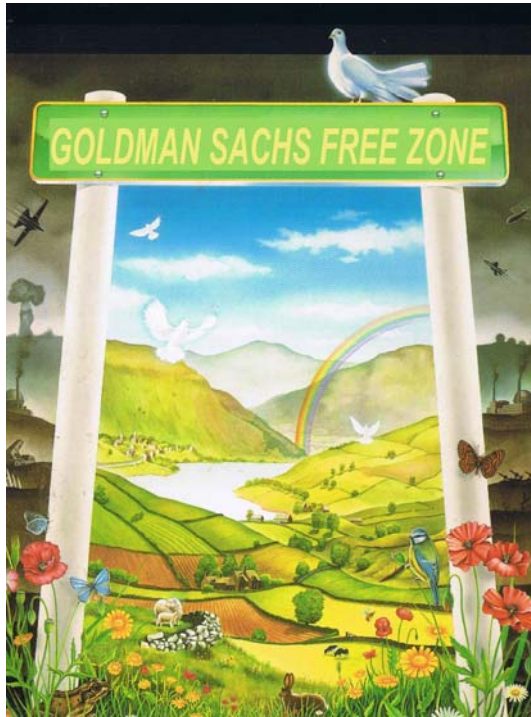


The Foundations of Structural Sociology¹ by William Shepherd

The philosophical anarchist Leopold Kohr believed that the problem of society was dimensional: ‘Whenever something is wrong something is too big’. Yet the truth of beauty and goodness is not a matter of size but of



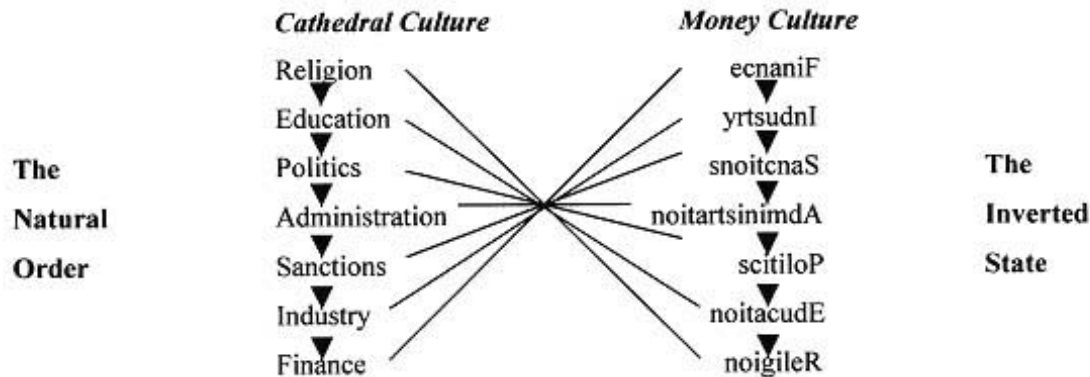
proportion. The dimensional issue in the overdeveloped world is primarily one of management and there are three types of problem not just the two described by Schumacher². The third type is the *uncircumvergent problem*: too big to solve...convergent problems...and too big to grapple with...divergent problems. However in a human scale environment the dimensional issues take on a different form. They are of a different nature.

As an analogy consider a gas turning into a liquid as the temperature is reduced. At the lower size levels the nature of the rules of dimensions are of a different nature. And indeed, when size levels fall even further there is another change of state analogous to the solidifying of a liquid.

Social morphology and Ivan Illich's notion³ of the vernacular *kohr* deal with the laws of dimensions in the socially liquid state. In structural sociology the political problem might be defined as bringing the overdeveloped world from a gaseous to a liquid state while simultaneously melting the many fragmented crystals of the underdeveloped world into a liquid state. Both steam and ice must become water.

This task would be extremely difficult for the laboratory technician if the gas and the solid were maintained at similar temperatures in the same vessel. Our new age samurai must do the same and isolate the gas and the solid from each other.

The energy transfers also need to be carefully controlled...both the liquefaction of the gas and the melting of the solid. Without a controlled heat exchange there will be a whole range of unpredictable intermediate conditions...superheating, super-cooling, boundary layers, turbulent fluid flows and so on...which can lead to undesirable side effects like chemical reactions, explosions or cracking of the containing vessel. Each of these intermediate conditions could with imagination be given its analogous condition in the social liquid.



In his 1947 classic *Human Ecology* Thomas Robertson explains how debt and usury subvert the *natural order* of society and create an *inverted state*...transforming a *Cathedral Culture* into a *Money Culture* by inverting the dominance between the religious and the financial mechanisms. In Robertson's model a society comprises seven

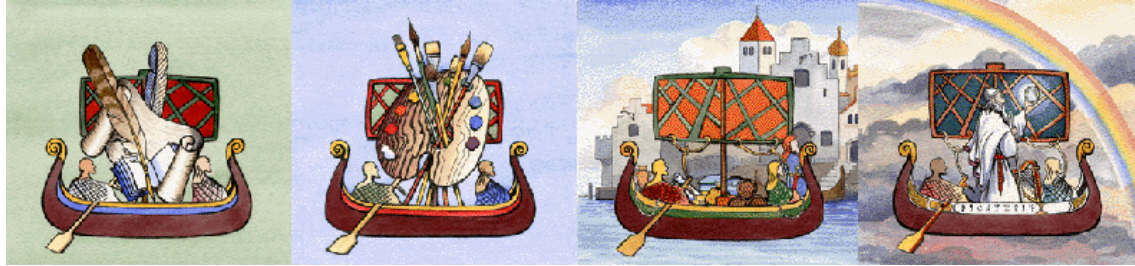
¹ This essay was first published in the summer of 2001 as a conference paper for the *Work & Human Fulfilment Workshop* at the *Radical Consultation*. This updated version was published on Guy Fawkes Day 2004 as *Appendix H* to William Shepherd's *English Economic Politics for a new century*. Scale modelling, destructive testing and safety factors are examples of engineering design principles applicable to the reformation and transformation of social systems.

² *Guide for the Perplexed* by E.F. Schumacher, *Problems*, Chapter 10.

³ *The Wisdom of Leopold Kohr* by Ivan Illich at http://www.smallisbeautiful.org/publications/illich_94.html.

major mechanisms. In a *Cathedral Culture* the religious mechanism establishes the values on which the educational, political, administrative, sanctions and industrial mechanisms are structured. Industry then, in its turn, calls forth from the financial mechanism the money required to fulfil the needs of society for goods and services. In a *Money Culture* the financial mechanism determines the behaviour of other mechanisms, controlling the environment in which the individual and his collective institutions must function.

The *societal inversion process* can be visualised as the buckling of a sheet of metal. It always happens suddenly but there are several ways to make it happen. A relatively slight relaxation of pressure on opposite sides can do it. A variation on this mode of inversion would be to fluctuate the pressure on the sides. A third way might be to apply a force at the point of major curvature in the centre of the metal sheet. This leads to several highly stressed intermediate conditions before the metal sheet finds a new stable state. One of the new states might be a full sine wave pattern instead of a half-sine wave. The pressure on the sides to burst their bounds will be extremely high. So too will be the compressive force on the metal itself.⁴



Each inversion mode could with imagination be given analogous conditions in society. The social upheaval would be frightening. During inversion tremendous stresses build up. These can be relieved in three ways. The sheet can snap in half, return to its earlier state or flip through into the *inverted state*.

Our sheet metal analogy implies little difference between the *natural order* and the *inverted state*. Stress levels return to their original state in both cases. The only difference is that layers that were in compression are now under tension and vice versa. Metals are unusual in having similar properties in tension and compression. Many materials do not behave this way. Concrete is a good example. It is very strong in compression but very weak under tension; which is why steel reinforcing bars are embedded in the concrete. Now imagine our metal sheet being replaced with a piece of marine ply or some other form of layered structure. How strong is the glue keeping the layers together? Class structures produce layered societies.

During the process of inversion the operant conditions, the local policies and the goal-seeking targets to which each of the seven mechanisms respond will themselves either become plastic...as in the buckling of a hinge in structural theory...or become distorted into a highly stressed and mechanically unstable condition. But if inversion takes place then two very different outcomes are possible. Look at the societal inversion diagram.

In the *inverted state* the letters spelling the name of each mechanism have been reversed and run from right to left in the best Leonardo *da Vinci* manner though for another purpose. This reversal indicates that in the *inverted state* not only has the hierarchy of dominance inverted...this is the societal inversion to which Robertson refers...but the goal of each mechanism has become the complete reverse of what it would be in the *natural order*.

This is the bad news. But consider the other possibility. Once the *inverted state* has destroyed the *natural order* and a *Money Culture* has elbowed aside the *Cathedral Culture* then the constituent institutions of society will be under great stress. Under the right conditions small changes in a subsystem can lead to a sudden shift in the structure of the whole system. In *The Intelligent Woman's Guide to Socialism and Capitalism* George Bernard Shaw asked rhetorically whether his young woman reader had seen a curiosity called the *Prince Rupert Drop*. This is a bead of glass in such a state of internal strain that if you break off the tiniest corner the whole bead flies violently to bits. Europe was like that in 1914 and a century later the whole world is in a similar state.

A new sociology is needed to model, predict and transform our world and transform it into one fit for purpose. *Structural Sociology*, integrated with the *Sacred Geometry* upon which the *Ancients* designed their worlds and the emergent new evolutionary economics might meet the needs of the new century and take forward the adventure of civilisation into the 22nd century.

⁴ Engineering theory failed to adequately describe this phenomenon in 1968 when I was examined for my *Cambridge University Tripos* in *Mechanical Sciences*. Buckminster Fuller found it necessary to expand the theoretical framework of applied mechanics to include a *Resultant* which was 'always at right angles' to the Newtonian *Action* and *Reaction*. One example is two trains crashing at 5 and 55 mph. The resultant...the sound wave...was greater with the high-speed collision.