

# TOWARDS THE MANKIND PLANET SYSTEM

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### A Historical Systemic Overview

#### Introduction

After the destruction of the WTC, many strongly impressed people commented that this event was a very significant historical turnpoint by itself, and also because of its variety of possible consequences. However such opinions have been fundamented in very different ways and the deepest nature of the postulated historical change remains obscure and controversial. Some speak about the clash between cultures; or rebellion of the underdeveloped countries; or consequences of the uses and abuses of the so-called "globalization" process (in capitalistic terms); or uprising against the U.S. imperial power.

However, not many explanations appear to be based on mankind's general history during the last centuries. Neither find we a global and integrated vision that would allow an evaluation of the set of causes – alleged or unknown – and discover the deeper currents of transformation that led us to the present critical situation. In short, our sociological understanding is highly deficient.

If we really want to obtain a less fragmentary and superficial view of the present situation (which may well in effect hurl us into a new historical mega-turmoil if ill understood and managed), it seems indeed useful to go back and to explore the nature of the fundamental events that triggered mankind's evolution since, let us say, the end of the 15<sup>th</sup> Century. Moreover this should not be done in a more or less anecdotal way: We should try to discover the significant sequences linking the basic events that ushered the transformation, and understand it as an ongoing evolution of many interlinked processes.

For such reasons, we propose hereafter a historical reflexion in systemic terms. In this way we should be able to avoid the behavior of that rabid pianist who hits the keys stronger and stronger each time he strucks a false note.

#### General Overview

The whole of the history of human societies shows a clear trend toward the progressive appearance of a decreasing number of groups, each of them however gathering an ever growing number of individuals. Such is the case since the first small tribal societies, up to the shaping of small or greater national states or empires. For now the number of such states is somewhat more than one hundred and twenty. But only much less than a half of them gather more than half of all of the world's population (China, India, Indonesia, United States, Russia and Brasil. Western Europeans enter the list only if counted all together!).

Moreover, during the most recent 50 years we witnessed the simultaneous appearance of great regional associations or federations, as the European Union and the Nafta, and business mega-concerns which are now very difficult to associate with a specific nationality. In fact they become more and more kinds of multinational industrial, financial or economic states ... ever less dependent of any specific political power. It

seems quite probable that this process will finally produce new social forms at the planetary scale.

In fact, this trend insinuated itself already after the first World War with the appearance of world cartels centered on specific products and, in world politics, with the Society of Nations. However the unifying transnational forces were not yet sufficiently strong and, as a result, we had to suffer the 2<sup>nd</sup> World War. It is anyhow interesting to observe that the very notion of "mundiality" (i.e. world reach, or worldliness) emerges from the armed conflicts during the 20<sup>th</sup> Century: the nationalistic and imperialistic rivalries between countries have precisely been the first to produce the emergence of problems that overflowed all the traditional borders and limits.

It must unfortunately be admitted that , in political matters, the United Nations, created after the 2<sup>nd</sup> World War, have generally been a failure, for which the great powers must bear the main responsibilities by using their veto power; transforming lesser nations into obedient vassals; showing sometimes scant respect for the decisions taken; or still more simply, not paying their dues. The U.N. however generated a number of relatively efficient agencies, directed toward specific problems that had acquired a worldwide dimension. The WHO, the FAO, the UNDP, the UNESCO and the International Court of Justice are good examples.

The same trend surfaced through the emergence of private or semi-private organizations, as the elderly Red Cross, the ILO, the IATA, the GATT (now transformed as WTO), the IMF and the International Atomic Agency. We also could observe the burgeoning of many international non-governmental organizations as for example Oxfam, Greenpeace and "Médecins sans frontières", whose reach and influence are swiftly expanding worldly. Scientific research and communication show the same trend and the extraordinary technical advances in telecommunications empower massively the whole process..

And of course, since many centuries, the great christian religious orders have a wide transnational reach.

In synthesis, the recent "discovery" of the "globalization" trend is merely the expanding and now massive perception of mundialization, a phenomenon which truly started at least five centuries ago and is now proceeding at an accelerating pace.

This evolution is quite probably an unstoppable and irreversible process. Opposing it seems to be futile and thoroughly unrealistic. Moreover, if some want to amend consequences that they view as negative, it would be necessary to understand how these consequences emerged, what are effectively their deeper meanings and what kinds of practical alternatives could be considered. A sheer opposition, even based on high-sounding abstract or ideological principles, or on short-sighted group interests, and eventually deriving into concealed pressure or overt violence would probably be inefficient and could generate worse problems.

It is in fact curious to note the very scant interest brought to the deeper nature of such an universal phenomenon, so extended in space and time. It would even be interesting to investigate the deeper reasons of this lack of interest and collective blindspots. It could be a result of cultural conditionings – different in different cultures – but invariably oriented toward the maintenance of some specific existing type of social coherence as it emerged essentially out of historical basic traditions. While a deep need for such invariability is commonly perceived , it may in fact become a roadblock for necessary

transformations and generate new and very serious problems of adaptation to new conditions.

For this reason, our vision of complex social and cultural situations should not be only historical, but must also be systemic: In fact, it is the nature and implications of the unavoidable and growing cohesion at a planetary level of humanity as a species that should be explored and, if possible, explained.

### **The beginnings of the historical move toward planetary unity**

Our inquiry should start from the technical revolutions which marked the threshold from paleolithic to neolithic cultures, from these to the agrarian ones and later, to the first urban cultures. This cannot of course be done within the limits of this note.

Let us only observe that anyone of these threshold crossings led to the emergence of a new type of societies with a higher population density due to a more secure staple diet and more diversified, structured and complex organization..

It also led, without exception, to the progressive subordination and frequently elimination of former and simpler socio-cultural types. Such characteristic changes have been verified at any further step within the general process of evolution of mankind.

They correspond to a growing capacity to exploit the environmental resources, a trend that underwent a massive increase during the most recent centuries. Each important technical advance destabilized the group in which it took place, as it produced positive feedbacks in the production of consumers goods, in the group's demography... and also growingly in its worldview. Such feedbacks trigger in due time first a quantitative rupture of the traditional way of life and later on, a qualitative mutation of the social ways.

In order to avoid excessive developments, we will limit ourselves to a quite swiping overview of the progressive process of general interconnexion at the planetary level that started at the end of the Middle Ages with America's discovery.

The oceanic travels of Christopher Columbus and his immediate successors would not have been possible before the introduction of sailships (replacing the old galleys), able to use trade winds, to sail faraway from the coasts; and making use of better instruments allowing navigation through precise sky observation (the astrolabe and, from the 16th Century on, the sextant and the compass). Finally, maps were also needed, even imperfect ones like the portulans, duly collected in Sagres by the portuguese prince Henrique the Navigator (1394 – 1460) for the use of sailors.

Even so, Columbus adventure, with three very small ships of no more than 100, 50 and 40 tons respectively, was an extraordinarily audacious and impressive endeavor. But, it was also the basic seed of mankind's mundialization, of which we are now starting the last stage. The great oceanic explorers who preceeded Columbus and went round Africa into the Indian Ocean, and all the others after him in all the oceans, were the weavers of the links between societies and economies at a global scale, hitherto without precedents. It is in effect obvious that the first condition for the emergence of a more complex network of cultures and extended and more populated societies was the appearance of these permanent links, which quickly became functional, significant and self-enhancing.

We know presently, of course, that all the consequences were very far from being saintly benedictions, without counterparts, as were for example the overbearing cultural imperialism of Western Europe, the massive increase – but not the invention - of slavery, the frequently limitless and abusive exploitation of natural resources, etc... But we also know that, during the last two hundred fifty years, western science, technique and industry have brought enormous benefits to the whole world, as for example a considerable extension of human life, a very significant betterment of health and powerful means of using all kinds of natural resources. We should thus – all of us, in any culture – avoid unilateral laudatory or critical evaluations. In the whole of human history and in all human societies there has been a coexistence of material positive aspects (not to be mixed up or confused with "Good", in ethical terms) and of negative aspects (not to be confused with "Wrong", or "Sin" – because, these are in both cases values that may vary widely in different cultures). Positive and negative features of what we call "Progress" are unavoidably an intricately mixed and are probably, also unavoidably complementary.

While Columbus and his emulators were discovering peoples and continents – also with mixed results, European Western culture started to develop its sciences and techniques. This was to lead her to an unprecedented control of the forces and resources of nature and, as a possibly undreamed of consequence, grant her a prodigious expansive power. In fact, Western Europe was to become the initial nucleus – in Prigoginian terms – of what is now becoming the evermore integrated mankind-planet system .

A very fundamental aspect of this transformation was the invention of printing, which multiplied in a massive way the possibility to widely distribute knowledge in space and time, starting under other things with ever better and more precise maps. Unfortunately, it was also to be frequently used to propagate many doctrines and ideologies which revealed themselves as illusory, abusive and frequently dangerous.

As every process with feedbacks, printing produced and still produces now enormous expansive effects, some of which may become deeply destabilizing in human affairs. We always meet again with this ambiguous character of all techniques: They are ethically neutral, but they act as magnifying glasses on all human actions, which of course are nearly never ethically neutral...

The distances revealed by the great seafarers were enormous, at least in terms of the time needed to cover them in accordance to the available means. However let us not forget that, a few centuries ago, the Americas and many other territories were as much isolated and unknown as are now Jupiter's or Saturn's satellites... and even more so. It is the great seafaring odyssey which created the global planetary space.

Later on, technique started to shorten the duration of the crossings and this led to ever closer material contacts between the most diverse economies and cultures which formerly ignored each other absolutely or nearly so. Even well into the 18<sup>th</sup> Century, the french philosopher Voltaire could ironically caricature his contemporaries ignorance, asking: "How is it possible to be a Persian" (i.e., an Iranian). The shortening of the distances between cultures is obviously much slower and difficult than the shortening of the geographical distances. In our time, Voltaire would possibly ask: "How can someone be Khomeini, or Ben Laden, or, for that, George W. Bush?".

The process of growing planetary interconnexion began to accelerate by itself during the 19<sup>th</sup> Century.

Again, this was a result of science and technique... possibly still more of this last one. Papin, Newcomen, Watt and others invented and developed the steam engine, thus triggering the process of energy control which, more than any other factor, explains the prodigious progress of mankind all along the two most recent centuries. In systemic terms, this is in concordance with the universal and necessary process of shaping new structures through dissipation of excess energy, which leads systems to instability (discovered by Bénard and modelled by Prigogine).

Meanwhile, naval engineering reached its *nec plus ultra* with the construction of the famous clippers, the magnificent greyhounds of the oceans during the 19<sup>th</sup> Century. This was a triumph, but altogether a dead end. Then, the noted english naval engineer Isambart Brunel got first the idea of constructing a ship with a metallic hull, and soon to put it in mouvement using a steam engine, fed with coal, at that time over-abundant in Britain.

At the same time, this country started its industrialization: steam could be used as prime mover of any type of fixed or mobile machinery and the omnipresent coal, combined with refined iron ore allowed for steel production. Thus, steam eliminated traditional crafts and gave birth to the industrial proletariat. The industrialization process propagated itself quickly to Western Europe: Belgium, France, Germany, Luxemburg and Austria and gave an enormous impulse to colonial expansion. This meant the ever closer contact of the then cyclically static and technically backward rest of the world with the new european center of development. (Again, in accordance with Prigogine's model of emergent organizational nucleation in wildly fluctuating thermodynamical systems led far from equilibrium by excessive energy inputs).

Obviously however, contact did not mean reciprocal understanding: The respective situations had become excessively asymmetrical. Western Europe to begin with, and shortly after and for the first time, new extra-european powers as the United states and Japan, offered what pleased them to sell or preach, and carried off, sometimes forcefully, what they needed, or liked. This was indeed the case not only with material goods, but also with religion and ideologies.

As the process accelerated, the famous british bard of the Empire, Rudyard Kipling (born in Bombay anyhow!) could still write at the beginning of the 20<sup>th</sup> Century: "East is East, and West is West, and they never shall meet". During the next hundred years however, they met, repeatedly, even if in many cases the meetings were revulsive clashes. It is curious to observe how a great mind can be wrong and right at the same movement!

In order to obtain a better understanding of this restless transformation, it is necessary to take in account other consequences of the access of Europe to massive sources of energy. In particular it will be important to consider the specific case of oil ... and its main geographic location.

To begin with, european industrialization attracted millions of poor european peasants toward the swiftly expanding centers of the new activities. In the historical short span of less than a century, rural population, which was a massive majority, became a small minority of some few percents. This was the beginning of the now nearly total destruction in the western world of the traditional rural village culture.

The emergence and quick multiplication of an enormous and wretched proletariat, exploited by the new industrial barons (sometimes themselves grandsons of migrated villagers!) was crudely described by Dickens in England and by Zola in France. It is

quite possible that some Chinese novelist or sociologist is presently observing the same process in the southern Chinese provinces of Guang Dong and Fu Jian.

However, the subjacent logic of industrialization implies the necessity of a minimum of skills and knowledge for everybody and a deeper technical and organizational knowledge for the medium and superior levels of managers. This is obviously what triggered massive alphabetization in Western Europe to begin with: Ignorant peasants are useless in the structures of industrialized societies.

But, at long last, the progress of knowledge cannot be contained or restricted. This was recently experimented by the Soviet leaders after transforming millions of muzhiks into specialized workers and engineers and scientists: those folks started to think for themselves! The European colonizers in Asia and Africa, who deemed necessary to train "natives" to help them, had to go through the same experience.

Who learns to read and to count comes soon or later to read and to count more than technical manuals, accounting statements or machine plans. He or she starts to think for him or herself about what he/she is doing... and about what he/she is not allowed to do.

In this way, the economic and social structures of industrial societies unable to promote general social progress become brittle after two or three generations... and moreover, for the industrial society it becomes a must to develop consumerism and it busiests itself to actively promote it through massive publicity. The result, in the funny words of the French economist A. Sauvy is that: "As the desire generally precedes the material possibility to satisfy itself, the state of discontent is permanent". Consequently, the whole historical social process of structuration through energy dissipation cannot generally escape from periodic crisis and revolutionary turmoil.

The situation becomes still more tense in non-western countries, where the disequilibrium, even when "progressist" is introduced by foreign outsiders. In such cases, linguistic, racial, religious and, or cultural differences prevent the understanding of the whole process, deepens the uneasiness and the resistances, and poisons the relations with the supposed authors of those widespread, uncomfortable and troublesome perturbations which result from the introduction of the western ways.

Everyone wants "progress", particularly material progress. But nearly nobody understands, and still less admits the radical social and cultural changes that this progress implies, nor the heavy sacrifices imposed by the need to construct the indispensable capital to secure development (specially when the capital remains in foreign hands, but even generally, whatever may be the process to accumulate it).

This phenomenon is absolutely general and was the basic cause of the anti-colonial movements, of the fundamentalists ones, as for example against the regime of the Reza Pahlevi Shah in Iran and the many times repeated recourse to "redeeming" dictatorships in numerous countries. It is also without doubt one of the roots of terrorism. It even produces the emergence of salvation religious sects, as shown by the Italian sociologist Victor Lanternari in his book "The religions of the oppressed" where he gives the interesting example of the cargo-cult in some Pacific island after the 2<sup>nd</sup> World War.

The West has been, and is still busy westernizing the whole world in its own way and for its own ends.

Not one single expansive culture in history did anything different. But any culture that crosses over out of its original geographic and cultural limits unavoidably generates suspicion and finally hostility from the invaded cultures.

The present problem is that, for now, the phenomenon encompasses the whole planet and that, even to fight against the so-called "western imperialism" (mostly now in its north-american variety), it becomes necessary, and also expedient, to use the very same tools which were shaped in the West. As an example west-asian terrorists used in New York as destructive missiles aircrafts... constructed in Seattle.

In some sense and paradoxically, this comes to be a kind of homage to western science and culture!

However, on the other hand, this same technocratic (and somehow faustic) culture has permitted, and even organized, its energy dependence from middle-eastern peoples that do not understand it and do not like it. Or so these say so, while anyhow using all kinds of artefacts produced by that abhorred culture.

This seems the dialogue of the blind and the deaf ones.

### **Is worldliness unavoidable? ... Could it be a perilous jump in the void?**

In systemic terms, the present progress toward worldliness seem to necessarily imply the replacement – or the inclusion - of multiple local and regional systems by a worldwide-planetary system which should be functional and organized to manage the different kinds of global problems whose emergence is still another aspect of structuration through energy dissipation.

How to better understand this process that appears in such multiple, intricated and agonizing ways? It would be possibly useful to meditate a principle introduced some years ago by the argentine psychiatrist and systemist Sabelli (now in Chicago): "Priority of the simple, Supremacy of the complex".

Obviously, no complex entity can exist if its constitutive elements do not exist previously. This principle is fitting from at least the physical level up to the social level in any animal or human society. However, no uncoordinated elements can produce complex behavior, even when very numerous. Organization, whatever its prime mover, is what gives significance to any type of complex entity. On the other hand such an organization seems to emerge through interactions, as a spontaneous bottom up process from certain kinds of relationships among certain classes of elements, when certain conditions are given. But these relationships, when well established and stabilized, end up conditioning the behavior of the elements, in what becomes a top down process. Thus, as stated by Sabelli, the "complex" exerts its supramacy upon the "simple", even if it could not exist without it.

If we now consider the various possible types of existing human groups, we can see that they self-organize at different levels of complexity, which were described by J. Miller in his general taxonomy of living systems. Human social systems, according to him, exist in five levels of lower or higher complexity, from the small task group to the planetary society (in the making), the most complex possible. In Miller's taxonomy, we discover again the bottom up principle in action: In every level complexity results from the interweaving relationships among entities on the immediate lesser level .

And of course, we also find supremacy of the complex.

If we try to apply these concepts to mankind's history, since the most remote prehistory, we observe the appearance of more numerous collective human groups, wherein

structures become evermore differentiated and functions more varied and complex. All this is notably expressed by the sustained progress of the techniques.

The most recent socio-political forms have been the nations-states and the empires, which included tens or even hundreds millions of individuals within a global organization, in each case characterized by a specific technical, economic, organizational, social and cultural level. These bigger forms always resulted from the absorption and assimilation of former smaller and less complex units.

In the present situation, the technical development introduced by the West has created an evermore dense network of planetary relationships of very distinct characteristics. Such a process has always in the past produced very serious problems, as for example in the relation of human societies with the biosphere: deep deterioration and in some cases, massive destruction of the natural resources, a supposedly a common endowment, God-given to mankind.

It is now easy to understand that the human species, as a whole, is becoming a natural force comparable to the other major natural forces. This generates an unprecedented situation, that no local or national society can control, or even more modestly, manage.

Such a state of affairs includes some specially important peculiarities of the present state of affairs.

If one admits that the ever more massive dissipation of energy is the essential motor of the now highly diversified and organized human activities, the immediate and mediate obtention of sufficient inputs of energy is a sine qua non condition of the maintenance of the high demographic and organizational level that has been attained.

This leads us to two very fundamental aspects related to our common future.

In the first place, we are living since more than one and a half century out of a massive "geological allowance" of fossil energy: coal, oil, gas. We all are using this free natural bounty (cleverly monopolized in their own direct interest by a reduced number of nations and business groups) at such an accelerating rate that, within some very few centuries, or even less, it will be exhausted. This problem concerns in its mediate future the whole of mankind: We will have to replace the "geologic allowance" by some sources of permanently renewable energy. Otherwise, the global collapse of our present economic and social organization would be unavoidable.

Instead of the present struggle between nations, or cultures, or whatever, the moment will come when we all must tackle together this problem, fundamental as it is for our common survival. But unfortunately, it is probably illusory to hope that any serious consideration is to be given to it until the situation turns critical... or catastrophic. Really, history teaches us that man is not a very reasonable animal, nor very provident.. He seems to react only when directly and urgently confronted with a great danger. Anyhow, the first step is to become conscious of the insidious progress of the problem!

The second aspect is much more immediate: The "geological allowance" is in good measure geographically controlled by moslem countries. Ultimately, it is oil which waked up and politically dynamized the somnolent moslem societies, as in a different but parallel way it technically and politically dynamized western societies. This kind of economic, technical and political counterpoint largely explains the situation which recently emerged in such a tragical way. The gigantic overflow of money which runs permanently into the moslem world transformed it deeply and will sustain its transformation in the foreseeable future, thus disordering and upsetting still more its

economic, social, politic and cultural equilibria. This too is a phenomenon of structuring dissipation, characterized by wide and violent fluctuations (fundamentalist Iran, endogenous terrorism in Algeria and Egypt, authoritarian political regimes of uncertain future in Algeria, Syria, Iraq, Egypt, Libya, Pakistan and, of course Afghanistan); shaky monarchies, and even Rushdie's "Satanic verse"). Given the circumstances, it could however trigger an explosion of anarchy in place of the emergence of a superior level of more efficient organization. And of course, it would be utterly dangerous to provide this explosive with a detonator.

Huntington's hypothesized clash of cultures has only one antidote: it is the conversation among cultures. This is however obviously a very tall order, specially since September 11<sup>th</sup>. However, someone, speaking about the very high costs of education, drew the attention toward the still much higher costs of lack of education. Shall we understand the similarity with our present quandaries?

No historical mutation has ever been easy and cheap,. from the suspicions that bear on the transition from Neanderthal men to our Cro-Magnon ancestors unto the dreadful and senseless massacres of the two world wars. Presently still, premature deaths of millions of human beings take place because of curable – but unattended – illnesses and wide-spread hunger in a world than can produce a profusion of abundance.

It is finally human mental short-sightedness or outright blindness – frequently disguised as personal well conceived interest, that also frequently backfires – which has covered the planet with premature graveyards.

It may now be the moment to deepen our understanding, excluding all that traditionally blinds us: ideological illusions, simplistic pseudo-solutions imposed out of context, useless naïve sensibleries, overbearing ignorance, or arrogance that triggers repulse and hostility, etc...

The understanding and use of systemic models may not offer universal solutions, but could undoubtedly offers us deeper and more efficient insights and some short-cuts toward a wider understanding and a cleverer management. It would help us to understand the symptoms that we observe, or fail to observe; to distinguish what could be useful from what is probably useless or downright dangerous, to better manage we what we cannot hope to control totally; to appreciate the nature, the forms and the times of the necessary evolutions.

Will we go on deriving incontrollably in the currents of history, which can drive each of us at any moment upon a hidden reef (the WTC for example)? Or will we make a new effort?

Prince Wilhelm of Orange-Nassau, the "Taciturn", once said, just in the middle of the 17<sup>th</sup> Century religious wars: "There is no need to have much hope to start some endeavor, nor to succeed to to perseverate". Our personal responsibility, especially of who among us have some systemic insights – is to try to seek a better understanding what is going on, at least for the sake of ourselves and of those we care for.

Let us be skeptical, but let us not renounce to try anything that could be useful!