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MODELING HISTORY: A QUALITATIVE APPROACH

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Modeling history is an extremely difficult and tricky affair. Its great complexity of institutions and relationships, and its overwhelming mass of detail, make it impossible for any one scholar to grasp it all. A community of scholars is required. Besides it is hard to find the necessary patterns when living in the midst of its on-going evolution; indeed many would say it is really impossible to identify a system in which we are immersed without any outside objective point of reference. They may be right, but I am more optimistic.

Still, anyone must recognize that conceptualizing such a complicated process means depending upon the knowledge and wisdom of a whole host of previous pioneers and scholars in many disciplines, both recognized and unrecognized.

Like many, I began my journey with Arnold Toynbee. My list of civilizations is still very much like his, but in good scholarly fashion I have struggled to improve and advance his model. I could not agree with his sequence of stages in several civilizations and his analysis of Middle Eastern patterns seemed eccentric. Nevertheless, my strategy has been basically synthetic and tries to stay within the consensus of scholarship as best I know it, although scholarly debates can make that very challenging.

First I would like to distinguish my type of modeling from a series of six possible types. First: No Model at all: the rejection of any possible model, the view I believe of many practicing historians, because they see all history as a sequence of unique events never again repeated. Their basic responsibility is to capture a picture of that uniqueness; generalizations can be meaningful in identifying patterns, making comparisons, and tracing cause and effect, but in the end are secondary and debatable. I respect this view and agree that history is a series of unique events and that modeling must not make the unique events irrelevant.

Second: Cultural Myths: In my view, every civilization creates an historical myth, or series of myths, to explain where the community came from, how far it has advanced, and where it is going, i.e., to explain its tradition. These are powerful organizing concepts, often simply assumed by participants in the community.

For example, the Medieval Western myth of history saw a continu-
ing Roman Empire although weakened and led by Germans. In the Renaissance, this was replaced by the myth of the Fall of Rome, followed by a Dark Age, and then a Rebirth of Greatness. Our current Western myth is Progress, invented in the 18th Century Enlightenment and still hanging on though with some difficulty. It has many variations from Marxism to Liberalism and still orients our culture to the future. Many believe it is fact, not myth, and it has been enshrined in the famous introductory history course, Western Civilization.

Recently, historians have moved to a more global perspective and courses on World History, but the myth of Progress has continued more subtly in various forms, like a stress on modernization as the inevitable path of the future, developed versus underdeveloped societies, and globalization, that still leave the West in the forefront. Without critical alternatives, myths are hard to resist.

Third: Impressionistic comparisons: in order to explain to an audience the full significance of an historical period, many will compare it to some other civilization, of some period or other, without considering whether that comparison is appropriate or whether it establishes some more general principles. The comparison is momentary, designed to illuminate differences, or perhaps sometimes, similarities. It can be colorful and suggestive, and it is a kind of bridge between a preoccupation with the unique and social analysis, but often does not lead anywhere.

Fourth: Heuristic Models: This involves a more developed analysis of critical transitions in history, but in the end its purpose is to alert the community to a radical change, to illuminate some emerging crisis perhaps, or to highlight some transformation that is changing everything around us, or perhaps to celebrate the birth of some new “utopian” society. Its historical periodization is erratic, but its drama can be persuasive. The recent work of William McGaughey, in my view, falls in this category.

Fifth: Stage Theories: This type can be a complex process model, but characteristically argues that history everywhere, or within in each civilization, follows a set series of stages building to a climax, or sometimes to a collapse. It is rooted in philosophy and/or religion, and as a myth it points to the end time, the final fulfillment or demise. Perhaps the best-known version is the Marxist model, a derivative from the myth of Progress, but basing all analysis on the pivotal role of economic organization and climaxing with the communist utopia. Spengler introduced a Romantic series of stages, based on a biological progression from birth to death, which Sorokin refined with extensive sociological
and cultural detail. Toynbee's stages were in turn based on the political evolution of Classical Greco-Roman civilization. All contributed to the Civilizationalist tradition of multiple civilizations, not just one, but in my view all had difficulty separating unique historical events from underlying process dynamics.

Sixth: A Scientific Model. It should identify the underlying structure organizing and controlling historical change, without making a judgment about where the system is going in the future. It should explain why things happen, not praise or blame. To postulate a "scientific" model for history will seem shocking to most traditional theorists. It raises many issues about how to define science, and threatens to reduce history to a purposeless process. To lift historical analysis, however, from an impressionistic study to a defensible scientific model would revolutionize much of our understanding about human society and potentially integrate both the Social Sciences and Humanities. In my view, successful model building is the essence of science.

Needless to say, my objective has been to create a scientific model for the historical process, one that values every civilization and every period within a civilization, but carefully identifies historical myths and tries to eliminate them from the model. This is metahistory, not normal history. It is abstract and seeks the underlying structure behind every historical evolution, every civilization, not just one or two. Once developed, it should, of course, be given flesh by applying it to particular civilizations. The model can than be tested and refined, sometimes radically and structurally, by discourse among scholars. If it is successful, it will organize scholarly research, demonstrate the relationship between different disciplines, and provide a useful method for comparing different periods at the same stage of development within a civilization, and indeed make suggestive comparisons between different civilizations.

If it is successful, it should function like the great models in other sciences, like evolution in biology and the periodic table in chemistry. This is a grandiose claim, but it is proposed as an hypothesis for discussion and evaluation, not as a doctrine to be used uncritically. And if it is successful, it will demonstrate that history is also part of nature, although a special part, and thus put to rest the ghost of Descartes and his division of knowledge into Nature and Culture. While many historians do use social science process theories, they are handicapped by the lack of integration among the social sciences and the on-going debates between rival theories. In other words, they are partly blocked by the absence of an over-all model of the social-cultural-historical process.
A model of this type must be tested and reworked in three ways, by empirical testing against the historical record, by theoretical testing in terms of internal coherence and elegance, and by professional testing by the community of scholars, the characteristic procedures of every science. Someone must propose a hypothetical model on the basis of his scholarship and his struggle with the inherent problems, but any model must obviously be established by a community of scholars after considerable testing. I assume we are in that process today. According to Thomas Kuhn, history is obviously in a pre-scientific state right now, with a battle between different models, but I am optimistic that one will emerge, perhaps considerably changed from the original version, and organize a true science of history.

My proposed model begins with the Civilizationist tradition of Toynbee and Quigley, echoing the strategy of Ibn Khaldun; it is considerably modified by the social biology of Edmund Wilson, and then shaped by systems theory. Arthur Iberall tried to persuade me to add the fluid dynamics of physics, but I could never quite manage the mathematics. I see the recent study of Jared Diamond, Guns, Germs, and Steel, as a very congenial frame model, based on evolution and ecological principles, but limited in his analysis of civilization because of his simplistic focus on technology, a remnant of the old myth of Progress.

Since the very term civilization has many meanings and usages, I need to make some initial distinctions. Some scholars like Diamond see Civilization as the global network of interacting trade and exchange, which according to Gunder Frank began way back at the beginning of history, but only became dominated by the West in the Nineteenth Century. For me this is not "civilization," because it denies the central role of Culture, and thus is a kind of reductionism. I call this the Macro-Macro level of analysis. Civilization can also be used to discuss major geographical regions and their related Culture-Systems, like China and Japan as East Asian civilization, or Islam and the Western European as the West.

I see "civilizations," and there are many, not one, as perhaps the climax of evolution, the emergence of very complex interacting systems loosely held together and thus capable of rapid adaptation and even internal structural changes, able to create a rich variety of sub-systems, and to harness very large communities of individual human beings in a cooperating society. With a set of feed-back loops, these civilizations and their sub-parts are able to change and adapt, adjusting to changing historical niches, although not completely, and indeed thus acting like
living organisms. This is my preliminary definition of a “Civilization”, although I prefer to call this system a Culture-System, because of the confusing ways “civilization” can be used by different scholars. When I say “living organisms” I do not mean this literally, which would be another form of reductionism, reducing history to biology, but in an important way Culture-Systems are a special refinement of self-adapting systems, but replacing the information processing mechanism from genes to “culture.” Humans can debate and evaluate and adapt rapidly because of language and the fluidity of a system not based on bones and tissues, but on traditions and voluntary cooperation.

These systems, however, are too complex and too fragile to adapt to all the changes in their niche, and thus can and do disintegrate, but they can also regenerate with a creative structural response and new resources. Still both processes are costly. My study of history suggests that these changes of disintegration and regeneration have a certain rhythm that periodizes history. On the other hand, “civilizations” or Culture-Systems must also be distinguished from their regional sub-parts like nation-states. Parts of a larger system may adapt patterns different from the larger system as a mechanism for developing diversity or preserving interaction without complete assimilation. Where to draw the boundaries of a Culture-System thus becomes another subject to be debated by specialists on the region.

For me, systems theory is critical for building the model because it argues that the system as a whole is greater than its parts and cannot be explained by its parts because they have been specialized for different functions within the whole. This means that historical analysis cannot begin with individual human beings and their capabilities, even though in the end their flexibility and limitations restrict the adaptability of the larger system. Individuals are the hardware of the system but the software controls the character and behavior of the system as a whole, to borrow a recent analogy. Consequently the normal procedure of historians and social theorists to begin with individual humans is a dead end for understanding the function of the system as a whole. Therefore I refer to my model as macro-history, because it must start with the largest interacting whole, for me the civilization, the Culture-System.

In other words, the key to model building is finding and defining the basic unit of study. Models based on the individual human being have their place, but for understanding the historical process they are not the basic unit. Civilizations, Culture-Systems, are, i.e., concrete societies that embrace a common cultural tradition, occupy a specific
geographical territory over a recognizable time period, and interact politically more internally than externally. Economic activity is also primarily internal, but extensive possible trading with neighboring civilizations can obscure the proper boundaries, which in any case can expand and contract over time. This is my second definition of civilization, but again the model or structure of a Culture-System must not be confused with specific examples of civilizations. While identifying individual civilizations is not obvious and automatic, it is necessary for testing the model and Matt Melko has demonstrated there is a large amount of agreement on the major units. In the end, however, the defining of boundaries is not the job of modeling, but that of the specialists who study particular civilizations, i.e. those who apply the model to particular examples.

For me, every civilization can embrace considerable diversity, especially on the frontiers, so that arguments for the independence of small units in particular must be carefully argued. Often it is appropriate to define a particular “civilization” in terms of its core region, leaving peripheral areas as a secondary question. They may turn out to be sub-units of a larger system, and usually are. Analysis of how various civilizations deal with internal diversity is one of the most interesting aspects of the model. Subordinate tribal societies, for instance, can be destroyed by assimilation, expelled from the region, preserved as a protected minority, tolerated on reservations or as trading partners on a frontier, or protected as a recognized social caste. The unique details of each Culture-System should be reinforced by the use of a model that includes interacting diversity within the larger cooperating system.

Civilizations that last 1000 years or more are very difficult to study, because they change a lot over the centuries and can expand and sometimes contract dramatically as well. Systems theory suggests that civilizations are “open systems” and thus can interact with other systems, like other civilizations, or, of course, with their geographical environment, without losing their identity. It also suggests that there will be a complex of regional and organizational sub-systems (institutions) functioning as parts within the larger system. As parts, they cannot be used as basic units of analysis, as for example, political and economic sub-systems cannot characterize the larger whole without distortion, because they are specialized in their function. When we introduce the element of time, however, obviously critical for any historical model, we have a special case where the whole system continues during a specific time period. If there are significant historical transitions, and

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believe there are, then these time periods can become basic working units for analysis and research. Again, determining these periods of transition remains the task of specialists on the period, not the role of the model itself.

I have identified the Historical Cycle of 300-400 years as this new basic unit. Many times it can be sub-divided into halves of 150-200 years for useful analysis, but again if the society is going through a sequence of adaptation, these "halves" must be considered another form of a sub-system, only parts of a larger whole, though much easier for historians to study. Since my model argues for a basic process of creative regeneration, consolidation, and disintegration, the 300-400 year period seems to work well. So far, my focus on 300-400 year cycles is not based upon a theoretical principle, but rather on empirical study of many civilizations. I have been surprised how often it fits the consensus of historical scholarship, and I have tried to define this periodization in the charts published in my book, *Macro-History*.

As with defining civilizations, the model itself does not determine the particular Cycles. They must be determined by historians studying the periods in question, and thus testing the model in terms of particular examples. As in any science, anomalies are the starting point for refining the model.

Still, while Historical Cycles represent the whole system in process, in a secondary sense they are still parts of the larger unfolding of the civilization, and must be put in chains of Cycles tracing the whole history of a civilization, and without any breaks if the model is working properly. Each Cycle represents a moment in the evolution of the tradition, and is influenced by what is inherited from the Cycle before, even though much is being rejected, and it in turn influences what comes after, even in spite of disintegration.

Consequently, while in one sense, every Cycle is equal to every other Cycle, they nevertheless are differentiated by their place in the chain. My analysis suggests that there are three critical Cycles in the story of any civilization. I call them the Classical Cycle, the first full manifestation of the tradition, the Renewal Cycle, when the society goes back to its roots to regenerate, and the Secularization Cycle, when cultural wars have exhausted the base and the new regeneration is dominated by political forces.

What comes before and after these three seems to vary. In Western Euro-American civilization, for example, the Classical Cycle is the High Middle Ages, 1000-1400, the Renewal Cycle the Renaissance-
Reformation-Baroque period, 1400-1750, and the Secularization Cycle the "Modern" period, 1750-? What comes next, the question of course frequently asked by students, can not be answered because other civilizations took many different paths, including destruction. What came before, however, is easy, what I call a Formative Cycle, the Carolingian period, 700-1000.

To my surprise, the chain of cycles led to what I call the Macro-Macro Chart, where all of the Old World civilizations in my analysis fall into three eras. It reduces history to one page, which according to some is the sign of a successful model. I consider it an intriguing bonus, raising many interesting questions, not a confirmation. In any case, it projects the analysis into the future, since the year 2000 seems to be a major transition point. While any historical model has the potential of future predictions, the variables in my model are so many that I prefer not to pursue this possibility, although I have often been pressed by students. They also always want to know whether the pace of change is increasing, and I must respond by saying my analysis has not yet revealed any speeding up of the basic cultural process.

As an historian, I have been concerned to show how one can move from the macro level down to the micro level where most historians work. While historians need the larger perspective of macro analysis to understand underlying processes and structures, macro analysts need to understand the sub-systems in order to apply empirical research and testing. I see three fundamental sub-systems in every Culture-System, defined by three different basic functions within the system, so that they are interdependent but operate on opposing principles. See my diagrams of the Black Box and the White Box.

Consequently they compete to dominate the over-all system, but if any one of the three were eliminated, the whole system would disintegrate and collapse. Not surprisingly, they are the Cultural Sub-System, the Political Sub-System, and the Economic Sub-System. This structure thus combines the cooperative model of society with the competitive conflict model, a division that has plagued social science since the 17th Century.

I see each sub-system controlled by competing elites and organized in a complexity of institutions. The Political Sub-system is sustained by the threat of terror; the loss of a sense of social justice produces the revolt of counter-terror (the issue of liberty), as it works to preserve the system (unity). The economic sub-system is sustained by the productive process; the loss of a sense of economic justice produces the revolt
of the slaves, the marginalized poor (the issue of equality), as it works to promote prosperity (diversity). The cultural sub-system is sustained by maintaining a sense of identity as part of a cooperating society; the loss of a sense of collective identity produces the revolt of ethnic factions (the issue of fraternity), as it works to adapt the mythic system.

This theoretical simplicity is of course not always clearly reflected in the complexity of historical upheavals. In any case, systems theory suggests that it is due to feed-back loops that the system is able to recognize crises and to attempt to solve them by reforms, usually with a competition of competing reform proposals. Consequently, in theoretical terms, the cultural sub-system and its myth of justice is the most critical part for the survival of the society, not the economic or political sub-systems, although all three are always involved, as well, of course, as the larger environments. This conclusion reinforces the Civilizational Tradition with its emphasis on cultural diversity and creativity.

In my view, thus, the model must be kept abstract, free of the particular details of any one civilization. It is the skeleton of civilization. Each civilization creates its own “flesh”. Since historical myths are part of some civilization or other, they must be excluded from the model. Nevertheless, the model is an explanatory device and must not replace the appreciation of the rich variety of unique detail in each civilization. I see my model as a qualitative model. It starts with an abstract understanding of an evolutionary process, the survival of a large community in changing historical circumstances, a creative process of wrestling with disintegration, mounting an appropriate response that is more or less successful, stabilizing the resulting compromises, and then facing another disintegration of more or less severity as the compromises come unglued and the elites try to shore up the past instead of adopting necessary reform. The process limits the freedom of any society to change the system, but nevertheless at every stage a wide range of creative and innovative responses are possible, and no particular response is mandated, so the results are not precisely predictable and history is full of surprises.

This is my third way of defining “civilization.” The model helps to highlight the significant changes and compare the inventiveness of different cultures in similar contexts. In this way, history can grow as a science and organize scholarly research.

The model as a whole is complex, but this is necessary to prevent reductionism. Human society cannot be restricted to economic, or
political, or religious, or environmental factors alone. It cannot be reduced to the history of technology, even though technology obviously plays a major role in cultural competition, although a limited one because of inevitable diffusion. Civilization means the creation of a successfully cooperating large society, a society capable of overcoming ethnic, regional, and occupational diversity, although never perfectly. In my view, the key to historical success is the creation of a viable cultural map, in the tradition of Clifford Geertz, a map that is persuasive, integrating, and reformable, and considered just, liberating, and superior to all others by most of its participants. Yes, civilizations are normally arrogant. But a good qualitative model will unravel the secrets of their success and the vulnerabilities of their system. It will compare and contrast, but it will not judge one civilization superior to the others. It will celebrate diversity and human creativity.

In the recent debate between Civilizationists and World System theorists, I see my model able to absorb both. Wallerstein demonstrates the uniqueness of the current Western cycle and its historical success, although this success seems to be weakening, which also supports my model. Barry Gills and Gunder Frank are also completely compatible as illustrating the openness of civilizations to inter-civilizational trade and exchange over the long run of history. But I would argue strongly that no analysis of political or economic systems alone can explain the historical character of civilizations, because they are only parts, subsystems of something greater.

On the other hand, for me, historical evolution (and not the incorrect progressive version of evolution) is greatly complicated by the fact that there are actually three quite different trajectories interacting in history, though never completely separate and considerably modified by the other two. The cyclical pattern I see as rooted primarily in the political sub-system, but a linear pattern is also obvious in the unfolding of a cultural tradition – no society can simply go back to its past, and this is rooted in the cultural sub-system. The third pattern is an irregular expansion and contraction, which I see as rooted in the economic sub-system, a system open to global patterns. The model accounts for all three without reductionism.

In the end, the basic issue is how to find a common definition of civilization. Scholars are still talking past one another because they are using different definitions. No science of civilization can emerge until this intellectual problem is solved. And this will not happen until some model wins the support of a good portion of the scholarly community.
RECOMMENDED READINGS


Melko, Matthew, *The Nature of Civilizations*, Porter Sargent Publisher, Boston, 1969


