

Excerpts from The Collapse of Complex Societies

By Joseph Tainter (1988)

Collapse, as viewed in the present work, is a political process. It may, and often does, have consequences in such areas as economics, art, and literature, but it is fundamentally a matter of the sociopolitical sphere. *A society has collapsed when it displays a rapid, significant loss of an established level of sociopolitical complexity.*¹ The term 'established level' is important. To qualify as an instance of collapse a society must have been at, or developing toward, a level of complexity for more than one or two generations. The demise of the Carolingian Empire, thus, is not a case of collapse – merely an unsuccessful attempt at empire building. The collapse, in turn, must be rapid - taking no more than a few decades - and must entail a substantial loss of sociopolitical structure. Losses that are less severe, or take longer to occur, are to be considered cases of weakness and decline.

Collapse is manifest in such things as:

- a lower degree of stratification and social differentiation;
- less economic and occupational specialization, of individuals, groups, and territories;
- less centralized control; that is, less regulation and integration of diverse economic and political groups by elites;
- less behavioral control and regimentation;
- less investment in the epiphenomena of complexity, those elements that define the concept of 'civilization': monumental architecture, artistic and literary achievements, and the like;
- less flow of information between individuals, between political and economic groups, and between a center and its periphery;
- less sharing, trading, and redistribution of resources;
- less overall coordination and organization of individuals and groups;
- a smaller territory integrated within a single political unit.

Not all collapsing societies, to be sure, will be equally characterized by each item on this list, and the list is by no means complete. Some societies that come under this definition have not possessed all of these features, and indeed one or two that will be introduced had few of them. This list, however, provides a fairly concise description of what happened in most of the better known cases of collapse.

Collapse is a general process that is not restricted to any type of society or level of complexity. Complexity in human societies ... is not an all-or-nothing proposition. Societies vary in complexity along a continuous scale, and any society that increases or decreases in complexity does so along the progression of this scale. There is no point on such a scale at which complexity can be said to emerge. Hunting bands and tribal cultivators experience changes in complexity, either increases or decreases, just as surely as do large nations. Collapse, involving as it does a sudden, major loss of an established level of complexity, must be considered relative to the size of the society in which it occurs. Simple societies can lose an established level of complexity just as do

¹ Emphasis in original.

great empires. Sedentary horticulturalists may become mobile foragers, and lose the sociopolitical trappings of village life. A region organized under central chiefly administration may lose this hierarchical umbrella and revert to independent, feuding villages. A group of foragers may be so distressed by environmental deterioration that sharing and societal organization are largely abandoned. These are cases of collapse, no less so than the end of Rome, and no less significant for their respective populations. To the extent, moreover, that the collapses of simpler societies can be understood by general principles, they are no less illuminating than the fall of nations and empires. Any explanation of collapse that purports to have general potential should help us to understand the full spectrum of its manifestations, from the simplest to the most complex. This, indeed, is one of the central points and goals of the work.

These points made, it should be cautioned that in fact defining collapse is no easy matter. The present discussion may serve to introduce the orientation, but the definition will have to be added to as the work progresses

Whether as cause or as consequence, there is typically a marked, rapid reduction in population size and density. Not only do urban populations substantially decline, but so also do the support populations of the countryside. Many settlements are concurrently abandoned. The level of population and settlement may decline to that of centuries or even millennia previously.

Some simpler collapsing societies, like the Ik, clearly do not possess these features of complexity. Collapse for them entails loss of the common elements of band or tribal social structure - lineages and clans, reciprocity and other kin obligations, village political structure, relations of respect and authority, and constraints on non-sociable behavior. For such people collapse has surely led to a survival-of-the-fittest situation, although as Turnbull (1978) emphasizes, this is but a logical adjustment to their desperate circumstances.

In a complex society that has collapsed, it would thus appear, the overarching structure that provides support services to the population loses capability or disappears entirely. No longer can the populace rely upon external defense and internal order, maintenance of public works, or delivery of food and material goods. Organization reduces to the lowest level that is economically sustainable, so that a variety of contending polities exist where there had been peace and unity. Remaining populations must become locally self-sufficient to a degree not seen for several generations. Groups that had formerly been economic and political partners now become strangers, even threatening competitors. The world as seen from any locality perceptibly shrinks, and over the horizon lies the unknown.

Given this pattern, it is a small wonder that collapse is feared by so many people today. Even among those who decry the excesses of industrial society, the possible end of that society must surely be seen as catastrophic. Whether collapse is universally a catastrophe, though, is an uncertain matter. This point will be raised again in the concluding chapter.

As the development of complexity is a continuous variable, so is its reverse. Collapse is a process of decline in complexity. Although collapse is usually thought of as something that afflicts states, in fact it is not limited to any 'type' of society or 'level' of complexity. It occurs any time established complexity rapidly, noticeably, and significantly declines. Collapse is not merely the fall of empires or the expiration of states. It is not limited either to such phenomena as the decentralizations of chiefdoms. Collapse may also manifest itself in a transformation from larger

to smaller states, from more to less complex chiefdoms, or in the abandonment of settled village life for mobile foraging (where this is accompanied by a drop in complexity).

The process of collapse, as discussed in the previous chapter, is a matter of rapid, substantial decline in an established level of complexity. A society that has collapsed is suddenly smaller, less differentiated and heterogeneous, and characterized by fewer specialized parts; it displays less social differentiation; and it is able to exercise less control over the behavior of its members. It is able at the same time to command smaller surpluses, to offer fewer benefits and inducements to membership; and it is less capable of providing subsistence and defensive security for a regional population. It may decompose to some of the constituent building blocks (e.g., states, ethnic groups, villages) out of which it was created.

The loss of complexity, like its emergence, is a continuous variable. Collapse may involve a drop between the major levels of complexity envisioned by many anthropologists (e. g., state to chiefdom), or it may equally well involve a drop within a level (larger to smaller, or Transitional to Typical or Inchoate states). Collapse offers an interesting perspective for the typological approach. It is a process of major, rapid change from one structurally stable level to another. This is the type of change that evolutionary typologies imply, but in the reverse direction.

The proposition introduced above may now be rephrased in the terminology that will be used throughout the remainder of this work. It is suggested that the increased costs of sociopolitical evolution frequently reach a point of diminishing marginal returns. ... After a certain point, increased investments in complexity fail to yield proportionately increasing returns. Marginal return decline and marginal costs rise. Complexity as a strategy becomes increasingly costly, and yields decreasing marginal benefits.

Four concepts discussed to this point can lead to an understanding of why complex societies collapse. These concepts are:

1. human societies are problem-solving organizations;
2. sociopolitical systems require energy for their maintenance;
3. increased complexity carries with it increased costs per capita; and
4. investment in sociopolitical complexity as a problem-solving response often reaches a point of declining marginal return.

But hasn't this increased investment in higher education brought at least equivalent, if not greater, returns? While the returns on investment in education are difficult to assess, most people would assume that the answer to that question must be yes. But there are ways of looking at the matter that suggest that this investment has not brought greater marginal returns. With increasing time spent in education and greater specialization, the learning that occurs yields decreased general benefits for greater costs. The greatest quantities of learning are accomplished in infancy; learning that occurs earlier in life tends to be more generalized. Later, specialized learning is dependent upon this earlier, generalized knowledge, so that the benefits of generalized learning include all derivative specialized knowledge. Axiomatically, therefore, generalized learning is of overall greater value than specialized.