

Harnessing Social Forces for the Common Goodⁱ

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Background

By the mid 1980s, almost half the British population knew that, if we are to survive as a species, if the planet as we know it is to survive in anything approaching its present form, the great engines of the “economy” have to be dismantledⁱⁱ. These engines include the defence system, the banking system, centralised manufacturing and distribution systems (especially the manufacture and use of cars), chemical- and energy-intensive agriculture, and much international trade and drugs-based “health” care. (These days, one would need to add the internet which now consumes more energy than the combined economies of France and Germany.) Those who were interviewed wanted these activities to be replaced by activities which would involve the reciprocal provision and receipt of personal services. At the same time, researchersⁱⁱⁱ had shown that quality of life is hardly at all dependent on material possessions of the kind we spend so much time working for, fighting over, and distributing. And many people had become aware, through such organisations as “The Other Economic Summit” (TOES), that the international trade system orchestrated by the G6/20, the World Bank, and the IMF, was deeply destructive of the lives of people living in “Third World” countries.

By that time, too, the work of very many people, working at all levels from direct involvement in improving the quality of the built environment through to the conduct of important research, were being financed through a government-sponsored “Job Creation” programme. Attendance at University was free. And what might be called “the academic way of life” had started to provide a model of an alternative, more leisured and communally dedicated, way of life.

Two things were missing. One was an explicit image of an alternative society: What would a society which had abolished all the destructive and unethical activities listed above look like? How would one give meaning to people’s lives under such circumstances? The other was any kind of image of how one would *run* a society in the long-term public interest as distinct from the interests of dominators. Through what kind of process?

“Communism” having apparently been discredited, there seemed to be no alternative to the widely distrusted “market mechanism” grounded in Capitalism.

Few realised that, in all countries of the EEC, the spending of something approaching 75% of GNP^{iv} was, and is, in some sense under the control of Government, thus placing an enormous

burden on the monitoring and regulative powers of small, centralised, “representative” assemblies.

Then came the collapse of the Berlin wall and the imposition (via the World Bank and IMF) of the so-called market mechanism ... so-called neo-liberalism ... (which amounted to an alternative centralised control mechanism) on the countries of Eastern Europe and many so-called “developing countries” via so-called “structural adjustment programmes”. More recently, we have witnessed the extraordinary lengths the international banking community is willing to go to in Greece^v. Those who were less willing to comply with this demand, nominally based on secure economic principles, were confronted by escalating threats and ultimately in what are now recognised as the externally engineered coups backed by the military in countries ranging from Thailand and Indonesia through South Africa to the countries of South America ... such as Chile. The creation of “national debts” (consisting of entirely fictitious money which did not exist before but instead created via the very lever [computer click] entry stating that a “loan” had been made) by the IMF enabled the (private) owners of the Federal Reserve Banks to own the world. As we are witnessing so widely today “defaulters” were, and are, required to sell their assets to pay interest and repay “capital”. These are then acquired by the banks or by other corporations largely owned by the owners of the banks^{vi}. If you had not assigned the rights to your property directly to the banks to secure your mortgage you found that your government had done it for you^{vii}. Not content with all this, the 18 private banks who constitute the “Federal Reserve Bank” arranged for the World Trade Organisation and Friedmanite henchmen installed in high places to push through such things as the European Constitution (re-named “Lisbon Treaty”) whereby all countries of the EU and others^{viii} have agreed, among other things, to privatise everything (explicitly including health services, education, and defence) “to the maximum extent possible”.

So there one has it. Very many people can see that the way we live in the West ... and the way vast millions more in places like China and India want to live ... is so destructive of our habitat that it is likely to lead to our extinction as a species. But no one can see how to stop it^{ix}.

So that is the context for what I have to say. Numerous organisations – such as the New Economics Foundation – treated the problem as an “economic” problem when it is in fact a public management problem. (Note that I did not say it is a “political” problem, for to do so would be diversionary.) It is a *scientific* problem. More precisely, as I shall argue more fully below, it is a problem for sociocyberneticians.

There is one more, deadly, component to add to this picture. In 1991, but reprinted in 2005, Bookchin^x had shown that this drift toward centralisation, hierarchy, and the creation of endless senseless work destructive of habitat has been proceeding inexorably, despite widespread outcries and demonstrations of the viability of alternatives, almost since the beginning of time. It is nothing new.

There are many lessons to be drawn from all this. There have been many examples of the viability of alternative ways of doing things. Perhaps the best characterisation of what they have in common is that they are *organic* in the sense that they have many interacting feedback and learning loops. The ones we know most about have been implemented by outstanding individuals in exceptional circumstances. The problem is that, one after another, they have been destroyed by the onward march of centralisation, the creation of endless

senseless work to constitute hierarchy and compel all, whatever their personal judgment, to contribute to that destructive work at huge costs to themselves and their communities.

But there have been, and still are, other communities which are organically organised but about which we know very little and about which we not even have appropriate ways of thinking. These comprise the pre-literate tribes that regularly come to light in such places as the Himalaya and the Amazon basin. Among other things, they are characterised by having what Bookchin described as “organic” social organisations. Yet, one after another, they are deliberately destroyed, often with a sense of outrage, by the “civilised” cultures who come into contact with them. The first step is to demand that they have “leaders” ... “chiefs” ... who will collect and remit taxes from these previously non-monetarised societies and submit them to those who now claim, as a result of some fraudulent title cooked up in a far away place, to own the land. But the vehemence with which the World Bank will attack them, insist on building roads, and sending in convoys of trucks to destroy their economies beggars belief^{xi}.

Toward a sociocybernetic perspective.

So. How to move forward?

We have unexpectedly gained some insights into the answers to this question in an unlikely place, that is, in the course of our studies of the educational system^{xii}.

We first showed that the vast majority of parents, pupils, employers and other adults wanted the educational system to nurture the wide variety of talents which different pupils possess. Then we showed that workplaces and society require this diversity of talents.

Then we showed that few schools set out to nurture these talents. Instead they arrange pupils in a single hierarchy of “ability” based on temporary mastery of out of date, and rapidly to be forgotten, “knowledge” which is barely relevant to their needs.

There are many reasons for this. These include the fact that there are no well established frameworks for thinking about multiple talents or how to nurture them. There is no way of giving pupils credit for possessing these talents so that they can point to them when the time comes to scramble for a job ... and no way of giving teachers credit for having nurtured them in the course of performance appraisal exercises.

But the most important reason for their neglect is that schools actually exist, not really to educate, but mainly to perform the previously mentioned sociological function of arranging pupils in a hierarchy which contributes to, and legitimises, the hierarchical basis on which society is organised.

Despite the importance of these insights, the most important lesson we ourselves learned in the course of this work was that these various constraints do not operate independently but form an interlocking network, or system, of social forces. The effect of this is that one cannot change any one part on its own without its effect either being neutralised by the reactions of the rest of the system or producing counterintuitive, and usually counterproductive, effects elsewhere.

Two components in this network turned out to merit particular attention.

One has to do with governance, especially the view that systemic change can only be introduced via centralised system-wide command. This expresses itself in the belief that politicians should tell public servants what to do and that the latter's job is to follow those commands.

The other has to do with a network of forces which collectively result in inexorable progress toward a hierarchical social structure which depends on the creation of endless senseless work to constitute, legitimise, and sustain hierarchy. It is this senseless work that is destroying our habitat.

Creating a design for a new *system* of governance – an alternative to our fraudulent and dysfunctional “democratic” system and finding ways to intervene in the network of social forces which seem to have the future of mankind and the planet in their grip is therefore crucial to moving forward.

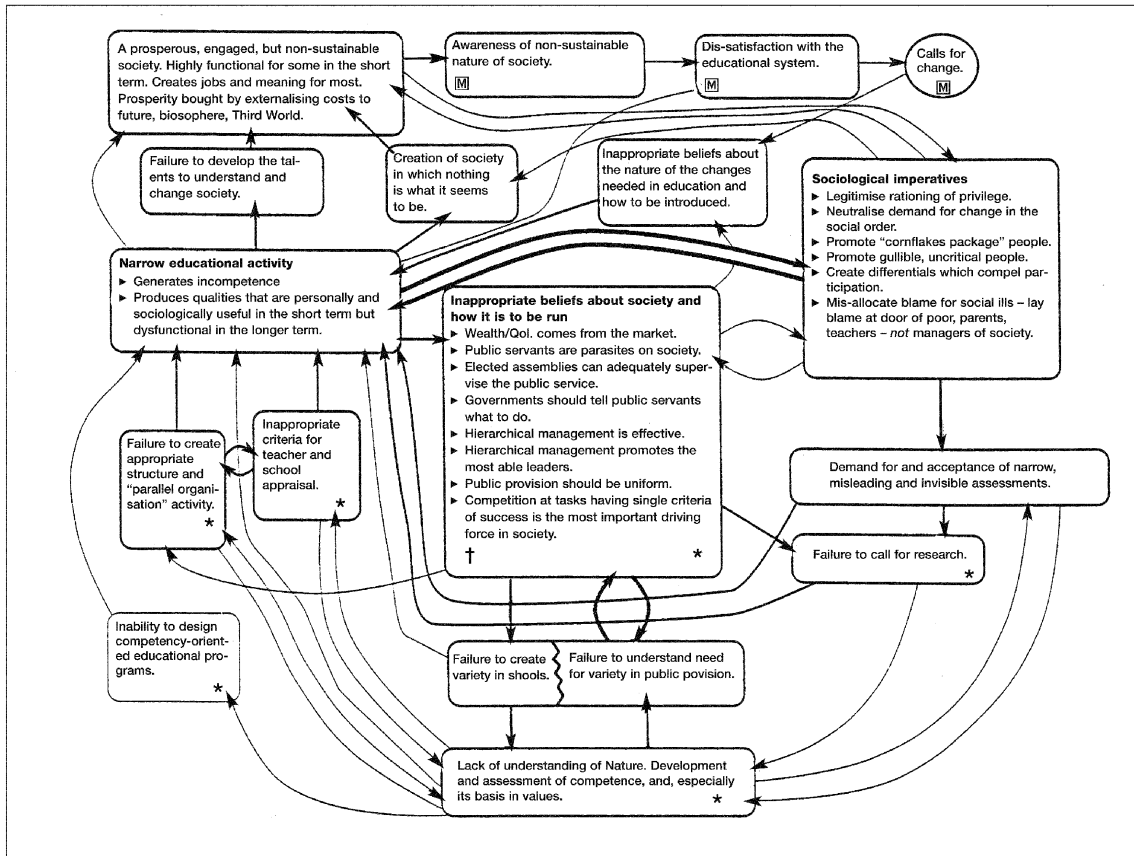
My claim is, therefore, that unless we concentrate explicitly and intensively on these two tasks our work will have, at best, short-term, palliative, effects.

In the remainder of this paper, I will expand on what we ourselves have learned about some of these things and indicate some of the research required to take things forward.

Mapping, measuring, and harnessing the network of social forces which control the “educational” system ... and have the future of humankind and the planet in their grip.

A rough systemogram depicting the network of social forces which deflect the so-called educational system from its manifest goals is reproduced in Figure 1. Among other things, it shows why we believe the two sub-systems which have just been mentioned are of particular importance.

The first of these sub systems comprises the formal governance (ie sociocybernetic) system society deploys in its attempt to manage many of its components, including the educational system. Some, mainly dysfunctional, features of this sub-system are listed in the central box. This governance system operates in such a way as to, among other things, stifle educators' attempts to cater for, nurture, and recognise the huge range of talents that are available in the student body^{xiii} and, instead, forces the educational sub-system as a whole to arrange students in what is essentially a single-factor hierarchy of “ability”. This seemingly unarguable (but actually manufactured^{xiv}) hierarchy then contributes to, and adds legitimacy to, the hierarchical arrangement of society. The current governance system also stifles the variety, experimentation, and learning which would be required for any form of evolution worthy of the name to take place in the educational system itself.



*Intervention in these cells would help change the nature of the qualities nurtured and rewarded in the system. Motives which could be harnessed to do this are marked M.

†These need to be replaced by acceptance of the need to make managed economies work – to find way of giving effect to information concerning the public long-term interest, the need to explicitly create variety and information on the personal and social consequences of the options, and to find ways of holding public servants accountable for, and getting them to at in, the long-term public interest. This means systematic, broadly based, evaluation and participative democracy.

Figure 1
Feedback Loops Driving Down Quality of Education

An enlargeable version of this diagram is available at:
<http://eyeonsociety.co.uk/resources/Figure%201%20%28formerly%2023.1%29%20rev.pdf>

The second sub-system playing a major role in deflecting the educational system from its goals is the wider network of social forces that has already been mentioned although it has generally been overlooked by researchers. This is represented in the right hand box, labelled “Sociological Imperatives”, in Figure 1.

It turns out that this sub-system also plays a major, if not the major, role in determining what happens in society as a whole. As mentioned above, its importance has been heavily underlined by Bookchin^{xv}.

What Bookchin argued is that the sociological forces pushing toward the centralised, command-and-control-oriented, management systems shown in the central box in Figure 1 have been exerting their influence inexorably over endless millennia, over-riding numerous protests, documentation of the ecologically and humanly destructive nature of current ways of doing things, and demonstrations of the desirability and, indeed, viability of alternative ways of doing things.

Bookchin argues that the development and perpetuation of this hierarchical system depends above all on the creation of endless senseless work (such as building pyramids, manufacturing, marketing, and distributing cars, junk foods, junk toys, junk “defence” systems, and junk insurance systems). The hierarchical system that results constitutes, legitimises, and compels participation in, itself. People participate in the self- and community-destructive work of which modern society is largely composed in order to avoid the degrading and dehumanising treatments meted out to those who arrive “at the bottom of the heap”. Contrary to one of the self-reinforcing myths created by the system, the goods and services produced contribute little to quality of life^{xvi}. But the senseless work on which it depends *does* destroy our habitat – and at an exponentially increasing rate at that. It is thus this senseless work which (combined with other things) is on the verge of eliminating homo-sapiens as a species, carrying the planet as we know it with us.

Bookchin simply attributes all this to a “self-organising” process. But such an “explanation” is altogether too facile. If we are really to explain it, it will be necessary to map and understand the network of mutually supportive and recursive socio-cybernetic forces involved.

This (socio-cybernetic) formulation of what needs to be done to move forward has been challenged by some of my colleagues, especially those who follow Beer’s *Viable Systems Model*^{xvii} or the *General Systems Theory* of Bertalanffy^{xviii}. It is argued that a cybernetic framework is too mechanical – too lacking in the openness characteristic of organic systems – and thus both an outcome of, and contributor to, the mindset that created the problem in the first place.

But before we get into a discussion of this particular issue, it is important to still further underline the importance of the problem by noting that what we have said means that, in contrast to the autopoietic, self-extending, network of processes which have promoted life and eventuated in Gaia herself (or perhaps the reverse), what we seem to be observing here is a network of processes which collectively amount to nothing less than an autopoietic (viz self-elaborating, self-reproducing, and self-extending) process destined to *destroy* Gaia – that is to say, life – itself.

Our conclusion is, therefore, that, regardless of the exact basis on which progress might be made, it is of the utmost importance to find ways of conceptualising, mapping, and harnessing the social forces involved.

At this point we must say something about Cybernetics.

Cybernetics is the study of the (largely invisible) guidance and control (governance) systems of animals and machines ... and the design of better ones. So *sociocybernetics* becomes the study of the hidden network of feedback mechanisms which control the operation of society (and its components) ... and the design of better ones. Note that *most* feedback mechanisms in organisms are *not* hierarchical. Indeed, many of them remain deeply mysterious.

What Figure 1 says is that the operation of the “educational” system is controlled by a network of invisible, mutually reinforcing, feedback loops or forces. These collectively form an autopoietic social system with multiple interacting feedback loops. One cannot change any one part on its own without the effect of that change either being cancelled by the operation

of the rest of the system or showing up as counterintuitive, and usually counterproductive, effects elsewhere. So, essentially, if we are to improve on things as they are, we must find nodes through which effective exogenous change can be introduced. To do this, it will be necessary to transform systemograms (such as those shown in Figure 1) into *Dynamic Systems Models* such as those illustrated in the work of Forrester, Meadows et al. (2004, 2008)^{xix}, STELLA^{xx}, and Harich (2010).

By the time Figure 1 was published^{xxi} it had become clear that the widely shared image of – and, indeed, the actual operation of – the central “governance” sub-system within which the “educational” system operates (ie the box in the centre of Figure 1) needed to be re-designed along more organic lines. In saying that it needs to be more “organic” we mean to indicate that it needs to incorporate more, and especially more non-hierarchical, feedback loops and arrangements for promoting pervasive (non centrally directed) innovation.

The main contribution of my *New Wealth of Nations* consisted in generating an alternative design for this governance box. Although the discussion of this actually occupied about half the book, the results were summarised in Chapter 19^{xxii} ^{xxiii} and further condensed into the diagrams below.

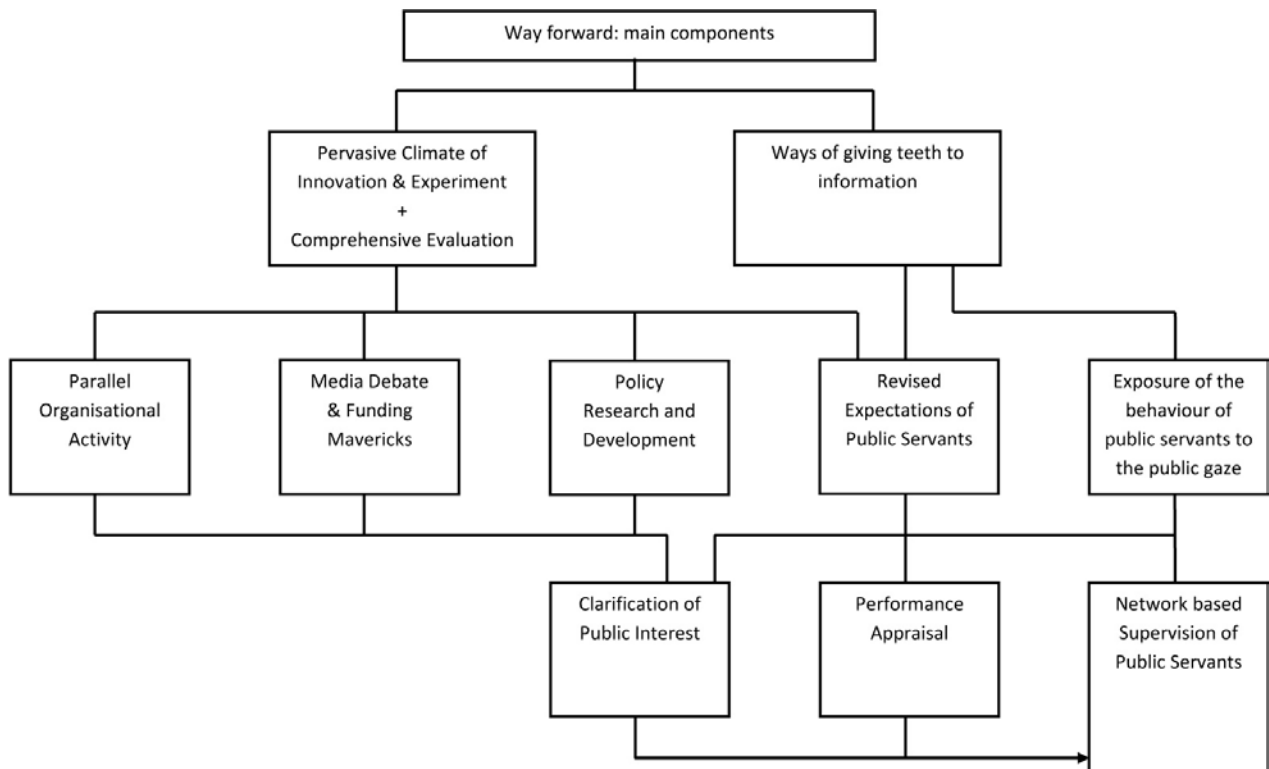


Figure 2: Main components in Way Forward.

An enlargeable version of this diagram is available at:
<http://eyeonsociety.co.uk/resources/diagram25-1.pdf>

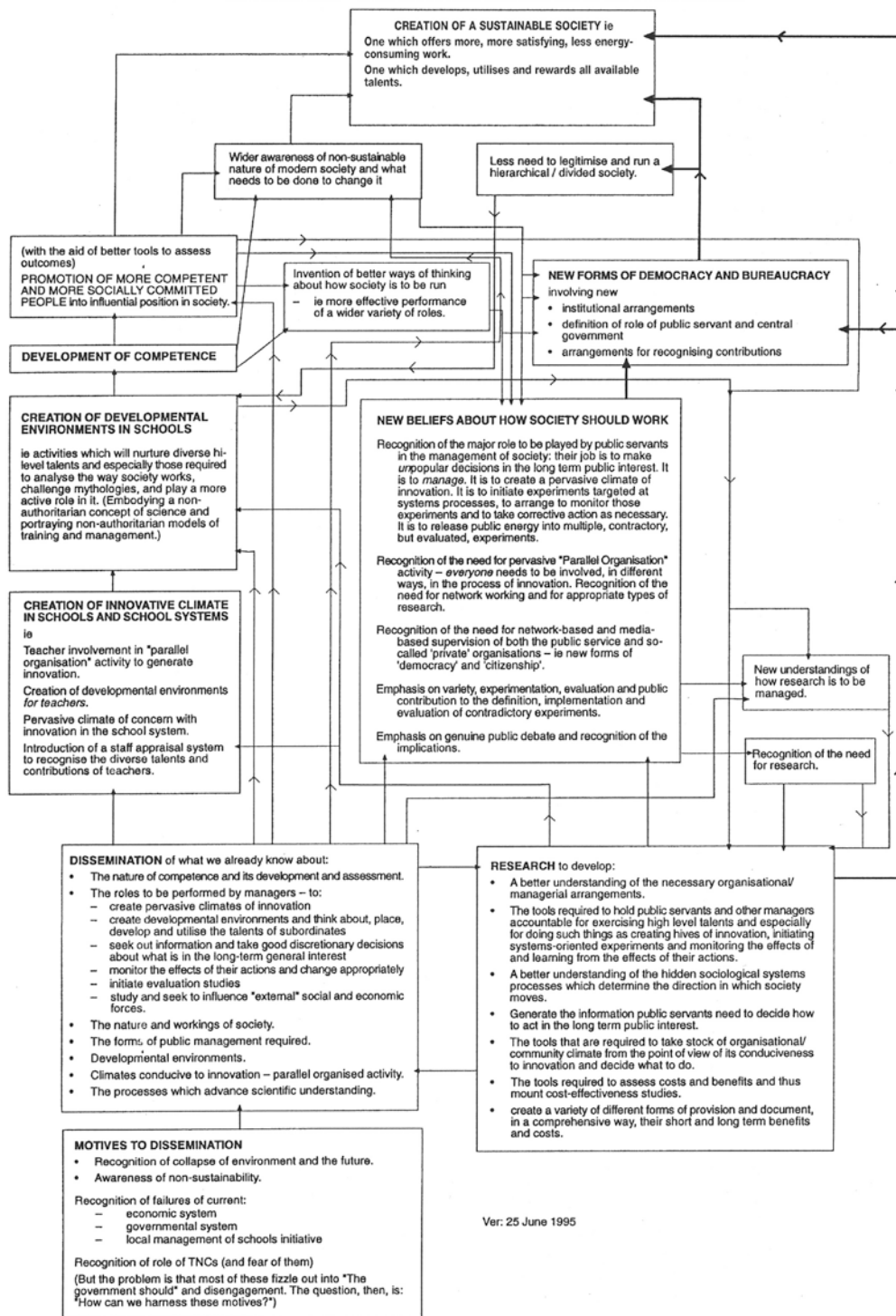


Figure 3
Public Management Arrangements for a Sustainable Society.

An enlargeable version of this diagram is available at:
<http://eyeesociety.co.uk/resources/Figure%203%20%28formerly%20Diagram%2020.5%29.pdf>

It would not be possible to fully unpack these diagrams here: that would require half a book!

However, if we consider the developments that would be needed to get the educational system to nurture and credential the talents of all our children one finds that it would be necessary to undertake a huge amount of research into the nature of multiple talents and how they are to be nurtured and recognised. One would then have to create, in each community, a variety of distinctive educational programmes, document the short and long-term consequences of each (what is good for the individual and/or community in the short-term may have negative long-term consequences) and to feed that information to the public so that they can make informed choices between them.

Generalising and expanding these observations, it is clear that we need to change in the way we think about the role of public servants.

It is their job to:

- Create variety.
- Arrange for *comprehensive evaluation* of the short and long-term, personal and social, desired and undesired, desirable and undesirable, consequences of each of the options.
- Feed that information to the public so that they can make informed choices between the options.
- Make arrangements to involve many more people (especially marginalised groups) in generating the options.
- Create a climate of innovation and *systems learning and action*.

Put another way, we need to expect public servants to:

- Initiate information-collection (especially on the operation of systems processes).
- Co-ordinate and sift all available information for good ideas.
- Act on that information, in an innovative way (i.e. via comprehensively evaluated experiments followed by further experiments based on that learning), in the long-term public interest.

To get public servants to do these things it will be necessary to introduce:

- *A New Staff-Appraisal System*: To give people credit for innovatory activity in the long-term public interest.
- *Network-Based Working Arrangements*: To draw public servants' attention to what is happening in areas which impinge on their own work.
- *“Parallel Organisation” Activity^{xxiv}*: To create a pervasive climate of innovation within the public service.
- *Better Arrangements to Undertake more Systematic Evaluations of Policy and especially the (systemic) reasons for failure ...and then initiate a further cycle of experimentation*.
- *A New Interface between Public Servants and the Public*: To make it easier for the public to obtain provision suited to their particular needs and make it easier for them to influence provision.
- *A New Supervisory Structure*: To help to ensure that public servants seek out, and act on, information, in an innovatory way (ie through appropriate arrangements for experimentation, evaluation and learning), in the long-term public interest.

The last two requirements amount to new forms of democracy and demand new concepts of citizenship. Note, in particular, the disappearance of multi-purpose assemblies of elected representatives who know little about most of the issues on which they are taking decisions ... assemblies which both Adam Smith and John Stuart Mill termed “committees of ignoramuses”. As Mill noted, the functions of such assemblies are “not to govern – a task for which they are eminently unsuited – but to make visible to everyone who did everything and by whose default anything was left undone”. If that is their function there is clearly no need for the kind of multi-purpose assembly, controlling the spending of some 75% of GNP, to which we have become accustomed.

As already mentioned, since my *New Wealth of Nations: A New Enquiry into the Nature and Origins of the Wealth of Nations and The Societal Learning Arrangements Needed for a Sustainable Society* was published, Bookchin’s work has underlined that we had seriously underestimated the importance of studying the network of social forces hinted at in the box to the right of centre in Figure 1 (ie the box labelled “sociological demands”). It is now clear that it is this sub-system that has the survival of our species and planet in its grip.

Our 1995 map of the forces operating in this system is reproduced in the next Figure.

Diagram 20.6

Feedback loops perpetuating non-sustainable society

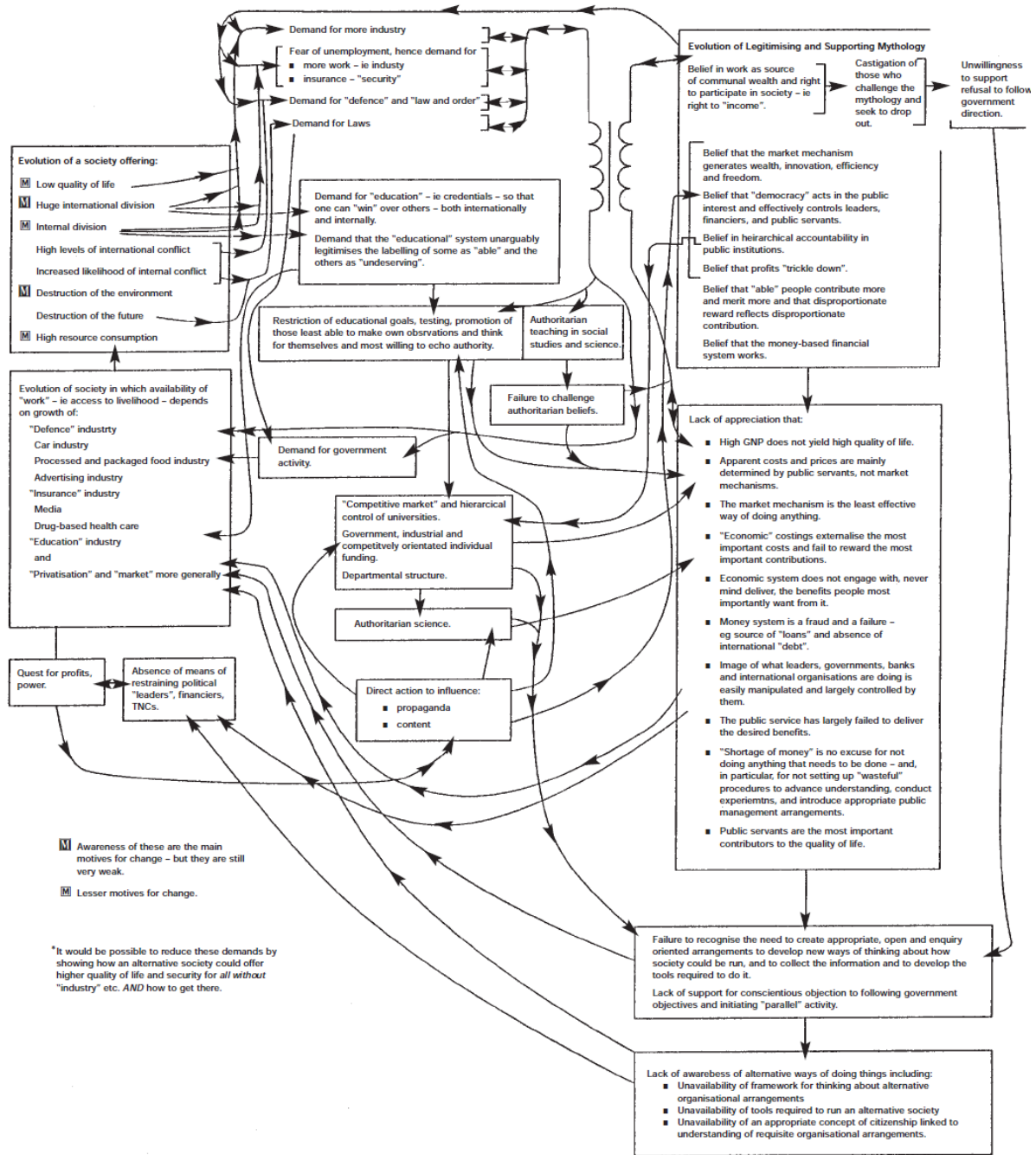


Figure 4
Feedback Loops Perpetuating a Non Sustainable Society.

An enlargeable version of this diagram is available at:
<http://www.eyesociety.co.uk/resources/diagram%2020.6.pdf>

It is now quite clear that it is vital to re-draw and complete this map using the tools perhaps best illustrated in the next diagram.

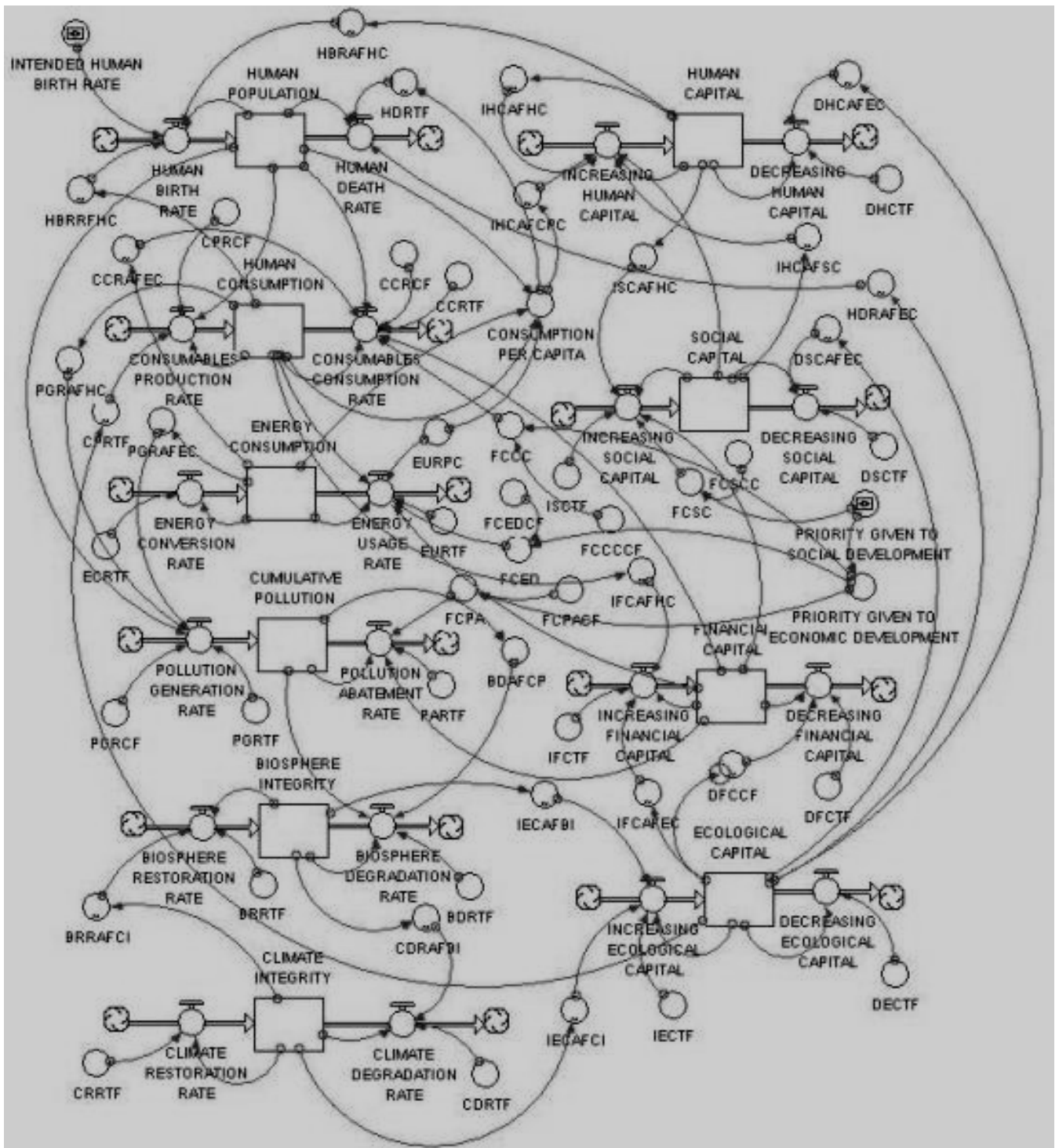


Figure 5
STELLA World Model
 STELLA Flow Diagram of SDSIM Version 1.0
 RECTANGLES are LEVELS (cumulatives), VALVES are RATES (flows),
 CIRCLES are variables or constants used to formulate the RATES as functions of the LEVELS
 at TIME = t for the iteration t+dt, where t=1950, 1951, 2199, 2200 and dt=1

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An enlargeable version of this diagram is available at:
http://www.eyesociety.co.uk/resources/STELLA_Flow_Diagram_of_SDSIM_Version_1.pdf

That said, it is of the greatest importance to note that systemograms even as good as this one fail to indicate the relative strength or importance of the various feedback loops involved ... that is, they fail to indicate the relative strength of the forces involved in a manner analogous to that which enabled Forrester and Meadows to calculate the probable effects of alternative interventions in the network of physical, biological, and economic feedback loops they mapped as a basis for the predictions made in *Limits to Growth*.

Mapping the network of *social* forces involved – and transforming it into a genuine socio-cybernetic/dynamic systems model (as distinct from a mere systemogram) – would be an enormous task. It certainly could not be accomplished without substantial funding. Yet the importance of doing it *well* cannot be underlined too strongly. Reliance on incomplete models has, in the past, led to grave policy errors. An incomplete and misleading map could thus be *worse* than useless. It follows that bringing such a project into existence on a well-funded basis would be one of the most important things that RC51 could possibly do.

Yet, before concluding, it is vital to underline one more thing.

Having underlined the importance of the dynamic systems modelling approach developed by Forrester and deployed in the “Club of Rome” report, it has to be noted that the failure of that report was precisely its failure to map the *social* forces which result in the decisions which determine what the outcome of the interactions they map will be. They are *external* to their model.

Forrester, Meadows, and others, weakly conclude that we “lack the political will” to enact the policies to which their research points. This statement actually highlights a very important limitation of their study. It tells us that the authors have entirely failed to map the network of social forces which result in arrangements which have, for millennia, been recognised as running counter to the interests of both mankind and Gaia continuing to be implemented on an ever more destructive scale. The implicit assumption on which their conclusion is based is that *someone, some authority, some world government*, should command the necessary actions. One of the things I hope I have shown in this article is that faith in the efficacy of command and control arrangements lies at the very heart of many, if not most, of our problems. What I hope I have shown is that Adam Smith was right to argue that what we most need is a *learning society* – a society which will experiment, innovate, learn, and evolve without central direction. On the other hand his suggestion that the “market mechanism” might provide a basis on which such a society might be built is wide of the mark. It does not and cannot work. So we still urgently need a new image of the arrangements - the socio-cybernetic (governance) system – on which a public management system which will act in an innovatory and evolutionary way in the long-term public and planetary interest might be built. And we need to understand, map, and harness the network of social forces which seem to have our future, and that of the planet, in their grip.

Acknowledgements

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ENDNOTES

- ⁱ This is an edited version of Raven (2013).
- ⁱⁱ See Raven (1995) for a summary.
- ⁱⁱⁱ Robert E Lane (1991) and, more recently, Marks et al (2006).
- ^{iv} In all EU countries about 45% of GNP is spent by national governments. This does not include local authority expenditure or the expenditure of nationalised industries or Quangos. When these are included the figure comes to about 65%. This still does not include control over much other spending ... such as requiring firms to invest in pension schemes, people to insure their cars, firms to install safety equipment, individuals and organisations to prepare tax returns, and individuals to pay for the “training programmes” necessary to acquire certificates of competence. When these are included, the figures suggest that about 75% is “in some sense” under government control.
- ^v Raven (2015).
- ^{vi} This process is more fully documented in Raven (1995,2014, and 2015).
- ^{vii} George (2008, 2010), Klein (2007), Roberts (1984).
- ^{viii} Under the current Russian constitution it is a treasonable offence to so much as question this process.
- ^{ix} It is widely recognised that our current “democratic” processes simply do not work ... or, at least, are in the grip of “international capitalism”. But, as the work of the *Committee for the Political Economy of the Good Society* has shown, no one has been able to come up with an alternative design for the institutional

arrangements that are required to run society in the long-term public interest.

^x Bookchin (2005), but summarised in Raven (2009)

^{xi} See, eg, two Norbert-Hodge DVDs on Ladakh.

^{xii} See Raven (1994) for a summary.

^{xiii} See Raven (1994).

^{xiv} See Raven (2008).

^{xv} Bookchin (1991/2005).

^{xvi} See Robert E Lane (1991), Marks et al (2006).

^{xvii} Beer (1975).

^{xviii} Bertalanffy (1968).

^{xix} see <http://www.eyesociety.co.uk/resources/forrester2.pdf>

^{xx} http://www.eyesociety.co.uk/resources/STELLA_Flow_Diagram_of_SDSIM_Version_1.pdf

^{xxi} in Raven, (1995)

^{xxii} <http://www.eyesociety.co.uk/resources/NWNChap19.pdf>

^{xxiii} The importance of re-visiting this issue has recently been underlined by a special issue (2011) of *The Good Society*, vol. 20, no 2 and by a paper presented by Bernd Hornung at the 2012 meeting of Research Committee 51 (Sociocybernetics) of the International Sociological Association. Hornung presented data from the Marburg hospital system that clearly showed that traditional Weberian images of effective bureaucratic management are entirely inappropriate in modern society. However no alternative images of how to deal with complexity, technical innovation, and mushrooming “demand” are available. (As shown in *The New Wealth of Nation*, myths of management through the marketplace are largely without foundation.)

^{xxiv} “Parallel Organisation Activity” is a phrase coined by Rosabeth Kanter (1985) to characterize the non-hierarchical, fluid work-group based, activity which goes on alongside normal hierarchical activity in innovative organisations.