Society, Economics and The Human Condition

by

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Abstract

A distinction is drawn between:

- Social engineering (SE): ideologically-influenced laws, rules, behaviours and practices of some governments and politicians, which may bear differentially upon sectors within a nation, and which organize, manage and require social behaviour in accord with some ideology;
- Socioeconomic systems engineering (SeSE), concerned with the economics of resourcing complex, interacting social systems, including globalization; and…
- Societal systems engineering (SSE), using systems thinking, systems science and systems methods to address and enhance quality of life and the human condition in societies.

Associated 'measures' are those of:

- human capital: an aggregate view of the human acting within economies; competencies, knowledge, social and personality attributes, including creativity, embodied in the ability to perform labour so as to produce economic value.
- social capital, the expected collective or economic benefits derived from the preferential treatment and cooperation between individuals and groups.
- the human condition, which encompasses the unique and believed to be inescapable features of being human in a social, cultural, and personal context: quality of life; search for purpose; curiosity; thriving on new information; meaning; loneliness; freedom, and ultimate mortality

The three complementary social practices are explored, using both modern and ancient Egyptian history as comparative backdrops to their origins, merits and limitations. Social engineering is the practice of politicians and governments, with competing ideologies currently aiming (in the West) towards greater liberalization. Socioeconomic systems engineering, resourcing viable societies, may be more scientifically based, but faces enormous complexity and risk with globalization. We humans have hardly evolved biologically over the last 80,000+ years, and we are not evolved to live in cities, which are threatening both the quality of life and—particularly—the human condition: these are the concerns of societal systems engineering. The three social practices can be seen as aspects of something greater; moreover, actions in line with each discipline must inevitably impact upon the others. The question arises: what is this something greater?

Introduction

Investigative Methodology

While humans, *homo sapiens*, appear not to have evolved biologically over the last few thousand years, the societies they form and within which they live evolved significantly,

such that societies in, say, western Europe or the Americas bear little relationship to societies of one hundred or one thousand years ago.

Examining social evolution is fraught, not only with practical difficulties but with sensitivities to politics, economic theories, social psychology, subjective/partisan attitudes, etc. The approach adopted in this study is to establish a baseline as reference, one where little or no social evolution had taken place, with which to compare and contrast the evolved social conditions in a modern nation state.

Ancient Egypt is selected as the baseline: it was the first ever nation state, and the first national societies arose there and flourished before there were any politics, economics, theology, sociology, etc. Ancient Egypt saw a sequence with three principal kingdoms arise, interspersed by intermediate periods of relative chaos and societal breakdown (Clayton, 1994.) The so-called kingdoms were:

- The Old Kingdom, 2686-2181BC
- The Middle Kingdom, 2040-1782BC
- The New Kingdom, 1570-1070BC

The Old Kingdom, or Pyramid Age, developed in relative isolation from external influences, and can be perceived as a natural experiment in human social development under the 'controlled conditions' offered by the benign-yet-isolated environment of the Nile Valley at that time. By the time of the New Kingdom, however, Egypt was an international state, with exports and imports to and from the Levant and beyond, and was engaged in irregular armed conflict with other nations in the region. Over the period of the three kingdoms, Egyptian society may be seen as having matured or individuated (Rice, 1990) much as an individual matures from youth to adulthood.

Using the nation-state of ancient Egypt as a baseline for comparison, we may seek to contrast modern evolved social engineering, socioeconomic systems engineering and societal systems engineering with their ancient, supposedly naïve equivalents. Since modern nations vary considerably one from another, it is helpful to focus on a particular national example: the so-called parliamentary democracy that has evolved in the United Kingdom (UK) post WWII will be the principal subject in following discussions.

Instinctual Human Behaviours

Despite some 30,000 years or more of civilization, we humans are still subject to instinctive behaviour of the kind we can recognize in our fellow great apes, if not in ourselves… We like to think that we are civilized and sophisticated, that we can exercise 'free will,' and that our human behaviour is unpredictable. It may not be true.

Given knowledge of a person's background, make-up, personality and recent situation and experiences, psychologists can predict what a person will do next, and be right. We are the product of our environment, and our behaviour is the product of instinct, inheritance, experience, personality and context. (Ajzen, 1980)

The Family and Natural Environment

Homo sapiens evolved, it seems, living in extended family groups. Extended families might number up to fifty, and hamlets or villages might comprise several extended families numbering some 250—500 in total; numbers are clearly imprecise. Villages were surrounded by field and forest, flora and fauna, upon which families depended *fundamentally* for their food resources; they evolved to live in harmony with the natural world, taking only what they needed to live while enjoying their families and their environment.

The Modern 'Hunter and the Gatherer'

Since those early times, Man has not changed much under the skin. Go into a supermarket and watch women, in particular, shopping. Some appear to enter "the zone," a trance-like state in which, seemingly unaware of other shoppers, they pick items off the shelves swiftly and expertly, concentrating on items that are at, or just below, the sightline. Psychologists liken this to gathering fruit and berries off hedgerows, represented by the rows of shelves: they deduce that women instinctively collect the best, ripest fruit from just below the eye line, where it has been protected from the elements and other animals by overhanging twigs and branches—and they place products accordingly to move them off the supermarket shelves quickly, or to gain the best profit margin. It works. (Hargrave, 2005)

Men do not shop in this fashion; they are haphazard, less organized and inefficient by comparison. Men are more likely to decide beforehand what they want, go into a shop and buy it regardless of "shopping around" for the best price; they lack the gathering instinct. Consider, instead, the male business chief who stays on at work long after he should sensibly have retired, clinching deals and receiving bonuses far beyond any reasonable needs. Why? Could it be that men are reluctant to forego the hunt, the chase and the kill? Like women as gatherers, men may exhibit an instinctive 'hunter' drive; which goes some way to explain their otherwise unaccountable behaviour. (Morris, 1994)

There is, then, an underlying consistency in the nature and instinctive behaviour of the intelligent, sophisticated naked ape, which may discomfort, resist, or even conflict with social engineering that seeks to modify and impose 'unnatural' social behaviour, ethics and morality.

Social Engineering in the UK

Social engineering is not a recent phenomenon: rulers and politicians have been social engineers since the beginning of society. The term 'social engineering' acquired an unsavoury reputation in the 20th century, due in no small part to the activities of Herr Hitler, so that today's social engineers may not relish being so-called.

Today's westernized societies are becoming evermore complex, with increasing urbanization on the one hand and with greatly increased means of communication on the other, enabling the would-be social engineer to communicate with, and influence,

increasing numbers of people at a time. Increasing urban complexity sets the stage for increasing pace of life and increasing, juxtaposed variety in beliefs, attitudes, cultures, ethics, morals, principles, sophistication—and dropouts, unable to maintain the accelerating pace of life. Such complexity makes it difficult to anticipate the long-term ramifications of social engineering and how one SE 'experiment' may interact with another to produce outcomes that social engineers could neither foresee, nor would have happily entertained.

Politicians of all flavours are active social engineers—that is, essentially, why they are in politics. However, it also appears to be the case that they have no sound bases for predicting and anticipating counterintuitive response from the societies they seek to engineer. Essentially, they develop, or are inculcated with, beliefs that "their way is right, will result in the right outcome, is best for the nation, etc." In democratic societies, they form parties that share beliefs, the better to dominate other parties with different beliefs… Opposing parties evolve, often to a state where successive governments are formed, essentially, from either of two parties—the two-party system—and each party pursues social engineering in line with its beliefs, only to be replaced by the alternate party, which does the same, but to alternate beliefs. Thus neither belief system (ideology) is tested for long enough for flaws to be exposed, nor are flaws traceable back to origin, being buried instead under successive layers of social legislation so that no one can be held to account, or their beliefs effectively challenged.

Should the foregoing paragraph seem unreasonable, consider the UK state education system which, pre- and post-WWII, was producing excellent scientists, engineers, physicians, but which was—in the eyes of some social engineers—failing the less able and the poor. An objective view of education then and now might perceive that the output from the state education system is significantly poorer than it was previously. In seeking to improve the lot of the poor and educationally challenged, the standards for *all* may have been lowered, such that we are producing fewer excellent scientists, engineers and physicians… surely not the aim of any state education system; surely not in the national interest. (Loveys, 2010: Young, 2012).

We humans are so successful as a species and are breeding and evolving socially and economically so quickly that the social engineers may overlook—or not care too much about—our humanity, our social and psychological needs, the quality of our lives and the 'human condition,' the subjects of Societal Systems Engineering (SSE.) Meanwhile, Western civilization is showing distinct signs of fragmentation and degradation, even collapse in the 21st century…(Strauss, 2012).

Urbanization

Going back only some 50-60 years to the end of WWII is not enough to see when the radical changes we see in today's western society really started. For that, we may look back to the origins, in the UK, of the Industrial Revolution, and particularly to the mechanization of agriculture. Figure 1 tells the story, from pastoral peace at left to urban congestion at right. And all the while, as the figure shows, *Homo sapiens* was, instinctively, a hunter-gatherer—which behaviours re-emerged under pressure in towns and cities.

For thousands of years—since humanity moved on from nomadic hunting and gathering—people had effectively been tied to their land, their crops and their animals, their pace of life governed by the seasons. So it was in the Old Kingdom of ancient Egypt. Indeed, the pace of life for hunters and gatherers had been governed by the seasons too, but being tied to the land gave man a sense of continuity, of belonging to the land…

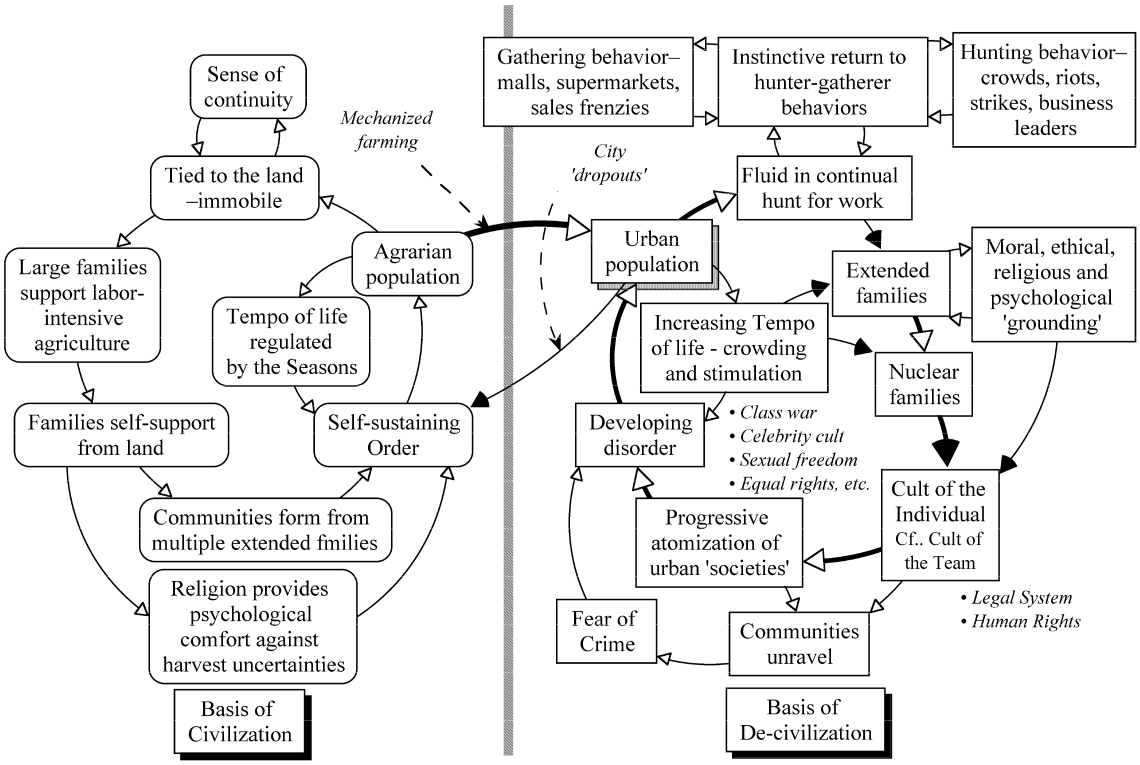

Figure 1. Urbanization—Solution or Problem? (Hitchins, 2007)
Open-headed arrows indicate support, enablement and causality.
Sold arrowheads indicate opposition, detraction and diminution.

When agriculture became mechanized, the unemployed land workers flocked to the towns and cities seeking work, only to find that there were many others seeking too few jobs. Slums grew up, so those who had previously been comfortable on the land became uncomfortable and disgruntled in the town.

Homo Sapiens and the City

The Industrial Revolution may have been good—eventually—in socioeconomic terms, and it has raised the standard of living of the many, as opposed to the previous few. Less obvious, however, are changes in the human condition. As populations grow, towns and cities become more densely populated. Instead of living cheek by jowl with the natural world around them, people live cheek by jowl with other people, disconnected from the natural world in which they evolved… City dwellers may describe their teeming world as a concrete jungle, but it cannot be a jungle without the natural elements, other animals, forests, savannah, etc. Consider an anthropologist's view:

> *"Under normal conditions, in their natural habitats, wild animals do not mutilate themselves, masturbate, attack their offspring, develop stomach ulcers, become fetishists, suffer from obesity, form homosexual pair-bonds, or commit murder. Among human city-dwellers, needless to say, all of these things occur. Does this reveal a basic difference between humans and other animals? At first glance it seems to do so. But this is deceptive. Other animals* do *behave in these ways under certain circumstances, namely when confined in the unnatural conditions of captivity. The zoo animal in a cage exhibits all these abnormalities that we know so well from our human companions. Clearly, then, the city is not a concrete jungle: it is a human zoo.*
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> *"The comparison we must make is not between the city dweller and the wild animal, but the city-dweller and the captive animal. The modern human being is no longer living under conditions natural to his species. Trapped, not by a zoo collector, but by his own brainy brilliance, he has set himself up in a huge, restless menagerie, where he is in constant danger of cracking under the strain"*
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> Desmond Morris, *The Human Zoo,* 1994

In seeking to alleviate the human condition, then, the city may not be the solution: instead, the city may be seen as a virtual prison without bars. Concentrating people in cities may ease the logistics of looking after large populations, supplying food, water, power, sanitation, entertainment, etc. But, such concentrations also generate social misfits, depression, discontent, riots, pollution, crime, gangs, drug abuse, etc., all of which 'products of city living' give the police more work to do—so policing is more demanding—and perhaps even 'heavy handed' on occasion—in cities, while the human condition is progressively further depressed.

The Media and Social Engineering

Many people no longer live in extended family groups, but as individuals, working perhaps in some city, remote from family, with acquaintances but few real friends. This process of creating 'disconnected individuals,' social atomization, enables TV to have a magnified influence on social behaviour: it is now possible to simultaneously influence tens of millions of individuals simultaneously through the persuasive influence of the dynamic picture and the spoken word. Newspapers have a similar, perhaps less simultaneous, potential to spread doom and gloom; populist ("redtop") newspapers in particular use sensationalist headlines to enhance circulation, regardless of the impact they might have on the vulnerable, elderly and socially isolated…

Figure 2 illustrates the supposed effect of media on social stability. Politicians use the media to propagate their political beliefs and ends. It used to be the case that the nuclear and extended family served as a calming influence, generally neutralizing the effect of social turbulence and protecting individual family members from mass hysteria as threats of new of disasters of ever greater apocalyptic dimensions were spread by populist newspapers; the unifying family belief system similarly provided a calming influence…

It used to be the case, too, that the family included 'elders' with wisdom and experience who would advise, guide and restrain the more unruly, unprincipled and testosterone-driven youngsters. That too has largely evaporated with the breaking up/tearing apart of

the family through social turbulence, and the advent of "social media" (e.g. Twitter and Facebook) that allow, enable and encourage the "unspeakable to foment the uneducable[1]," with resulting antisocial youth gatherings and riots.

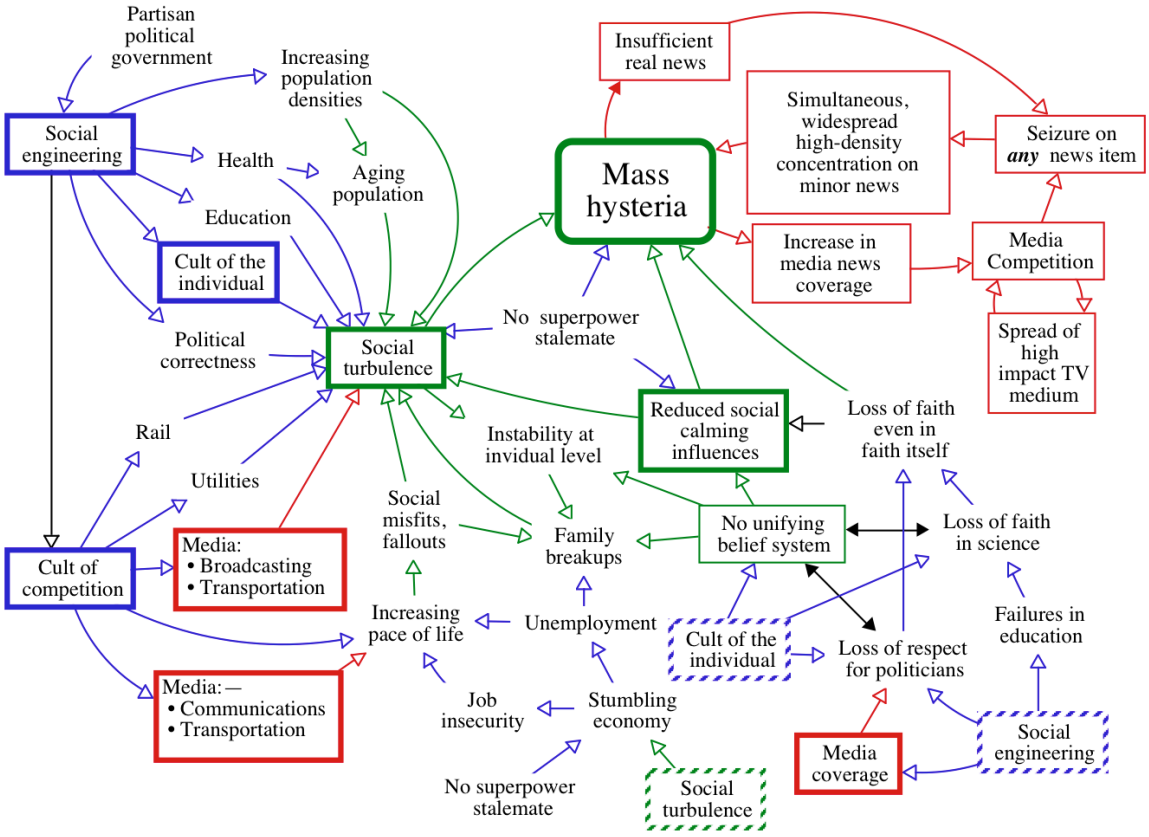


Figure 2. **Social Stability and the Media** (Hitchins, 2003)
Mind map—read arrows as "contributes to…"

Political Correctness: an Instrument of Social Engineering

By 1970 in the UK, New Left socialists had adopted and propagated 'political correctness.' Political Correctness (PC), with its echo of Stalinist orthodoxy (Bernstein, 1990), may be defined as language, ideas, policies, and behaviour designed to minimize offense in work, gender, racial, cultural, sexual orientation, beliefs, ideologies, disability, and age-related contexts. Underwritten by social legislation, PC seeks to engineer speech and social behaviour, i.e. to control and restrict freedom of the majority to avoid potentially offending various minorities—which may be seen as reasonable on the one hand, yet *prima facie,* undemocratic on the other…[2]

PC raised, and continues to raise, the most profound opposition:

[1] With apologies to Oscar Wilde

[2] Inevitably, PC is reminiscent of George Orwell's prescient, dystopian novel 'Nineteen Eighty-Four,' with its English Socialism (IngSoc) and Thought Police (thinkpol.) (Orwell, 1949)

> *"What Americans describe with the casual phrase…political correctness is the most intolerant system of thought to dominate the British Isles since the Reformation."* (Hitchens, 1999)

Right wing politicians, preferring to be Politically Incorrect (PI), promoted the 'cult of the individual,' some suggesting that there was no such thing as society, only individuals. Socialist PC has persisted, however, permeating all corners of UK society, along with not unrelated Health & Safety legislation, leading to a national Risk-Averse Culture, and associated Compensation Culture, stimulated by the advent of solicitors advertising 'no win, no fee' services in the media. These three, together, have had a deleterious effect on the human condition: they restrict freedom of speech and action, obstruct purpose, curiosity and creativity, and so aggravate the human condition:

- Teachers and youth leaders stopped 'risking' outdoor activities.
- Schools stopped 'risking' practical science experiments.
- Schoolchildren were banned from such dangerous practices as playing conkers and hand standing in playgrounds (sic).
- Parents were prevented from videoing their children in nativity plays. Photographing children in swimming pools, and learning to swim, were banned.
- And so on.

As with Prohibition of alcohol in 1920s USA, people reacted predictably by creating replacement expressions for the 'politically unacceptable,' while politically incorrect behaviours have been driven underground, not eradicated. At the same time, as though to challenge PC, the overt use of 'four-letter words' has become commonplace on broadcast TV, in apparent contravention of the 1986 Public Order Act and to the disgust of many older viewers, offended by such language in their own homes; somehow this is seen as politically acceptable, while socially unacceptable to many…

PC promotes the use of euphemisms to describe people. A short person is 'vertically challenged,' which could also apply to a tall person. A blind person is 'visually impaired,' which could also mean shortsighted, long-sighted, astigmatized, colour-blind, with cataracts, etc., so is vague, inaccurate and dubious. A fat person may be 'gravitationally challenged;' which some might deem more offensive than 'fat.'

A so-called *euphemism treadmill* developed in the US, e.g. Negro, Coloured, Black, Afro-American, and African-American, all to describe a black person.[3] Meanwhile, banned expressions remain in use by the social groups on whose behalf they had been outlawed: African-Americans may still refer to each other jovially as 'niggers;' lesbians may continue to call each other, less jovially perhaps, 'dykes;' although neither expression has ever been in polite general use.

[3] Using the same 'logic,' and since all *Homo sapiens* are believed to have originated in E. Africa, people in the UK would be African British? How would a white boy from S. Africa be described in the US?

Gender-neutral terms were introduced: chairperson in place of chairman; postal operative instead of postman; sanitation operative instead of dustman; actor instead of actress. The last is a peculiar affectation, which seemingly denies actresses as women, suggesting a perceived sense of inferiority vis-à-vis male actors.

There is a strong PC drive for male/female equality, overlooking their evident biological and psychological complementarities. Stimulated by this equality attractor, women seek to box and to fight in the military teeth arms, e.g. the infantry. There are calls for more women in science and the boardroom, although women may prefer to look after their growing families (Moyer, 2012). Curiously, however, there are no calls for united male/female competitions in golf, tennis, weightlifting, skiing, gymnastics, athletics, football, swimming, diving, etc., etc. Males and females are only equal, it seems, when it politically suits the social engineers…

As an instrument of Social Engineering, Political Correctness has had a counterintuitive effect on UK society: in seeking not to offend different social minorities, many of which may not have been offended in the first place, PC has managed to seriously prejudice freedom of speech and action, constrain liberty and afflict the human condition of most, if not all, of the population.

Progressive Degradation

Looking at the various social influences (media expansion, marginalizing of Christianity, political correctness, compensation culture, etc.) individually, it may seem that each is a passing issue, and that society recovers in time. And it appears to be the case that society at large is resilient, i.e., left to its own devices, it will stabilize, or at least calm down. Looking over, say, the last sixty or seventy years, on the other hand, it is possible to detect a continuing trend in which "the human condition" has been progressively prejudiced—see Figure 3.

In some measurable respects, the human condition in the UK has clearly improved, notably in terms of health and, recently, in longevity. That advance is threatened by the wave of obesity that is sweeping over the western world, and by increased and irresponsible bingeing on alcohol, leading to an alarming increase in liver failure in younger people. Obesity appears to stem from an environment where food is abundant but where regular physical exercise is not…(Hill & Peters, 1998). The causes of youthful, alcoholic binge drinking are more difficult to discern, but may be associated with 'coming of age' rituals of long standing, where young people are deemed socially and legally responsible for themselves and no longer under parental control, setting the stage for a so-called 'party culture,' where alcohol is freely and cheaply available.

As Figure 3 illustrates, State Welfare addresses many more aspects of social life than was anticipated by its original architects. While the social benefits of State Welfare might seem obvious in the abstract, those supposed benefits might not have accrued in practice. Some negative effects are shown in the figure: there are others. For example, today, presumably as always, an intellectually stimulating, nurturing and physically safe family, with both parents, is important to the upbringing and wellbeing of children. A recent comparison between two nations (UK & US), with and without significant State Welfare,

shows that Welfare cannot compensate for the absence of one parent, having a stepparent, etc.: for reasons that are unclear, the effect is most marked with boys. (Parcel, 2012.) Counter intuitively, such studies suggest that provision of State Welfare, far from alleviating the human condition, may be aggravating it…

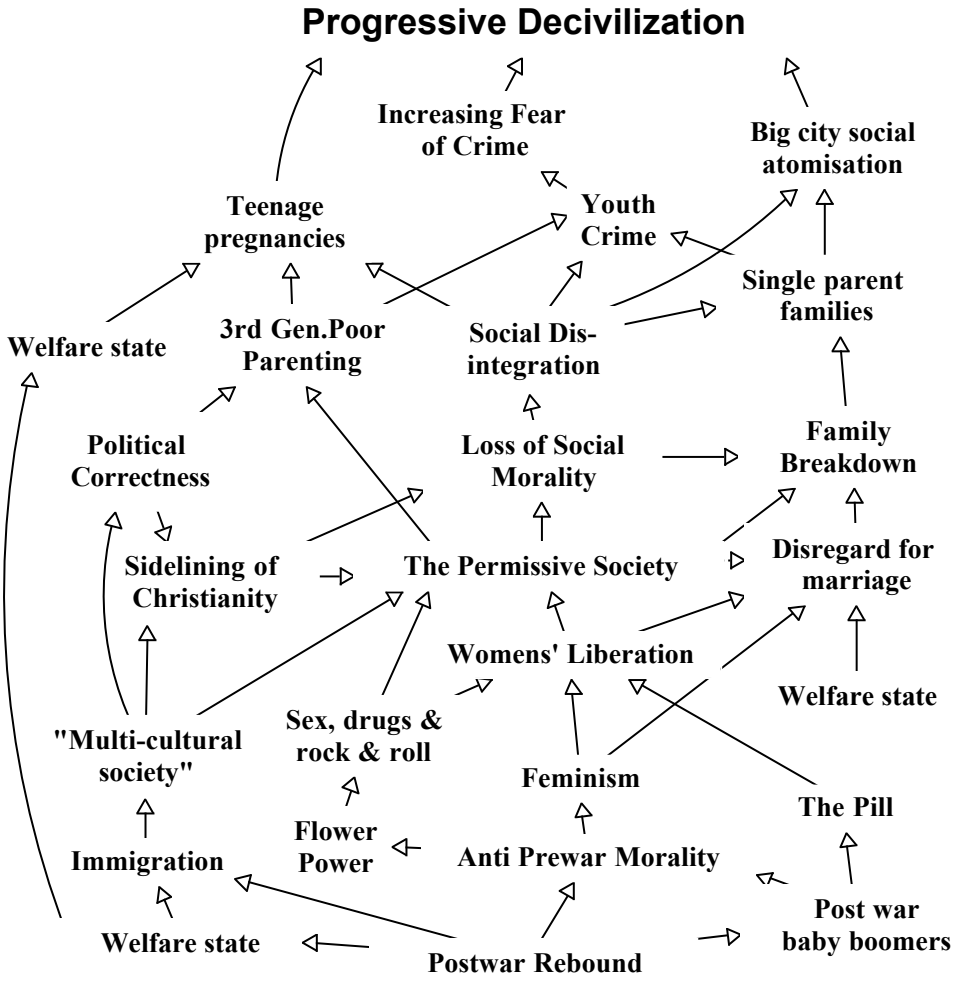


Figure 3. Diminishing The Human Condition: UK 1945—2012
Attribute Enhancement Structure: read arrows as: "contributes to, helps to achieve."

Part of the human condition must concern security, freedom from fear, and contentment: those feelings were significant during the fifties and early sixties. In the 1950s, children sported scabs on arms and knees as a badge of honour: children wandered freely in woods, fields and parks, enjoying total freedom, often all day. And there were no mobile phones with which parents could check up. Today's parents are loath to let their children out of their sights for fear of abduction or worse. So, whence the latter day fear?

In earlier times, pre- and post-WWII, innate honesty of one's neighbours was taken for granted. Except in big cities, people left their doors open, without any feeling of insecurity. If someone found money in the street, they would take it to the nearest bobby—and there would be a bobby, too, at a nearby crossroad, or junction. He would be a friend, and children would be taught to take lost property to him, ask him the time, or

for directions. Nowadays police rarely patrol alone, nearly always in pairs for fear of being attacked, and rarely amenable to being addressed. And when a vehicle recently ran into a jeweller's shop window, local people vied with each other to steal the jewels from the smashed window…what has happened to make the population at large so antisocial, risk-averse, litigious and compensation-conscious in such a short time?

Old Kingdom Societal and Cultural Development

The 4th Dynasty of ancient Egypt (2575-2465 BCE) was later to be revered as a "Golden Age;" it was during this time that the principal pyramids were built, including Khufu's Great Pyramid at Giza. We may learn from their society and socioeconomics, which were devoid of politics, economics, logistics and democracy as such—these had yet to be conceived.

During this Pyramid Age, there was no money: trade was through barter. Yet there was a robust 'widget' economy; many of the things that were manufactured were for worship of deities—pyramids, sarcophagi, temples, statues, images, etc. There were, however, food markets, bakers, brewers, potters, weavers, miners, flint-knappers, tailors and dressmakers, makers of farming implements, chandlers, ropes and boat-builders. There may not have been roads as we know them, but the River Nile provided an effective highway, allowing trade between settlements along the river. The economy could also be described as having a gross domestic product, and there were imports and exports.

Figure 4 shows the basic ideas of a barter-based socio-economy in the form of a Causal Loop Model. Prosperity depended upon the Inundation of the Nile, which flooded annually in July, covering the land with fine, rich, black silt. The people had learned to work together to build irrigation systems and to prevent the water from running off the land when the river subsided, resulting in a uniquely rich growing environment of hot sun, high humidity and rich, irrigated soil. Social development and socio-economic well being seem to go hand-in-hand, each promoting the other…

Cooperation among the farming people to conserve the Nile floodwater with its rich, life-giving silt seems to have been the start of, and basis for, social development. With care, and a good Inundation, farmers could get up to three harvests a year from the land, giving them so much food resource that they had time for leisure pursuits and for thinking—especially about what would happen if the Nile Inundation should fail. From this appears to have stemmed much of their spiritual activity, praying and offering to their god king to intercede with the gods in the heavens to ensure a good Inundation. Farmers donated food to landowners who founded temples, and supported craftsmen who could fashion religious artefacts, statues, paintings, murals and burial places of outstanding beauty and purity. Landowners in turn paid taxes (principally food and clothing) to the king, who distributed this accumulation of 'wealth' to establish temples, to instigate new drainage and irrigation schemes, and to run a bureaucracy of officials who travelled up and down the Nile, taking stock, adjudicating disputes, administering the law, and generally maintaining the integration of the unified state.

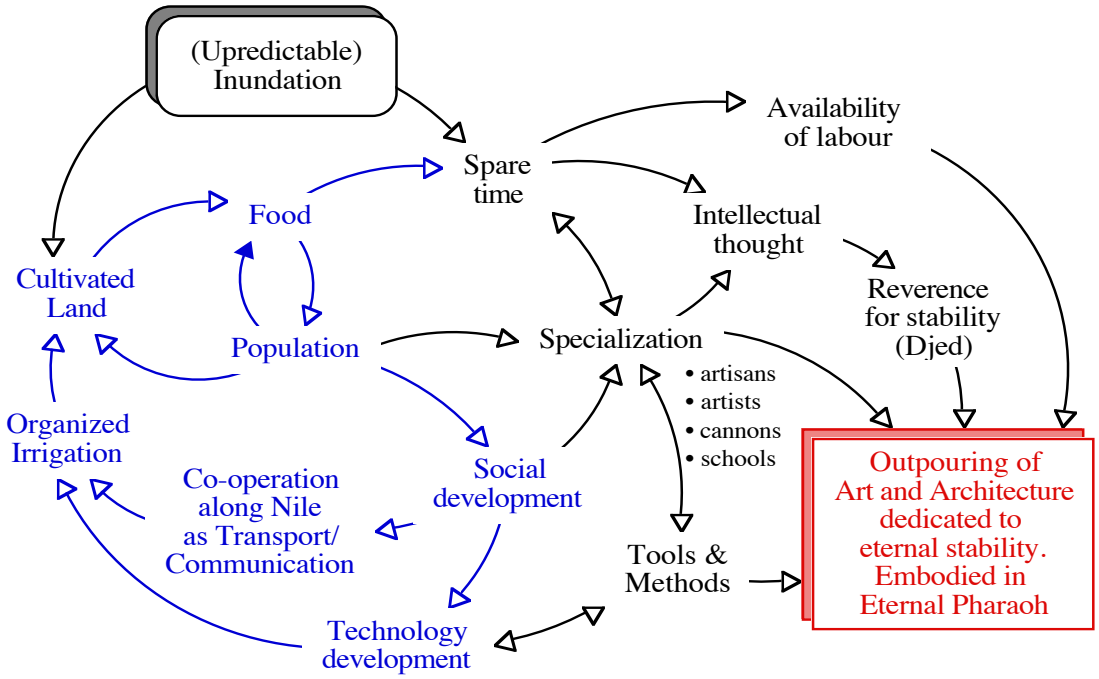


Figure 4. Old Kingdom Social and Cultural Development
Causal loop model: read arrows as 'causes, leads to…'

King Snefru (2613–2589BC), and his son King Khufu (2589–2566BC) together built the greatest pyramids of the age (Clayton, 1994). Contrary to Hollywood myth, the people who built these phenomenal structures were not slaves, but intelligent people who acted out of motivated self-interest. It was their belief that, if they could provide an enduring resting place for their god-king, he would be able to intercede with the other gods in the heavens to ensure a good Inundation of the Nile on which their crops, and the welfare of Egypt, ultimately depended. King Khufu is known to have looked after the pyramid builders very well, providing them with the best food, clothing, accommodation and beer—water was too impure to drink.

With wealth largely consisting of perishables—grain, meat, vegetables, fruit, linen, etc.—there was no real basis for hoarding and accumulating wealth. The Egyptians' ability to store foodstuffs appears to have been limited: famine was an irregular visitor to ancient Egypt. The king did what he could by diverting surpluses from one part of the Two Lands to relieve shortages in other areas: he could do this only if he maintained central command, control and communications up and down the length of the Nile.

Initially, the god-king was the only one who could look forward to eternal life. During the 4th Dynasty, however, the god-king granted eternal afterlife to the nobles, including the many nomarchs (provincial governors). This benevolent (democratizing?) act by the king was to be the inadvertent undoing of the Old Kingdom…In the event, the kings of the fourth and fifth dynasties ceded too much power to their nomarchs, who set themselves up as hereditary regional rulers, with their own priesthoods, temples and authority.

At which point, the Old Kingdom became moribund: not long after, it collapsed into disorder and chaos following a succession of poor Inundations: internecine conflict broke out between the various nomarchs as they scrabbled for resources… Without his previous central command and control, the king was unable to maintain order, unable to share food between those with plenty and those with nothing. Which may serve as an object lesson today in breaking up countries and organizations into independent parts: this may seem ideal when times are good, but when times become hard, the weaker, resource-constrained parts will be exposed and—without friends—may go to the wall…

From ancient Egypt we may learn that socioeconomic systems engineering (SeSE) is less about money and more about maintaining centrally the power to acquire, manage, control and distribute essential resources at a national level. Power may be delegated from the centre, provided that the centre retains the right —and ability—to overrule and refocus the power centrally to distribute resources in times of trouble, threat or wrongdoing. We may also note that social order and national unity depend, fundamentally on the continuing provision of resources for the population…

The ancient Egyptians also broke the cardinal rule: population rose in times of good Inundation to be much greater than could be supported in times of poorer Inundation. The results were irregular famines, each succeeded by a regrowth of population to contribute to a new famine in a repeating cycle. To be fair, the population had little control over the situation, but the lesson is evident…

Summary Figure 3 shows graphically how (some of) the many and various social movements and political dogmas have interacted, effectively to diminish the average human condition and to reduce the level of civilization in the UK. Each of the various movements can be seen as progressive and liberalising, even admirable, on its own. However, none has been "on its own;" instead they have acted and interacted in largely unforeseen ways. Yet liberalisers continue to call for ever more 'liberalising,' and so-called equality, seemingly unaware of, or disinterested in, the progressive dereliction of the human condition, and effective *reduction* in liberty and quality of life, that social engineering and its weapon of choice, Political Correctness, have already engendered in the cities (Morris, 1994).

In stark contrast, Figure 4 shows how society 'bootstrapped' on the back of the uniquely rich, isolated, natural Nilotic environment to create a vibrant society and culture capable of producing structures such as the Great Pyramid of Khufu at Giza that our modern civilizations, methods and tools would be hard put to equal. It would be difficult to separate out the social from the economic development; they appear closely intertwined. However, this Golden Age coincided with a strict social class structure, little if any social mobility and without any vestige of democracy. It is noteworthy that this situation persisted so long as the Nile Inundation continued to create the rich farming environment on which they all depended: social harmony, it seems, may have been founded in a plentiful and creative environment; when famine arose, social harmony broke down…

Socioeconomic Systems Engineering (SeSE)

Socioeconomic systems engineering (SeSE) is concerned with the relationships and interactions between (e.g.) raw materials, manufacturing, service and farming industries in particular, and society in general in creating, sustaining and enhancing the national wealth, in its broadest sense. Initially addressing discrete nations, socioeconomic systems engineering may now address groups of nations and the global community of nations as they interchange people, finance, goods, information and energy. Socioeconomic systems engineering is much in demand to cope with contemporary pressures of economic downturn and globalization. The latter suggests that there are limits and precautions that any sensible nation should be taking to anticipate foreseeable issues…

Overview of Contemporary SeSE

Chart 1. N2 Diagram showing typical National Socio-Economy (Hitchins, 2003)

Raw Materials Industries	• Energy • Metals • Woods • Plastics • Composites	• Dated skills	• Domestic Raw Materials	• Fertilizers
• Machinery • Knowledge • Power	**Manufacturing Industries**	• Dated skills • Power • Machines	• Domestic products/ materials	• Farm machinery • Power
• Skilled people • Recycleable raw materials	• Skills • Logistics • Machinery	**Service Industries**	• Power • Food • Distribution/Transport • Communication	• Power • Fertilizers • Pesticides • Husbandry
• Human resources	• Human resources	• Human resources • Dated skills	**Society**	• Human resources
• Recycleable resources	• Recycleable machinery	• Foodstuffs • Dated Skills	• Food	**Farming Industries**

Chart 1 is an N^2 ('N-squared') chart for a typical nation in relative isolation i.e., exports and imports are not shown. The leading diagonal shows the main societal systems:

- Raw Materials Industries;
- Manufacturing Industries;
- Service Industries;
- Society at large;
- Farming Industries.

Other rectangles show the interfaces between these main systems, i.e., what each passes to the others. So, Raw Materials Industry passes Energy, Metals, Woods, Plastics and Composites to Manufacturing Industries; it also passes Fertilizers to Farming Industries. Similarly, Farming Industries pass Food to Society, and Recyclable Machinery to

Manufacturing Industries. Energy is expended, work is done, and money changes hands, in transferring people, things and information between and within societal systems.

Socioeconomic systems engineering (SeSE) can be seen as the organization and management of the national system represented by Chart 1, to ensure that resources required by any one sector are made available in the right quantity and quality, and on schedule from the other sectors. The whole system will exhibit emergent properties of human capital and gross domestic product (GDP): provided the population is supportable by the national assets, both of these may be expected to progressively increase…

Examination of Chart 1 will show that each of the main societal systems provides what the others need and receives from the others what it needs. In principle, the N^2 chart could represent a stable, self-sustaining socio-economy. A closer look would suggest, however, that there are internal dynamics to consider: what is transferred has to be sufficient to meet the needs of the recipients *year round,* in good and bad years; if it is, then the socio-economy may be self sufficient and self-supporting.

Overview of globalization

Potential shortfalls or excesses in capability and resources result in imports and exports of people, services and things. So, the simple N^2 of Chart 1 can be seen against a quite different backcloth as shown in Figure 5, again a simplification.

Here, different N^2 charts for various regions have been superimposed on a global map, and interconnected. There could be one N^2 chart per nation, or even one per region in some nations, resulting not in six as shown, but in hundreds. Envisage a super N^2 chart where the leading diagonals are made up, not from societal systems, but from socio-economic N^2 charts. The interface rectangles would then show the various imports and exports around the globe. Such a figure would be exceedingly complex: but then, so is the global socio-economy it would purport to represent. Such a representation in full may be impractical, but even the concept serves to show the burgeoning complexity brought about by so-called globalization.

Globalization may be seen as socioeconomic systems engineering on the grand scale, and is highly complex. We may begin to glimpse the issues by considering a global socioeconomic system that is initially in a state of dynamic equilibrium when it is disturbed in some way. Le Chatelier's Principle is relevant:

> *"when a constraint is applied to a system in dynamic equilibrium, then, in so far as it is able, the system will adjust itself so as to oppose the constraint, and in so doing will move to a new point of dynamic equilibrium."*

The Principle suggests, conceptually, that the complex global socioeconomic system may be able to 'ride' localized disasters. The Principle says nothing about the manner of adjustment, nor about the condition of the new dynamic equilibrium; for a complex system, these may not be knowable. Constraints may arise in many forms: global warming; natural disasters; war, famine and pestilence, oil shortage, lack of potable water… Neither does the Principle address the energy/work/finance needed to maintain

the interchange between all of the systems, which may—in the case of globalization—prove a limiting factor…

In the light of Le Chatelier's Principle, a globalized socio-economy is hoped to result in a robust, dynamically stable overall system, and systems theory does point in that direction; yet disturbances may not favour individual nations, and the output from large dynamic economies may well shift the point of dynamic equilibrium, to the detriment of less robust nations. Globalization smacks of a multicultural macroeconomic social experiment, with room aplenty for disasters along the way…

Chart 2 shows a greatly simplified, but still complicated, interchange between only two nations, regions or states: each is represented by its respective N^2 chart, and in addition interfaces are shown for exports from the top-left nation, A, which appear as imports to the bottom right nation, B—and vice versa. Evidently there are few exchanges.

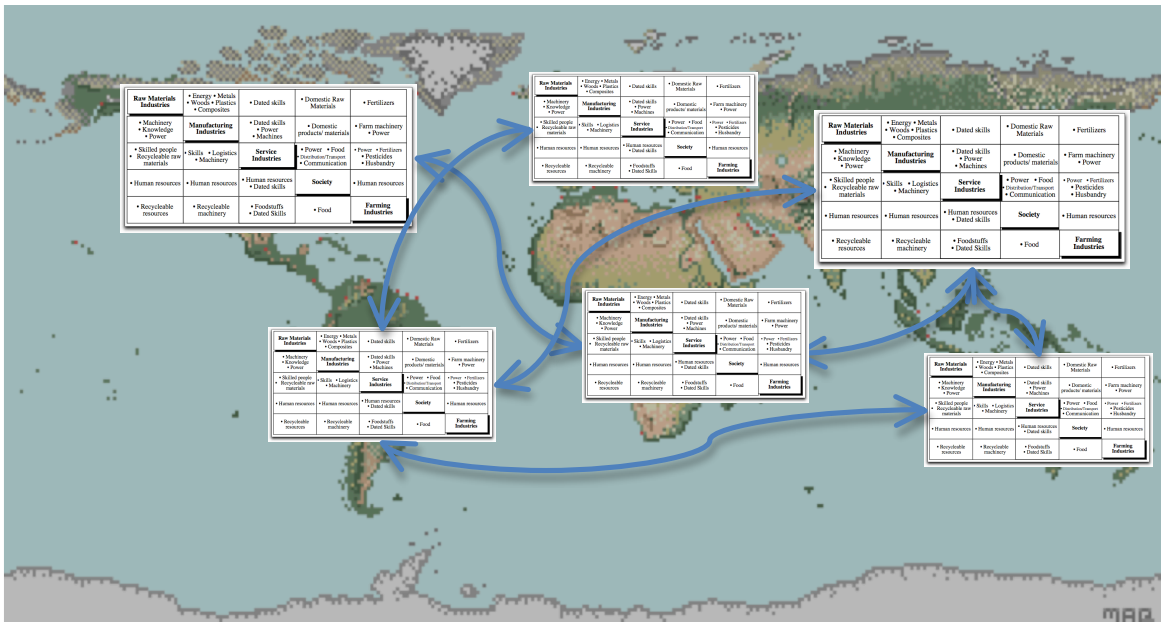


Figure 5 Global Socioeconomics

So, Nation A, top left, exports fertilisers—top right rectangle of diagram—to Nation B's farming industries. Nation B sends university students to (a presumed) university in Nation A's Service Industries; these students may return later as graduates to Nation B's Manufacturing Industries; and so on… Each nation supplies food to the other's society, although the chart gives no clue as to what kind of foodstuffs and how much. In such situations, money is the lubricant that oils the wheels of exchange, although barter is not unknown at international level, and oil is sometimes used as currency.

From such considerations it may be possible to estimate each nation's GDP and the balance of trade between Nations A and B. Returning to Figure 5, however, and scaling up to hundreds of nations, it may prove more challenging when there are many nations involved, and when commodities pass through some countries on their way to a third

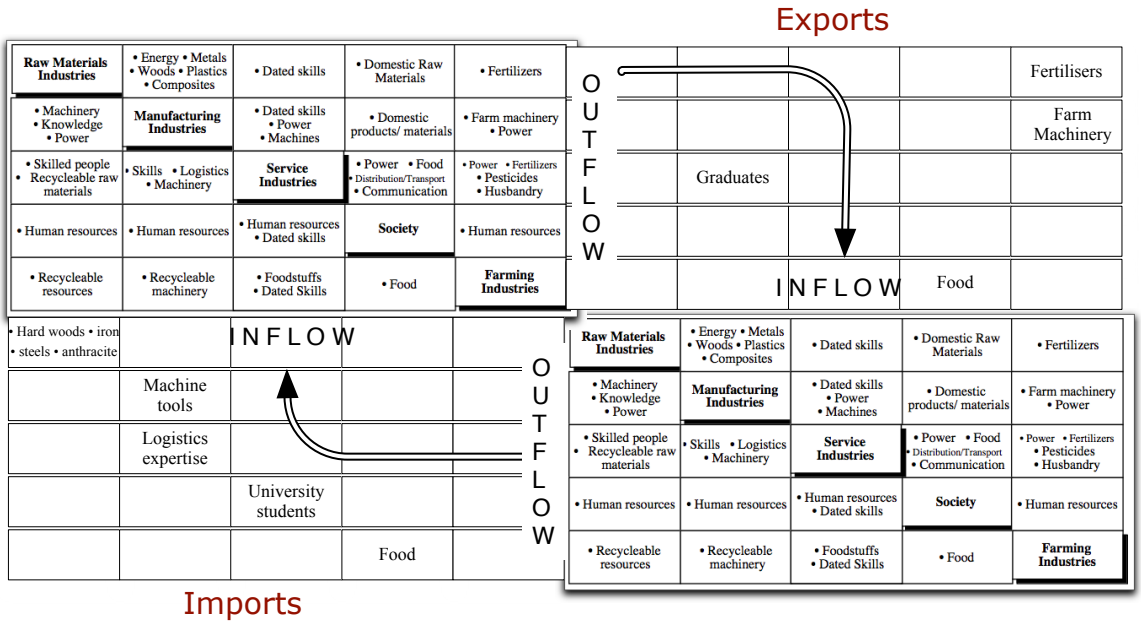
party. E.g., if trade balances are out of line, if some countries are effectively "cooking the books," it may take some considerable time for such inconsistencies to be detected.

With potential disasters in mind, there may be precautions that any individual nation might take. If, for instance, global interchange of foodstuffs were to break down, then it would behove any nation to be able so support its population from home grown food all year round. It is surely axiomatic that:

> *The population of any country or region should not exceed its indigenous capability to feed that population*

Where a country produces more than it needs for its own population, then it is reasonable and sensible to export the surplus—but not, as we have seen by Egyptian example, to increase population to consume that surplus. And it is not unreasonable to exchange surpluses in some commodities for shortages in others, provided the axiom stands.

Chart 2. Two Nation Interchange



Where, however, the population *exceeds* the indigenous food supply, then—in the long term—either the population should be reduced or the indigenous food supply should be increased—there is no sensible future on an increasingly overcrowded planet for nations to be in permanent receipt of food aid.

With such a potential complex global socioeconomic super-system, the question arises: is globalization the result of scientific investigation, with reasonable predictions of likely behaviour and outcome, based on some robust global socioeconomic model, and with contingencies to accommodate counterintuitive outturns, or is it founded on the belief of politicians, and if so, who's?

Summary. Modern socio-economies such as the UK are robust and effective, with the ability to ride poor seasons and to gather foods of all kinds from different parts of the

world. In comparison, the Old Kingdom of ancient Egypt was quite unable to accommodate poor Inundations and their burgeoning population was kept in check by famine so that, perforce, they lived in balance with their environment. One issue was their inability to store and share resources between different regions, which had become semi-independent and out-of-control… Globalization could, potentially, create a not dissimilar situation between many nations.

Societal Systems Engineering (SSE)

Social engineering (SE) takes an agnostic, materialistic, multi-cultural, partisan stance without significant regard to the cultural and spiritual wellbeing of societies within the population. Yet these very senses of contentment, confidence in the present and hope for the future, may be the hallmark of a vibrant society.

Socioeconomic Systems Engineering (SeSE) differs from Societal Systems Engineering in being much more concerned with material 'things,' while less concerned with the intellectual welfare and happiness of person, family and society.

Societal systems engineering (SSE) is concerned with people in their social, cultural and personal contexts. SSE seeks to promote harmony, synergy, creativity and happiness, to enhance human and social capital, and to alleviate the human condition.

Human Motivation

A respected view of humans and their motivations is expressed in Abraham Maslow's Hierarchy of Needs, Table 1. (Maslow, 1943).

Table 1. Maslow's Hierarchy of Needs

5	Self-actualization	Morality, Creativity, Spontaneity, Problem-solving, Lack of prejudice, Acceptance of facts
4	Esteem	Self-esteem, Confidence, Achievement, Respect of others, Respect by others
3	Love/belonging	Friendship, Family, Sexual intimacy
2	Safety	Security of: body, employment, resources, morality, the family, health, property
1	Physiological	Breathing, Food, Water, Sex, Sleep, Homeostasis, Excretion

Maslow used the terms Physiological, Safety, Belongingness, Love, Esteem and Self-actualization to describe the pattern that human motivations generally go through. Level 1 identifies the basic physiological needs of life. Maslow identified Levels 2, 3 and 4 as 'deficiency needs:' if these needs are not met then the body gives no physical response, but the individual feels anxious and tense. These needs must be satisfied before the individual moves on to 'being needs' at the top, Level 5.

Noticeable within Maslow's Hierarchy are the predominance of personal and interpersonal needs. Between them, Social Engineering (SE) and Socioeconomic Systems

Engineering (SeSE) leave Levels 3, 4 and 5 largely untouched; creating contexts and environments, in which the needs expressed in these upper levels may flourish, is one goal of Societal Systems Engineering (SSE.)

Understanding the Human Condition

The nature of the human condition is controversial. It reflects that humans, unlike most other animals, are self-aware and introspective. The human animal is concerned about an uncertain future, worried about what becomes of us and our offspring when we die, looks for purpose and 'meaning of life,' while recognizing that we are, each of us, ultimately alone inside our minds. Part of the human condition is to crave freedom, yet be beset by worries and concerns. Equally, part of the human condition is to be curious and creative, to seek and solve problems, to anticipate and plan ahead…

We humans seek happiness, too, but may not be sure what happiness is…to some it is the acquisition of material wealth. A more insightful view proposes that "happiness is absorption" (Lawrence, 1997): if we are totally absorbed in activity, in pursuit, in creation, in solving problems, in living for the moment, even childlike, then we are fulfilled and have no need or time for introspection, to worry about mortality and the hereafter…

We evolved as a species to live in small groups. Isolated tribes still live in remote parts of the world in much the same way as 30,000 years ago: it is remarkable how such tribes thrive, giving every appearance of being dignified, content-yet-curious, happy, totally absorbed with everyday living, hunting, fishing, gathering, house- and boat-building, and raising robust families, without any need for the outside world.[4] Do they, perhaps, exhibit the quintessence of the human condition that we are too sophisticated to appreciate?

A world of 7 billion people cannot go back to living in the Stone Age; although, some religious fundamentalist would like us to return to much simpler times. The human condition has significantly improved, however, in measurable aspects such as health, longevity and education: this at the expense of non-measurable aspects such as happiness, contentment, freedom of thought, freedom from fear, sense of purpose, opportunity to live for the present without unnecessary concern for the future… see Table 1.

Societal Systems Engineering in the UK

Realization that big cities can be problematic is not new: it was evident in Victorian times, when everyday life in the cities was rougher that today. To this end, governments before and after WWII have actively practised SSE by creating much more appealing, less crowded, less threatening environments in various forms.

Ebenezer Howard inspired the urban planning of Garden Cities, Figure 6, (Howard, 1902), such as Letchworth and Welwyn, and his ideas spread worldwide:

[4] E.g., see BBC TV series *Amazon*, Episode 3, with Bruce Parry and the *Marubo* tribe.

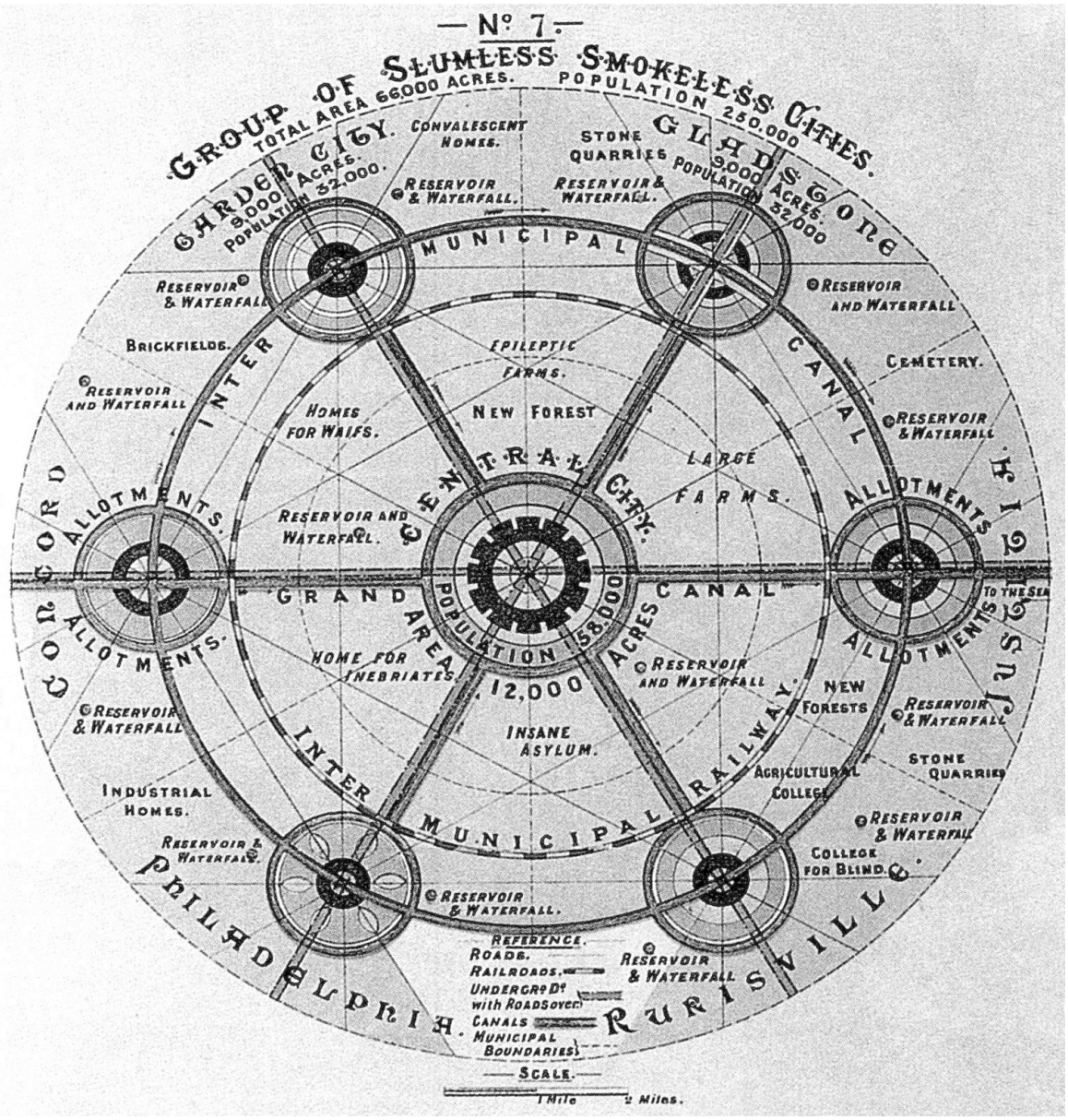


Figure 6. Garden Cities of Tomorrow, Ebeneezer Howard (1850-1928)

- Howard believed that all people agreed the overcrowding and deterioration of cities was one of the troubling issues of their time.
- Garden cities were to be planned, self-contained communities surrounded by "greenbelts" (parks), containing proportionate areas of residences, industry and agriculture, i.e. a complex, integrated, self-sufficient system in a supportive, pastoral environment.
- His plan was for each garden city to have a maximum population, largely of blue-collar workers, who would have no need to travel outside of the garden city for work;
- If the population exceeded the limit, a new garden city would be developed nearby…

- So self-contained garden cities would spread across the nation as population increased, mutually separated and interspersed by green belts.

There are many other aspects to SSE than the creation of congenial, self-sufficient living conditions, insightful although these may be. Garden cities go only some way toward recreating the contexts and environments—proposed to advance the human condition—in which we humans evolved.

However, Howard's approach of creating environments in which cultures could flourish in self-sufficient harmony and synergy (instead of controlling populations, concentrating them in cities and deciding 'what was best for them') does suggest an alternative way of accommodating growing, yet potentially happy, creative, free, productive populations.

Societal Systems Engineering in the New Kingdom of Ancient Egypt

The New Kingdom of ancient Egypt saw the Pharaoh as the focus of societal stability: all power was, seemingly, vested in him. As Figure 7 shows, he had three interlocking roles:

1. Pharaoh was a living god, Horus-Osiris, second only in the pantheon to Amun-Ra, the Sun god: see black loop in figure. As Horus-Osiris, Pharaoh was believed to oversee the judgment of the dead…He promoted the pursuit of eternal life, entry into which required that the citizen behave in an ethical manner during this life, else… no afterlife.
2. Pharaoh was the 'Uniter of the Two Lands,' a traditional title showing his supremacy over both Lower and Upper Egypt; he owned all of the land, which he ruled via Viziers and nomarchs, (appointed provincial governors, or nobles, who acted with the power of the pharaoh); see blue loop. Pharaoh was also ultimately responsible for Ma'at, the ancient Egyptian concept of truth, (cosmic) balance, order, law, morality, and justice, to administer which he employed a middle class bureaucracy, a professional civil service throughout the land.
3. Thirdly, Pharaoh was the Military Leader, ruler of the army, conquering all foreigners and securing all borders: see red loop. Pharaoh would publicize his military prowess on the walls of temples for all to see.

As Figure 7 also shows, there was an incipient flaw in the system: the widespread pursuit of eternal life placed the growing priesthood in an increasingly powerful position to accumulate wealth and possessions. Eventually they would become wealthier than the pharaoh—but for the time being, the societal system held together remarkably, in the firm-but-benevolent grip of the god-pharaoh. This was apparently successful societal systems engineering within a rigid class structure and without a vestige of democracy…suggesting that neither class mobility nor democracy may be quite the fundamental issues that today's politicians and agitators avow…

Pharaoh was the focus for all matters spiritual and temporal throughout the Two Lands, while he was governed, in his turn, through his responsibility for Ma'at. Pharaoh had a psychological 'whip hand:' anyone who misbehaved in life would come before him in death, from which there was no escape. Good behaviour in life meant giving to the poor, protecting widows and children, etc. Having performed these social essentials in life was

necessary, but not sufficient: additionally, dead souls had their hearts weighed against the ostrich feather of Ma'at (truth); if their hearts were lighter than the feather, they would gain entry to the afterlife…and, Pharaoh as Horus-Osiris was final arbiter; or so they believed.

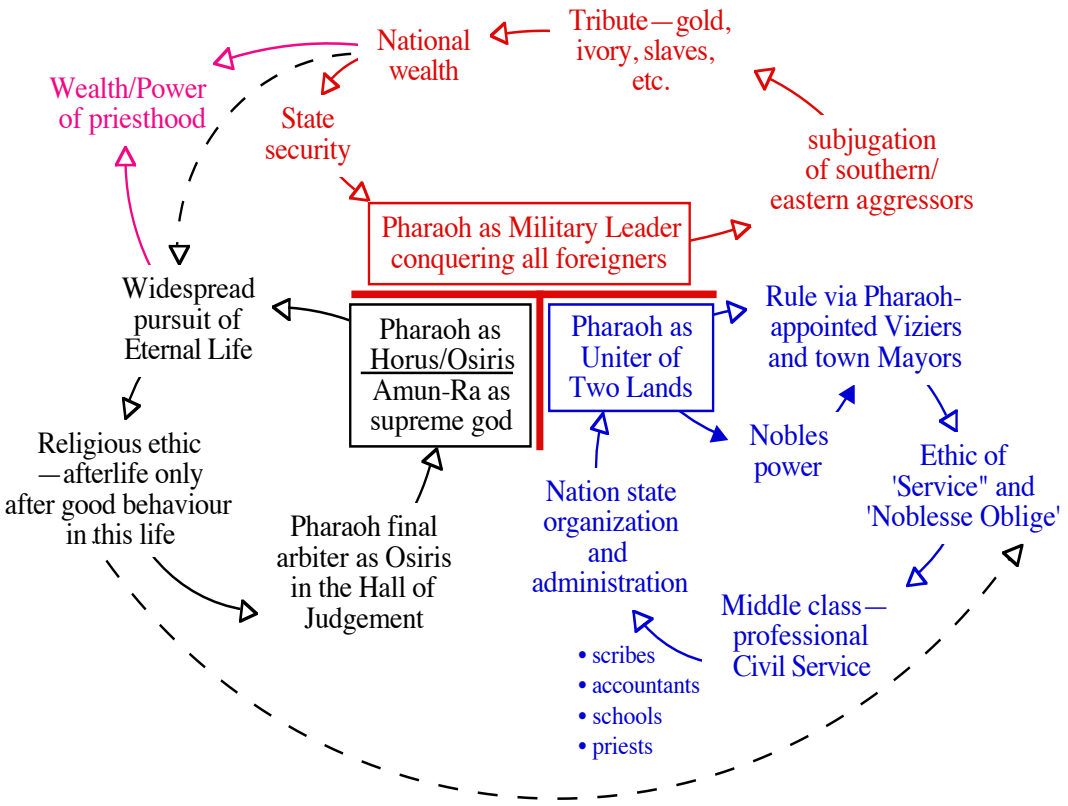


Figure 7. Societal Stability and the Pharaoh in the New Kingdom
Causal Loop Model. Open arrows support: solid-head arrows resist…

An indication of the nature, character and sophistication of the people was the so-called Negative Confession, much rehearsed in life, which their spirits were required to make to Horus-Osiris upon entering the Hall of Judgement. See Table 2, which presents Spell 125 from the Book of the Dead, one version of the negative confession, from which it may be reasonably deduced that both social and spiritual balance were important in the functioning and well being of that society, over three and a half millennia ago.

Table 2. The Ancient Egyptians' Negative Confession- Egyptian Book of the Dead, …extracted from Spell 125 (Faulkner, 1985)

1. I have done no falsehood	2. I have not robbed	3. I have not been rapacious.	4. I have not stolen.	5. I have not killed men
6. I have not destroyed food supplies	7. I have done no crookedness.	8. I have not stolen the god's-offerings	9. I have not told lies	10. I have not taken food.

11. I have not been sullen.	12. I have not transgressed.	13. I have not killed a sacred bull	14. I have not committed perjury	15. I have not stolen bread
16. I have not eavesdropped	17. I have not babbled.	18. I have not disputed except as concerned my own property	19. I have not committed homosexuality	20. I have not misbehaved.
21. I have not made terror.	22. I have not transgressed	23. I have not been hot-tempered	24. I have not been deaf to words of truth	25. I have not made disturbance.
26. I have not hoodwinked.	27. I have neither misconducted myself nor copulated with a boy	28. I have not been neglectful.	29. I have not been quarrelsome.	30. I have not been unduly active.
31. I have not been impatient	32. I have not transgressed my nature, I have not washed out (the picture of) a god	33. I have not been voluble in speech.	34. I have done no wrong, I have seen no evil	35. I have not made conjuration against the king
36. I have not waded in water	37. I have not been loud voiced	38. I have not reviled God	39. I have not done…	40. I have not made distinctions for myself
41. I am not wealthy except with my own property	42. I have not blasphemed God in my city			

The Negative Confession of the polytheistic ancient Egyptians stands in counterpoint to the more positive, Biblical Ten Commandments (Decalogue) of the monotheistic Jews and some Christians, e.g. “Thou shalt not kill,” “Thou shalt not steal.” Nevertheless, both sets of admonitions address concern for social and spiritual well-being of indiduals, and may have been penned at much the same time; however, they also reveal societal and cultural differences… For example, there is nothing in the Egyptian Negative Confession about: adultery, honouring parents, coveting a neighbour’s wife, etc., suggesting that such infractions of Hebrew Commandments would not have been heinous crimes to the Egyptians, either because they did not happen or they did not care. On the other hand, there is plenty about intemperance, interpersonal relationships, unfair-trading, purloining food, loud, excessive and antisocial behaviour, homosexuality and pederasty, religious observance, etc., suggesting the existence of widespread contemporary Egyptian social ethics and morality…

It is reasonable to assume that ancient Egyptian society was significantly less sophisticated than today's: politics and economics had not been invented, neither had theology, since there was no separation into sacred and secular; all of life was seen as occurring in the presence of the gods. There was little difference in the standing in law between men and women. Boys learned their trade from their fathers, women from their mothers. Women could serve in the temples of Hathor and Isis, female deities, while men might serve in the male counterparts, Amun-Ra, Sobek, etc. Health was a problem, with high maternal and infant mortality rates; while broken bones could be reset, problems with internal organs were not well understood, and the only antibiotic was honey, which was put on wounds to help them heal. (Aldred, 1961: Szpakowska, 2009)

Overall, during this second golden age of ancient Egypt, the impression emerges of a busy, occupied, largely unsophisticated population made up of many loosely-connected settlements and societies living up and down the Nile, getting on with the daily business of growing crops, raising cattle, praying to the gods for good Inundations, marrying, raising families, and so on… there seemed to be little for the average person to worry about outside of his and her absorbing everyday lives.

At the same time, there was a continuing outburst of creativity in architecture, literature, art, jewellery, and furniture, much of which still remains for us to admire. Looking back at Table 1. Maslow's Hierarchy of Needs above, it seems that Egyptian society in the New Kingdom was motivated to be self-actualising at the highest level. We may tentatively deduce that their lives, which—apart from the upper class—revolved largely around trading, agriculture, husbandry, fishing, making clothes, and raising families, would have been a satisfying and absorbing one; for those concerned with fine arts, perhaps even more so. And, they had an abiding belief in life after death; that they would go, with their families, to an afterlife which would be similar to their everyday lives, but even more comfortable, suggesting that those everyday lives were more than acceptable.

Summary. Comparing life in present day UK cities with New Kingdom Egypt—in terms of standard of living and, particularly, the human condition—suggests that the ancient Egyptians may, on average, have been less sophisticated and rather happier. Of course, they had no telephones, TV, wireless, etc., and medical care was limited, but these modern manifestations count little toward human happiness, family, contentment, assurance of the hereafter, creativity, etc.; they appear—at a considerable distance, admittedly—to be have been content. This despite (or because of?) relative unsophistication, lack of science and engineering, and a vibrant society within a firm class structure in which there was a place for everyone, no social mobility and no democracy…

Summary and Conclusions

A distinction has been drawn between social engineering (not a form of systems engineering), socioeconomic systems engineering (SeSE), and societal systems engineering (SSE). Historically, societies have been the subject of social engineering by despots, demagogues and governments, often to their own ends. UK politicians practice social engineering under the guise of parliamentary democracy, where competing political

parties take it in turn to engineer society according to their contrasting, left vs. right, and upper, middle and lower class ideologies. The many laws, social movements and changes occurring since WWII, seemingly innocuous or even worthy at the time, have combined to progressively degrade the human condition. Significant improvements in measurable aspects of the human condition such as individual health and longevity have been made, but are threatened by increasing social disorder, widespread fear, misbehaviour, obesity, alcohol and drug abuse, related medical conditions, reduced freedom of speech and privacy, etc.

Socioeconomic systems engineering, also driven largely by government, emphasises the materialistic aspects of 'social sufficiency,' establishing and maintaining a complex infrastructure of actions and interchanges between Raw Materials Industries, Manufacturing Industries, Service Industries, Farming Industries, and Society at large. The goal of socioeconomic systems engineering is primarily the provision of resources, so maintaining and improving material aspects of the quality of life; it can also enhance human capital through—particularly—higher education. UK education generally, however, is observed [e.g. by the Organization for Economic Cooperation and Development (OECD) (Loveys, 2010), (Young, 2012)] to have seriously degraded in recent years with respect to other nations. Globalization is seen as somewhat experimental, with inherent risks and necessary precautions, which are not evidently being taken…

Societal Systems Engineering (SSE) is concerned with alleviating and enhancing the human condition, which has been progressively degraded since WWII by increasing urbanization and mutual isolation between city and country, side-lining of Christianity, and dystopian Political Correctness, with misguided application of Health & Safety legislation provoking a nationwide Risk-Averse/Compensation culture. Together, these have stifled free speech, restricted behaviour, inhibited learning and creativity, imposed a nationwide atmosphere of fear and suppression, and restricted freedom of thought, speech and deed. Political correctness as an oppressive, totalitarian controller and regulator of UK social speech and behaviour, may be adversely compared with the ancient Egyptian 'negative confession,' which identified personal practices and behaviours that would potentially tip the balance against a believer's prospects of attaining afterlife, so encouraging 'acceptable' individual social behaviour in life…

An indicator of the diminishing human condition is the perpetual state of fear for their children in which people presently live. Whereas 60 years ago children roamed free, now they are rarely allowed out of the house alone. They used to go to school on their own: now they are taken and collected. They may come from homes where their parents are not married, or from single parent families, or from homes where mother has taken a second or third partner. They are not brought up in the way that their forebears were, within a nuclear and wider family: instead they go to nursery school, and are unavoidably 'educated' by their peers; some parents seem no longer capable—or concerned. The Welfare State, well meaning though it may be, is no substitute for bringing up children within an intellectually stimulating, nurturing and physically safe family, with both biological parents.

The social structure that, for the last ninety thousand years has been formed around the nuclear and extended family, integrated with the natural world, and synchronized with the

seasons, is becoming progressively atomized, accelerated and concentrated into ever-larger cities. Humans are not evolved to live in cities, insulated and isolated from the natural world of which they are properly an integral part. Obesity, self-mutilation, masturbation, attacking own offspring, stomach ulcers, fetishism, homosexual pair-bonds, murder, etc. occur with city dwellers, as they do with captive animals in a zoo. Such behaviours are evidence of a severely prejudiced human condition…

[Significantly, city-living humans tend to take their holidays in the countryside, at the seaside, on the beach, etc., subconsciously, perhaps, responding to the need for time in their natural human environment in which to relax, slow down and alleviate the human condition, if only temporarily. Others seek peace and relaxation in enclosed gardens with grass, flowers, fruit, foliage and running water, to isolate themselves briefly from other humans, and to recreate their natural environment in miniature.]

City life can be attractive, exciting and challenging, especially to the young, who may consider themselves urbane, superior and sophisticated compared with their 'country cousins:' sophistication may be a veneer of self-delusion. Cities, it appears, may be the problem, rather than the solution, in alleviating the human condition. Blueprints for potentially better ways of living, such as Ebenezer Howard's insightful 'Garden Cities of Tomorrow,' which addressed both socioeconomics and quality of life/human condition issues, met with only partial uptake and have effectively stalled. Such approaches were 'of their time,' but their aims were laudable: we lack contemporary counterparts, which can accommodate a global population of over seven billion and rising…

In Place of Social Engineering

Is there anything beyond these three:

1. Social Engineering (SE), somewhat blindly driven by competing political ideologies;
2. Socioeconomic systems engineering (SeSE), with its materialistic emphasis; and,
3. Societal Systems Engineering (SSE) with its emphasis on synergy, quality of life and alleviating the human condition?

Of these three, the first, social engineering, predominates. Politicians do attempt to address measurable aspects of the human condition, with promotion of health services, education and some 'culture,' but their efforts are marred by ideological differences between parties, and their focus on the city at the expense of the country. In times of trouble, politicians are more aware of socioeconomic issues, too, and concern themselves with the ability of the poor to 'pay their way.'

Which begs the question: what is the purpose, aim and goal of government? We might, in an abstract, idealistic sense, suppose it to be: "the provision and maintenance of a secure, nurturing and supportive national environment in which individuals, families and businesses may thrive and prosper in harmony with the natural world."

If that were truly the aim, then the third listed item above would be seen as more important. Indeed, the second and third items, socioeconomic systems engineering and societal systems engineering taken together could replace *ideological* social engineering

altogether as the stuff of government, both central and local. For this to take effect would require politicians to ditch their ideologies and choose instead to take a systems approach to societies and socioeconomics. As things stand, the socio- in socioeconomics is poor relation to the economic aspects. Perhaps we have need of a new, combined discipline: *Societal & Economic Systems Engineering*…where the emphasis is on societal systems engineering aimed at alleviating the human condition, together with human and social capital, within a self-sustaining economic framework. Using such a discipline, there may be recipes for moving towards a different way of living for many people, such that the human condition may be restored and enhanced. Although, *implementing* such recipes would almost inevitably involve social engineering…

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