

# HISTORICAL ARCHAEOLOGY IN CALIFORNIA

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## ABSTRACT

Historical archaeology in California contributes to theory and method in anthropology and history by describing and interpreting (1) California's historically changing role in the 18th and 19th centuries as a frontier of European and American states and (2) the regional impact of industrial capitalism and the consumer revolution. Eric Wolf, Thomas Hall, Charles Tilly, Immanuel Wallerstein, Fernand Braudel, and others have developed theoretical frameworks for understanding how modern world-systems expand into and incorporate new regions. California is a key repository of archaeological and documentary information about the changing social and cultural frontiers of Spanish, Mexican, Russian, and American states in the 18th and 19th centuries. Of particular importance is archaeological information about the way in which indigenous and immigrant peoples were incorporated into the social and cultural systems of these states, including the emergence and evolution of new ethnic groups, social hierarchies, and dominance-resistance strategies. The rise of industrial capitalism and the consumer revolution are related to and reflect the processes of incorporation on the California frontier. Variability and change in the use, function, and meaning of ceramics and other durable goods consumed in California households mark the evolution of social hierarchies, ethnic groups, and other world-system boundary phenomena.

## INTRODUCTION

In the most general sense, historical archaeology in California covers the time span after Cabrillo reached San Diego in 1542; however, in most cases it begins with the period of Spanish colonization starting in 1769 with the arrival of Gaspar de Portola's expedition in San Diego and extends into the 20th century. Archaeological studies of the Exploration Period (1542-1769), the Spanish Colonial Period (1769-1821), the Mexican Republic Period (1821-1846), and the American Period (1846-present) have taken place at least since the 1940s (e.g., Heizer et al. 1947). The archaeological "hot spots" in recent years, however, have been Spanish Colonial archaeology, Overseas Chinese archaeology, urban archaeology, and industrial archaeology. For the most part, theoretical and methodological approaches in California reflect American historical archaeology but vary by region, time period, and specific problems. The processes and consequences of colonization, for example,

have been key theoretical issues and the measurement of acculturation a key methodological issue in Spanish Colonial archaeology (e.g., Costello 1990; Farnsworth 1987); likewise, ethnicity, ethnic relations, and the material expression of ethnicity have been key issues in Overseas Chinese archaeology (e.g., Greenwood 1991).

## CALIFORNIA'S TRANSFORMATION INTO THE MODERN WORLD

The importance of these research areas is beyond question. At the same time, however, California's most significant contribution to the development of theory and method in historical archaeology may be the evaluation of explanations of how and why California was transformed into what historians call the "modern world." Some of the most provocative explanations in recent years revolve around the concept of world-systems. For this reason, the argument that California historical archaeology should be

used to evaluate the transformation processes implied by the world-systems approach seems reasonable. As is well known, the concept of world-systems emerged after the Second World War as a variety of Dependency Theory that explains economic "underdevelopment" by focusing outward upon external economic and political relationships rather than upon internal forces such as population pressure or class conflict.

In recent years, historians, political scientists, anthropologists, sociologists, and others have developed the approach as a way of interpreting the emergence of the modern world (Braudel 1981, 1982, 1984; Hall 1989; Tilly 1981; Wallerstein 1974, 1980, 1989; Wolf 1982). World-systems are large and even global social systems that are organized around unequal exchange and power relationships between a dominant "core" region and subordinate "peripheral" regions. The social and economic evolution of all regions is "constrained by their changing roles in the system" (Trigger 1989:332).

That historical and other archaeologists have used the concept extensively in recent years is well documented (e.g., Champion 1989; Costello 1992; Farnsworth and Williams 1992; Green and Perlman 1985; Greenwood and Shoup 1983; Kohl 1979; Lewis 1984; Paynter 1982; Redman 1986; Rowlands and Larsen 1987; Sabloff and Lamberg-Karlovsky 1975; Thomas 1989). Bruce Trigger (1989:375), in fact, argues for the "elaboration of world-systems theory" in archaeology to gain a more detailed understanding of how history and evolutionary processes interact.

## METHODOLOGICAL CHALLENGES

Of course, the use of a world-systems paradigm introduces a number of methodological challenges and issues. Interpreting the historical evidence of California's transformation into the modern world, for example, is a key methodological problem. Although its premise that nothing about the past is objective can be questioned, critical theory provides a useful tool for assessing the reliability and accuracy of historical evidence and suggests some weaknesses in the

world system paradigm. Mark Leone and Parker Potter (1988:4-6), for example, fault the world-systems approach for its failure to take into account (1) the "failure, irrationality, emotion, the cultural survival of the defeated and the cultural subversion of the conquering"; (2) the world views, cognition, and symbolism of indigenous peoples; and (3) "presentism", which too strongly interprets the past in terms of the present without being explicit about how or why.

Certainly the past in archaeology has not been "engendered" to any significant extent, and this effectively eliminates the role of gender as a structuring principle of world-system interaction (cf. Conkey and Gero 1991). Margaret Purser (1991), for example, provides historical evidence showing that the reciprocal "visiting" patterns of women in Grass Flat, California, and Paradise Valley, Nevada, had significant impacts both upon household economic organization and the historical structure of both communities.

Without question, the specific historical context within which world system processes take place must be carefully interpreted, if not deconstructed. That methodological problem, however, is neither a unique nor a fatal weakness of the concept of world systems. Sociologist Thomas Hall (1989:244), in fact, points out that the world-systems approach is not really a theory but a paradigm in Thomas Kuhn's sense. Paradigms are useful as conceptual frameworks that define the ballpark within which research takes place, establish working rules and strategies, and identify research priorities and problem domains. In itself the paradigm does not include rigorous theoretical principles, but distinctive theoretical approaches, theory clusters, or theory families that may emerge from the paradigm to answer specific problems. The theories may include symbolism, cognitive theory, class and power theory, feminist theory, structuralism, and others with explanatory robustness for specific problems. Theoretical weaknesses such as those pointed to by Leone and Potter (1988), therefore, are not intrinsic to the world-systems approach but do need to be taken into account in the interpretation of historical evidence.

## PROBLEM DOMAINS

Within the world-systems paradigm, several "problem domains" are pivotal to the study of California's transformation into the modern world. Included are the evolution of diversity, regionality, technology, and landscapes.

### Diversity

Social and economic diversification of California during its transformation into the modern world is historically visible. What role world-systems relationships may have played in the evolution of diversity, however, is controversial. The economic and political dependency of peripheral regions, for example, often has created the illusion that they are passive and unchanging recipients of essential goods and technologies from the core. Jerome Steffen's (1980) concept of a "cosmopolitan frontier" is an example. Others, however, have argued that world-system peripheries are likely to be "hotbeds" of social and cultural change. Eric Wolf (1982), for example, argues that the expansion of capitalism has increased social and cultural diversity in peripheral regions because of the unique and creative responses of indigenous peoples to their economic and political condition. If one follows evolutionary principles that the intensity of selection increases with variability, such conditions also imply a jump in the rate of social and cultural evolution.

World-system diversification takes many forms. Samir Amin (1980), for example, has argued that wealth accumulates in peripheries and is concentrated in elite groups. The formation of new hierarchical social structures such as those that emerged rapidly in California Gold Rush mining towns like Nevada City and Grass Valley is implied. Political processes also are important. The emergence of political "big men" among 17th century Native Americans in southern New England, for example, appears to be a response to world-system expansion (Brenner 1988). Recent work at Fort Ross (Lightfoot et al. 1991:149) also suggests that a single "big chief" emerged among the Kasahaya Pomo after they moved to clustered residential compounds next to the Russian colony at Fort Ross.

Ethnic diversification is another transformation process that appears to be associated with world-system peripheries. New "ethnic groups" often emerge as new places are incorporated into expanding world-systems. Perhaps the best example is the "Mestizo" ethnic group emerging in the Spanish Colonial Period. As was true of New Mexico (Hall 1989:210), the social changes taking place in California during the expansion of the American state after 1846 include the transformation of indigenous Hispanic groups into "an enclaved ethnic group, with a distinctive culture and a distinct class position within a larger structure" (Hall 1989:210). Ethnic diversification includes the emergence of material "markers" of ethnicity and ethnic boundaries. Praetzelis et al. (1987), for example, look at the symbolic content of Chinese material culture as a reflection not only of world view but also of the distinctive social structure of the Chinese community in California.

Finally, the evolution of economic diversity during California's transformation into the modern world is illustrated by Julia Costello's (1992:79) recent documentary and archaeological study of the economic changes taking place in California missions during the Mexican Republic Period. After Mexican independence in 1821, the new government for the first time legally permitted and encouraged trade with Britain and other foreign countries. As a result, Costello (1992:79) observes, "the missions became economically more autonomous and began to evidence increasingly divergent trading and buying patterns." The California missions responded to the modern world system with (1) greater economic diversity, (2) much greater range of economic success and failure, and (3) greater extremes in the treatment of indigenous residents (Costello 1992:79).

### The Evolution of Regions

The transformation of California into a modern world-system also includes the formation of new regions with distinctive social and cultural characteristics, histories, landscapes, and economic and political relationships. Both the urban and rural regions of California are historically modern phenomena. In general the archaeological

interpretation of regions demands the use of "multiple scales" (Marquardt and Crumley 1987). The locality, the region, and the world-system are the three geographical scales needed to study how modern regions are formed in California.

At the local and regional scales, documentary and archaeological interpretation of the "regional community" is the key. Settlement systems, social interaction networks, and ideology or world view have been used in defining regional communities. Settlement system approaches to the regional community include analysis of transportation networks. Purser (1989:122), for example, has viewed the regional community of Paradise Valley, Nevada, through "the ways local residents built and used their road system." In this approach, the road network of each time period is interpreted as a material expression of the regional community. Roads can be used to assess not only the extent to which but also whether or not localities, including isolated homesteads, are integrated into the community.

At the world-system scale, transportation also plays an important role in regional dependency or underdevelopment. Despite political dependence upon the Spanish state, for example, Williams (1992:17) observes that the presidios in Arizona during the Spanish Colonial Period acquired most essential goods from local and regional producers rather than from producers in core regions. Such a system of regional self-sufficiency emerged at least in part because of poorly developed transportation systems that inhibited the transfer of essential goods from core regions. Not until the development of improved overland roads, sea ports, and finally railroads in the late 19th century did full-blown economic dependency emerge.

The same argument that the evolution of regional dependency is a function of the development of transportation systems can be made for California. Both the California Gold Rush and the Comstock Lode discovery in western Nevada, for example, lead to the construction of major overland roads, such as the Carson Pass-Placerville road and the Henness Pass road over the northern Sierra Nevada to the Sacramento Valley, that

greatly increased the world-system dependency of several regions that were previously isolated and relatively self-sufficient. Such a proposal can be evaluated by collecting documentary and archaeological data from way stations associated with the new transportation networks. The completion of the transcontinental railroad had even greater impacts upon the formation of modern regions.

### The Evolution of Technology

The evolution of technology is another pathway in California's transformation to a modern world-system and defines yet another "problem domain" within the world-systems paradigm. In the "late emergence" model, Eric Wolf (1982), Charles Tilly (1981), and others see the modern world-system linked to the industrial revolution. Certainly the archaeological remains of industrial mining, logging, and agriculture make up the most abundant archaeological record of California's American Period. Industrial archaeology has not been driven by theory; however, what is possible is suggested by George Basalla's (1988) use of evolutionary principles to interpret the history of technology. The processes of diversity, continuity, novelty, and selection are incorporated into the explanatory framework.

Application of Basalla's model to industrial archaeology involves 3 hierarchical levels of explanation: (1) the use of evolutionary principles to explain patterns of change in industrial technology; (2) interpretation of the historical context within which technological novelties are accepted or rejected, and (3) the use of archaeological, ethnographic, and documentary data to describe and explain the variability/diversity in the "form" of the technological innovation or novelty.

Other theoretical arguments may be "clustered" with evolutionary theory to evaluate variability and change in industrial technology. Class and power theory, for example, which is based on asymmetrical social relationships between elite groups and subordinate groups, may provide some insights into the social and cultural conditions under which technological innovations are accepted or rejected. The key is the interplay between the domination strategies de-

vised by elite groups such as mine owners/managers and the resistance strategies of subordinate groups such as mine workers. In a capitalist mining system, for example, a typical domination strategy is "controlling labor" through mechanization to make workers produce more through specialization and repetition of tasks. From this perspective, the rapid acceptance of technological innovations that increase mechanization in the mining industry may be better understood as a way of dominating labor rather than as a more efficient technology. If so, episodes of diversification in mining technology should be closely tied to economic cycles (Paynter 1988).

### The Evolution of Landscapes

Finally, the transformation of California into the modern world created new cultural landscapes. Human-engineered and controlled ecosystems increasingly became part of the California landscape after the expansion of the modern world-system in the American Period. New urban landscapes, industrial landscapes, and hydraulic landscapes appear as part of the modern world. The control of human-controlled ecosystems at the local or regional scale is increasingly global; decisions and actions that drive ecosystem changes are made outside the region, and the "meaning" of materials incorporated into the ecosystem such as water or precious metals is created within the global economic and political arena. Perhaps the best examples in California are mining landscapes and the large scale water projects with dams, reservoirs, canals, irrigated agricultural fields, towns, and road networks covering large areas created by the "hydraulic state" that emerged in California after the late 19th century (e.g., Worster 1985). Landscape archaeology thus becomes a critical problem domain in a world-systems paradigm focused upon California's transformation into the modern world.

### CONCLUSION

In conclusion, then, California historical archaeology offers the potential to evaluate with historical evidence from a large geographical area a set of explanations about the emergence of the modern world derived

from the world-systems paradigm. One possible outcome of such an approach is the development of regional research strategies organized around the same research problems. Another is more interaction between historians of the modern world and archaeologists. Dare we be so optimistic?

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