4\ Syndromes of instability>, which addresses various related issues). The simplest image to demonstrate this is figure 24, in which there are 2 critical ends to the spiral. This can be experienced as alternation between limits, oscillation between extremes, endless cycles, functional constraints, edges of containment, etc... or endless deployment and redeployment. It ‘looks like’ an orb of universal bouncing chaos. In many



cases, such instability is considered a ‘mystery’ whose origin is unclear, or even ‘The’ origin of all things. This is the case in some cosmologies, and for the ‘illness’ syndromes that have a characteristic of instability. It takes forms that can be classified. For example, according to the scheme used here, as ‘low-grade’ (eg allergy), ‘normal’ (eg invisible ageing), and ‘high-grade’ (eg cancer). In other words, the ‘shaping-up’ of instability can be imaged, as a deployment, although the particular spatio-temporal form it takes cannot be predicted. These 3 orders are related to the ‘stages’ defined by various authors (in <Health and Illness>). They can also be interpreted as 3 orders of ‘gravity’ (see ‘Grav-Wave’ below). The Sc-‘solution 1’ is one of its forms. Nexial resonance, chirality, the ‘Below’ (addressed next) are some of its less known forms. Deployment makes instability a self-fulfilling prophecy, in whichever order it is pushed to. It shows it as built-in the techniques of conventionalisation, and an automatic consequence of the practices regarding the conventionalised body in certain circumstances (eg triggering birth, stimulating food given habitually to children).

The ‘hidden’ – invisible – lost, ‘The Below’, and the sub-‘Human’

The ‘inside’ of the bubble-skin in figure 26 is the object of a large variety of names, in the iconic culture, invented by the many makers of onescape models. They are, however of a few basic types. This ‘inside’ is the ‘source’ of phenomena ‘not well understood’, unclear, ‘mysterious’, or the ‘origin’, ‘lost’ or ‘forgotten’, of global phenomena such as writing, drawing, geometry, language, the contentious localised origin of humans). It is ‘hidden’ or ‘invisible’ to physical and human realities such as the cosmic universe and humans themselves. Physics has its ‘hidden variables’, humanities their arcane ‘forgotten knowledge’ and the elusive universal ‘Mother tongue’, and medicine its invisible ‘unfounded’ illnesses ‘without physical cause’. Physics also has a whole range of names directly related to those found in archaic texts (dark or red, colours, etc. – some shown in the slides.) Physics, archaeology, anthropological studies of the history of religion and spiritual practices, and medicine, are royal routes to understanding such notions. ‘Advancing’ by breaking-making the bubble-world ‘unveils’ all these ‘hidden’ aspects. Related terms are ‘covered’ and

‘uncovered’ (in the OT Bible) [apparently removed ‘cover’ of FlatLand: order 1 deployment is a ‘covering’ surface].

‘The Below’: The form the most relevant here, because it is expressed in image as often as word, is ‘The Below’. In Chinese inner alchemy, there are practices to ‘return’ to ‘Below’ (or a ‘valley’), a process in which men seek in their mind to restore ‘The Female’ in themselves, to undo duality, or turn back time. In myths, the ‘Below’ can be a ‘Beyond’, or a ‘behind’. In the core of spiritual traditions, its characteristic of endless cycling makes it a hell of endless suffering (eg in the cycles of reincarnation that are an imprisonment keeping us from peace, happiness, freedom from suffering). The ‘Below’ is also a reformulation of an archaic notion of the dreaded ‘The Pit’ (both Old Testament and Chinese), or ‘bottomless pit’ (represented as a cone – see <PPT2 \ slide 10>) related to the fear of ‘getting stuck there’. This is a powerful cultural icon that still belongs in modern vernacular (‘pit of depression’, ‘dark hole’ of pain). Mostly, however, it is not conscious in most of us, and is at work in devaluation based on associating a particular person’s behaviour, physical or mental, or of their lifeworld (that is, conventionalised) with this image instead of understanding the phenomenon of instability without distinguishing and ascribing ‘valuings’. The implications are so generalised that the entire person’s life can be invalidated as belonging to a ‘lower order’, a ‘sub-human’ order. This is the case for some behaviours deemed ‘animalistic’ (eg violent reactions, but also instinctively eating mineral substances needed for nutrition) or ‘weak’ (eg having a little nature’, being ‘too sensitive’). This is at work in the hidden cultural association of ‘The Female’ with the ‘Deep’, the ‘Abyss’, the ‘Dark’, or a status of ‘dangerous nature’. Childhood in general is afflicted with this hidden ‘sub-human’ status until education channels it, the body stabilises when ‘hormones kick in’ (Western culture) or ‘kidneys mature’ (Chinese acupuncture), until puberty normalises its brain-central-control and establishes its self-control (see <Extract F17\ Anatomy notes>). The cultural basis of all systematised medicines, it seems, contains, hidden within its system of standards for normality, this assumption that child physiology and psychology is not quite ‘adult’, an unfinished adult-‘Human’, and sub-‘Human’. Another modern example is the exhaustion of

compensatory sexual drive or of brain function with ageing and dread of these losses. Consequently, the head/sensory defined 'physical body' itself is an 'imperfect vehicle' and 'machine' that requires constant repair. It is only 'mammal' or 'animal' (rather than 'human') – and 'below' the head-brain-. It is deemed 'lower' on the evolutionary scale of complexity than the human mind. The female body is affected similarly (weakness in the 'gravid', pregnant woman, 'female problems' of health and mental instability, etc.). These learned attitudes to the body, child, and female (their conventionalised forms), are carried on a daily basis in everyday living. Ultimately, 'The Below' is the 'inside' of the bubble-skin, and is an order 3 approximate formulation of properties of order 1 deployment. This explains the many names in the literature of all times, the confusion regarding these properties, and the built-in manifestation of such feared and even despised qualities. The main difference between order 1 and order 3 is the introduction of N2d-containment-N3p-constraint, and so of 'self'-organising instability, uncontrollable completely. These pattern-based (topographic) and activation-based (nexialist) limitations produce, the iconic sets that are deeply ingrained, 'hidden' in culture, and which affect profoundly medicine, our definitions of 'health', and how the health ecology of low-syndromes is approached (as order 1 'low-grade' and non-local properties, or as order 3 incapacity to 'complete' the bubble-skin of 'defence' and adaptive compensation). Two of these iconic sets are used openly or not, to deal with low-grade syndromes:

Primary and secondary: The 'inside' and 'outside', variously expressed as dyads such as 'within'-'without', 'Above'-'Below' 'small'-'large', also produce 'primary'- 'secondary'. They are used in particular in psychology and psycho-somatic medicine to differentiate types of syndromes (see <Extract F4>), but also other fields (see <PPT5\ slide 11> and <Extract F12\ Mysterious Pass or Place\ primary & secondary>).

Normal, super-normal, sub-normal health: The 3 orders of deployment can also be expressed as 3 ways of being 'not diseased': (a) *Normal or 'natural health'*, the adapted, compensatory state ruled by brain-central-control, self-control, aggressive-self-defence, selective sensory perception (head-based), a chronic state of strain-stress, 'survival' alert

(attention); (b) *Super-health* (or super-body: Murphy 1992), highly brain-mind driven and ‘spirited’ (includes the ‘extremely healthy’ child that only evades bacterial disease); and (c) *Sub-health*, characterised by instability, criticality, and various grades of dysfunction (eg normal childhood illnesses, ‘female problems’, chronic syndromes). Whichever order of topologic deployment, it is taking us to critical defensive containment, with correlate constraints and limitations. All 3 forms have an assumed ‘natural’ baseline of low-grade criticality, and do not model non-deployment, or non-criticality.

The iconic notions just discussed influence treatment, the ‘illness’ label (both validating and invalidating), and through cultural practices regarding the ‘body’ and ‘person’, participate in the ‘causing’ of syndromes of instability. Yet, these non-local expressions are routinely dismissed in psychology as ‘in your mind’, in medicine as ‘birth weakness’, and almost never addressed in H-research on health and Sc-medical research. They remain a conventionalised puzzle to medical anthropology (eg the meaning of ‘embodiment’ and views of the ‘body’).


‘Not from self’ and ‘non-local’

In the human domain, the boundary is a crucial notion in the definition of the ‘self’. It is just as important in defining the ‘not-from-self’ as a source of what happens ‘to’ the self or ‘within’ the self (eg from environmental influence, to involuntary and induced reactions, ‘acting out’ behaviours, and other phenomena, and many religious experiences, such as ‘activating the Goddess’ [in Despeux & Kohn 2003], hearing a voice, or being ‘taught from inside’). Other forms are ‘Exceptional Experiences’ of ‘no-self’ and ‘no-world’. They are more difficult to express because they break down boundaries, and no longer discern scientific and human shapes. Some examples drawn from my observations are: ‘spontaneous yoga’ (or rather Dao Yin – see <C8\ Spontaneous yoga>) that serves no improvement purpose, ‘nexial resonance’ (see <Endnote C9\ Nexial resonance>) in which no cause, mental intent or influence, by contact or at a distance, is involved in material effects, the non-deployed state often called ‘One’, and the nexial-topologic ‘native gauging’ as a lived imaging that involves no ‘system’ of any kind, and apprehends an undifferentiated situation

without conventionalisation. In matters of culture, the ‘source’ of some of the icons of culture (eg shamanic, magic, religious symbols and rituals), and of general inventions (eg the wheel, baskets, fabrics, language, certain stone tools of prehistory) does not seem to be localisable and remains a puzzle. Physics also has a problem with experimental non-local effects. All these are not described adequately by words, numbers, or other conventions, and I designate them under the label of the ‘undifferentiated’ (for theory) and non-deployed (for practical experiment). The Greek, pre-Socratic word ‘*apeiron*’ might have been an attempt at designating it negatively as I do here [*a-peiron*, without boundary], albeit mostly understood as a chaos (of the ‘Below’) that needs ‘taming’; a derived term in philosophy is ‘indeterminate’ – see section ‘Loss of physical grounding’ below).

Hidden implications for health ecology and daily living

‘Drift’: going ‘off track’

The end of redeployment ‘path’ can be viewed differently – as a ‘drift’. Showing this requires a different geometric projection than the yellow spiral in figure 29,  which does not display appropriately the directional and asymptotic element (endless ‘path’). In figure 31, it corresponds to the axis that goes ‘off-track’ [on the left] (see also <PPT5\ slides 15 & 17). The most common name for this is ‘drift’. Some examples are: the ‘semantic drift’, the cosmic ‘red shift’, the statistically drifting age for the onset age of puberty (currently two years early) and its acute power (often resulting in stunted growth and adults forever looking like youngsters), and very slow or invisible progressive degradations such as degeneration of ageing, the deterioration of the planet and of human sanity and health (eg spreading of auto-immune disease), and the progressive complication and over-simplification of our explanations and experience.

This drift is known specifically, separately, but it is not formally described or mapped as a *general* phenomenon across fields. It remains unexplained, justified as a ‘remnant’ of some hidden or mysterious phenomenon, some kind of inevitable ‘end’ for the physical world of humans and its bubble-systems, or simply by notions of chance, or fate:

‘In ancient times the holy sages made the Book of Changes [...] By thinking through the order of the outer world to the end, and by exploring the law of their nature to the deepest core, they arrived at an understanding of fate.’ (Wilhelm 1989, I Ching- Shuo Kua p.262)

‘Drift’ is among the most difficult of phenomena to actively ‘counter’ or understand. Yet, if modelled with nexial-topology, it has a clear meaning – of ‘going off-track’. This can be understood without the complexities of all our models and perspectives, and can simply be ‘undone’, by ‘not going’ off on the tangents of deployment.

‘Grav-Wave’: gravity–graveness and ‘stopping’ critical deployment

Who says ‘*final* end’ says ‘start *all over* again’: at some point the ‘drift’ exhausts itself and stops, only to restart. This happens over a long- period cycle (a meta-cycle), in which the deployment of geometric icons runs its course. Reaching the endless-scattering-wasting breaks the very ability to deploy and endlessly redeploy into ever larger and smaller bubble-worlds. A pause of non-deployment intervenes, before the whole cycle starts again. This occurs in civilisation/culture (millennia of many human generations), and a ‘restarting’ is characterised by the same underlying iconic shapes but completely new conventions. This could be related to the ancient notion of ‘eternal return’ (refer to the notion of ‘Great-Time’ in Eliade 1954, and spiritual notions of ‘Great Cycle’) and modern ‘zero-point’.

This restarting occurs also for the body/mind/lifeworld. The self-exhausting (re)deployment ‘looks like’ a wave of waves, comprising a number of repetitive activation-projection that *reaches* its end in scattering-wasting, before restarting again. It is not just ‘instability’, but a compound wave of instability that occurs at long intervals (at key turns of the lifespan). It is expressed in health and body sensations, and concurrently in the events of the lifeworld. It can affect directly ‘health’ and sanity, but also the living conditions, the ‘whole world’ as apprehended locally, and even safety. It also appears inevitable (it is built-in). Therefore, being subjected to this gives a sense of despair or ‘graveness’, a strong physical sense of weakness (exhausted ‘bodily reserves’) and heaviness (gravity, difficult to stand). For this reason, I have dubbed it the ‘grav-wave’. The reader can gain a sense of the properties of such a wave by viewing the animation <9 Grav-



Wave>. The animation is drawn from a General Relativity website, in which it is called ‘gravity wave’ and is the only formal model I found. On the other hand, there is a sense that it does not *have to be* inevitable, because using ‘native gauging’ to ‘stop’ deployment shows a state in which it does not exist.

The cost of (re)deployments:

‘Drift’ away from ‘ease’, rather than getting closer

Deployments, redeployments, and reformulations give us control over our ‘health’, behaviour, and degrees of specific freedom. They provide us with high specific-general knowledge, human-mental greatness, and creativity in invention and in dealing with emergencies, but there is a cost: the ‘drift’ effect. Whichever the conventionalised interpretations we use, the ‘advanced’ frameworks Sc-‘reverse’ iconic images, by differentiating the 2 generic parameters and putting them in compensative circularity N2d- N3p- (interaction, interconnectedness). The H-‘inversion’ of the effects of this chronic compensation create endless paths of ‘completion’ that are asymptotic *approximations* of the nexial-topologic vertical axis. The lack of ‘gauging’ (that is, observing without discerning the 2 symmetric Sc- and H- domains [Sc- H-]) allows constant transfers between them that reinforce each other and do not take into account the ‘drift’ effect. The Sc-result is not reducing instability, but rather ‘turning it out’ into waves and cycles. The H-result is a semantic drift by reification from undifferentiated ‘ease’ of daily living into specifically ‘easy’ tasks, treatments, compensations, and the ‘easy’ general explaining away of instability by devaluation and unknown causes. In such deployments, the nexial-topologic vertical axis of ‘off track’ *orienting* is ‘completely turned around’ (360°, topologically) into many deployments of the endless asymptote of assumed ‘getting on track’. This ‘oriented’ asymptote denotes boundary conditions that do not stop, but when their grav-wave exhausts itself and *reaches* its ‘end’, whereas in ‘native gauging’, the *approach* of boundary-surface is a nexial-topologic ‘*orienting*’ that intrinsically ‘stops’ the deployment (refer to the green dotted lines in figures 30 and 31, below). One is auto-‘pushing’ and increases deployment, the other auto-limiting and stops it. Deployment

yields an ever-increasing requirement for more physical or human work, just to approximately ‘keep on track’ automatically and ‘keep [separate] things together’, just to preserve our living environment and our bodies so they only ‘survive’. It maintains, sustains, and recreates constantly the baseline of critical effort, strain, and stress and its correlate deployments (do we not speak of ‘deploying efforts’?).

In practice, this is taking us *away* from ease rather than *towards* it, and although it remains a potential, it is made a practical impossibility. Instead, it is making certain aspects ‘easier’, but certain others more difficult, and altogether, daily living becomes complicated and uneasy. It took me about 40 years of hard learning and much bodily hidden damage to understand, in far too much detail, what my down-to-earth mother used to say: ‘*Tu te compliques bien la vie!*’ (You so complicate your life!).

Loss of physical grounding and the critical baseline of ‘health’

The ‘grav-wave’, ‘drift’, and ‘endless-scattering-wasting’ are different ways of expressing ‘going off track’, which also means ‘loosing ground’. I will illustrate this loss through modern science. The two images in <PPT2\ slide 23> are models of ‘space’ created by theoretical physicists. They are self-consistent and mathematically valid, but what they predict cannot seem to be found in physical nature.

‘We do not know whether this theory is physically correct or not. Direct or indirect experimental corroboration of the theory is lacking. This is the case, unfortunately, for all present approaches to quantum gravity. The other large research program for a quantum theory of gravity, besides loop quantum gravity, is string theory, which is a tentative theory as well. [...] Nature does not always share our aesthetic judgments, and the history of theoretical physics is full of enthusiasm for strange theories turned into disappointment. The arbiters in science are experiments, and *not a single experimental result supports, not even very indirectly, any of the current theories that go beyond the Standard Model and general relativity*. To the contrary, all the predictions made so far by theories that go beyond the Standard Model and general relativity (proton decay, supersymmetric particles, exotic particles, solar system dynamics) have for the moment been punctually falsified by experiments. Comparing this situation with the astonishing experimental success of the Standard Model and classical general relativity should make

us very cautious, I believe. Lacking experiments, theories can only be compared on completeness and aesthetic criteria.’ (Rovelli 1998a)

Derivations beyond order 3 (especially ‘haze’-like models) have lost even the access to sensory physicality. The basic presumption of containment is challenged, in physics (Hawking’s ‘No Boundary proposal’, Hawking & Penrose 1996 p.79) and, separately, in the ‘advanced’ experiences of spirituality. The presumption of constraint is challenged, again separately, in philosophies of Nature (non-inference, non-action), in the mental realm (intuition of the gauging sort) and the physical realm (non-reactive, non-extreme spontaneity). The baseline of criticality and instability never seems to be considered in research. It is present in a Darwin who has chronic illness, loses a daughter, and produces a theory of the ‘preservation of favoured races in the struggle for life’. It is visible in a Kant whose body is bent, prisoner of gravity, and who finds that freedom is impossibility. I could find no modelling of the physical-human situation that included both without involving some sort of boundary, constraint, baseline critical effort (or choice), diRection or activation to deal with instability, in one form or another. Presenting human physicality as these ‘surface phenomena’ (‘oriented-at-boundary’) is profoundly biased. This does not fit some of the ‘non-deployment’ states I consider as supportive of ‘proto-health’ (see <EEs>). Boundaries and constraint make for hard learning in childhood, which is not necessarily plagued by them and by instability. A well-known image encapsulates a view of the entire ‘deployment’ based on such assumptions.

The caduceus, symbol of medicine, is a series of knots, along a vertical axis with a winding path that returns. Its shape also expresses an idea of beneficial mind-head-brain control. It images what emergency medicine



knows and does with extraordinary success, healing and curing when necessary. It does not, however, image the ‘ease’ of ‘proto-health’, in which there is no necessity or emergency. It cannot ‘gauge ease of health’.

The medical and clinical frameworks derived from such an icon, with their assumptions of necessary mind-head-brain control, and experiential suppositions of constraint-containment-

criticality, are no longer grounded in the physical health of a body-brain that is *not* split (eg by neuro-endocrine activation-projection and immunologic defence), *not* permanently ‘deploying critical efforts’ and ‘drawing on its reserves’ to cope and ‘work at it’, and *not* chronically supported by the stimulants, calmants, diets, and addictive habits that allow this deployed state to be maintained... until exhaustion stops the deployments (in disease). They do not model ‘keeping health on track’ as a ‘ground state’ not requiring work, in a lifestyle that is not a permanent physical or human emergency of some degree, A human-physical interpretation of deployment leads to statements concerning ‘taming’ the instability side effect:

‘It was therefore imperative for them [the Greeks] to tame *apeiron*, [...]. Achieving this end essentially has meant containing what at first appeared uncontainable: the boundless *apeiron*. [...] Merleau-Ponty speaks of “brute” or “wild Being” (1968, p.170) – meaning organically grounded, primally embodied [...] Conventional thinking will need to be turned upside down and inside out. [...] we require, an ...“epistemotherapy” that ... regrounds us in the lived body.’ (Rosen 2004 pp.3 & 6)

Understood as a ‘physical’ grounding of the ‘human’ or the mind in ‘the body’ causes perspectival clashes and the paradigmatic shifts that have been played out for at least five thousand years of our history, and possibly in prehistory. They have not helped. The ‘ground’ could also be understood as a nexial-topologic ‘ground state’ that does not require work or interfering compensation in most non-critical conditions, does not have a ‘baseline’ patterned activation. In this case, the ‘regrounding’ is a ‘gauging’ of the tendency to deployment, which gives the capacity of ‘not going off track’. Gauging the ‘going off track’ is particularly accessible through the local sensing of ‘swelling’ (undifferentiated meaning of this word, as well as physical), as follows.

Cohen (1955) describes a little experiment of Einstein’s in which throwing upwards a tube containing a free-moving ball shows the covariance of motion and weight. This evokes much in my experience of health and body. The feeling of gravity (a precursor to the ‘grav-wave’) is covariant with activation, and with ‘swelling’ – physically and otherwise (see figure 31 below). These are directly related to a degree of physical dehydration, and to sensing

gradients at body surfaces, and in the mass. With these come an existential sense of having to ‘spread thin’, and of *approaching* a critical breaking point. The sense of lightness, like a happy ‘flying’, that one can have in dancing, or hopping up a mountain slope like a goat, is gone, as is the sense of ease, replaced by ‘need’. ‘Feeling unwell’ (physiologically and behaviourally ineffective), ‘down’, tired, and in struggling low-grade pain, is the result of keeping this up (eg internal activation of non-specific and systemic ‘defence’ brings little pains related to histamine, cytokines and other inflammatory substances). ‘Illness’ is its ‘setting’ into the development of fibrous-dry rigidity. If this is deployed further, recognisable (diagnosable) disease occurs. These sensations, and understanding of them, could be used for many aspects of current global problems. They do not appear to be specific to my local-case: some archaic texts mention this ‘problem-making’ (sometimes clearly related to health-sanity and feeding behaviour). Their meaning is also expressed in daily life statements such as, ‘you work too hard, you will make yourself sick’.

A more basic view of deployment

I would have liked to limit my presentation to the images included above, together with this section of the chapter, with only scant comments on the images. The details and implications hide the basic nature of the ‘turn-around’ between deployment and non-deployment. An animated and oral presentation would show that the imaging is much more basic to apprehend and use than it seems.

For example, figure 42, at the end chapter <Methodology> provides a ‘complete’ map, which although integrative, is nevertheless complicated and only approximate. The research process simply followed the nexial-topologic deployment to its conclusion, modelled it, and I lived locally its global effects at the same time, in particular, ‘driving’ constraint, critical instability, and swelling. Most of the long-term historical problems with human nature and nature, and the spreading problems of normal, super-, and sub-living that I tackled, are inherent in representations and action strategies derived from the ‘built-in’ properties described here. It seems to me that this impression is present in the following passage:

‘The definition of the “preferred basis” (the class of projections) at each time, is the business of decoherence theory. [...] Evidently further pursuit of this question will require a much more systematic discussion of the criteria that motivate medium decoherence in the first place; it is clear that on any evolutionary approach to the specification of a decoherent history space, constraints on what is to count as an information processing system are also constraints on what can reasonably be understood as an “epistemic community”. In other words the objection must be ceded, but the epistemological contrast at issue is actually built into theory *ab initio*, as constraints on information transfer and stability; if we are to live in Plato’s cave, at least we can understand how it is that we are confined there.’ (Saunders 1995 p.26)

One of my motivations in writing this thesis is to show that the icons of culture and their conventionalised topology of change affect H-globally (Sc-non-locally) the baseline physical experience of human daily living. Although the researcher’s assumptions and suppositions are now routinely mentioned in published research, I have not seen in the literature the ‘orienting’ of physical experience considered ‘locally’ in the researcher, as a background to the research. Another motivation was to show that being able to see how this 'effect works and orients findings to criticality, does not require very complex or over-simplified ideas such as direction and spatialised movement.

Dual-polar deployments

In the many conventionalised models that I call perspectives, duality and polarisation are developed, in one form or another, separately or in combination, in two basic ways:

- ***Sequential or 2-nodal deployment:*** the animation <4 Linear development> (of a 3-10 torus) can give a sense of how the nexial-topologic deployment can be projected as a three-stage development, followed by an inverted development. Models of unfolding and enfolding are based on this, which is the way of patterns or of the ‘Left-’.



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- ***Simultaneous or 3-modal deployment:*** the animation <5 Rainbow-fountain> can give a sense of how the same nexial-topologic deployment can be projected as a simultaneous development of three modes. From the viewpoint of physical experience, this relates to



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sensations of flowing, movement, activation, increase (etc.), and to archaic notions of 'Life', the medieval 'fountain of life', Neolithic notions of 'the Wet', and the prehistoric notion of 'Wind' (H-'global' and Sc-non-local). On a more abstract note, the animation is suggestive of the models based on colours, which can be multiplied, as can the ways of spatialised motions and of the 'Many' aspects that arise from the 'Right-' perspective.

Their combinations automatically produce acute shifts, localised in one way or another. This is evident in many forms: sudden N3p-impulse, thresholds, no time, zero or point shifts, discontinuity, critical events, singularity, quantum jumps (involving both boundary breaking-&-making), physical catastrophic near-destruction, near-death, emergence, experiences of no space, no existence, no more recognisable N2d-pattern (perceptual), etc. Such 'boundary phenomena', or critical instability, are built into the representational conventions, in most cases, rather than necessarily being inevitable.

'Boundary': a third, hidden parameter of 'oriented-at-surface'

Both sequential and simultaneous views 'deploy' detailed views of 'oriented-at-boundary'. They describe the phenomena observable if boundary conditions are *reached*. The being 'oriented at boundary' constitutes a hidden baseline: of perspective. For example, an emergency focuses senses and attention onto 'outside' or 'inside' and raises adaptive response, and shifts the observing into perspectival mode. Effectively, the 2 parameters produce constraint and containment, or 'orienting', which constitutes a third generic parameter that is hidden (built-in). It can be clarified and given the same status as the other two parameters. It is the basis for the third 'mode' found in modal logics. 'Boundary' can be interpreted as 'boundary conditions', in operational or connective terms, the two most abstract ways of thinking, related to general-systemic or organismic thinking *and* experiencing. This third parameter is governing (driving and directing), most often hidden and widely accepted as a baseline for normal experience (eg stress), or believed inherent in 'nature' (eg survival, limit of light speed). The models thus produced are unduly generalised as explanations of *all* daily life, and give rise to an interest in extremes of experience. From these are derived systematised methods and practices, which are often indiscriminately

recommended. Conversely, their consequences of containment and constraint, *and* lack of limits, constitute an accepted ‘human’ and ‘physical’ reality. ‘Boundary’ is also interpreted as boundaries, functional or structural. All these types of boundaries automatically come with representations derived from icons and words, and from mathematics, as is the case for the *analytical* topology (calculated dimensional geometries) used in natural sciences. Poincaré (1854-1912) thus formalised kinetics into ‘dynamic qualities’, but also recognised that the duality inside-outside, inherent in structural notions of boundary, is a *measure*:

‘Outside and inside are the two different values of a measure called parity’, on which depends on the ‘number of boundaries crossed’, thus ‘changing the connectedness changes the parity’. ‘By fixing the starting-parity as *outside*, you can easily, by "evens-and-odds", tell "where you're at".’ (Britton, 2006)

These means of rePresentation leave no room for states not ruled by ‘Boundary’ (not governed by critical states), in which boundary is not *reached*, established (structural, connective) or stabilised (functional, operational), states that are not ‘*at*’ boundary surface [topologic], but only *approach* it, and this not permanently. Nexial-topology describes, instead, a gradual ‘orienting-at-boundary’ that may yield deployment but may also result in ‘*un-orienting*’ (stopping deployment) and ‘non-deployment’. Since orders 1, 2 and 3, are only a sequential analysis of the animated imaging, all 3 describe, in different ways, the *same* approaching boundary (I could have explained them as 3 modes, or 3 phases of criticality). The *approach* of boundary or surface phenomena is ‘gauged’ by an apprehension that does not use measured or calculated geometry, or conventionalised ‘valuings’. For the purpose of the exposé, the images used here are limited reConstructions derived from perspectival framing, and so are related to the senses (five or more). Not separating the parameters to recombine them (not reConstructing in computer animation) leaves the animated imaging, for which the fixed images and ‘boundary’ are, rather than a baseline, an *extreme* of deployment, and therefore a ‘state’ rarely reached in daily living. There is a ‘turn upside-down’. For visual and practical sense of what this ‘upside-down’ means, see <PPT1\slide 7>, ‘Female mountains and valleys’. I will now attempt to show this in other ways.

All the perspectives and models deployed beyond order 1 (starting with FlatLand) have overall characteristics that correspond to (are ‘like’, operate the same way as) those of post-modernist relative truths for the human domain, of special relativity for the scientific domain, and of general system theory for their integration into ‘advanced’ models (similar fundamental rules) They are well described by perspectival framing, both explanatory and experiential, and by our symbolic languages (including codes, geometry, and icons). The connection between these expressions, as well as symmetry and circularity, ensure the logical consistency of our practical paradigms. This also explains the ‘uncanny’ fit of mathematics to describe ‘Nature’ (Wigner 1960) and what we call ‘natural’ and ‘human’, which baffles philosophers of science. The correlate ‘hidden’ or ‘mysterious’ domain and its related questions (see <Extract F9\ Deep confusing questions>) are explained by using the same conventions (eg space and time), separately in terms of origins or ends, of ‘Where this is going’ (development) and ‘Whence from’ (source). These are usually characterised as catastrophic, chaotic, or ‘endless’ – all boundary phenomena. ‘Boundary’ in general, and the ‘spreading’ (eg ‘the earth’ and spacetime) in particular, are either simply assumed, or are modelled by perspectival unfolding and/or enfolding, as an inherent or immanent, *hidden* third aspect of our realities that somehow causes arising or directing, occurrence or appearance. There is, a global asymmetry: nothing models the plain non-existence of ‘boundary’.

Nexial-topology models this situation as it ‘presents’: as an asymmetric, covariant ‘deployment’, a one-sided ‘swelling’ that keeps deploying into unfolded and enfolded perspectives, and never ‘stops’: perspectives remain ‘oriented-at-boundary’ and deal only with the topologic ‘surface’ of critical phenomena. Portrayed this way, what is not modelled by our conventional topologies is that the deployment does not have to ‘come to’ a ‘boundary’ state, and also *can* ‘stop’ to ‘unfold-enfold’. With it, boundary phenomena and critical instability disappear. The animated imaging that can model this seems to have similarities with general relativity *if* the animations are not interpreted in physicalist or

spatial terms or as realistic rePresentations, and are not divided analytically or reconstructed wholistically, but understood as the *undifferentiated* ‘shaping’ of ‘Perspective’ and ‘Boundary’. The mathematical form of general relativity applied to spacetime is an ‘advanced’ framework, and judging by the relevant literature, it seems to have little grounding in the ‘physical world of humans’. The covariant deployment, however, can be considered as a ‘*global* notion’ (see <Ancient perspectivalism\ Global notions>) that does not discern the many exPLANnations, exPERIences, and other sensory-framed exPRESSions, all derived from the 2 basic parameters and their hidden counterpart of ‘boundary’. If the covariant deployment is apprehended as an undifferentiated ‘shaping’ of the above situation ‘as it presents’, then a similarity exists between the animated or lived imaging and the general relativity.

I will now present nexial-topology in terms of basic geometry, in order to highlight (a) the fundamental difference between deployment with its resulting asymptotic ‘drift’, and ‘gauging’ with its ‘ground’ that is ‘on track’, and (b) what ‘stopping’ deployment may look like.

3 simple geometric rules: 90°, 180°, and 360° turns

In manipulating concepts, and comparing them to my benchmark ‘native gauging’, I found what I express as ‘turn-around’, or as ‘turn inside-out’, ‘turn outside-in’, and ‘turn upside-down’, depending on the situation being imaged. In playing with scribbles drawn from the analogies and metaphors in texts, and developing the sequential explanation for this chapter, it appeared that these could also be expressed as 3 basic rules of thumb based on changes of graphic orientation in shapes (icons). The easiest way I could find to formulate them in geometric terms, is as the ‘rules of 90°, of 180°, and of 360°’. They are summarised in images in the slides of <PPT7 Three geometric rules of Nexial-topology>. It seems to me that these imaging rules are, in a way, known to the thinkers in whom I recognise some sort of ‘thinking in images’ or ‘gauging’ (see <Extract F5\ Gauging thinkers>). I have gathered from their works some text extracts that seem to be attempts as formulating these geometric rules in words (<Extract F18\ Rules of localisation/extension in the literature>).

Following, are three ways to detect the difference between conventionalised perspectives or geometries and nexial-topology.

As basic as inside-out

The difficulties of perspectives derived by dualising and synthesising can be resolved by simply noticing (1) that our representations are *under operation of conventionalised* observations (sensory, sensate, psychic, or with the senses shut-down), and (2) that the ‘turning outside-in’ and ‘turning inside-out’ into topographic surfaces are modelled as FlatLands, whether externalised or internalised.

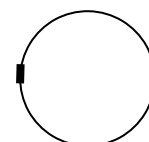
As basic as upside-down

The difficulties of perspectives derived by polarising can be resolved by simply noticing (1) that the activations we observe occur or are represented as being *inside systemic frames*, and (2) that the perspectives are a ‘turned upside-down’, or inverted modelling of nexial limit conditions that are ‘downside-up’ geometrically.

As basic as intervals

The difficulties of perspectives derived by conventionalising (dualising and polarising, combination or ‘powering’ of one of the two parameters, and other ‘valuings’) to model deployment, can be resolved simply. One can notice (1) the mental *or* physical nature we ascribe to N3p- ‘activation’, ‘Life’, and our concerns for survival or unease (what ‘saves’), and (2) the generic ‘orienting’ (see <Validty and valuing\ Researcher ‘orienting’>) of our interpretation of the notion of boundary. This is also detectable in the preference in what a viewer ‘sees’ in a drawing of intervals:

- a ‘one’, ‘whole’, or ‘1’,
- a dual left-right (or up/down), or beginning/end,
- a ternary one-side/inside or middle/other-side,



[Compare this to <PPT4 Einstein\ Slide 2 and 8>]

- a topologic containment, a ‘bubble-world’ [nexial-topology] (eg a notion of ‘island’).

The notion of ‘boundary’, just as the global notion of ‘water’, can be interpreted according to *any* of the (many) perspectives. Attached to them, are completely opposite evaluations in the Sc- and H-domains, and yet another in the combined or integrated Sc-H-domain. All of these are often ‘turned around’ in the daily living domain (what some of us actually do).

Figures 30 and 31, discussed next, are geometric projections (fixed) of the *animated* imaging. Their aim is to show the difference in another way. The properties of these images are topologic, not geometric: how *exactly* I draw the changing shape of a drop does not matter. In some conditions, it may be *almost* a round bubble, or *close to* a flattened ellipse. The terms ‘*almost*’, ‘*near*’ and ‘*close*’ are crucial, but they do not imply approximation: they mean never *reaching* a fully formed bubble or ellipse, and only ever *approaching* criticality. The axis never becomes a disconnected asymptote, or an arrow drilling a hole in the surface. The bubble-drop never tears off the ground line, which never rises to a sharp point. Nexial-topologic images take on their meaning only in *animation*, so details of fixed images have only limited significance and cannot fully render what the gauging shows. This is a downside to presenting nexial-topology in the form of a written work:

‘Rendering the concepts sensibly intuitable by means of drawn figures is substituted for the actual production of the primal idealities.’ (Husserl 1939 p.169)

Global view of dual-polar deployment (figure 30):

In figure 30, the 2 global parameters (vertical axis of orienting, and spiral of ‘spinning up’ or ‘increase’), and the (no longer hidden) are integrated with that of *boundary* (topologic orienting-at-surface) in a form that suggests ‘swelling’ (imagine a bubble welling up in the pond). The ‘spreading at boundary’ modelled in this deployment (a welling-up bubble) only describes the extreme of a nexial-topologic ‘swelling’. In the physical realm, this images a low-level criticality with undesirable (valued) signs and signals more obvious than mere (unvalued) sensations. It is characteristic of vertically entraining the brain and the ‘alert mode’ (in mind and immune ‘defence’). The top of the axis images the separation of the parameters. The outcome of conventional topologies and modelling is an endless, approximate or probabilistic, risk or hope phenomenon, which has an asymptotic axis and a

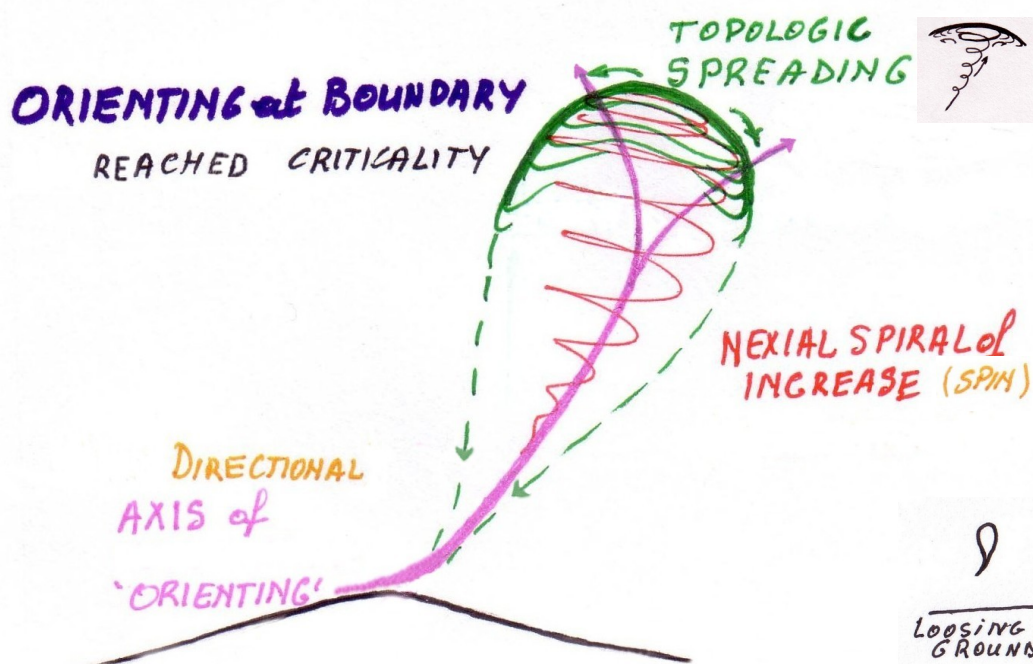


Figure 30. Global view of dual-polar deployment

direction, ie an oriented axis. After deployment (up) and redeployment (down, or 'back to Below'), the split axis is reintegrated, but it is asymptotic, and invariably manifests in scattering and wasting (reduced here to spreading along the bottom line). That is, on its 'way back down', the directed axis is asymptotic to what is a 'raised ground' (figure 31 below). The twisting spiral of deployment ('drop' outline in figure 30), and the bottom of its vertical axis, never quite 'comes back down' to a non-raised groundline. 'Health' is never quite stable without keeping the body-brain-mind on alert, repairing, or 'working at it'. This is the permanent 'baseline' of work that is critical to maintain health, and which we generally consider 'natural' and necessary to 'survive'.

Global view of 'gauging' the deployment (figure 31):

Figure 31 is a fixed image, a flat projection of 'native gauging'. The 'oriented activity' of 'swelling' that creates heaviness and dehydration is best visualised not as a directional increase, but rather as a 'starting to twist'.

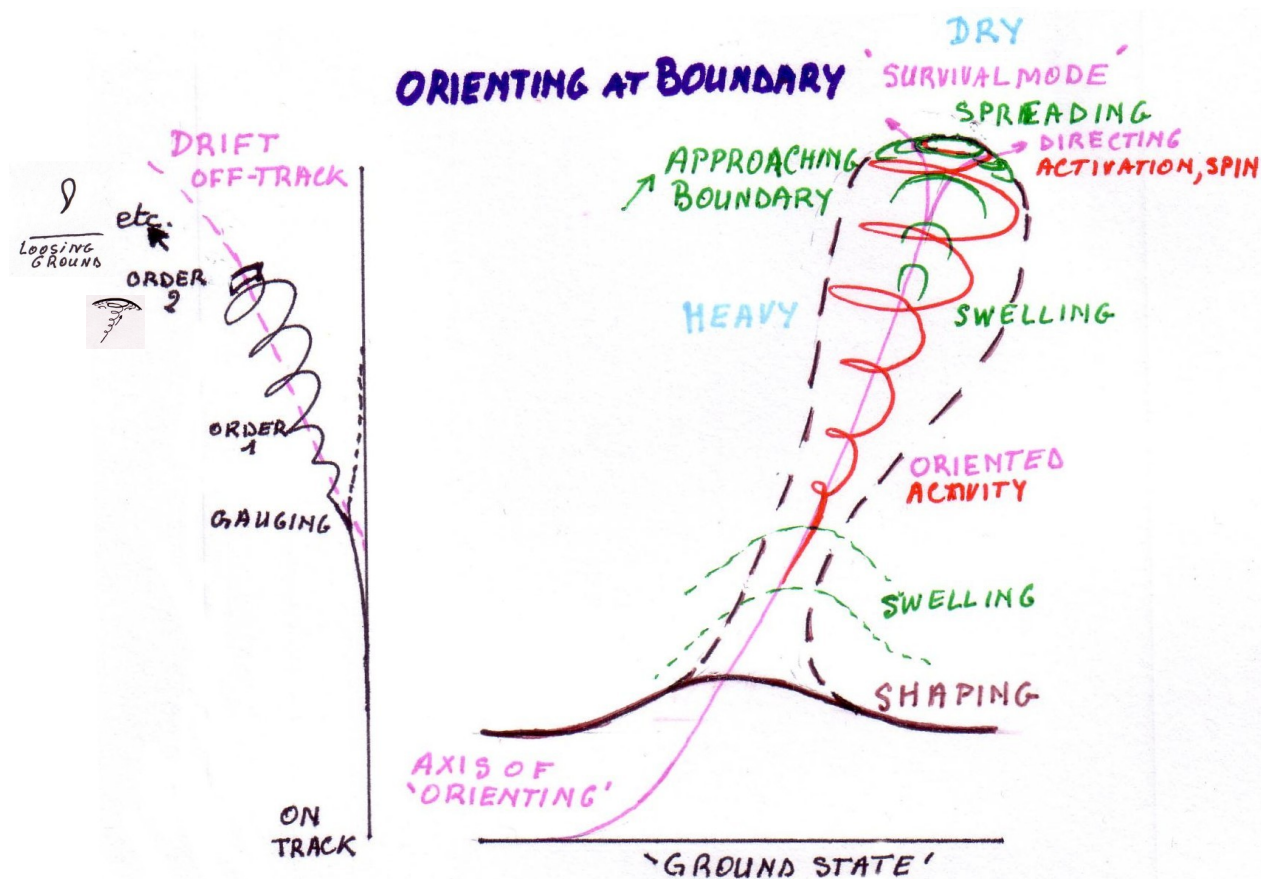


Figure 31. Flat view of non-deployed nexial-topology ('native gauging')

The spinning-up and axis (at an angle in the image) are beginning to separate, and are starting to 'deploy'. This does not exist in *deployed* perspectives that are conventionally framed (figure 30). The 'swelling' comes 'off the ground', and goes 'off track': it rises, bends, tends to twist and spread-at-boundary (or as boundaries). Viewed in directional terms figure 31 would represent a 'coming back on track'. Seen this way, it would be almost equivalent to figure 30, with only a 'pre-deployment phase', and the axis would 'eventually' be a 'drift'. Thus, to oversimplify the meaning of figure 31, we could split the image roughly in two, and consider it to display two conditions simultaneously: deployment (top) and non-deployment (bottom) (see icons in <PPT5\slide 28\ simplified comparison of 'early' and non-deployment>, and in <PPT5\slide 29\ orienting and notions of fluidity>). The deployed section in slide 29 (right) could then be interpreted in terms of *degrees or phases* of deployment of the gravity of the critical state. Although this could be useful in decision

making, it would miss my point. Without visual diRection to interpret the image, the swelling simply is a 'raised ground' that *is also* on track (remember the exact fixed shape, straight, curved line, or almost a drop, is irrelevant because this is *not* a timed series of shapes). In figure 31, the bottom of the axis is not asymptotic, and it images *both* 'going off track' and 'coming back on track', *without* inversion, reversal or 'returning to normal'. Words fail, here, as does the flat geometry of my images, to explain that this is because there is no diRection in the line, and so no logical sequence. As a double-timed series (2-directional), this would rather be like a self-limiting process: at the *approach* of Boundary, the nearer to the boundary state, the closer to 'being back on track'. I prefer the less differentiated expression 'auto-shaping', which does not involve any direction or orienting

Gauging 'turn-around':

Deployments do not quite 'turn back' to no-deployment

The notion of 'turn around', and the difference between the 'on track' ground and the asymptotic 'global drift' is the most difficult to explain or show with images; I realise that my pictures for it are not quite adequate. Neither is the use of capital letters, hyphen and quotes truly effective in denoting what I call 'global notions' (explained in <Ancient perspectivalism>: neither definite nor indefinite) and their non-local properties:

Figure 30 images the deployment *at* boundary and is *not* equivalent to figure 31, which images '*near* boundary'. The bottom of the axis, in figure 30, is asymptotic to a *raised* ground, and can be read as directional or bi-directional. Its lowest order is only an *approximation* of the nexial-topologic 'ground'. It appears to approach a 'track', *after* a modelling inversion (eg reversing a direction), but it is also never quite 'on track' (as in endless fine-tuning). The track, as an end of deployment, remains raised or bent (at an angle). In <PPT5\ slide 29> I separated the 2 directions of the line to reintegrate them into a single line that is directed 'up' (on the right side of the slide) to show 'deployment and redeployment'. The end track is an asymptote and not 'like the ground'. Being an asymptote, and having an inverted curve, it constitutes a 'drift', a going 'way off track', and the curving has undergone a 'turn-around'.

‘Turn-around’ between deployment and non-deployment (figure 32):

This ‘turn around’ is shown in yet another way in figure 32, in which some details are eliminated to compare the orienting of the deployed track and non-deployed ‘ground’. In this

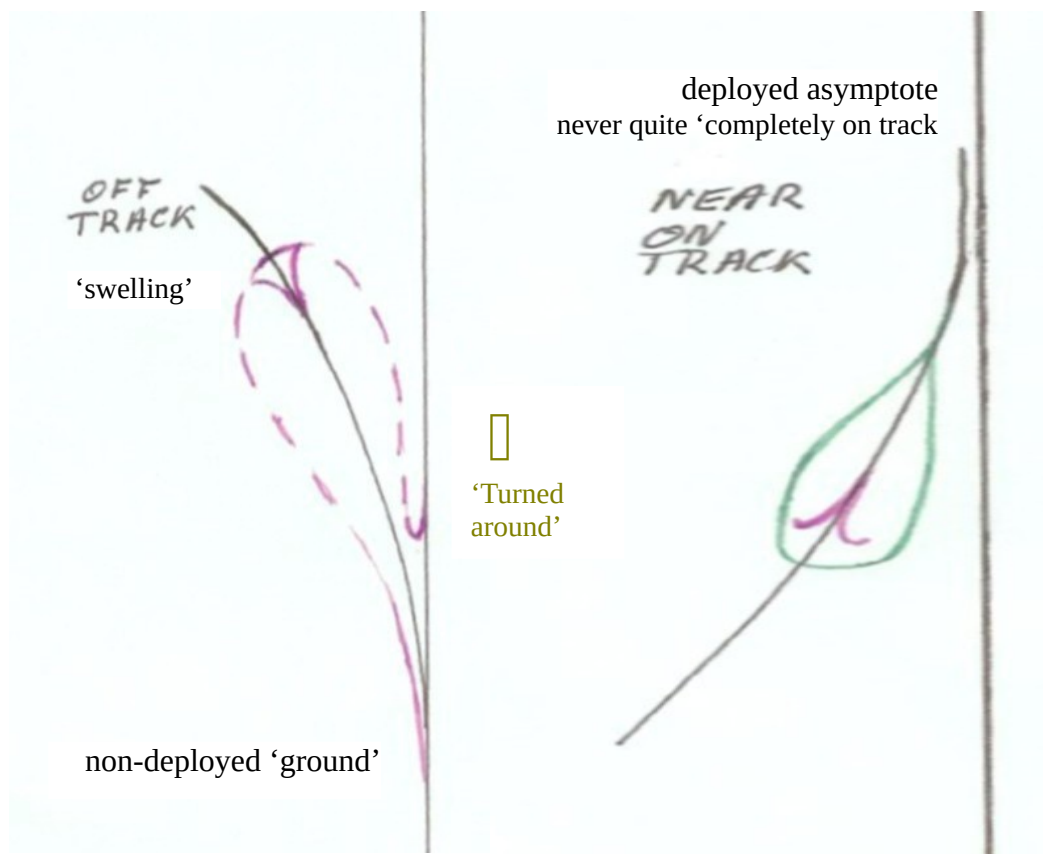


Figure 32: ‘Turn around’ in orienting

Deployments do not quite ‘turn back’ to no-deployment.

‘Orienting is a crucial question: deployment can lead to the critical and going off track.

image, the ‘ground’ of figure 31 and the ‘almost on track’ of figure 30 are both shown, in parallel, to highlight the changing shape that approaches them. On the left, the (nexial-topologic) ‘ground state’ images the non-deployed state of health, ‘unaffected ease’, or ‘proto-health’. This state is *not* a ‘baseline’ (established standard, stabilised normal to ‘return’ to, or ideal ‘responsivity’ or ‘inter-connectivity’), but a *non-deployment* that stays close ‘on track’, flexibly ‘shaping’, while keeping ‘integrity under operation’. The ‘swelling’ (the drop to the left of the ground) describes a ‘twisting’ related to dealing ‘locally’ with the

situation and its global (non-local) properties. This twisting ‘turns left’ because this corresponds to the empirical observations I made locally (the vertical axis entrains the physical left-brain). The right of figure 32 images ‘deployment’, in which, experimentally, I found that the right-brain is first entrained (before a unified down-projected redeployment occurs). With deployment and redeployments, come the endless small corrections of ‘fine-tuning’ in the many aspects, orchestrated like a plane’s autopilot that controls staying close to a *diRection* (as the brain-head-mind does). It never reaches the target and is only ever ‘advancing towards it’. It is also subject to critical instability (failure of this automatic directing by the brain-mind can be catastrophic, as medicine and psychology tell us). This is very different from the nexial-topologic ‘being on track’, which is non-oriented, and it is a poor rePresentation (topographic) of the nexial-topologic situation that ‘presents’ as ‘not reaching boundary’. The latter does not need to be ‘directed’ because conditions are rarely critical enough to require deployment (unfolded-enfolded) and the differentiated rePresentations of ‘reaching boundary’. The most practical way to express the ‘turn-around’ is this: In allowing the refining and many redeployments necessary to produce this written thesis, I learned many vocabularies and sophisticated definitions, to discern new generalisations and to represent topographically the very ‘small’ and ‘large’ (or ‘above’-‘below’, or inside-outside, etc.), in particular in sensation – in other words, I increased my mental capacity for manipulating ‘ ∞ -details’. This corresponds to the most commonly sought benefit of ‘pushing’ deployment: an increase in sensate refinement and mind power(s). Nevertheless, this has also been accompanied with a dire physical loss for daily life: my once better than normal eyes can no longer see detail (blurred sight), cannot distinguish colours (especially night vision), cannot read near, or discern clearly very far. Both of these are expressions of ‘fine tuning’ (the ‘endless’ and ‘scattering’), and both make living difficult. As a whole, they are ‘turned around’ compared to the ‘ease’ of the non-deployed ‘ground’.

As basic as 'stop': stop deployment

Ultimately, 'gauging' is a simple 'apprehending' or 'sensing' that is not based on iconic fixed images conventionalised according to senses. It does not make all the formalised distinctions, especially not the normal evaluations of 'health' and complex defining of boundaries in various forms. It is understood through basic 'global notions' (conventionally simple or primitive). In the clinical encounter, the patient's listing of 'bad' and 'good' symptoms (pains and improvements), and the clinician's valuing, filters, perspective, and differentiate vocabulary, as well as his/her own baseline state of health (regarding the normality of criticality, immune activation, and orientation of the brain), lead to biased evaluation and a drift that prevents a 'gauged' understanding of the global health state. A visit to ask questions and discuss 'where this is going' can lead to treatments that may alleviate pointedly some pain, compensate for dysfunctions, or improve subjective well being. They may, at the same time, be deeply counter-productive for the physical 'integrity under operations' (eg promoting water swelling and hidden wasting), and even disastrous in other places of the body or lifeworld, or in the long term. The fate of the average patient 'without diseases' is witness to that; examples include the medicated elderly fed with 'easy' foods, children under brain-activating diet, chronic patients, etc. Moreover, the gauging can only be done 'locally', by the patient whose situation is under scrutiny. An 'external' observer cannot do this gauging because such observing goes through the senses. Neither can an 'internal self' whose representations are 'sensate' (derived from sensory images). Sensory specialisation produces narrowed, limited, perspectival representations (whether divided or divided-reintegrated) that are indirect. They are also dual-polar and can only produce reconstructed motion, rather than a topologic animated imaging. For 'gauging' the topologic properties of a nexial 'health situation', therefore, sensory information and the valuing derived from them must be *given up while* observing (ignored, not attended mentally, constructed, or interpreted) because they interfere with an undifferentiated apprehension.

— *One cannot 'gauge' if engaged in any sort of 'valuing' —*

The best known way of doing this is to be ‘non-judgemental’, or to ‘not put a number value on things’. These limited ways do not prevent the anthropomorphic attributions and ‘physikemorphic’ projections, materialism, and other discerning specifications using general conventions. A more generic and more basic way to do it without these is to:

‘Stop what you are doing, take a deep breath, stop the mind’...
and sense what ‘the world’ is like from ‘here’.