

ON THE LAST 2500 YEARS IN WESTERN HISTORY

And some remarks on the coming 500*

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1. Introduction.

It may be an indiscreet question, but **it is nevertheless** a highly legitimate one: "what actually happened during the last 2500 years in Western history?" **given** that the answer should be an article rather than a book, one lecture rather than a series. There is nothing more illegitimate **in this** than to ask for a description of what happens at street level as seen from a helicopter circling above, with a macro-view of the situation, with little insight into the micro-perspective possessed by drivers and pedestrians, their anguish and delight or sheer boredom in trying to match their intentions to get ahead with their capabilities, against the intentions and capabilities of others in the traffic throng. It is legitimate to give answers in terms of traffic flows and charts, of periods of movement and periods of standstill, of the traffic being most rapid in the center of the lanes and very slow towards the edges (as in hydrodynamics); an analysis of traffic does not have to be through the eyes and minds of those **involved** although that helps understanding. The question is not illegitimate, it is only indiscreet because of the difficulty of answering; itself a good reason why the question is **usually** rejected. And yet the question tends to appear and reappear: it is unnecessary to invoke a curious Martian on a quick visit wanting to get some information about "this thing called Western history". It is sufficient to note that sizable proportion of the Western population - high-school youth trying to come to grips with history at the actor-level so often seem to want more holistic views, until in the end they have been sufficiently discouraged by lack of answers **and points of view**, ¹⁾ And there may be many others with a similar quest for an overview, perhaps particularly for competing **overviews**, forcing reflections and more creativity in the field.²⁾

But then there is another reason why this type of enterprise seems not only important, but mandatory, today. The point

is not so much the idea of a shrinking and increasingly inter-dependent world, as the circumstance that the West during our generation seems to be the target of a more forceful challenge than ever before in recent centuries.³⁾ The challenge comes partly from outside, from the West's periphery; and partly from inside, from the inner periphery and center. . There is a confrontation between systems, there are blocks on the road, preventing a flow of unimpeded expansion. If expansion is seen as an essential part of the West, then one implication would be that the West itself is challenged at its heart, which should lead to some self-criticism as well as other reactions, and to some reflections from and by others. In short, not only "what actually happened during these two-and-a-half millenia", but "what is the real nature of the Western enterprise?" 4)

Then there is a third reason arising from the quests for description and theory just mentioned: the need for some image of the future. If the West is in a crisis (the point will be made later that this statement is a tautology, crisis being seen as a part of the definition of the West), and the crisis this time is of a fundamental nature because of the challenge from both outside and inside, then it might be worth trying to look over the fence, across the present into the future. According to empiricist doctrines we cannot know the future, but a less empiricist position would point out that there are many senses in which we do not know the past either, making past and future less different. There is probably no wie es eigentlich wird that can be added as a dictum to Ranke's wie es eigentlich gewesen. But when it comes to imputing meaning to history, past and future are not that different, if for no other reason because one of the methods of testing theories is through confrontation with data, and postdiction and prediction are similar as methods.⁵⁾ A sense of history implies a sense of the future.

2. Western History: A Bird's-eye View

Some limitation in time and space of the subject matter to be discussed is necessary.⁶⁾ As to time: roughly speaking the 2500 years between the Greek City State and the present Western attempts to establish systems of regional states (the United States of America, The European Community, the Soviet Union), but still very far from establishing a World State.⁷⁾ As to space: roughly speaking what today is known as Europe, and the parts of the world made similar to Europe through a process of "Westernization", perhaps also including the westernized elites found in most parts of the world. In fact, there is no difficulty envisaging a continuation of the process of Westernization so as to reach all areas of the world and all parts of the population, ultimately ending in a World State, but for reasons to be spelt out this will not be among the likely images of the future.

There is a further need for sub-division in time and space, so as to make this vast time-space region in world history analytically more manageable.

As to time: we shall stick to the standard sub-division of time into periods, using as reference points for the dividing intervals the traditional dates for the fall of the Western Roman Empire (+ 476) and the Eastern Roman Empire (+ 1453). The first period, lasting about one thousand years, will be referred to as Antiquity; the second period also lasting about one thousand years, will be referred to as the Middle Ages; and the third period - so far about five hundred years duration - as the Modern Period. Thus, there will be no challenge of the conventional wisdom that there are such important dividing lines in Western history.

As to space: another tripartite distinction will be made, between Inner-West, Outer-West and Outside. Roughly speaking these concepts correspond to Center, Periphery and the Rest. Really, it is a dynamic concept: the Center has moved through Western history,⁸⁾ the Periphery has expanded, the Rest has shrunk with the expansion of the Periphery and expanded with discovery.

Moreover, the Center has its own center and periphery, just as the Periphery can be seen as having its own center and its own periphery.⁹⁾ The sub-divisions, however, are not so much geographical as social concepts; cC being the elites in Inner-West, pC being the inner-peripheries and the masses, cP being the elites in Outer-West and pP being the outer-peripheries and the masses in the Periphery. The Rest is untouched by all of this; some of it may survive as pockets in the western-penetrated land mass.

So much for time and space: the next problem is the question of what to look for. In very broad terms: structures - patterns of millions, billions of human transactions with a certain constancy over time - and processes, or the change of structures through time, partly due to the intentions of some actors (voluntaristic processes), partly non-intended (automatic processes). Of course, processes are not neatly divisible into goal-oriented and not; any process may have a component of either. But there is a dynamism in the idea of process not found in the idea of structure. Process is change of structure, whether goal-directed or not, whether slow (evolutionary) or quick (revolutionary); in the latter case we shall use the expression "transformation."¹⁰⁾

The enterprise now boils down to an effort to characterize Western history, for the whole period, and for the sub-periods in terms of structures and processes. The question then becomes which structures and processes to focus on. There are many of them, some selection has to be made.

As to structures: as an absolute minimum something must be said about micro-structures and macro-structures, i.e. the type of social structure found respectively inside societies and in the relations between societies. Of course, they may be strongly related to each other and may even be expressions of the same basic social form, but the terms used to describe intranational and international relations are usually different, and should be different, for clarity.

As to processes: if process is change, then it might be possible to focus not so much on the content of the change as its form. And here there are several possibilities, for mathematics as a store of forms has much to tell about the possible shapes

of functions of time. Thus, the mathematician would ask whether the function is monotone (never decreasing or never increasing) or non-monotone (both increasing and decreasing with time); the historian would sharpen this question and ask whether it is monotone/non-monotone for the entire period, or in the sub-periods. But instead of using this mathematical language one could use a language better known to historians: rise-or-fall variables vs. rise-and-fall variables; and repeat the idea of distinguishing between processes for the period as a whole and processes that take place within the sub-periods, thus yielding a total of four possibilities. To this should then be added the obvious fifth possibility: that of discontinuous processes, of sudden jumps or transformations. One thesis would be that there are two such transitions or transformations in the period of history considered: the transition from Antiquity to the Middle Ages and the transition from the Middle Ages to the Modern Period. To this, then, could be added speculations about future transitions, under the assumption that the present "modern period" is currently coming towards an end. 11)

Let us then try a quick characterization of dominant features, not the many exceptions and variations - comparing periods in relative terms.

We see the social structure of Antiquity as predominantly vertical, with tremendous differences in power and privilege, highly exploitative, but also as highly individualistic - and not only for the citizens. The individual is seen as the basic social unit. On the top individual mobility, geographically and socially is seen as natural and correct; verticality and individuality combining into competitiveness. As a result the period produces a very high number of extremely colorful personalities, many of them still with us as fundamental pillars in Western civilization. They may be found in all fields, politics, arts, sports, religious matters; they may have followers, but it is the individual as such who is seen as the carrier of innovations, ideas, initiatives.

In the Middle Ages this changes. The verticality remains, but individualism is subdued, groups of people are - so to speak - enclosed into a cocoon of collectivism; the leading idea being that of serving the collectivity or the lord on top of it (or the Lord), rather than individual success. Extremely impressive and relatively stable social structures are

built, works of art are produced, but with a certain anonymity, invariant of the concrete individuals participating in it; the period does not hand over the stage to so colorful personalities. Where Antiquity produced actors, the Middle Ages produced structures - or more correctly expressed: where Antiquity had a structure giving much freedom of choice to strong and capable actors, the Middle Ages produced actors devoting themselves to building structures with a certain permanence, less vulnerable to individual idiosyncracies.¹²⁾

In the Modern Period this changes again, and in a sense back to the structure of Antiquity - the famous rebirth or Renaissance being a rediscovery of the culture of Antiquity prompted by similarity in social structure, releasing the individual from the ties of collectivism, at the same time exposing him and her to the vulnerability of ^{being} isolated individuals. Being ourselves a part of the period, we would be inclined to see it as more creative, more light than the "dark" Middle Ages because human individuals play roles that we more easily identify with. Again the number of "colorful personalities" shoots upward and the individual is once more seen as the carrier of social action.

A similar set of characterizations can now be given for the macro-structure, for relations between societies.

In Antiquity the dominant structure was highly centrifugal: from Inner-West in the eastern and central parts of the Mediterranean increasing areas were incorporated in the Outer-West through bridgehead formation, small replications of the Inner-West in the Outer-West. Together the Inner-~~West~~s ruled over an inner and outer proletariat, surrounded by "barbarians", pushing the borders of the West relentlessly outward, incorporating barbarians in increasing numbers.

In the Middle Ages this changes. The structure becomes centripetal, apart from the Crusades (seen by some as precursors of the next period, in a sense incorrectly placed in time). The period is used for inner-work in Inner-West, for consolidation.¹³⁾

In the Modern Period this changes again: through the Great Discoveries the center-periphery model of Antiquity can be replicated on a larger scale, even on an ever-expanding

scale into our days. Competitive individualism and expansion of the Outer-West combine into the figure of one particular person: the Discoverer, a lasting hero of the period; ultimately establishing fame through landings on the moon.¹⁴⁾ The Inner-West moves, North and West goes to war against itself, but from a global point of view the result is the same: the Roman Empire writ large, even very large.¹⁵⁾

Let us then turn to processes, starting with rise-or-fall processes for the entire period.

Usually these are referred to as "growth" processes, for a reason to be explored later. They can all be placed in one particular context: Man's conquest of Nature. Nature is driven back (deforestation), cultivated, urbanisation processes take place, transport and communication networks grow and are filled with increasing volumes of goods, people and information, economic cycles are established capable of handling increasing quantities of economic factors, producing ever more goods and services, expanding so as to cover more and more people and ever larger territories with ever-growing speeds of movement.¹⁶⁾ As a consequence of this conquest the human population starts growing, slowly at first, then more quickly. In short, given the constancy of matter there is more man and man-made environment, less nature - and man also lives longer than before.

Three more holistic ways of conceiving of the changes mentioned above, combining several of them into patterns of readily identifiable nature should be mentioned.

There is the growing size of the unit of administration, from villages, towns, cities and city-states roughly encompassing 10^2 - 10^5 individuals to larger units such as nation states with as many as 10^6 , 10^7 and ultimately 10^8 individuals. Together with this phenomenon comes the emergence and rapid growth of bureaucrats as a social class.¹⁷⁾

Then, there is the corresponding growth of economic cycles, meaning networks of transaction with recognizable nodes that can be referred to as Nature, Production and Consumption - raw materials being extracted from Nature, processed in Production, distributed to Consumption in return for labor, money or other forms of value; with various kinds of waste flowing back into

nature from production and consumption. Under capitalism as the dominant mode of organizing the economic cycle the basic question to be asked of economic cycles is whether they - at least in the long term - lead to an accumulation of capital. As the cycles expand, the processes become more encompassing and quicker and as capital accumulates, the owners of capital, the capitalists, emerge and grow as a dominant class.

The third phenomenon we would like to point to is the emergence and growth of intellectuals as a class.¹⁸⁾ Intellectuals are indispensable in order to make the bigger units understandable to those who rule them, since they can no longer be ruled in terms of direct man-to-man relations. They have to be governed according to abstract principles, "laws", and as the units grow in size, so do the laws.¹⁹⁾ For several reasons the expanding category of "citizen" as a common status to all living in the same polity grows in importance, and rules are needed to define the rights and duties of citizens. Similarly, for the economic cycles to expand, forms of understanding have to be established whereby consensus can be obtained as to what constitutes equivalent raw materials, equivalent labor, equivalent capital - and equivalent goods and services. For all such standards to be worked out intellectuals (chemists, physicists, biologists, psychologists and educators, economists and so on) are indispensable. And the same applies to the production process itself in so far as production is processing, i.e. the imprint of some form on nature: it is the task of the researchers to establish that form. As a result of all this an increasing group in the population does work that is increasingly abstract, consisting of manipulating symbols rather than things.

In order to sustain this growing class of bureaucrats, capitalists and intellectuals, engaging in administration, production of goods and services, production of forms of understanding and professional services of various kinds, agricultural yield has to improve quickly so that one family on the land can support more than one family (itself), yielding an agricultural surplus sufficient to sustain an ever-increasing proportion of the population. After some time there is also the need to support industrial workers, another growing portion of the population,

and in order for this to happen industry has to deliver something back to agriculture to increase the yield (tractors and other machines, fertilizers). An important set of rise-or-fall-variables becomes the complex process characterized in general by a decreasing primary sector, increase (but later on decrease) of the secondary sector, and a steady increase of the tertiary sector.

Most of the processes described so far - and many more could be added - have something in common: there have always been ups and downs, particularly from a micro-historical point of view, but macro-historically speaking many of these variables were relatively constant till a couple of centuries into the modern period. Then they started growing with remarkable turning points in the period 1750-1850, afterwards shooting quickly upward. Thus, looking at these variables alone one would probably draw the conclusion that Western history divides into two periods: before and after what is conveniently referred to as "the industrial revolution". This is not the view that will be taken here, however: rather, the early part of the modern period will be seen as preparing a framework within which the explosive growth that took place later became possible.

Let us then turn to rise- and fall-variables for the total period, focussing on one particular variable: how much surplus value the elites were able to get out of the masses. One important perspective would be that this important variable reached a minimum at the end of the Middle Ages, at a time which should then be characterized by a very poor landed aristocracy, relatively speaking.²⁰⁾ This is seen as the bottom point of a process that lasted throughout the Middle Ages, reaching a turning point around the Renaissance after which there has been a constant increase in the rate of exploitation. The unit in which this has to be studied, is, of course, neither the city state nor the nation-state but the unit in which the economic cycles have been operating, i.e. increasingly the whole world - the point being that the rich become richer and the poor stay the same or even become more poor. Impoverishment of the masses was increasingly exported to the Outer-West.

Let us then focus on the sub-periods, and by the same logic start with the rise-or-fall variables. Actually, there is only one we shall focus on in this connection: the variable used by Sorokin, ideational vs. sensate orientation; a complex variable with a number of attitudinal, behavioral and even structural components.²¹⁾ Broadly speaking the proposition would be that each period starts with a high level of idealism, orientated towards being rather than having, towards conquest of self rather than conquest of nature, towards transcendence into the other world rather than transformation of this world. But throughout the period there is deterioration of ideational energy and orientation, and increasingly sensate patterns set in, ultimately leading to not only sensate but sensuous forms of existence. In other words, Sorokin sees a see-saw pattern to history: from high down to low, then up to high again and so on, in an unending pattern. The great periods according to him are the early parts of the three sub-periods, the latter parts being highly sub-standard.

The leading rise- and fall-theorist within the sub-periods is, of course, Marx; but it should be added that for him it is probably the period around the industrial revolution rather than the renaissance which is the decisive turning point. Following Hegel with his famous Stufengang (Primitivism, Greek antiquity, Roman Christian, German Christian) Marx introduces his own Stufengang - primitivism, slavery (the Greek and Roman periods combined), feudalism (the first part of German Christian) and capitalism (the second part of German Christian).²²⁾ As the theory relates to basic material needs (the misery of the exploited classes) and to concrete social actors attempting, at least potentially, to preserve or to transform structures, the theory became itself an important part of the historical process, because it was related so directly to interests. The theory defines sub-periods by using characteristics of the economic process, and one way of conceiving of marxism might be to say that a basic point is how many and which production factors are controlled by the ruling class. Under slavery (roughly equivalent to antiquity) the ruling class controlled both nature, labor (as slaves) and the capital goods; under feudalism it may perhaps be said that some of the grip on nature and labor was relaxed through the complex set of rights and duties regulating the serf-vassal-lord relationship (roughly speaking surplus value in return for

"protection"); under capitalism capital goods became crucial in the production processes and the hold on nature and labor was relaxed further in the sense that nature in the form of land was distributed more than before (but nature as a source of raw materials less) and in the sense that labor as persons were permitted more mobility than before (but given less power over what to produce and what to do with the surplus after the reproduction of labor itself was secured).

Against this background the relationship between the means of production and the mode of production unfolds itself, roughly speaking the equivalents of the techniques of production in a broad sense, and the social structure within which production takes place, including control patterns. The basic point here would be relations of compatibility or incompatibility (contradictions) between the two, the postulate being that the mode of production sets a limit for the full application of the means of production. The system expands and matures as the means of production make full use of the possibilities given by the mode, but as the means of production then develop further the mode of production becomes more and more like a strait-jacket, and as the contradictions between the actual and the potential mature the system comes to a grinding halt; carrying in its womb the roots of a new social formation.²³⁾

And that brings us to the last type of process: the discontinuous jump, the structural transformation. We have postulated two such transformations in the total period, well knowing that "discontinuity" is a misleading metaphor since so much of the new was present in the old, at least in embryonic form, and since so much of the old will survive into the new. Moreover, the transformation period was certainly not a point in time, nor a short interval - but possibly a sub-period of the same order of magnitude where duration is concerned as the sub-periods already mentioned, particularly if the transformation is defined as the period between peak performance of the old and of the new social orders.²⁴⁾ And the transformation did not take place at the same time throughout the West - the centuries indicated are usually the transformation periods for inner-West, assuming that outer-West is lagging behind, or not even participating in the transformation.²⁵⁾

As Western history has been portrayed here the picture is no doubt stereotyped, exaggerating within-period homogeneity and between-period heterogeneity. But we shall stand by that perspective, to the point of maintaining that these fundamental transformations may even have pendular characteristics in the sense that the Modern Period has basic similarities with Antiquity, and it does not seem totally unreasonable to assume that it could be followed by a fourth period bearing some similarities with the Middle Ages. This pendular, or oscillating movement, would then be seen as a characteristic feature of Western civilization. For a deeper understanding of that feature another conceptual tool is necessary.

26)

3. On Western social cosmology

To try to penetrate more deeply into Western history, and particularly to try to conceptualize if not necessarily explain, some of the basic changes that took place in Western history from Antiquity to the Middle Ages and from the Middle Ages to the Modern Period, the concept of "social cosmology" might be useful.²⁶ It is conceived of here as "deep ideology", a set of usually unquestioned assumptions about all kinds of social things and how they relate to each other; implicit rather than explicit. The metaphor of social grammar may be useful here: the idea that there are some basic rules defining elements, their relations and transformation. Thus, it would be difficult to fail to discover some similarities between the street map of Paris, the road map of France and the international map of the relationship between France and her former and present colonies and overseas territories. One might say that these are three concrete manifestations of center-periphery relations in space, and that they are isomorphic to each other because they ~~express the same structure~~. It is that structure, then, that becomes a part of the social cosmology of Western civilization - at least in a certain period. The following three concepts will serve to regulate the usage of the term "social cosmology".

First, the idea of isomorphism defining what is natural, normal as that which has the same structure (including the same structure over time, or process).²⁷ It should be pointed out that in this there is no assumption that social cosmology is an idea: rather, social cosmology is what arrangements of concrete things (like the examples given) and arrangements of abstract things (like the way propositions are related in an axiomatic theory) have in common. Thus, there is no assumption that material arrangements, or the arrangement of ideas, have priority in any sense. The idea of cosmology belongs neither to one nor the other side of this hen-egg pair, but would help define the rules according to which material arrangements are reflected in ideas, and ideas are projected into material arrangements.

Second, there is the idea of holism. Social cosmology seen as deep ideology, for instance, would reflect some of the obvious similarities between such apparently disparate doctrines

as latter-day Christianity, liberalism and marxism, including serving to define one or the other of them as incomplete ideology because some significant elements are missing. A social cosmology properly constructed would define a complete social grammar, a set of rules for how man should relate to man, man to nature, how man should conceive of how nature relates to nature, and so on; much like the grammar for a language has a certain job to do, including that of defining deficiencies in the language. Needless to say, social cosmology is a construct and its usefulness depends on to what extent it can permit us to formulate insights and even concrete post- and predictions about empirical reality. It is more than a list of rules, much like a building is more than a heap of tiles **and** sacks of cement.

Third, we shall postulate a vin-yang aspect to social cosmology. Thus, we shall not assume that the Western social cosmology is a clear-cut thing, invariant in social and geographical space and in time. It obviously is not, for if it were then there would not be these fundamental changes in what was considered normal and natural, nor the variations in social and geographical space within each sub-period, so far not touched upon at all. So we shall assume that there is something like a dominant/manifest social cosmology, always accompanied by a recessive/latent social cosmology, like its alter ego; and further postulate that whereas the dominant cosmology by definition is that of the center in the Center, the alternative cosmology may be particularly pronounced elsewhere - in the inner proletariat or in outer-West - not to mention in the Outside. Thus, although one of our points will be that dominant Western cosmology has a tendency to be anti-dialectical, contradiction-free, our image of ~~that~~ cosmology does not have to share these two Western characteristics.

To summarize: social cosmology is seen as something located inside the only concrete social actors there are, individual human beings. One might postulate that human beings have an inborn capacity for a number of social grammars, and that their experiences with the outside world activate and build up one such grammar, partially activating and building some others (the less dominant, the less manifest ones). Each impression from the outside of how things, concrete or abstract, are organized will serve as raw material building up the social grammar. Identical

patterns (isomorphisms) are recognized, sedimented unto the deeper recesses of human consciousness, then gradually serving as a cognitive filter filtering out patterns that are different as "unnatural", "abnormal", thereby sliding into a more normative concept. The more consistent the environment the more clear and crystallized the social cosmology imprinted on/in the human mind; and the more crystallized the social cosmology, the more consistent (one might hypothesize) will people try to construct that environment; the more "perfect" and contradiction-free will it appear.

Thus, social cosmology becomes like a program, not unlike the program of a computer; accepting inputs in some forms, rejecting or changing other forms, capable of carrying out some routines and delivering some kinds of output, to the exclusion or partial exclusion of other possibilities. But then there is the basic dissimilarity between human beings and computers: it is given to man to arrive at a certain level of consciousness about how he is programmed, including biological programming, and it is even given to man, probably under very special circumstances, to make changes in his program. This capacity of self-transcendence for the individual, and even Self-transcendence for a collectivity (using capital S for collectivities) may perhaps be seen as one formulation of whatever it is that distinguishes man from other animals, thus giving to man as an individual and as a collectivity the capacity of historicity, meaning by that something different from routine implementation of built-in programs, even if these programs are highly complex. Obviously this may be seen as related to the structural transformations that occasionally do take place in the course of human history, but they can also be found in individual histories, as conversion processes whereby "he/she becomes a new human being". But these moments are the exceptions, under normal circumstances people implement their programs, individually and collectively also in completely new life situations - e.g. as settlers on virgin territory.

How, then, should one try to characterize a social cosmology/deep ideology/social grammar? Or, more precisely formulated: how would one write the program of Western Civilization? What are the basic assumptions, the basic routines? And above all, given the hypothetical nature of this construct, what kind of methodology would one make use of? As to the latter the only honest answer

seems to be the "methodology of as if": Western history should be seen "as if" its actors were enacting a built-in program, choosing the program formulations that seem to render a minimum axiomatic basis for the understanding of a maximum of structures and processes. In so doing one could of course make use of the writings selected by those persons elected by later generations into the various halls of fame, seeing them as exponents of the Western consciousness (or even unconsciousness). But this would be a highly elitist methodology, giving much too much weight to specific individuals and relying much too much on the selection process that took place afterwards. Much better would have been systematic efforts, in the tradition of deep social science investigations, of the deeper-lying assumptions behind peoples' attitudes and behavior.²⁸⁾ If this is a question of philosophy one would like to know that of the peoples, not only the philosophy of selected individuals; the focus on the latter to the exclusion of the former being in itself an expression of Western social cosmology.

Granting that the methodological criterion for stipulating what Western social cosmology might be, is essentially indirect, in terms of whether it produces insights consistent with some basic aspects of Western history, the next question would be: which would be the major dimensions of a social cosmology? In a sense this could be answered by referring to the problem of identifying categories for the description of Western history in the three periods: it is a question of what constitutes natural/normal structures and processes. And essentially this is what we should try to do, but some other categories will be used, more from the field of ideas, less from social theory:²⁹⁾ the categories of Space, Time, Knowledge, Man-Man relations, and Man-Nature relations. The assumption then would be that any social cosmology, as a bare minimum, would have to say something about the nature of social space, social time, what constitutes socially acceptable knowledge, correct man-man relations and correct man-nature relations; if any one of these is omitted, one definitely should say that something basic would be missing; without claiming that the list is exhaustive.

Before proceeding along this list it should only be added that for each one of these five dimensions it is not sufficient to try to spell out the dominant Western cosmology. Negations of that cosmology should also be indicated not only in order to show

what the precise hypothesis about the Western view is (and that can best be done by seeing more clearly what the view is a rejection of); but also to open for images of the non-West in the West, for latent cosmologies. The basic assumption, then, would be that these are cosmologies held by peripheral groups, whether in the Western Center or the Western Periphery, in other words that the non-West at any given time is carried by segments of the periphery, and - perhaps - also as doubts, as counter-points in the very center.³⁰⁾

To start with space: the assumption would be that Western social cosmology sees space as roughly circular or spherical, with a center located in the West from which everything of importance emanates and radiates to a Periphery waiting for the message.³¹⁾ West is the cause, non-West the effect; that West is conditioning the non-West is the normal state of affairs, the converse being abnormal, against the natural order of things.

To make this more clear two aspects of this center-periphery image of the world should be emphasized: it relates to the whole world, to the most remote corner, every part is potentially a part of Outer-West; and it relates to the innermost part of human beings, to their attitudes and convictions - in other words it includes the idea of conversion. This is important, for world history has many examples of center-periphery formations of one kind or the other, but not with that universality and that claim on other peoples' souls. In other words, the Western social cosmology includes the idea of changing the cosmology of others. Nowhere is this so clearly expressed as in Matthew 28: 18-20,³²⁾ in the idea of going out, teaching all peoples. There is no 21st verse added encouraging the disciples to learn from other cultures and civilizations (from those with other cosmologies), and to engage in dialogues with them. To see oneself as a part of a family of equal civilizations in an equitable relationship was not the Western message.

"What is Western is universal, or at least potentially universal" seems to be another way of expressing the same message. Throughout history this principle has been applied to Christianity, to Western science, to Western economic systems including patterns of industrialization and commercialization, to Western social and

political institutions, Western languages³³⁾ and other aspects of Western culture, and developmental models in general. There is an interesting doubleness here: a sense of sharing, of not wanting to keep all these good things for oneself alone (as it is expressed in a letter to the Romans: here are no Jews and no Greeks, for we are all one in Jesus Christ - -); and then on the other hand the sure conviction that the center generating all these products for universal distribution is the Inner-West (again one could imagine a hypothetical verse, this time added to the letter to the Romans, to the effect that the headquarters of all this will be in Rome - -).

Several alternative conceptions could be imagined along this dimension. Thus, there is the possibility of regarding the world as politically flat, as equipped with many and equally important centers, as seeing oneself as one among several. There is the idea of contracting the world till it includes only one's own group, defining all outsiders as "barbarians"³⁴⁾ which in our terminology would be tantamount to a world image consisting only of Inner-West and the Outside, no periphery any longer. The outside would not count, it is merely a context like stellar space - at most something to be on guard against because it could be potentially dangerous. And then there is the possibility of conceiving of the West as being the periphery, in other words of changing the roles in the cosmology - a conception which actually would be Western because there would be a steep center-periphery gradient, only inverted. It was a part of Western political/military colonization and economic/cultural imperialism that what formerly belonged to the outside started perceiving itself as belonging to the Periphery, internalizing the image Inner-West had of those parts of the world; **thereby colonizing its**

One important factor associated with this Center-Periphery Outside gradient would be the degree of alienation relative to the outer circles. The Outer-West may be seen with contempt, but it is nevertheless useful; the Outside is an implacable enemy to be crushed or, not that different, to be admired. Peoples not wanting or not wanted for incorporation (like American Indians or European Jews), and too weak to resist the onslaught from the Inner-West will be threatened by extinction, in direct violence;^{36.} others that are incorporated into the Outer-West (which geo-

graphically may be next door to the ~~inner~~-West like the use of Africans as slaves) may be similarly exposed to structural violence! 37) Thus the historical importance of the center-periphery gradient with which the world is equipped in Western social cosmology is its compatibility with patterns of attitudes and behavior that can best be characterized as fascist. A social cosmology equipping the world with a flatter social gradient would be compatible with warfare and robbery, conquest, subjugation, extortion (taxation!), but not with coercion into Western attitudes and beliefs, and practices and institutions. There is a difference between conquering India in order to exact taxes, ruling over the Indians but letting them do pretty much as they always did, and conquering them, converting them to adapt all kinds of Western routines down to the smallest post office in the villages. 38)

Let us then turn to the dimension of time, just as for space above in the sense of social time. 39) There are at least three different aspects of the way in which Western social cosmology, perhaps, may be said to conceive of time: linearity, the idea of progress, and the idea of purification. Although related to each other they should also be kept analytically separate. 40)

Through linearity time is seen as an arrow moving from past to present into future, the three being distinct intervals/points in time, never to be revisited. Circular time concepts can be seen as a reflection of the many cycles found in nature, (such as the annual seasons) and in human life (which has family cycles): there are intervals or points on what from a Western point of view would be linear time sufficiently similar to be seen as identical, thus leading to the notion of time as something running around in a circle. The notion of spiralling time 41) combines the two, giving to time a linear and a circular component and the possibility of discussing the relative strength of these two components. From the point of view of social cosmology the environment would be important here: some environments are rich in cyclical experience, especially environments with biological/organic eco-systems; other environments are richer in linear processes, for instance environments equipped with industrial processes (more based on inorganic materials, or nondegradable organic materials). However, the point here would not be that Western social cosmology has developed time concepts with much

stronger linear than cyclical components because the West is so industrialized. It is rather vice versa: that industrialization and its consequence, the accumulation of products and of waste, was seen as natural/normal because it fitted with linear time concepts that for some other reasons for a long time had been prominent in the West.

The second aspect, the idea of progress, equips time with value: from bad to good, or at least from worse to better.⁴²⁾ It should be noted that this is not the same as linearity, which in and by itself is a more neutral concept. The assumption is not, however, that the Western time concept simply **looks** like the upward turning exponential curve, e.g. of the compound interest so important under capitalism as an economic system, bent on capital accumulation.⁴³⁾ Progress may be the condition of the present, but there is a qualitatively different past and also a qualitatively different future in more refined versions of Western time cosmology. Thus, the past is often equipped with ideas of Original Bliss, some kind of paradise; Original Sin or some kind of fall; and then Enlightenment. Correspondingly, the future can be seen as equipped with Crisis, Struggle which may end once more in a fall, but also in a Catharsis - what in German is known as an Endzustand. It is a dynamic, highly dramatic time concept; and it becomes even more dramatic if it is assumed that at any particular time the moment Now is placed just in front of Crisis.⁴⁴⁾ Hence, just as what has been said above about space gives to the point Here, as long as it belongs to Inner-West, the character of being central in space, the time cosmology gives to the point Now in time the character of being central in time;⁴⁵⁾ a water-shed in human history (as will be seen the present essay on Western history is no exception from this rule, thus being in itself a clear example of Western thinking). Actually, this type of time pattern can be applied to macro-time covering thousands of years, but also to micro-time, to ways of conceiving of the human life cycle from womb to tomb or to the correct/natural/normal life history of any process, for instance a conflict, a party, a conversation, an act of love. Needless to say, in the latter case it would be as seen and experienced from the man's rather than from the woman's point of view, as the carrier of dominant cosmology.

A concept such as this would also exercise a normative func-

there would be a build-up, a crisis and a struggle, a tension release and finale, as in a sonata from the Vienna classics, or a traditionally well composed drama. Correspondingly, one would expect the social cosmology of space to be reflected in spatial art, such as painting, sculpture, architecture: there should be a relatively clear subdivision of space into center and periphery, as expressed, for instance, in the role of perspective in renaissance art. 46)

Then there is the idea of purification which gives more substance to the idea of progress. This is related to Western non-dialectical thinking: things are not good and bad, but good or bad. The good and the bad may, however, be mixed together, meaning that progress is the task of sorting the good from the bad, the pure from the impure. Sometimes this process takes place inside the individual, as in the idea of exorcising evil spirits or whatever else that might be evil from body and soul. Then it may take the form of sorting good individuals from bad individuals, as in the legal processes distinguishing neatly between the guilty and the non-guilty; the medical processes distinguishing between the healthy and the non-healthy and the educational processes distinguishing between the bright and the dull. Those **who** are sorted out may then be placed in special institutions (prisons, hospitals, special schools) or even be exterminated, seen as belonging to the outside rather than to the periphery - leaving possible center belongingness out of serious consideration. And it may be seen as a pattern applying to the way Western man relates to nature: the quest for purification in chemistry and physics, for pure material that can enter the industrial processes defining the impurities as waste, using the entire process to divide between the two as **one more** expression of the idea of progress through sorting. The idea of the nation-state building should also be seen in this perspective, as a process of ethnic purification. 48)

In the most important Western eschatology, the Christian one, all these figures of thought are found with some clarity: paradise, the fall, enlightenment, progress (assuming that more and more people become **devout** Christians), the crisis as purgatory approaches, and the Endzustand in the paradise regained, except for those who lose the battle and end in the opposite extreme. A human life consisting of many such cycles built into the total life cycle, which again is built into the life cycle of a society

or a civilization seen in these terms, cannot fail to become dramatic.

Again, alternative time cosmologies would be flatter, less dramatic. Time could run around in a circle, revisiting the same points, not being equipped with any particular ups or downs. It could also be linear, but similarly flat. Or it could have many ups and downs, from infinity to infinity, never assuming anything to be perfectly good or perfectly bad, hence no struggle to be the decisive struggle. There are many alternatives, but it seems difficult to conceive of a time cosmology more dramatic than the Western one.

Let us then turn to knowledge as a third aspect of social cosmology. Essentially it is a question of epistemology: what is the nature of knowledge, how does it come about, how is it composed? One image of the Western image of knowledge might be as follows.

In order to understand anything it has to be subdivided into its smallest parts or units (such as atoms and then further on into the various particles), and units have to be characterized by a set of variables (at the very least in the form of dichotomies). The process is analytic, not synthetic; knowledge is built on the basis of units and variables, not holistically. 49)

As a second step variables are then related to each other, predominantly in a linear fashion, and usually bilaterally, two at the time, referred to as cause and effect, or condition and consequence (but there may be sets of variables on either side of this relationship). The relation is binary and linear; there may be relevant conditions affecting the relationship, but these are either thought away, or removed by creating artificial circumstances, e.g. laboratory conditions. These conditions are then reified and seen as more real, as more essence than what is nature given. 50) The pure relationship is seen as an automaton: a button is pushed and something happens; **universally operational.**

The third part of the knowledge production consists in an effort to tie ~~these~~ bilateral relations, propositions, deductively in a theory. The theory has the same structure, it is also binary

and linear, but between propositions (or sets of propositions) called premises and conclusions rather than between variables, and the relation is one of inference/deduction rather than causality/conditioning. When built by those who master the craft the system can be constructed with considerable elegance, as in mathematics. At this point a certain reification ~~also sets in~~ the construct may become more real than reality, the deductive, logical relations may be seen as causal relations and intellectual mastery of something through theory formation as the equivalent of political mastery or social control.⁵¹⁾

Alternative ways of conceiving of knowledge can be imagined. Thus, more holistic images of reality, in the West usually conceived of as "intuitive" may attain status as basic knowledge. Further, much more complicated ways of relating variables can be imagined, including patterns of circular causation, feed-back cycles, and so on. And as to theory formation: its role may be downgraded to something less important, preferring knowledge in the form of disconnected propositions rather than very well integrated, deductive pyramids. As a matter of fact, in the latter the centrism referred to under space and time above reenters: knowledge is organized from a hard core of central propositions (axioms), then there is a periphery of less basic propositions and there is an outside of irrelevance. Mastery of that hard core, here and now, becomes essential for anyone who wants to command the universe, meaning wanting to command man and nature;⁵²⁾ the fourth and fifth aspects of Western social cosmology respectively.

Any social cosmology will have to have something to say about relations between human beings, and the basic assumption here would be that the Western choice is in favor of seeing vertical relations as natural/normal, and the individual as the basic social actor. These two elements actually combine into one: the idea of struggle between individuals, in the regulated, even institutionalized form called "competition" or in the open form referred to as "fight." Another way of expressing this perspective is in the idea of "social darwinism", it being understood that when darwinism was accepted as a perspective on evolutionary biology it was because it fitted into Western social cosmology rather than vice versa.

Competition, struggle and fight can be seen as aspects or expressions of conflict, and a basic element in Western social cosmology can perhaps be expressed as follows: conflicts should be accompanied by processes whereby winners and losers can be identified. There are many examples of such processes: wars, battles, duels, verbal duels, legal battles, court processes in general, debates, elections, games (both of strategy and of chance), etc. ⁵³⁾ Each such process serves the purpose of segregating winners from losers, thereby implementing the idea of sorting referred to under time above. It should be noted, though, that these processes can also usually be applied between groups; thereby opening for a general verticality that does not presuppose individualism. In a conflict resolution mechanism such as voting, however, individualism is built in at least in so far as individual votes are counted, defining clearly the winning and the losing parties **as majorities and minorities.**

Alternative social cosmologies might see the collectivity as the fundamental actor, even if the purpose basically is individual welfare - only that the individual welfare is seen as very much dependent on the situation of the collectivity. By collectivism, as opposed to individualism, however, is meant something more than the emphasis placed on various levels of social organization: it is also a question of a certain uniformity within the collectivity, of emphasizing what members have in common rather than what might distinguish them individually. In this type of social grammar individuals would be less detachable since they would have less meaning dislocated from the group, both as actors and as distinguishable entities in general. Individual mobility, both geographically and socially would be less meaningful - except on behalf of the group, in order to return and enrich the corpus mysticum of the group itself through outside experiences.

Then there are the possibilities of more horizontal social grammars, more based on equality and equity between actors, be they individuals or groups. As is well known from studies of political ideology there is no doubt that such social images have played a considerable role throughout Western history. But with the strong emphasis on actors, and particularly on strong actors characteristic of Western social cosmology as opposed to analysis of social

structures images of horizontal social formations are perhaps more characterized by equality, an equal distribution of resources ^{on / actors} than by equity, a social structure made in such a way that it is built into the structure that all positions come out about equal. in social interaction. ⁵⁴⁾

Finally some remarks about the relationship between man and nature. In a sense it can be done very quickly because the basic aspect seems to be this: according to Western social cosmology there is very little doubt that man is above nature, and plays some of the same role relative to nature as God plays relative to man. ⁵⁵⁾ It is a role of Herrschaft rather than Partnerschaft, it is not a situation of communio. Just as there is an alternative cosmology to conflict resolution through the individual competition identifying winners and losers, viz. the idea of a group discussion arriving at a consensus that can retain the harmony of the group. There is also an alternative cosmology to this image of man's relation to nature: man as a part of nature, blending his economic cycles with nature's ecocycles in such a way that the two become almost indistinguishable. The Western image has, however, emphasized man's rights over nature more than his duties to nature, as a predominant aspect. Perhaps the peak of this development was the view of nature found in Stalin's and Lysenko's U.S.S.R.

Not so much has been said explicitly about the last two aspects of Western social cosmology because in a sense it is not needed. They derive much of their character from the combination with the first three. Only in studying these combinations is it possible to arrive at more holistic images of the Western social cosmology, avoiding the danger of analytical sub-divisions into lists of fragmented dimensions and sub-dimensions.

Thus, combining what has been said about space and time the idea that expansion from a center in the Inner-West represents progress, when adequately purified of non-Western, racial, impurities at least at the dominant levels, emerges. ⁵⁶⁾ The idea that other social formations than the non-Western ones represent archaic stages, so prominent in liberal and marxist thinking, ⁵⁷⁾ stands out as a basic rationale, making processes of conquest for westernization one way or the other look natural/normal to the point of being not only a right, but also a duty of the West. To this should

then be added the western focus on a small number of key characteristics rather than on total configurations, and the tendency to see social transformations as caused by changes in the causal core, as defined through theory-formation. Westernization has been seen as dependent on convergence to the right faith, educational processes, investment and economic growth ultimately leading to a transformation from traditional to modern forms, bringing non-Western societies into the Western Stufengang (this is perhaps where the Western harmony between liberal and marxist thinking is most clear), through revolutions bringing about transitions from capitalism to socialism of a Western type; all the time the same Western faith that through adequate engineering in the causal core a total transformation of society can be brought about. And when it does not happen, the reaction throughout Western history has been quick and consistent: bringing about the transformation through direct violence, exporting Western patterns through settlers and concentrating convergence on local elites, marginalizing and/or eradicating those not wanting or not wanted for incorporation. An epistemology based on few variables is not necessarily ineffective, but when it is effective it may be because the instruments used are profoundly violent.

Western cosmology where space, time and knowledge are concerned, combine into expansionism based on a few crucial dimensions. Sooner or later this is bound to upset delicate balances in eco-systems and man-man relations, assuming that these systems are more like biological organisms in the sense of having boundaries and relying on homeostatic mechanisms for survival. They are not simple mechanical systems. The contradictions between what a social cosmology defines as not only possible but even necessary and what the systems can take will lead to a crisis, and for a cosmology to survive the crisis will have to be built into it as a basic ingredient, as natural/normal. The roots of these crises are located in the man-man and man-nature systems themselves: basic human needs, material or non-material may be so undersatisfied for the masses that they either revolt or withdraw into apathy - either possibility being destructive of the social order - or the needs may be so over-satisfied for the elites through over-indulgence that their time becomes

absorbed by patterns of over-consumptions and efforts to overcome the effects of over-consumption; both absorbing energies that could be used to counteract a crisis by channelling more of the social surplus downwards to satisfy the needs of the masses (panem et circenses), and/or by crushing their revolts. And correspondingly for nature: when the rules of^a good household are not followed, nature will exhibit surface symptoms in the form of depletion of non-renewable resources and pollution; the symptoms of destructions of homeostatic mechanisms maintaining eco-balances deeper down. Thus, on the one hand insatiable expansionism, on the other hand the need to see vertical relations to other human beings and to nature as normal/natural for expansionism to take place, exploiting human beings and exploiting nature, and ultimately the crises as the natural outcome, themselves seen as natural and incorporated into the social cosmology - all of this adding up to a rather consistent, but also destructive whole.

4. A theory of structural fatigue and structural transformations.

Let us now combine what has been said in section 2 above about the sub-periods of Western history with what has been said in the preceding section about social grammars expressed as social cosmologies into one of the key hypotheses of the present essay: it is the social cosmology that defines a sub-period. It defines the micro- and macro-structures through what it has to say about man-man and man-nature relations and about spatial arrangements in general; in addition it helps defining the processes through what it has to say about time and knowledge. When a period comes to an end the social cosmology has to change; when the social cosmology changes basically, a period is coming to an end.

More particularly, the assumption will be that the social cosmology described in the preceding section regulates, defines the basic structures and processes of Antiquity and the Modern Period. These are the Western periods par excellence; the Middle Ages being a non-Western time-pocket in Western history. Or, to phrase it more carefully: during the Middle Ages all the suppressed parts of the Western social cosmology came up to the surface, the parts that had been recessive or latent during Antiquity.⁵⁸⁾ Instead of an expansive, outward-directed implementation of the usual center-periphery cosmology with a steep gradient running from the Western top to the non-Western bottom, the opposite cosmology was invoked: inner-directed, much less concerned with the outside world, engaged in work inside the West, inside Western organizations such as the relations between the tiers of the feudal system and the inner workings of the Church system, and with the inner-life of human beings.⁵⁹⁾ And the time pattern became less dramatic: instead of expansion towards the limits, production and reproduction of crises, a more regular flow of time with more moderate oscillation at least where external events are concerned, with drama removed from the global (meaning up to the perimeter of the Roman Empire) macrocosm into the human microcosm. [In short, the social cosmology that was latent, carried by peripheral forces only during Antiquity became the manifest cosmology of the Middle Ages, and correspondingly we would assume that the social cosmology that was latent in the

Middle Ages (for instance as the ethos of the burghers in the cities, gradually taking over from the landed aristocracy) became the manifest cosmology of the Modern Period.

So far a sub-period has been identified with a social cosmology and the transformation from one period into another with the transformation in social cosmology. The question then becomes: why do periods at all come to an end? And after that, the second and much more difficult question: how do transformations take place at all?

We assume that the social cosmology sets the broad definition of the period, defining the basic rules of social transactions, at the micro- and macro-levels. Within these rules an enormous amount of activity then takes place; millions, billions, myriads of transactions adding up to structures and processes more or less - but basically more - in conformity with the predominant social cosmology. As this happens there will be "problems", here defined as individual, or collective, frustrations or conflicts. Goals are set, individually or collectively, in conformity with the social cosmology. But not all goals are realized; there are blocks on the road. Sometimes these blocks are seen as being due to other individuals or collectivities searching for the satisfaction of their goals, in which case there is conflict; sometimes the blocks are seen as resulting from, for instance, the limitations set by nature, in which case there are frustrations. The question is how to solve all these problems, and the answer would be: intra-paradigmatically, in accordance with the social cosmology. The social cosmology sets the outer limits, within those limits growth processes may take place, things may rise and increase, including problem accumulation. The task given to the social and cognitive structure is to try to produce solutions to the problems.

And this is where the concept of "structural fatigue" may be useful. In metallurgy a structure yields services up to a certain point when the metal becomes, for instance, brittle. Similarly we assume that the social structure, and the cognitive

structure, both have a finite capacity for producing solutions: sooner or later that capacity will be exhausted.

One way of expressing this principle of limitation would be through the language of permutations. Any given social grammar has a limited number of combinations to offer, hence a limited number of strategies for solving problems. As the society runs through these strategies and one after the other fails to meet the bill, a more fundamental crisis is building up: that of exhausting the repertory. This in itself would not be so dangerous unless there is a clear awareness of approaching the end of the spectrum of possible solutions, either because the gamut of possibilities has been run through very recently, or because the system has a good memory even of attempts that were made in the distant past. If both the inner periphery and the outer periphery revolt at the same time and nature shows her limitations as host to the human race very clearly, this is all difficult but not in itself dangerous to the systems as long as the elites are convinced that there are still some possible strategies left to be attempted. It is only when these strategies have been tried, the problems continue to accumulate unabated and there are no more games left to play that the challenge becomes overpowering. It is at this stage that the elites might abdicate even voluntarily, or let themselves be beaten out of defeatism, or even join the new forces in the search for fundamentally new formulas. 60)

That all these conditions should hold true at the same points in time and space will appear unlikely, so these situations of profound crisis should be seen as very rare in the history of mankind. But without speculating on their number, how would one imagine that the systems would react to such crises?

In a sense the choice is simple and given by what has been said above: change program or else perish. These two possibilities are not so different since the change of program, or social cosmology in other terms, is tantamount to the disappearance of a social order; It means that a period is coming to an end. It does not ^{necessarily} mean biological death for anybody, but ^{the} disintegration of a social order and its replacement by a new one.

We shall identify these transformations with transformations in social cosmology, with individual self-transcendence and collective Self-transcendence; in other words with some kind of change of program. For this to happen one necessary condition may be that the next program was present in the preceding social order in latent form, in other words that the system had sufficient diversity, pluralism to harbour its own negation.⁽⁶¹⁾ One could then imagine several models: that the carriers of the latent cosmology in the preceding order become the rulers in the next because they have a new program to offer, or that the rulers are more or less the same persons or the same strata, only that they learn in time to co-opt ideas and persons from the peripheries of their own creation. In this there is some of the same source of strength as in mature eco-systems: the more diversity, the more resilience in times of crisis. The more homogeneous and uniform the deep ideology, the more vulnerable the systems because there would be nowhere to turn for alternative solutions or - to be more precise - frameworks in which solutions can be found.

Thus, it is assumed that the more individualistic, more mobile, highly competitive, expansive and dynamic cosmology was present in the successor elites to the landed aristocracy, the city burghers. Without that kind of deep ideology much of what they did would have become meaningless; on the other hand they needed the concrete accumulation of capital in order to have a power base behind their claims as successor elites. Correspondingly there must have been groups towards the end of Antiquity already carrying the social cosmology that made the Middle Ages meaningful, with the monastic orders as a key expression of that social grammar (and as a reaction to the form Christianity took when it was adjusted to the organizational structure of the Roman Empire in the form of the Catholic Church, and to the structure of contradiction-free, deductive Greek thinking in the form of theology).⁽⁶²⁾

To get an image of this process it should be remembered again that social cosmology is not identified with an explicit ideology. As deep ideology it is a set of unquestioned, usually highly implicit assumptions about the nature and relations between

material and non-material objects, which means that changes in social cosmology may start at any point. Thus, it would be impossible to accept the marxist idea that such transformations necessarily have to start somewhere in the productive infrastructure. Essentially it is a question of changes not in, but of a total configuration, and it may well be that the question "where does the change start" in itself is a wrong question, a product of Western epistemological linearity, a little bit like asking of a carroussel which point started to move first. The Western effort to arrange events along a continuum of linear time is also an effort to establish causal relations, the assumption being that the necessary condition for something to be the cause is that it is prior to the consequence, and the distinction between necessary and sufficient conditions is then easily forgotten.

To use another image: if a country goes to war against another country there are usually many acts of war taking place at different points in space and time: this does not mean that the first event is the cause of the others, they are all parts of the same general "scheme of things". And it is this scheme of things the social cosmology is supposed to express; only that we do not presuppose that it can be located in the clear consciousness of some historical super-general. ⁶³⁾ There may perhaps be one particularly dramatic, even traumatic event that crystallizes the issue and sets the tone, thereby becoming a collective reference point for the entire society. ⁶⁴⁾ Ways of organizing things will then crystallize around that nucleus, as they do for a scientist who has gotten a fundamental insight, or for anybody for that matter who has experienced a moment of Truth and organized his or her life around that experience. After that things are done differently, first in one field (for instance arts, town-planning), then in other fields (for instance science), in still others (economic relations of production and consumption, international relations). The model would not be that one of these "new ways of doing things" causes the other which then, in turn, causes the next, but that the new ways belong to the same family just as the old ways belonged to the same family, and that once a new logic or program is gaining acceptance, changes will have to take place accordingly in all, or almost all, fields.

have similarities, they also complete each other. They can complement each other because they are both compatible with, or indeed an expression of, the same basic Western social cosmology, although it should be added that there may have been changes and adaptations in the original doctrines so as to conform, with some perfection, with the Western social grammar. (68)

To summarize: the social cosmology sets the tone for a period; the transformation from one social cosmology to another - or from one ethos to another as it is sometimes called - is the change of period. Such changes come about when the possible solutions to problems compatible with the given social cosmology have been exhausted, and there is awareness that they have been exhausted. Thus, if the elites managing the societies still have some options left the point is not whether these options are effective or not - that is another problem - the point is that they feel secure in their adaptive capacity within the existing paradigm.

One special hypothesis about such transformations in Western history would be linked to the idea of a certain Western capacity for diversity, pluralism: not only are there several ideologies complementing each other compatible with the same deep ideology (and presenting themselves as if they were profoundly antithetical to each other); there is also a certain presence of anti-paradigmatic deep ideologies on which to build. To this can then be added another hypothesis: these transformations will be more frequent in the future because of all the devices existing for storing collective memory, making it more painfully clear to the elites that repertoires are being exhausted. Each possible action will already be imprinted with memories of failures from the past - - . At the same time the traditional mechanism of escape, migrating to another and virgin point in space where each stone does not carry a footprint,⁶⁹ trying to enact the old program in a new environment is also seriously curtailed: the earth being very well discovered by now. But what about outer space?

5. After "The Modern Period" - what?

From the history of the past let us now enter the history of the future. What kind of harvest can be reaped from our speculations about the past and converted into speculations about the future?

The short formulation would be as follows: we shall assume that "the modern period" characterized by rigorous enactment of the dominant Western cosmology, is coming to an end. The end may be near, it may be more remote - or, as has been the case earlier: it will be a process that only in historical perspective looks as a transformation into a new period, for instance filling the 21st century. It is further assumed that the new period will in many regards be antithetical to the present one which does not mean that it will be identical with the Middle Ages, but there will be similarities.⁷⁰⁾ Finally, it is assumed that dominant Western social cosmology will survive during this period (which may be shorter than preceding periods because of the memory factor mentioned), and break forth in a period after the next one, in some kind of new Renaissance where Western man rediscovers his competitive and imperialistic ego, looking down at the time spiral, identifying himself with the heroes of the Greek and Italian city states.

The reasoning behind these conclusions is as follows.

Westernization is seen as a wave continuing its expansion outwards, from the inner-West, incorporating more and more of the outside into the outer-West. There is resistance on the way such as the emergence of socialist states in Europe: their incorporation, at least where major features are concerned, will be a relatively easy task because the social cosmology is the same. Incorporation of China will be more difficult, perhaps even unsuccessful, not because it is socialist, but because it is China and manages to find socialist expressions of a socialist cosmology that is not Western. Nevertheless the outward expansion is unmistakable: Western type "growth poles" appear in the Third World (another way of saying "periphery"), acquire the technologies to enact Western social cosmologies that may have been more latent with them and establish their own small and big empires.⁷¹⁾ Thus,

for some time to come it will still look as if the West is expanding rather than decaying.

But a closer look at inner-West and the outer periphery, as well as on the impact on nature, will reveal a different picture. The historical fact is that for the last five centuries or so westerners have increasingly been everywhere, other people have not been in the West except to serve Western interests, and in well regulated numbers. An enormous energy supply must have been necessary for this expansion, and the assumption is that part of it stems from the way in which Western time cosmology energizes man, making him believe that now is particularly important, critical, and makes him unleash accumulated energies into concentrated work on a limited spectrum of reality. All over the world Western man has spun his organization networks, with centers in the West, radiating towards the peripheries, integrating, bringing countries and people together in the center and disintegrating, fragmenting, keeping countries and people and individuals apart from each other in the periphery. The division of labor has been clear: the most enriching tasks in the center, the routine tasks in the periphery, and terms of exchange between labor-sellers and labor-buyers and between raw material exporters and the exporters of industrial products and services always in favor of the latter. The highly asymmetric distribution of material wealth in favor of the inner-West bears testimony to the success of this strategy - at least in material terms. 72)

But there are also considerable costs in the inner-West. Some of them are physical, somatic, expressing themselves in new causes of death (traffic accidents, from pollution), brought about by this particular type of structure. Others are more non-material, psychological but perhaps much more important: a rapidly increasing incidence of psychological disorders of various types, possibly related to the simultaneous growth of big, impersonal organizations and structures (alpha-structures) at the same time as smaller, tighter, more human units (beta-structures) like the family are dissolving.⁷³⁾ Related to this growth of alpha-structures at the expense of beta-structures comes increasing difficulties in finding good answers to the perennial questions: what is the meaning of it all, why do we engage in all this - - - . 74)

At the same time as there is this rapid growth of disintegration at the individual psychological level, and at the same as there is a decreasing sense of purpose, there are increasingly angry and effective voices of protest from the outer-West; from the masses in the form of statistics convincingly showing how incorporation in the networks spun by inner-West prove to be a source of disaster deepening and extending their misery,⁷⁵⁾ from the centers in the forms of resolutions and actions to the effect that most of these elites want to enjoy the fruits of this exploitation themselves.⁷⁶⁾ From nature there are disturbing signs that the levels of depletion and pollution, although far from reaching the outer limits of nature, are symptoms of homeostatic eco-system mechanisms no longer working as they should.⁷⁷⁾ The real "limits to growth", however, for the inner-West are not so much to be found in this factor as in the efforts by the outer-West to constitute their own economic cycles, processing their own raw materials for their own consumption, even competing with the inner-West inside the inner-West. In short, the inner-West rapidly becoming the victim of its own success.

The inner-West, gambling on a limited range of variables usually expressed in economic terms (whether in liberal or marxist parlance) will probably express this crisis as an imbalance between demand and supply; the supply from the industrial machines in the inner-West being compatible with the demands from a rapidly increasing world population, but not if there is effective outer-West competition, with a number of countries following in the wake of the first outer-West country effectively competing with the West: Japan. In a situation of that kind there are essentially two things to do: to increase the demand, or to decrease the supply. To increase the demand there are three possibilities: to conquer new markets, to launch new products or to launch wars in order to produce demand through destruction, of capital, capital goods and consumer goods. To decrease the supply there are also three possibilities: to lower production through unemployment, to lower production through decreased working time, and to lower production by lowering the productivity. Of these six methods the first five are essentially intra-paradigmatic, entirely consistent with dominant Western social cosmology

and it is therefore assumed that they will constitute the bases of the politics of the inner-West for the better part of the rest of the 20th century. There will be efforts by various means to conquer or reconquer markets in the outer-West and the outside, new products will be launched, and planned obsolescence, with products rapidly fading in and out of production, will be increasingly important, and wars may be seen as the lesser of two evils. 78) Similarly it is assumed that unemployment will become permanent but will be better distributed, leading to patterns of increased leisure for more and more people, thereby contributing even further to a sense of **senselessness**. In short, this is the type of limited spectrum of possibilities we had in mind in the preceding sections, and it is assumed that it will be exhausted relatively quickly.

What is then left is to decrease productivity, which essentially means a change to another mode of production, more artisanal, less industrial. To repeat: the root of the real crisis is seen here as being related to a social cosmology no longer able to produce solutions, but the Western mind will give to the crisis an economic definition. However, for the West to see itself as changing because of pressure from the periphery would be entirely contrary to all Western assumptions about space. Hence, it is more likely that West will come across a formula making the change look entirely endogenous, and there is very much in Western history during the Modern Period which can provide material for an alternative social cosmology and a new period. It should be noted, however, that when Western youth, disenchanted with the effects of the inner-West, for on its own people, on the outer-West and on nature searched other sources of inspiration in the 1960s it was towards the East they went. 79)

There is no reason to assume that the present period has to end with an all-out war, with the inner-West on the one side pitted against the outer-West (the Third World) and the outside (China and some others), with the position of the Soviet Union being unclear. A scenario of that type would presuppose a vigorous inner-West elite, full of faith in itself, full of visions and plans and very far from exhausting its physical and mental energy resources as well as its paradigms. If we assume that it is approaching the exhaustion point then no such war is

necessary, or, more precisely: it may be argued that these wars have already taken place or are taking place - the many "local wars" after the Second World War,⁸⁰⁾ with the fall/liberation of Saigon/Ho Chi-minh-Ville as one event perhaps as symbolic as the fall of Byzantium in an earlier transition period. The change of paradigm will come about at the interface between the search for solutions to the imbalance crisis and the search for new meaning. The forerunners are clearly seen: the hippies, the women, student and youth revolts, the search for intermediate/alternative/human/soft/radical technologies, the quest for decentralization into smaller, more human sized units, the many social experiments in the inner-West with new beta-structures (living communes, production cummmunes, consumption communes), and so on. 81)

In short: there is material which would permit us to say something about the alternative social cosmology. It would be centripetal rather than centrifugal where space perception is concerned, the West would turn inwards (and for that reason no longer be Inner-West, but simply West). There would be less concern with conquering the world, more with conquering the inner self and Self. Most likely there would be some kind of encapsulation; for the West to engage in active dialogue, openly and admittedly with others might be too much of a change.

As to time: a more relaxed life pattern, a time perspective stretching toward infinity in both directions, but also more cyclical, believing less in progress and more in the contradictory nature of things. Again, dialectic thinking will probably not be imported from the rich taoist sources in China, but there will be efforts to revive Western traditions of this kind. This may, incidentally, have some bearing on the future of mathematics: in mathematics everything is permitted as long as the total system is contradiction-free - a profoundly Western perspective that makes mathematics look like a Western conspiracy to be challenged. And the same type of reasoning would apply to Western epistemology: a search for more holistic images, less concerned with causation and deduction.⁸²⁾

As to Man-Man and Man-Nature relations: the general disenchantment with alpha-structures will lead to a growing interest in ways of life more characterized by closeness, closer to other human beings, closer to nature. For this to happen it is not necessary to recreate the extended family and the village; communes of various types and different types of breaking down the sharp distinctions between city and countryside presently found in the inner-West (and also in the outer-West) could be expressions of these new cosmological traits. Less competitive individualism, more collectivism would probably be a part of this. Whether relations will be more horizontal is another matter: at this point one might perhaps expect two co-existing social cosmologies, one more vertical and one more horizontal. 83)

So much for social cosmology, and for social structure - what about the processes mentioned in section 2 ? It is assumed that the growth processes particularly characteristic of the last 200 years will have to flatten out in the inner-West, but probably continue in the outer-West and on the outside, among other reasons because of the way in which inner-West has imprinted the other two with its birthmark through the export of a technology that carries the genetic code of the inner-West. A new cycle would then start with more emphasis on non-material growth, and with much idealism, ideational energy in the Sorokin sense. There will be a new mode of production associated with this, and here the marxist mechanism might perhaps be turned upside down: it is not that new means of production have lead to a new mode of production;⁸⁴⁾ it is rather that the search for a new mode of production has forced the innovation of new means of production, the alternative technologies mentioned above. (p.) But when we have some doubts about whether this social order will be horizontal it is because it is hard to believe that westerners will not start, individually or collectively, to compete in non-material growth: who is more collectivist, more mindful of the needs of future generations in relations to nature, who has reached furthest in transcendental meditation, etc. Thus, it might even be that under the guise of some type of material equality and equity, non-material inequality and exploitation may set in between

the true believers and the followers. In this there may be some seeds of destruction of that social order.

If one now assumes that Western history is characterized by some kind of pendulum oscillating between centrifugal and centripetal social cosmologies then the next in line would be one more expansion, which might come about the moment man is ready really to enter outer space. This will hardly be by the means and methods developed during the last decades, but perhaps through the understanding of other types of "energy" ("cosmic energy", "psychic energy"). Expansionism presupposes space in which to expand, and space there is provided some means of penetrating it are available.

6. Conclusion

And that concludes this journey through the history of the past and some of the future, hoping that readers uninterested in such adventures will not have tormented themselves reading more than necessary.

To return to the metaphor of the introduction: images of, for instance, traffic that change depending on the altitudes from which the observation is made. Micro-history and macro-history represent two different levels, one is not better or worse than the other, they complement each other, but most resources in recent years have devoted to micro rather than to macro-history. There are fewer canons of research available in the latter, fewer rules of the game. No doubt more efforts at the macro-levels of altitude will change that situation, thereby enriching the total image of the historical process.

Very much on purpose the presentation has avoided, almost completely, references to names and events just as the observer in a helicopter hovering above the city traffic will make reports without names of drivers, and without any mention of smaller incidents. He would concentrate on the centripetal movements in the morning hours of people driving from Home to Work and the centrifugal movements seven/eight hours later of people driving from Work to Home; seeing that as the major wave movements, combined with a number of vehicles of other shapes (he might call them delivery cars) running in all kinds of direction throughout the day. At night there is mainly silence. Would anybody dare say that this person understands nothing of traffic?

Without making any similar claims let us only conclude with the shortest statement we could imagine about Western history. It is not expansion, nor introspection that are typically Western (certainly not the latter), but the pendular movement between relatively extreme positions facilitated by the contradictory nature of Western society, a contradiction West itself does its best to deny and to eliminate. In that contradiction lies some of the vigour of the Western civilization, in its expansive modes some of its major dangers, to nature, to others and to itself. A deeper understanding of this may lead to more self-control. The alternative is a night - at which there is mainly silence.

NOTES

- * Prepared for the New Cambridge Modern History, Companion Volume. First draft - for comments, not quotes.
1. Whereas the main bulk of historical research seems to be directed towards very detailed studies of primary sources, the textbooks for schoolchildren generally deal with the larger processes and periodizations of history. One of the reasons why these textbooks very often prove unsatisfactory is precisely the lack of historical research directed towards these levels of generalization. Probably the most systematic attempts at bridging educational and scholarly perspectives in this respect are made within the German traditions represented by the new periodical Geschichtsdidaktik (1976-)
 2. If the assumptions about the general future development of Western civilizations in this paper are correct, then there will be an increasing demand for efforts to understand "what is happening to us". Thus, in Norway during the German occupation the interest in Norwegian history grew considerably, presumably among other reasons because something was happening to Norway, not only in Norway. When things are happening to the West, not only in the West the interest in understanding what the West is about will increase.
 3. After the wars in Indo-China the most conspicuous attempts at challenging Western political priorities are Third World programs for a New International Economic Order - with varying degrees of emphasis on collective self-reliance. These programs contain a general formula: the demands for a new international order as extended to the fields of communication and culture as well. Thus the expanding frontiers of Western influence are closing; after the oil embargo of 1973/74 Westerners have already experienced, in a limited scale, Arab examples of economic counter-penetration [the buying of industrial plants in West Germany, of castles and hotels in Great Britain]. Lots of imagination are required to see the consequences of a corresponding strategy of cultural counter-penetration, of Third World universities and media systematically introducing Islamic and other Eastern traditions in the Western world. The civilizational critique of Western social science is already on its way, cf. T. Asad (ed.), Anthropology and the Colonial Encounter (London, 1973) and Y. Atal (ed.), Social Sciences in Asia (New Dehli, 1974).

4. The globalization of Communication increasingly implies confrontations between various historical traditions. Hence there is a growing need to spell out similarities and differences between civilizations, such as has been undertaken in the UNESCO project "At the crossroads of culture", of which Cultures and Time (Paris, 1976) is an outcome.
From a methodological point of view experiences of 'first contacts' between peoples of different cultures are particularly illuminating, cf. e. g. Nathan Wachtel, The Vision of the Vanquished: The Spanish Conquest of Peru seen through Indian Eyes (Hassocks, Sussex, 1976); J. Lockhart and E. Otte (eds.), Letters and Peoples of the Spanish Indies (Cambridge, 1976); Fredi Chiapelli (ed.), First Images of America. The Impact of the New World on the Old, vols. I - II (Berkeley, 1976); N. Cameron, Barbarians and Mandarins. Thirteen Centuries of Western Travelers in China (Chicago, 1976). Only too often Western Civilization is analyzed without including non-Western perspectives on it. Less ethnocentric methods are advocated by the International Society for the Comparative Study of Civilizations, N.Y..
5. This point of view is amply demonstrated in R.L. Heilbroner, The Future as History (New York, 1959) and in J.H. Plumb, The Death of the Past (London, 1969). For a view not too dissimilar from ours where the interface of history and futurology is concerned, see David Landes, 'Where is Prometheus Bound?', proceedings XIV International Congress of the Historical Sciences (New York, 1976) pp. 122-149. For a general theory of social science methodology drawing less sharp borderlines between past and future, see Johan Galtung, Methodology and Ideology, (Copenhagen, 1977).
6. The following exposition is based on the concept of 'civilization', which in itself implies very large time perspectives, cf. P. Beneton, Histoire de mots: Culture et Civilization (Paris, 1975). For an account of the rise of macro-history and discussions of modern concepts of civilization as part of societal analysis, see E. Schulin (ed.), Universalgeschichte (Cologne, 1974), the magisterial introductory survey, and J. Galtung et al., Macro-history and Western Civilization (Copenhagen, 1978).
7. The typical Western "peace plan", from the early 1200s till the United Nations is an alliance/federation/union with a front against the outsiders, the barbarians/pagans/Turks/Russians/yellow peril, the alliance etc. being hegemonical or more federation like. For an analysis, see Hemleben,

8. For analysis of the shifting centers of Western history, see S. Rokkan, "Dimensions of State Formation and Nation-Building...", in C. Tilly (ed.), The Formation of National States in Western Europe (Princeton, 1975) and W.H. McNeill, The Shape of European History (N.Y., 1974).
9. For one usage of these terms, see Johan Galtung, "A Structural Theory of Imperialism", Peace and World Structure, Essays in Peace Research, vol. IV, chp. 13, [Copenhagen, 1977]. The terms refer to the double stratification, by a relation of exploitation, among and within countries.
10. The intellectual indebtedness to Noam Chomsky is readily admitted.
11. The modern period, dating from about 1500, is defined as the age of Western predominance in the world. Any assumptions about the end of this period will therefore include an assessment of the 'closing frontiers' of the typical Western ways of expansion and dominance. This is done towards the end of our article.
12. More technically expressed: the Middle Ages saw genuine efforts to create actor-invariant structures, and hereditary status was one mechanism here. The other two ages may be said to have favored the structure-invariant actor, the actor capable of rising high in any structure - like the many heroes of Western Civilization found in the Greek, Italian and German city states (The smallness of these states being a condition, though).
13. Cf. F. Braudel's apt expression, 'internal Americas'. But this kind of internal expansion also reaches its limits, cf. A.R. Lewis, 'The Closing of the Medieval Frontier', Speculum, XXXIII (1958). Of the two present-day superpowers only the U.S.S.R still enjoys the advantage of 'open frontier' in this respect. For an assessment of Siberian potential, see V. Conolly, Siberia Today and Tomorrow. A Study of Economic Resources, Problems and Achievements (London, 1974). Of course the very rapid and enforced industrialization of the U.S.S.R. is a prime example of internal expansion.

14. The image of the discoverer or adventurer is also one of the truly classical themes of Western literature since the Homeric epic, cf. P. Zweig, The Adventurer (London, 1974). Elements of a similar tradition is to be found in Chinese literature, see e. g. W. Blunt, The Golden Road to Samarkand. Experiences of explorers and conquerors of Central Asia (London, 1973). It seems that in China this tradition was linked to a fascination with exotica, but not to any significant use of Western ideas before the 19th century; whereas in the West it can be discerned a more consistent interest in probing and absorbing Chinese and other Eastern traditions, cf. R. Drews, The Greek Accounts of Eastern History (Cambridge, Mass., 1973); M. L. West, Early Greek philosophy and the Orient (Oxford, 1971); D. Sinar (ed.), Orientalism and History (Cambridge, 1954); O. Impey, Western Interpretation of Oriental Styles (Oxford, 1977); Ph. Jullian, The Orientalists (London, 1977).
15. The difference from a Western point of view is considerable, though. The Roman Empire was a uni-centric system, the new system in the West, as crystallized after the Peace of Westphalia [+1648] had given some kind of international articulation to the phenomenon of Protestantism was multi-centric. Statistics on wars in Europe seem to indicate that this system was less capable of maintaining peace, except - perhaps - in the nineteenth century [for one presentation of data, see P. Sorokin, Social and Cultural Dynamics].
16. Urbanization started from 4% living in all types of towns in the early 1300s. [N.J.G. Pounds, An Historical Geography of Europe, [Cambridge, 1973], p. 358]. All types means towns with 2000 inhabitants or more. Large towns with more than 30 thousand inhabitants expanded like this:

late 1400s	2.5%
1600	5%
1815	10%

Communication by newspapers in Germany increased as:

Inhabitants per newspaper:

1750	225
1850	30
1950	3

Volume of coal produced in England, the principal producer in Europe: (in million tons)

1380	0.03
1500	0.1
1600	0.7
1700	2.6
1800	11.0
1900	230

The production of iron in Europe (In thousand tons):

1500	125
1600	150
1715	200
1800	400
1900	41 million

Full of information about growth-trends are W.S. and E.S. Woytinski, World Population and Production, [New York, 1953] and Carlo Cipolla, The Economic History of World Population, [Harmondsworth, 1975].

17. For instance in France:

	Number of bureaucrats, in thousand	Population, in millions
1550	10	15
1665	46	20
1789	300	25
1950	1000	50

Based on Wolfram Fischer and Peter Lundgren 'The Recruitment of Administrative Personnel' in Charles Tilly (ed.) The Formation of National States in Western Europe, [Princeton, New Jersey, 1975]. For the general, non-statistical, analysis of this process, see: H. Jacoby, The Bureaucratization of the World, [Berkeley, 1973].

18. The first mass-production of intellectuals in world history seems to have taken place in Western Europe in the sixteenth century, when the number of students increased by 400 per cent during a decade, cf. R.L. Kagan, Students & Society in Early Modern Spain [Baltimore, 1975] and Lawrence Stone,

19. Of course, the analysis of this process was at the core of Max Weber's thought, cf. G. Abrahamowski, Das Geschichtsbild Max Webers. Universalgeschichte am Leitfaden des okzidentalen Rationalisierungsprozesses (Stuttgart, 1966).

20. To postulate a falling population and production in Europe between 1350 and 1500 seems best in accordance with the facts. See Robert-Henri Bautier, The Economic Development in Medieval Europe, (London, 1971), M.M. Postan, The Medieval Economy and Society, (Harmondsworth, 1975), and also Robert Lopez, 'Hard Times and Investment in Culture' in: Erwin Panofsky (ed.) The Renaissance (New York and Evanston, 1962). Real wages seem to have risen, as is indicated by Phelps Brown and Sheila Hopkins 'Seven Centuries of the Prices of Consumables compared with builder's Wage-rate' in: Peter H. Ramsey (ed.) The Price Revolution in the Sixteenth Century England (London, 1971) and B.H. Slicher van Bath, The Agrarian History of Western Europe, A.D. 500 - 1850. (London, 1971), Table 1, p. 327. Markets contracted, there occurred, as Marc Bloch saw it, a 'momentary impoverishment of the seigneurial class' in Les caractères originaux de l'histoire rural française, vol. 1, p. 122. (Paris, 1964), at the same time when wages increased. Immanuel Wallerstein considers the seigneurial class as hit by an economic 'squeeze' in this period. Immanuel Wallerstein, The Modern World System, (New York, 1974), pp. 24 - 26.

21. Pitrim A. Sorokin, Social and Cultural Dynamics, Vols. 1 - 4. (New York, 1962). Sensate and Ideational systems of culture are defined on pp. 66 - 101, vol. 1, as systems of truth, knowledge, moral and values and other elements in the orientation. The orientations can perhaps be simplest described by their attitude to reality. The Sensate orientation is to identify reality with what is reported by the sense organs, the Ideational to view sensorial experience as mere appearance, dream, illusion. In the Ideational orientation reality is found in the structure behind the appearances, a 'model', non-material and hence of a character entirely different from the sensible world.

22. For one presentation of Marx and Engels as contributors to the theory of international relations, see M. Molnar, The 18th century Scottish origins of the modern four stages theory is the main theme of R. L. Meek, Social Science and the Ignoble savage (Cambridge, 1976).

23. The basic idea here is the contradiction between something that changes and something that remains constant, changing compatibility into incompatibility.. Of course, this could also work the other way: the mode of production could start changing while the means of production - the techniques - remain constant.

Marx seems to assume that the mode, not the means will be the lagging factor, probably because he lived in a period with a great number of inventions that had profound impact on the social structure. The opposite profile could well be imagined: a period where technical innovations are only accepted if the social structures induced by them are compatible with the dominant structures in society while at the same time there is a considerable amount of social innovation - possibly a description of the situation in Western Europe after the youth revolts of the late 1960s.

24. We find the term 'Early Modern Period' useful because it incorporates the different traditions of Renaissance and Reformation studies, the 'general crisis of the seventeenth-century' debate and the study of the emerging European world-economy. Cf. Immanuel Wallerstein, The Modern World System (New York, 1974). For evidences and analyses of the slow, but fundamental growth processes of the Early Modern Period, see C. Cipolla, Before the Industrial Revolution: European Society and Economy, 1000-1700 (London, 1976).
25. Even in inner-West the Renaissance as a "wave" came to Italy before the Netherlands, to France before England, from which it does not follow that the explanation had to be diffusionist. It would have been much stranger if the process leading to this transformation were perfectly synchronized. The problem of 'lags' between elites and masses, between center and periphery, is termed 'cultural polyglotism' in Lotman et al. 'Theses on the semiotic study of cultures', in Thomas A. Seboek (ed.), The Tell-tale Sign. A Survey of Semiotics, (Lisse, 1975).
26. This point is made by John Hicks in his A Theory of Economic History (London, 1969), where he develops his idea of the spiral growth of a market economy in the West.
- 26 b. A parallel concept may be found in A. Ja. Gurevitj, Kategorii srednekovoj kultury (The categories of medieval culture), (Moscow, 1972). Social cosmology is here called 'social-psychological climate', reproduced in new generations and distinguished from conscious, conceptualized 'ideology'. Each epoch has its own cosmology, its own rationality, on the background of which it must be viewed. Kristian Gerner, University of Lund, has kindly drawn our attention to the work of Gurevitj as well as other references to Russian and Soviet history.

27. Example: the isomorphism between map and terrain, where by a point in one corresponds to a point in the other, "above" in one to "to the north of" in the other, "between" in one to "between" in the other, etc.
28. Cf. the French idea of mentalités collectives as a field of historical study.
29. The rationale behind these five categories is very simple: Kant had reasons for selecting the first three and the last two seem indispensable in any map of social cosmology. Man - God relations might, perhaps, be added to the two.
30. In general, then, the idea would be that what is described is the cosmology of men more than of women, of the middle-aged more than of the very young and the very old; of the peoples in cities and the center of a country rather than those in the countryside and in the geographical periphery; and people on top of the social structure rather than those lower down (in contemporary societies meaning those with high income and education, and with high positions in the secondary and tertiary sectors of the economy). For a systematic use of these variables to analyze the social cosmology of the people in a number of countries, see Johan Galtung, Peace and Social Structure, Essays in Peace Research, vol. III. As a matter of fact, throughout Western history women and children, ordinary peasants and labourers have been described as less rational, more 'emotional' - in short, more like the standard descriptions of non-Westerners. A brilliant study of an aspect of this elitist view is Keith Thomas, 'The place of laughter in Tudor and Stuart England', The Times Literary Supplement, Jan. 21, 1977.
31. Thus, the transition from a geo-centric to a helio-centric image of the universe, a difficult, dramatic and dramatized process, can be seen as a minor adjustment within this general western image of space; the basic idea being that there has been a center. Interestingly, current ideas about the history of the universe also have a tendency to be uni-centric, the "emanation" taking the form of a "Big bang" followed by very quick expansion.

32. 'The missionary command'.
The missionary activity, so intimately connected with universalism, is mainly performed by Christianity and Buddhism, especially the Mahayana-variety. The Buddhism was without any great empire to rely on as political formation for most of history. In China Buddhism stressed the similarity between itself and traditional Chinese ways. Through most of Asia Buddhism appeared as a synthesis between missionary Buddhism and various indigenous traditions. No alien religion, not even Islam, performed mission in Europe or in conquered Christian areas throughout history. Islam - according to the prophet - will never possibly could unite in heresy and allowed variation caused by native elements while Christianity has been purged, especially during the Reformation.
33. For an analysis of this, see Johan Galtung and Fumiko Nishimura, "Language Structure and Social Structure: Japan and China compared", in Galtung et al. Macro-history and Western Civilization [Copenhagen, 1978].
34. China approached the outer world with much such aloofness. Barbarians were interesting so far they had to be prevented from overrunning China. Some trading had to be performed with the foreigners, imperial princesses sent to marry their rulers and tribute exacted to prove their submissiveness to the emperor, but - they were apriori inimical to advanced culture. While exacting tribute the Empire took no interest in how the barbarian ran their country, and thought of themselves superior in a cultural way rather than in economic and military terms. When positive values were recognized in the case of the Europeans, China was puzzled by the contradiction between ideas accepted by them as positive and the barbarian and chauvinistic pride. Above all - concern was felt for the martial spirit of the Europeans, their un-becoming orientation towards adventure, combat, warrior-worship, body-culture, obedience and willingness to die for impersonal things. Cf. E.R. Hughes, The Invasion of China by the Western World. [London, 1968]. The Chinese had four words for foreigners in addition to the idea of "foreigners": north barbarians, east barbarians, south barbarians, west barbarians.
35. See Roy Preiswerk,
36. These are usually not even registered as wars.

37. For the concept of 'structural violence', see Johan Galtung,

No data exist on the amount of structural violence committed by the west. One approach would be to estimate to what extent the life of others, brought into the Western periphery, was shortened by famine, deteriorating health standards, and general deterioration of the material condition of life. One might then balance this against the material gains brought about by the West, or use these gains as a measure of what could have been obtained. Thus, several different estimates could be worked out.

38. The encounter between India and the conquerors adhering to the strongly established religion of Islam is particularly instructive. The political apparatus employed by the Muslim rulers resembled the earlier, even if it contradicted the political theory of Islam. In religious matters the muslim corporations were satisfied with respect for their role in the government of the country, and the government in turn took little interest in restructuring life. Laws were put in force in towns where there was a predominant muslim population. The villages retained their old law, and outside the village it was valid for non-muslims except in cases concerning state security. Hesitatingly the burning of widows were accepted, though it conflicted with Islamic law. Cf. Romila Thapar, A History of India, vol. 1, [Harmondsworth, 1975].

39. A somewhat abstract, but highly rewarding study of social time is Niklas Luhmann, 'Weltzeit und Systemgeschichte, über Beziehungen zwischen Zeithorizonten und sozialen Strukturen gesellschaftlicher Systeme', in P.C. Ludz (ed.), Soziologie und Sozialgeschichte [Opladen, 1972].

40. The obvious case for keeping these time aspects separate is that whereas the Christian concept of time is strictly linear it has not necessarily in all periods been associated with any idea of [social] progress, cf. e.g. S. Pollard, The Idea of Progress, [Harmondsworth, Middlesex, 1971].

41. Thus, the Chinese calendar works with cycles of twelve lunar years, adding to this a linear counting of years in the Western manner.

42. During most of the Early Modern Period a revival of Ancient cyclical views coexisted with Christian linearity. It was only in the 18th Century that the expansion-oriented, Western Idea of Progress was firmly established, but even this before the industrial revolution.

43. This may have been important, however, in making the idea of compound interest look natural/normal. The curve shape fits.

44. A typical expression of this was H. Kissinger's dramatic dictum that 'the world in which we live is poised uneasily between an era of great enterprise and creativity and an age of chaos and despair' [US Information Service, September 1975].

45. Thus, the Western cosmology is not only ethno-centric, but tempo-centric - now-centered in addition to here-centered.

46. For an analysis of the role of perspective in Western renaissance art, see

differences between the Renaissance perspective in painting and the inner-directedness of East-European icons are pointed out in B. A. Uspenskij, 'Left' and 'Right' in icon painting!, Semiotica, vol. 13, (The Hague, 1975).

47. Some kind of sorting goes on in every culture. What is special in the West is the way sorting processes are specialized to the extent that out-sorted people are placed in particular institutions of the most differentiated kind.

48. This may then be seen as sub-program, a part of the Western routine, drawing borders around ethnically homogenous groups of people, not coming to an end before maximum homogeneity within and heterogeneity without has been obtained. As a principle it may be in contradiction with the need to have other ethnic groups close at hand for exploitation as cheap labour. Exploitative trade practices would be one way of overcoming that contradiction.

For an analysis of the western concept of territory, see Jean Gottmann, 'The Evolution of the Concept of Territory', Social Science Information, (1975), XIV -3/4. A critical, historical perspective on nationstates as large political units is presented in L. Kohr, The Breakdown of Nations (London, 1957).

49. This strongly mechanistic and quantifying trend can be perceived as a combination of Greek and Arabic mathematics and the special role of technology in Western culture, cf. Lynn White, Machina ex Deo. Essays in the Dynamism of Western Culture. [Cambridge, Mass. and London, 1968]; The Expansion of Technology, 500 - 1500 [London, 1969], H. Grossmann, 'Die gesellschaftlichen Grundlagen der mechanistischen Philosophie und die Manufaktur', Zeitschrift für Sozialforschung, IV [1935], 161 - 231;

R. Guenon, The Reign of Quantity as the Signs of the Times [London, 1953].

50. Western science has accumulated vast amounts of knowledge through abstraction, the question is whether that knowledge is essentially about abstractions that are then reified into types. It is interesting to see how astrology, an expression of a very different epistemology, works with very complex descriptions of human character, mixing personality aspects that in Western psychology are kept separate as types.
51. In this sense mathematics becomes a part, or a tool, of the Western cosmology, not only because it is deductive, but because it is contradiction-free. The assumption, of course, is not that non-Westerners could not develop mathematics, but that they would not put it to such uses.
52. See Johan Galtung, "Deductive Thinking and Political Practice", Essays in Methodology, vol. II, [Copenhagen, 1977].
53. An analysis of this is found in Johan Galtung, "Institutionalized Conflict Resolution", in: Peace, War and Defence, Essays in Peace Research, vol. II, [Copenhagen, 1976].
54. Marx, of course, was an exception to this - his impact being related precisely to the point that his analysis was so structure-oriented.
55. An interesting critique of Western attitudes towards nature from an Islamic point of view is Seyyed Hossein Nasr, The Encounter of Man and Nature [London, 1968]. But in addition to the dominant Western traditions there are also elements of a Partnerschaft attitude towards nature, cf. E.A. Armstrong, Saint Francis: Nature Mystic [Berkeley, Los Angeles and London, 1973]; C.J. Slacken, Traces on the Rhodian Shore. Nature as Culture in Western Thought from Ancient Times to the End of the Eighteenth Century [Berkeley, 1973]; R. Hoykass, Religion and the Rise of Modern Science [Edinburgh and London, 1972]. Generally, the history of several popular Christian sects reveals a whole record of unorthodox, 'non-Western' cosmologies, cfr. Malcolm Lambert, Medieval Heresy. Popular Movements from Bogomil to Hus. (London, 1977).

56. Thus, racism receives a cosmological justification - making a person like Hitler stand out as super-Western rather than an aberration.
57. Rostow and Marx would fit this description equally well.
58. Not only a reemergence of suppressed structures like smaller units of administration, more "self-reliant" economies etc., but also the addition of new elements, such as Germanic pastoral traditions, creating the basis for a more mixed economy.
59. This is not at all an attempt to state the primacy of ideas. Rather, the breakdown of West Roman culture and economy is seen as the carrier of two closely related preconditions - or necessities - of the Medieval cosmology.
60. The abdication of the Tsar regime in 1917 being a prime example. A more thorough sell-out of ancient customs and beliefs was the voluntary conversion, during a couple of generations, of the Roman upper-classes to Christianity. For the problem of social "fatigue" in the form of declining republican virtue, see J. G. A. Pocock, The Machiavellian Moment. Florentine Political Thought and the Atlantic Tradition (Princeton, N.J., 1975).
61. We share Denis de Rougemont's conclusion, after a survey of the way leading Western theorists in history have analyzed the nature of Western Civilization: "It is noteworthy that all the authors who have contributed to our becoming aware of the unity of culture, conceive it as unity in diversity." (The Idea of Europe, Eng. trans. (N.Y. and London, 1966)). For an analysis of the historical development of material and immaterial structures of Western diversity, see Galtung et al., Macro-history and Western Civilization.
62. The relationship to mathematics, or to Aristotelian logic, is discernible here. Radhakrishna, in his

has the following to say about the nature of Christianity, all of it in line with the image of Western cosmology presented here:
63. The history of the Jewish people is filled with such events, culminating in the Nazi eradication of European Jews.

64. The same type of "non-Western" thinking is found in astrology: it is not the position of the celestial bodies etc. at the moment of birth that conditions personality characteristics (or vice versa); they belong to the same family of things.
65. Of paramount importance during the Early Modern Period was the differentiation or sectorialization of the social cosmology, viz. the emergence of separate fields of especially politics and economy as increasingly removed from the normal social-religious control mechanisms of a society. As for the role of Machiavelli and the recognition of the relative autonomy of politics, see F. Chabod, Machiavelli and the Renaissance (N.Y., 1965) p. 116 and particularly p. 118: "The minds of political theorists were no longer trammelled by Catholic dogma." For the separation of the economy, see Louis Dumont, From Mandeville to Marx: Genesis and Triumph of the Economic Ideology (Princeton, N.J., 1976); A. O. Hirschman, The Passions and the Interests. Political Arguments for Capitalism before its Triumph (Princeton, N.J., 1977); Jean Baechler, The Origins of Capitalism, trans. B. Cooper, (Oxford, 1975), ch. 7: "The Genesis of the Market"; Jon Elster, Leibniz et la Formation de l'Esprit Capitaliste (Paris, 1975). It is tempting to see the beginning of the process of sectorial differentiation in the way Christianity as an "alien" religion was established within the Roman state - and later, after the fall of Rome, survived it as an independent body. In the long run, the autonomy of the Church entailed the autonomy of the State, or of politics. It is precisely this sectorialization of modern society which in the U.S.S.R. has put the party as the holistic bridge over both politics and economy.
66. Antiquity made some inroads into steam-technology. As is well known, Heron made an engine of some sort, and the type was effective in opening big temple doors. Byzans had a highly sophisticated steam and hydraulic technology producing roaring mechanical lions, elevating thrones and performing artificial earth-quakes, cf. A. H. M. Jones, The Late Roman Empire (Oxford, 1964). European steam technology also started with "roaring lions" - about one hundred years before Watt. However it is a long way from the engines of Heron and Anthemius of Tralles to a truly effective engine, the important point being that in Antiquity cosmology directed a sophisticated technology toward military use and advanced kinds of furniture like elevatory thrones. Similarly, the Chinese employed their capacity for discovery differently than the Europeans. A supreme example of their early capability are the enormous voyages - maritime expeditions - to India and East Africa in the years between 1405 and 1433. These explorations were pursued by the court eunuchs, opponents to Confucian orthodoxy. A later eunuch project in 1471 was deliberately obstructed by the mandarins. Cf. J. J. L. Duyvendak, China's Discovery of Africa (London, 1949).

67. For more details, see Johan Galtung, "Two Ways of Being Western: Some Similarities Between Marxism and Liberalism", in Macro-history and Western Civilization.
68. This may be a process: there is no denial that there are more genuine, original versions of, say, Christianity and marxism - perhaps even versions that can be seen as (conscious?) reactions against Westernness. However, usually the latter prevails - transforming the doctrines /practices into forms compatible with Western cosmology.
69. A Japanese saying.
70. All the time it must be emphasized that we are speaking of structural similarities between the Middle Ages and the post-Modern period, - such as is also done in L. S. Stavrianos, The Promise of the Coming Dark Age (San Francisco, 1976). That is: similarities of the kind Hicks (op. cit.) perceived between the Graeco-Roman and the Modern economy.
71. The "New International Economic Order" could be seen in this perspective as a set of instruments facilitating the diffusion of capitalism in general, and Westernization in general, from traditional Western centers to new centers - which then would be "Western" although not necessarily located in the West.
72. See "A Structural Theory of Imperialism", Essays in Peace Research, Vol. IV.
73. See Johan Galtung, "Culture, Structure and Mental Disease", Macro-history and Western Civilization.
74. The decline of a commonly accepted "meaning" within the modern society is accurately described in the "Disenchantment of the world" theories of classical sociology. The present revival of various occultist traditions, the exploration of Eastern religious experience, and the general trends toward the withdrawal to "private life" are examples of a new search for meaning. The obvious fatal consequences of this development for the present political systems in the Western world are dramatically spelled out by Richard Sennett in his The Fall of Public Man (Cambridge, 1977) and, in a more general context, in J. A. Camilleri, Civilization in Crisis. Human Prospects in a Changing World (Cambridge, 1976).
 Thomas Luckmann has indicated one basic background to the modern sense of political helplessness: In order to control and exploit nature Western man has built up an enormously segmented and specialized social structure, which has seemingly become a kind of unmanageable, autonomous second nature. See his 'On the Rationality of Institutions in Modern Life', Archives Europeennes de Sociologie, XIV (1975), pp. 3-15.

75. The whole trend in recent UN statistics is in this direction, and so is, for those who have a sense for this form of understanding, astrological predictions in connection with the transition from the Pisces phase to the Aquarius phase.
76. The contemporary reference here would be to the New International Economic Order and related instruments.
77. This concern is the basis for the work of the United Nations Environment Programme in Nairobi, but cannot be daid to be demonstrated on anything like a global basis.
78. This was at least one of the factors leading to Japan's decision to go to war in 1941: the fear of economic strangulation in a country exceptionally dependent on trade.
79. The reference is to the "hippie trail" from Iran through Afghanistan, Pakistan and India, ending up in Katmandu.
80. See the research by Istvan Kende, for instance in the Journal of Peace Research.
81. For more detailed argumentation about this, see P. Harper. (ed.), Radical Technology (London, 1976).
82. In a sense the present paper is also an example of a revival of that interest, not so much in the sense of the substantive content of astrology as in the form of understanding, - more holistic, less contradiction-free, facilitating thinking in terms of isomorphism and transformation of structure rather than the impact of one or a few variables on another small set of variables.
83. Thus there is no reason to believe that the West would give up its inner diversity in basic matters however much it may look from the outside as if it does not exist. A hunch might be that the horizontal version would continue to be the latent one, together with more centrifugal forms, in hibernation.
84. This is the reversal of the marxist proposition hinted at in footnote above.