

ARCHAEOLOGY OF THE MODERN WORLD

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Summary

Dramatic changes in human life support systems took place during the last 500 years, a period that historians call the modern world. Archaeology is capable of gathering information about and interpreting the collapse and survival of such systems in the modern world that have important implications for sustainable development planning. The transformation of human lifestyles and environments on a global scale is reflected in the archaeological record. Human populations in the modern world reached unprecedented sizes and rates of growth. They expanded throughout the world and carried with them a host of exotic plants, animals, diseases, technologies, and cultural beliefs. The acceleration of global migration also greatly increased population encounters and conflict. Urban places exploded in number and size during the period. The industrial revolution and its aftermath transformed the life support systems of the modern world on an unparalleled scale and intensity. Finally, capitalistic world-economies and large-scale social systems emerged to effectively correlate or link together local and regional ecosystems on a global scale. Such systems mark the modern world and have significant implications for sustainable development.

1. What is the Modern World?

The last 500 years saw the widespread emergence of nation-states and other large-scale social systems operating within world-economies. Such “world-systems” first appeared as early as 5000 years ago in ancient Mesopotamia based on the economic exchange of luxury goods. Not until about C.E. 1450, however, did the first world-systems appear

that extensively circulated the commodities of *everyday* life such as foodstuffs and clothing within worldwide economies based on the ideology of capitalism. This time period and episode of rapid social and cultural change is often referred to as the “modern world.” The archaeological record is an important source of information about the collapse and survival of human life support systems in the modern world that have important implications for sustainable development planning.

The modern world also is marked by the emergence of “Modernism” as a cultural tradition organized around a distinctive belief system and ideology. Some studies have suggested a common historical sequence in the development of the tradition. In this model, the first European global migrants brought with them a “Medieval” worldview. The ideas making up the Medieval worldview included fatalism and lack of control over destiny, subjugation of the individual to the group, and asymmetrical social and theological relations with distinctive material expressions in such things as domestic architecture, mortuary art, ceramic tableware, food preparation, and refuse disposal. Typical houses, for example, had only one or two rooms within each of which a wide range of domestic activities took place. Modernism, however, had replaced the Medieval worldview by the nineteenth century. The ideas of the modern worldview included individualism, symmetrical social and theological relations, and control over nature and destiny. In America, what is called “Georgian” culture is the material expression of the modern worldview, which is marked by distinctive changes in the Medieval patterns of tableware, domestic architecture, food preparation, food refuse disposal, and mortuary art. Georgian architecture, for example, is marked by the segmentation of space into several rooms, each having a specialized domestic activity (e.g. dining room, weaving room, bedroom). The American experience, however, may be historically unique. Susan Lawrence, for example, argues that the development of Georgian culture as an expression of Modernism in the United States developed in relative isolation after its establishment in the seventeenth century. The later European colonies in other parts of the world such as South Africa, Australia, New Zealand, and Canada developed during the industrial revolution and were tightly integrated into the global marketplace. These colonies developed nineteenth-century cultures that retained many of the Medieval material expressions but in the context of Modernism.

2. The Strategy of Modern World Archaeology

Knowledge of the modern world comes from a variety of sources. The source of information that is being considered in this article is the archaeological record, which is made up of the material remains that survive from the modern world’s past and the physical context (e.g. geological strata) within which they occur. It includes the remains of residential households, towns and villages, shipwrecks, battlefields and military fortifications, industries, commercial structures, canals, overland trails, cemeteries, trash dumps, and a host of other material things. But unlike the more remote human past, the archaeological record of the modern world is not the only source of information about the past. It is an independent source, to be sure, but one that should be used along with other sources of information to provide the most accurate picture of the past. The memories of still living people, for example, sometimes can be tapped when doing research on very recent archaeological sites dating to the twentieth century or later. But documentary records such as government census manuscripts, personal diaries, fire

insurance maps, and photographs provide the most abundant alternative source of information and are used extensively to write histories of the modern world. Clearly, an archaeology of the modern world, therefore, is text aided (see *Text-Aided Archaeology*). Archaeologists use textual records to help interpret the physical remains of the modern world. Text-based interpretations range from specific historical details (e.g. construction dates of buildings, names of the individuals who owned or lived in the building) to broad historical context (e.g. chronologies or social and cultural histories of large geographical regions within which archaeological sites occur). But does the archaeological record of the modern world merely duplicate what we know from the documentary record? To the contrary, archaeology is a unique source of information about the past that reflects the worldviews and lifestyles of all people, not just those who left written records.

Granted that a research strategy for an archaeology of the modern world should take into account the documentary record and memory or oral testimony, how are these multiple sources of information to be used together? The late archaeologist James Deetz proposed the following approach. Use existing information from any or all of these sources to build a preliminary model of the past (e.g. the ethnic identity of the people who once lived in a town site or a rural dwelling). Then use the model to formulate hypotheses that can be tested with new data gathered by conducting documentary or archaeological or ethnographic or experimental research. The new data are used to accept or reject the hypotheses, followed by the possible revision of the beginning model. Once revised, the model (e.g. of ethnic identity) is again used to formulate hypotheses to be tested with another cycle of research. The research strategy is thus cyclical, uses multiple sources of information interactively, and yields continuously changing interpretations of the past.

The geographical scale on which the archaeological study of the modern world takes place is necessarily global. One approach to a global structure of inquiry is the world-system paradigm, perhaps best exemplified in the writings of Fernand Braudel and Immanuel Wallerstein but used extensively by others. The world-system is a large-scale social system integrated either by political or military force (e.g. empires) or by an economic network. Examples in the modern world include the Spanish-Portuguese world-system of the sixteenth and seventeenth centuries, the English world-system of the eighteenth and early nineteenth centuries, and the American world-system of the late nineteenth and twentieth centuries. Modern world-systems beginning with the sixteenth century were primarily tied together by global networks of economic exchange based on the ideology of capitalism. In his book *People without History*, however, Eric Wolf made the case that such large-scale exchange networks circulated commodities produced by a wide range of local production systems that were not necessarily based on capitalism. Some, for example, were based on kinship connections and others on tribute relations such as in kingdoms, where kings, rather than market forces, demanded that their subjects produce raw materials. Whatever the production systems involved, global economic networks differentiated modern world-systems into geographical regions with significant differences in economic wealth and political power. Cores, for example, are geographical regions such as Portugal in the sixteenth century or England in the eighteenth century where economic surpluses are shipped and where wealth and political power accumulate. In contrast, peripheries are geographical regions that

produce and export economic surpluses to world-system cores and that accumulate little wealth and political power.

But all archaeological research demands that a structure of inquiry such as the modern world-system paradigm be workable for information contained in the archaeological record, that is, the surviving physical remains of the past. Jack Williams gives an excellent example. He used archaeological data from the sites of three Spanish presidios in Arizona dating between 1752 and 1856 to test two competing hypotheses about the position of New Spain in the modern world-systems of the eighteenth and nineteenth centuries. One hypothesis, proposed by Immanuel Wallerstein, states that Spain and its American colony New Spain developed a core-periphery relationship. The other hypothesis, proposed by Fernand Braudel, states that New Spain in fact accumulated enough economic wealth during its colonial years to place it on a more or less equal footing with Spain. How is it possible to use archaeological data to test the two hypotheses? Williams explored the documentary and archaeological records of the Arizona presidios for evidence of the consumption of what Wallerstein calls “essential goods,” commodities used in everyday life such as food, clothing, and tableware. In a modern world-system, peripheries consume high percentages of essential goods that have been manufactured in core regions. Williams found that, in fact, the Arizona presidios during the Spanish Colonial Period used essential goods mostly produced locally or in the surrounding region. For this reason, he rejected the Wallerstein hypothesis in favor of the one proposed by Braudel.

3. The Archaeology of Global Migrations in the Modern World

Few events or patterns define the modern world more than global migrations by human populations. The archaeological record of the modern world documents these journeys with the physical remains of sailing ships and riverboats (*see Underwater Archaeology*), overland trails and emigrant camps, railroads, exploration camps, military outposts, colonial settlements, migrant homesteads, and a plethora of other things. Somewhat earlier near-modern world migrations such as the Viking colonization of Greenland and Canada, however, also left a substantial archaeological record that has been the focus of considerable archaeological research. The development and expansion of European world-systems beginning in the sixteenth century played a key role in bringing about the population movements. Nation-states such as England, Spain, Portugal, Russia, and the Netherlands organized and financed global exploration and colonization schemes. The development of capitalism brought with it the emergence of entrepreneurial organizations that planned and carried out expeditions to the far corners of the earth in order to extract raw materials and labor that could be transformed into commodities for the global marketplace. They include, for example, the East India Company, which monopolized the tea and spice trade, and the Hudson Bay Company, which played a similar role in the fur trade. The companies established trading posts or plantations around the world. Religious and other ideological movements in the modern world such as Catholicism, Islam, and the Protestant Reformation also instigated global migrations for the purpose of establishing new communities free from persecution, for missionary activities, or for conquest.

In addition to migrations brought about by governments or private companies or ideologies, the most dramatic global population movements in the modern world are the

great precious metals mining rushes of the nineteenth and early twentieth centuries. They include, for example, the California gold rush, the Klondike stampede in Alaska, the great Australian gold rush, and the Main Reef strike on the Rand in the Transvaal region of South Africa. The mining rushes attracted populations from many world regions, were associated with distinctive patterns of technology transfer and innovation, and dramatically transformed the environments in which they took place. In addition to shipwrecks, the archaeological record of overland trails documents these mining rushes and other migrations of the modern world. The Oregon and California Trail, for example, brought more than 300 000 people to the American West between 1841 and 1865. Archaeological studies of events taking place along the trail during the emigration include the two ill-fated Donner Party camps in the Sierra Nevada Mountains of California. Here, almost half of the emigrant party perished in the winter of 1846/47, and some of the survivors resorted to cannibalism.

In general, global migrations in the modern world hold in common the biological or cultural extinction of indigenous peoples, adaptation to and transformation of the new environments that the migrants encountered, and the emergence of new social and cultural traditions. And they all have significant archaeological and written records to help in their documentation and interpretation. The ever-accelerating pattern of global population movement characteristic of the modern world suggests that one trend should be the increasing homogenization or “globalization” of human societies and cultures over time. Certainly the archaeological record documents a global presence at localities in the form of globally distributed commodities. But the homogenization of commodities so often assumed as being a consequence of globalization is counteracted quite effectively by reinterpretation within the context of local cultures and by adaptation to local environments.

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Biographical Sketch

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