

Civilization, Transformation and Collapse

Kurt D. Springs, M. Litt, University at Buffalo

INTRODUCTION

The subject of how civilizations, cultures, and states vanish has long been a topic of interest for historians, political theorists, philosophers, and archaeologists. It is also a subject of interest to writers especially in science fiction and fantasy, from mythical lost civilizations to major scholarly works like *Decline and Fall of the Roman Empire* to popular movies such as *V for Vengeance*. The major question asked in the past was, “Why do civilizations collapse?” This is a question to explore the mechanics of collapse, sometimes with the goal of avoiding it. In recent decades, scholars have been asking “What is the nature of collapse?” This question seeks to define what collapse is, what is meant when people refer to a collapse of a state, a civilization, or a culture.

Adams (1988) notes that social change is seen as a process of mutually supportive interactions that produce levels of sociocultural integration. Yoffee (1988:2) states that collapse requires levels to be broken down into institutional groupings of partly overlapping and partly opposing fields of action that lend to overarching institutions instability or stability. This paper will examine the history of studies of collapse. This will provide a study of the evolution of thinking on what collapse is and what conditions can cause states, civilizations, and cultures to cease to function.

EDWARD GIBBON AND THE COLLAPSE OF ROME

Between 1776 and 1788 Edward Gibbon published his study of Rome’s collapse entitled *The Decline and Fall of the Roman Empire*. The volumes of Gibbon’s work were republished many times, and recently abridged versions were published. Gibbon (1963) places the end of the

Roman Empire at A. D. 1481, with the fall of Constantinople to Mahomet II. However, there were many pivotal points in the history of the empire. Gibbon begins his history of the decline of Rome in A. D. 180. Yet, he missed a major turning point, about 150 years earlier, in the form of the end of the Roman Republic and the beginning of the Caesars. Augustus took control of the republic to resolve a long series of political crises and established the imperial system of government. While he tried to preserve as many republican forms as he could, his changes caused the dissolution of the Roman Republic (Cowgill 1988:257-8).

Gibbon (1963:891-7) cites four “principle causes” for the collapse of Rome after a period of more than one thousand years. First was “the injuries of time and nature.” He notes that complex institutions that consist of various and minute parts are more susceptible to injury and decay. The violence of wind, earth, fire, and water can accelerate what time is already wearing away. Second was the pressure of attacks by barbarians and Christianity. Gibbon sites the depredations of the Goths and Vandals as they indulged in “the passions of a victorious army.” However, Bronson (1988) noted that the real damage could have been caused simply by forcing Rome to divert resources to battling them. The “Catholics” of Rome unleashed their intolerance on the statues, altars, and houses of the “daemons” (Gibbon 1963). Third was the use and abuse of the materials. Gibbon notes that the value of an object that provides for a person’s “wants or pleasures” is a compound of its materials and manufacture. This harkens back to the laws of supply and demand. Barbarians did their share of the damage, but it was the Romans themselves that began pulling down ancient structures to burn the marble in lime kilns to make mortar. The fourth was the domestic battles between Romans. Gibbon calls this the most “potent and forcible cause for destruction.” For five hundred years, Rome was faced with internal strife that saw great monuments destroyed to make fortifications. Much of Gibbon’s book describes the history

of the numerous intrigues that slowly eroded the stability of Rome, while not citing directly how the various institutions of Rome began to weaken and leave the foundations of Rome vulnerable.

STUDIES OF COLLAPSE IN THE EARLY TWENTIETH CENTURY

Oswald Spengler

Oswald Spengler wrote a two volume set called *The Decline of the West* (1926; 1928). Spengler (1926) considered the decline of the West to be a philosophical problem that includes, what he calls, the great question of being, rather than a phenomenon that is limited in time and space. He felt that we must have a clear idea of what culture is, its relations to “visible history,” life, soul, nature, intellect, and the forms of its manifestations—peoples, tongues and epochs, battles and ideas, states and gods, arts and crafts, sciences, laws, economic and world view paradigms, great people and events, which may be held as symbols.

Spengler (1926) felt that nature was the shape in which a person of “higher Cultures” synthesizes and deconstructs the immediate impressions of his senses. History is the form his imagination uses to seek comprehension of the living nature of the world in relation to his own life, which he endows with a deeper reality. Every culture has its own civilization. Spengler considers civilization to be the inevitable destiny of culture. Civilizations are, according to Spengler, the most “external and artificial” states of which a “species of developed humanity” is capable. Imperialism, for Spengler, is Civilization unadulterated. Yoffee (1988:3) notes that for Spengler, civilization was the declining phase of Culture. Life became rigidified after the expanding, ripe, mature phase.

Arnold J. Toynbee

Spengler’s works tend to be philosophical in nature and more pointed at what Yoffee (1988:3) calls a mystical “cultural organism.” Spengler’s (1928) second volume culminates with

a diatribe on the evils of capitalism and democracy. On the other hand, Arnold J. Toynbee was concerned with creating explicit and causal statements to account for the origin and collapse of civilization. His best known formulation was the challenge-and-response hypothesis (Yoffee 1988:4). So important was this hypothesis, that Toynbee (1935e) dedicated the second volume of his *A Study of History* series to the concept of challenge-and-response. However, he explains the basic principle in the first volume. The cause of the “geneses” of civilizations is not singular but multiple. Also, it is not an entity but a relation. This relation can be conceived in one of two ways: 1) an interaction between two inhuman forces or 2) an encounter between two superhuman personalities (Toynbee 1935a:271). Toynbee focuses a great deal on the second of these, looking at the Bible and mythology.

In the second volume, Toynbee (1935e) speaks of stimuli. The first is stimulus of hard land, which can be subdivided into stimulating effects of physical environments which present different levels of difficulty and comparisons between the respective stimulating effects of old and new ground, without considering the nature of terrain. The stimulus of new ground finds that new regions are more fertile for the “conquest” of new ideas than old. Christianity, for example, found that it had to turn to the Gentiles rather than its original Jews to grow. Another stimulus is the stimulus of a sudden blow from the “external human” environment, such as military power. The stimulus of pressure is divided into “marches” and “interiors.” Marches being external, pressures, while interiors relate to internal pressures. Stimulus of penalizations refers to the response of an organism or part of a culture that is penalized by a loss. If an organism loses its sight, for instance, its other senses are strengthened to take over. A group is persecuted, and it simply moves underground. Also considered is “The Golden Mean”, which is the basis for civilizations to be born. “Excessive” challenges will overwhelm the civilization,

while not enough challenge will cause civilization to stagnate (Toynbee 1935e).

Toynbee starts to deal with the problem of collapse in his fourth volume: *A Study of History: Breakdowns of Civilization* (Toynbee 1935b). Toynbee (1935b:5) defines breakdowns of civilizations as failures in the brave attempt to ascend from “Primitive Humanity” to the height of some superhuman kind of being. The nature of these breakdowns is described in terms of a loss of creative power. One of the first things looked at is the loss of command over the environment. One example is lack of maintenance of infrastructure. Next is a failure of self-determination. This goes hand in hand with the loss of creativity. As risks of failure become greater, societies tend to look to mechanical responses rather than creative ones, and thus becoming petrified (Toynbee 1935b, c).

From breakdown, civilizations move to disintegration. The process of disintegration is cumulative, just as growth was. A key concept in the process of disintegration is “schism.” Schism of the “body social” is where various divisions of society no longer work together. Political hierarchies no longer serve those they govern and are no longer trusted. Political parties or other groups of people become more antagonistic. Hence a collective society or civilization ceases to be collective. Schism of the “soul” manifests itself in a variety of ways. One consists of abandon or “lets itself go,” giving free rein to appetites and aversions in a belief that it will be living according to its nature. The other seeks to discipline its “natural passions” in the belief that nature is the bane of creativity and one must gain mastery over nature to recover lost creativity.

While Toynbee’s (1935a; 1935b; 1935c; 1935d; 1935e) analysis is less oracular than Spengler’s, it still seems to feel that collapse is inevitable. Like Spengler (1926; 1928), Toynbee strikes an idealist tone, where the collapse is an idealist collapse. Environmental obstacles raised

the spirit of civilization to consciousness. When civilizations collapse, it is their spirit that fails (Yoffee 1988).

STUDIES IN THE NATURE OF COLLAPSE

In 1988, Norman Yoffee and George L. Cowgill edited a book called *The Collapse of Ancient States and Civilizations*. In the opening article, Yoffee (1988:8-9) cites Flannery (1972) who noted that complexity in a society could be measured according to the amounts of social differentiation and social integration. Change occurs under the “evolutionary mechanisms” of “promotion” (a special-purpose system taking on general system characteristics) and “linearization” (central authority bypasses local authorities to create new possibilities for mobility within a society). However, these mechanisms become what Yoffee calls “pathologies” by which the central authorities “meddle” in stable, lower-order controls and by which a special-purpose system “usurps” the place of the general purpose system. Yoffee notes that Flannery’s evolutionary model usefully identifies some institutional properties in complex societies and the fragility of interdependent linkages of social groupings. Nevertheless, it has been criticized because it is unable to isolate dimensions of causality in cultural change (e. g. Athens 1977; Salmon 1982). Because Flannery saw the various evolutionary mechanisms and pathologies as existing in bundles of homeostatic adaptations, collapse was explained as the result of social institutions becoming so interconnected that when one institution failed, it brought the whole system down with it. Real world collapse is seldom wholly catastrophic. It must be broken down institution by institution (Yoffee 1988:9).

Yoffee (1988:14) feels that the distinction between terms like *decline*, *decay*, and *decadence* on one hand and *fall*, *collapse*, *fragmentation*, and *death* on the other is an important one. The terms in the first group imply changes that, while not for the better, are not necessarily

the end of civilization. The latter group, however, conveys a finality that will not be recovered from.

Another contributor to this work, Kaufman (1988:219) sets out to identify the dynamics of collapse in his article *The Collapse of Ancient States and Civilizations as an Organizational Problem*. He noted that a common element in all the cases cited in the volume were the dissolution of large-scale political systems that encompassed many local groups of people and institutions. Kaufman further notes that disintegration may not be the sole indicator of collapse of a civilization. It is usually associated with a weakening in the capacity of people in the afflicted polity to feed, house, cloth, and defend themselves, together or individually. While it is difficult to determine if the disintegration of governmental structures was the cause or effect, when the chain of events that is called the collapse of civilizations occurs, the failure of overarching governmental organizations was a prominent part of the process.

The effect of regional and central officials on local life is significant. This stems from the critical character of the duties officials perform (as opposed to their deliberate meddling in individual lives). To summarize Kaufman's (1988:221-7) point, local people under normal circumstances may rather see less of their government officials than more, until there is a decline in the effectiveness in central political and administrative organs that leads to a decline in the standard of living of people within their jurisdiction. Should dependable supplies of water become scarce, the accompanying agricultural drop in effectiveness would cause prices to increase. Artisans would demand more for their labor and products to make up for this increase. Revenues that political and administrative structures relied on for such exchanges would be jeopardized. Those same structures would find it increasingly difficult to maintain defenses, preserve internal directive, and maintain public works. Disorder and warfare would place further

stress on the system. Internal factors that would stress a system would include divisions within the ruling circles and runaway field administrators (where there is a disconnect between central authority and the authority on the spot).

Another contributor to *The Collapse of Ancient States and Civilizations* that explored the nature of collapse was Shmuel N. Eisenstadt (1988). Eisenstadt found ten noteworthy points when reviewing the findings of this volume:

1. The collapse of ancient states and civilizations is possibly the most extreme example of the larger problem of “how social boundaries are restructured and reconstructed”, especially to the boundaries of political systems.
2. The constructions of the boundaries of social groups, collectives, and institutions are an ongoing feature in the life of human societies and not an anomalous response to some sort of irregular or periodic stress.
3. Social systems and organizational boundaries do not exist as natural closed systems. Instead, these boundaries are continuously constructed, open, and extremely delicate.
4. Human populations are not confined within any single such system. Rather people belong to a large number of only partly commingling organizations, collectivities, and systems.
5. Division of labor in these systems includes a special social actor (i. e. the “carriers” of the ideologies of the systems). Facets of “power” are always closely interlaced with the identity and character of these social actors.
6. While the characterization of definite organizational boundaries in social systems implies the existence of an “environment,” such environments are not created by “nature.” Such environments are themselves constructed by the “process” of establishing social

- boundaries.
7. Construction and maintenance of organizational boundaries necessitates the creation of various mechanisms of social integration and control. The viability (or lack of it) of these “integrative mechanisms” is vital for the maintenance or change of the societies in which they are embedded.
 8. These integrative mechanisms become more important and more autonomous as social and political systems and civilizational frameworks become more complex.
 9. Such complexity manifests itself not only in the various levels of structural differentiation (i. e. the division of labor in an organization) but also in other important but less hierarchically neat dimensions. For this topic, the most outstanding is the degree of overlap or coalescence found in different circles of ideology and power, which fall within the same overarching social boundaries.
 10. Lastly, these systems change are almost never total. Rather, they usually entail differential change in the various subsystems or components. So, collapse is only an extreme case of the restructuring of boundaries of social and political systems, returning us to our starting point (Eisenstadt 1988:236-7).

Joseph A. Tainter (1988) wrote a book called *The Collapse of Complex Societies*. Tainter sites eleven major themes for collapse: Depletion or cessation of vital resources, establishment of a new resource base¹, the occurrence of some insurmountable catastrophe, insufficient response to circumstances, other complex societies, intruders, class conflict, societal contradictions, elite mismanagement or misbehavior, social dysfunction, mystical factors, chance

¹ New resources may alleviate some inequalities, causing the need for social ranking to break down. Only societies at lower levels of complexity may be susceptible to this.

concatenation of events, and economic factors.

James C. Scott's (1998) *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* attempts to understand how the best laid plans of states fail, and at times, disastrously so. Scott formulated four requirements for truly catastrophic urban planning. The first is the administrative ordering of nature. Scott calls these state simplifications and compares them to abridged maps. They represent only the slice of reality that is of interest to the official observer. The second element Scott calls high-modernist ideology. Scott conceives this as a strong version of self confidence: a feeling that the state's abilities will succeed. Third is an authoritarian state that is willing and able to use the full weight of its coercive force to achieve its ends. Joining authoritarianism with the first two elements alone is a lethal combination. The fourth is a prostrate, passive civil population that lacks the capacity to resist the state's plans (Scott 1998:3-5).

Scott (1998) applies this model to historic states: the Peoples Republic of China, the Soviet Union, seventeenth century France, etc. Barbour and Millon (2005) felt that there was evidence that all four elements of Scott's model were in place at Teotihuacan by A. D. 200. Shortly after A. D. 200, Teotihuacan embarked on an ambitious urban planning project. Teotihuacan fostered the construction of apartment compounds that became the definitive residential architecture in the city for the next four hundred years. The first of these elements was the ability of the state to explain the cosmos, nature, and society. Supporting this was high-modernist ideology that Barbour and Millon interpreted as an overarching ideology. The evidence for this comes in the form of the pantheon of deities employed by the Teotihuacan state. Figurines found at Teotihuacan represented deities and the general population. This indicates that the elite who governed Teotihuacan knew how to blend traditional motifs and elements with

new forms that demanded, or at least encouraged, the public to participate in domestic and state ritual. Dedicatory sacrifices unearthed from under the temple of the feathered serpent attest to the early existence of coercive force and the willingness to use it by the government of Teotihuacan. The evidence for a passive civil populace is given in the form of the massive building projects undertaken by Teotihuacan that would have been difficult to undertake without the population's cooperation. Unlike the five-year plans of communist Russia, however, Teotihuacan succeeded despite the fact all four elements were in place. Barbour and Millon (2005:16) explain that Teotihuacan's rulers did integrate the desires, history and practices of its citizens into the urban planning, at least at that stage. It is also possible that at this point, Teotihuacan's state/cosmos/human body metaphor helped keep their society stable as each citizen saw themselves as a hand, foot, arm, etc. of the city. However this ideology may not have lasted and the population may have become less passive in later years. Millon (1988:156-7) felt that evidence from the period of the collapse of Teotihuacan suggests that the Teotihuacanos may have destroyed the city themselves.

ENVIRONMENTAL FACTORS OF COLLAPSE

Coombes and Barber (2005) review an old concept known as environmental determinism. The basic tenant of environmental determinism is that a society's physical environment controls its cultural development. While many scenarios can show how environmental fluctuations can effect economic production and population levels, these scenarios will produce qualitatively distinct patterns in the palaeoenvironmental record. The large-scale collapse of complex societies may be hard to link to these scenarios causally. Collapse can be strongly nonlinear, driven by complex cascades within a society's self-organizing structure (Coombes and Barber 2005:309). Yet the environment can be a factor in social collapse scenarios. Abate (1994)

quotes Kolata who notes that natural events are accompanied by instances of competition, conflict, and realignment that are not recorded in the archaeological record.

Weiss *et al.* (1993a; 1993b) cite the sudden collapse of the Habur hiatus 1 and Akkadian-Guti-Ur III (~2200 to 1900 B. C.) as being due to an abrupt climate change. This collapse was synchronous with collapses in the Aegean, Egypt, Palestine, and the Indus. This indicates that the climate change was wide spread. Grossman (2002:32-3) notes in his article that Weiss *et al.* are backed up by ice cores from Mount Kilimanjaro. Yet people like Karl W. Butzer hold to cultural factors. Wang (2005) suggests that abrupt climate change and its impact on the collapse of civilization is still not fully understood. More historical, archaeological, and palaeoclimatic evidence needs to be gathered in order to understand how abrupt change influences the evolution of civilizations.

Jared Diamond (2005) wrote a book called *Collapse: How Societies Choose to Fail or Succeed*. His book explores humanity's use and misuse of the environment as an impetus for collapse. According to Diamond, groups do not anticipate a problem before it arrives. One reason for this is that they may have had no previous experience with such problems, and were not sensitive to the possibility. Another reason groups fail to anticipate a problem involves reasoning by false analogy. Diamond notes that once a problem has arrived, the group may fail to perceive that a problem has arrive. One reason may be that the problem is imperceptible. Another is that the regional or central officials may be too far away to realize there is a problem. A third reason, and according to Diamond, the most common, is that the problem takes the form of a slow trend concealed by wide up-and-down fluctuations. Diamond states that societies often fail to even attempt to solve the problem. Another reason Diamond cites for failure of societies is the reluctance to abandon a policy in which the society has heavily invested. An example of

this would be Christian conventions of the Norse in Greenland prevented them from making the drastic lifestyle changes that might have helped them to survive longer. The final reason societies fail is that the problem may be beyond the societies abilities to solve (Diamond 2005:419-36).

CONCLUSION

The history of the study of collapse has shown that complex societies are created from relationships between different elements of that society. These relationships are complex, thus making the societies complex. How one element will react to internal or external stresses is not always predictable. How its relationship to the other elements of society will fare is also not easily predicted. Thus, the importance of Yoffee's (1988) differentiation in the terms of *decline*, *decay*, and *decadence* on one hand and *fall*, *collapse*, *fragmentation*, and *death* on the other.

Rome is a prime example of how collapse may mean only transition. The Roman Republic collapsed in 27 B. C., but Rome continued as an Empire. Another collapse occurred when the emperor Constantine converted Rome to Christianity around A. D. 337. Rome split into the Western and Eastern Empires. The Western Empire fell in A. D. 476. Eastern Rome then transformed to Byzantium. The new capital of Constantinople was finally captured by Mahomet II in 1481 (Gibbon 1963). Yet today many legal, medical, and cultural trappings of Rome continue. Latin is the language of medicine and law. Many buildings still use Roman architecture. Roman laws were used through out Europe in Medieval times. The collapse of Rome was not so final that nothing remains of her glory and grandeur. Collapse, then, may be a more catastrophe version of transformation, but it does not need to be final, nor does it have to take all, or even most, of a civilization down.

REFERENCES

- Abate, T. 1994. Climate and the collapse of civilization. *BioScience* 44(8):516-9.
- Adams, R. M. 1988. Contexts of civilizational collapse: a Mesopotamian view. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 20-43. Tucson: The University of Arizona Press.
- Athens, S. 1977. Theory building and the study of evolutionary processes in complex societies. In *For Theory Building in Archaeology*, edited by L. R. Binford, 353-84. New York: Academic Press.
- Barbour, W. and R. Millon. 2005. Teotihuacan and the modern state: a critique and application of *Seeing Like a State* by James C. Scott. In *Arquitectura y Urbanismo: Pasado y Presente de los espacios en Teotihuacan: Memoria de la Tercera Mesa Redonda de Teotihuacan*, edited by M. E. R. Gallut and J. T. Peralta. Mexico City: Instituto Nacional de Antropología e Historia, .
- Bronson, B. 1988. The role of barbarians in the fall of states. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 196-218. Tucson: The University of Arizona Press.
- Coombes, P. and K. Barber. 2005. Environmental determinism in Holocene research: causality or coincidence. *Area* 37(3):303-11.
- Cowgill, G. L. 1988. Onward and upward with collapse. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 244-76. Tucson: The University of Arizona Press.
- Diamond, J. 2005. *Collapse: How Societies Choose to Fail or Succeed*. New York: Penguin Books.
- Eisenstadt, S. N. 1988. Beyond collapse. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 236-43. Tucson: The University of Arizona Press.
- Flannery, K. V. 1972. The cultural evolution of civilizations. *Annual Review of Ecology and Systematics* 3:399-426.
- Gibbon, E. 1963. *The Decline and Fall of the Roman Empire*. An Abridgment by D. M. Low. London: Chatto and Windus.
- Grossman, D. 2002. Parched turf battle: did climate changes cause civilizations to collapse. *Scientific American* 287(6):32-3.

- Kaufman, H. 1988. The collapse of ancient states and civilizations as an organizational problem. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 219-35. Tucson: The University of Arizona Press.
- Millon, R. 1988. The last years of Teotihuacan dominance. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 102-64. Tucson: The University of Arizona Press.
- Salmon, M. H. 1982. *Philosophy and Archaeology*. New York: Academic Press.
- Scott, J. C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale Agrarian Studies Series. New Haven: Yale University Press.
- Spengler, O. 1926. *The Decline of the West: Form and Actuality*. Translated by C. F. Atkinson Vol. I. New York: Alfred A. Knopf.
- Spengler, O. 1928. *The Decline of the West: Perspectives of World History*. Translated by C. F. Atkinson Vol. II. New York: Alfred A. Knopf.
- Tainter, J. A. 1988. *The Collapse of Complex Societies*. New Studies in Archaeology. Cambridge: Cambridge University Press.
- Toynbee, A. J. 1935a. *A Study of History: Introduction*. second edition. Vol. I. Oxford: Oxford University Press.
- Toynbee, A. J. 1935b. *A Study of History: The Breakdowns of Civilizations*. second edition. Vol. IV. Oxford: Oxford University Press.
- Toynbee, A. J. 1935c. *A Study of History: The Disintegrations of Civilizations*. second edition. Vol. V. Oxford: Oxford University Press.
- Toynbee, A. J. 1935d. *A Study of History: The Disintegrations of Civilizations (cont.)*. second edition. Vol. VI. Oxford: Oxford University Press.
- Toynbee, A. J. 1935e. *A Study of History: The Range of Challenge-and-Response*. second edition. Vol. II. Oxford: Oxford University Press.
- Wang, S. 2005. Abrupt climate change and the collapse of ancient civilizations at 2200 BC–2000BC. *Progress in Natural Science* 15(10):908-14.
- Weiss, H., M.-A. Courty, W. Wetterstrom, F. Guichard, L. Senior, R. Meadow and A. Curnow. 1993a. Corrections and clarifications: the genesis and collapse of third millennium north Mesopotamian civilizations. *Science* 262(5138):1358.

Weiss, H., M.-A. Courty, W. Wetterstrom, F. Guichard, L. Senior, R. Meadow and A. Curnow. 1993b. The genesis and collapse of third millennium north Mesopotamian civilizations. *Science* 261(5124):995-1004.

Yoffee, N. 1988. Orienting collapse. In *The Collapse of Ancient States and Civilizations*, edited by N. Yoffee and G. L. Cowgill, 1-19. Tucson: The University of Arizona Press.