

# THE ARCHAEOLOGY OF EMPIRES

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## INTRODUCTION

Rome, Babylon, Mughal, Aztec, Inka...the names of these early empires evoke potent images of monumental ambition, grandeur, and decay. Empires are geographically and politically expansive polities, composed of a diversity of localized communities and ethnic groups, each contributing its unique history and social, economic, religious, and political traditions. This scale and variability pose considerable challenges to scholars who seek to study early empires. Attempts at comprehensive understandings benefit from and may be made more complex by the diversity of sources, including internal historic accounts and inscriptions, external accounts by conquerors or observers, and material remains, from monumental architecture to utilitarian artifacts. In this review, I focus primarily on recent studies of the material remains of empire, while also addressing works based on written records that have dominated our understandings of early empires (e.g. 60, 61, 86, 120, 125, 150, 152, 160, 184, 185, 221). I limit myself to what Schreiber (180) has called the "more archaic forms of empires," and do not discuss imperialism in the emergence of the modern world system (204, 205, 212).

I approach the archaeology of empire by drawing on sources from the New and Old World spanning from the third millennium B.C. to the eighteenth century A.D. Even in cases where archaeological research is limited (193), the relevant literature is vast and this review is necessarily selective. I examine those early empires whose status as empires is not in dispute (e.g. 220); thus, for the New World I focus primarily on the Aztec and Inka, with limited

attention to earlier imperial polities (e.g. Chimu, Wari), while for the Old World, I draw on literature from the Middle East, South and Central Asia, Rome, and China. My emphasis is less on the historic sequences or artistic products of specific empires than on the development of comparative frameworks that allow for the recognition of similarities and differences in processes of imperial development.

## FRAMEWORKS FOR THE STUDY OF ARCHAIC EMPIRES

### *Definitions and Classifications*

Numerous definitions of empire can be found in the anthropological and historic literature (3, 51, 57, 64, 70, 71, 73, 77, 90, 96, 119, 127, 180, 199, 206). These definitions vary in emphasis, with geographic (199), economic (3, 57, 73, 214), political (64, 70), ideological (50, 51, 71, 83), or military (94–96, 126) dimensions of empire differentially stressed. They share in common a view of empire as a territorially expansive and incorporative kind of state, involving relationships in which one state exercises control over other sociopolitical entities (e.g. states, chiefdoms, non-stratified societies), and of imperialism as the process of creating and maintaining empires. The diverse polities and communities that constitute an empire typically retain some degree of autonomy—in self- and centrally-defined cultural identity (77), and in some dimensions of political and economic decision making. Most authors also share a conception of various kinds of empires distinguished by differing degrees of political and/or economic control, viewed either as discrete types or as variations along a continuum from weakly integrated to more highly centralized polities (see Table 1).

Each classification of empires shares a concern with the nature and intensity of control that imperial centers exert over imperial territories, and each acknowledges considerable variation both within and between empires. Internal variation has been attributed to a variety of factors, including 1. distance from the imperial center and logistical concerns (94–96, 126, 213), 2. preexisting political conditions in incorporated areas (100, 159, 178) and the nature

**Table 1** Frameworks for Imperial Organization

Major author	Weakly integrated	Highly integrated	References
Eisenstadt	patrimonial	imperial-bureaucratic	70, 71, see also 22
Luttwak	hegemonic	territorial	126, see also 56, 57, 94–96
Mann	empire of domination	territorial	127, see also 90

and extent of resistance to imperial incorporation (95, 104), and 3. ecological factors and the distribution of important resources (68, 96). There is also an implicit temporal sequence embodied in these classifications, with weaker forms of organization preceding and potentially (though not inevitably) developing into more centralized imperial structures.

### *World Systems Perspectives*

The extension of Wallerstein's world systems perspective (204) to pre-capitalist political and economic systems, including archaic empires, has been the focus of a number of historians and sociocultural anthropologists (1, 2, 13, 48, 73, 79–82, 89), and archaeologists (9–11, 24, 25, 46, 49, 69, 100, 112–114, 172, 173, 176, 177, 213). Although Wallerstein's original research was limited to the study of the development of the modern world economy, he has recently stressed the need for study of non- or pre-capitalist world systems (e.g. Abu-Lughod's work on the thirteenth century; 1, 2) as a major goal for the future of world systems research (205).

Applications of the world systems perspective to pre-modern periods have generated a wide range of approaches to the definition, scale, and structural interpretations of world systems (summarized in 48). These can be broadly grouped into two main perspectives. The first acknowledges qualitative discontinuities between the ancient and modern worlds but seeks to redefine or broaden the concept of world system to accommodate pre-capitalist systems (9, 10, 24, 25, 69, 213). Thus, Chase-Dunn & Hall have defined the world system as "intersocietal networks in which interaction... is an important condition of the reproduction of the internal structures of the composite units" (49:7). Such interaction may be political, military, or economic, and need not involve relations of inequality or exploitation between core and peripheries. Kohl has emphasized the existence of inequalities between more and less developed areas in third millennium B.C. West Asia but has stressed that the control exerted by more developed areas is limited by easily transferable technologies and by the ability of peripheral areas to interact with multiple cores, to their advantage (113, 114).

A second group of scholars has maintained Wallerstein's emphasis on capital accumulation, while critiquing the primitivist/substantivist distinction between pre-capitalist and capitalist societies (11, 73, 80, 81, 89, 113). Ekholm & Friedman have defined empires as political mechanisms that enable a center to accumulate capital from production in peripheral areas (73). For these scholars, capital need not be restricted to bulk goods, but may include a range of culturally defined forms of wealth (175).

*Stages of Empire: Expansion, Consolidation, and Collapse*

Ancient empires have varied considerably in duration (199). The Timurid empire of Central Asia (128) and the Ch'in empire of China (26) did not outlast the reign of their first ruler; the Inka (134, 140, 169), Aztec (19, 42, 61), and Mongol (12, 133, 194) empires endured less than a century; and the Akkadian (125, 209) and Neo-Assyrian (157, 159) empires of the Middle East (119), and the Mauryan (201, 202), Gupta (181), Mughal (22, 93, 168), and Vijayanagara (84, 145, 196) empires of South Asia ruled effectively for approximately two centuries. Others, including the Romans (16, 65, 86) and some of the dynasties of imperial China (74, 197, 218) spanned many centuries, though with considerable temporal variations in imperial extent and authority.

Even the shortest lived of these empires demonstrated dramatic success in the first stage of the creation of empire—territorial expansion. However, for empires to endure, expansion must be accompanied by processes of consolidation (70, 157, 178, 179, 182), through which conquered territories are incorporated into the empire's political, economic, and ideological domain.

**EXPANSION** Territorial expansion, through conquest and incorporation, is the defining process in the creation of the geographic and demographic space of empire. The process of imperial expansion often begins opportunistically in a period of regional fragmentation or weakness, following the collapse of earlier centralized political systems, creating a vacant potential (96:166) for expansion (34, 39, 41, 44, 50, 70, 71, 138, 141).

The motives for imperial expansion are much more difficult to identify than is the end result, and participants in expansion undoubtedly have diverse motives (77). Expressed motivations may often result from post facto justification and legitimation processes. Doyle (64) has defined three loci of expansionist motivation—metrocentric, pericentric, and systemic—with expansion seen, respectively, as responses to conditions at a center, periphery, or in power differentials between the two. Motives include security concerns such as protection from perceived threats on the outskirts of a polity (87, 96); economic goals of security or acquisition of valued resources (68, 73, 102, 103, 168); ideological factors (50, 51, 122), or a result of the “natural consequences of power differences between polities” (96:3; 119). Most scholars acknowledge complex interrelations among varied goals.

The ability of an imperial center to lay claim to other territories and polities rests ultimately in military power (78, 95, 96, 126, 127; for a different perspective, see 9, 10). Military conquest is a costly route to imperial expansion, involving loss of lives and expenditures of resources and potentially resulting in massive disruption of subsistence and other production activities in defeated

territories. Diplomatic activity, accompanied by a covert or overt threat of force, is a preferred path to territorial expansion in many contexts. An exception might occur in the case of an especially powerful or well-organized enemy, where destruction or disruption of local rulers is deemed necessary by empire builders to undermine any future threats they might pose (180).

The sequence of imperial expansion is affected by local political conditions and the distribution of resources and need not proceed in a straight line or continuous pattern (45, 95, 180). Empire builders may bypass areas of little strategic or economic value to focus on more distant areas with key resources or political significance. Further, conquest is rarely a single event; resistance, rebellions, and cycles of reconquest are common (94, 105, 141, 208).

Constraints on imperial expansion include distance-dependent logistical factors and communication costs, as well as ecological and political factors (96). However, logical constraints may not necessarily be heeded. The engine of imperial expansion, once started, may be difficult to turn off (96:179; 51) especially as systems of economic and social rewards and privileges become associated with expansion and with military success (142). Overexpansion may ultimately contribute to political collapse or reorganization (see below).

*Imperial rulers* Perhaps more than any other ancient political formation, the history of imperial growth is closely associated with individual rulers, for example, Sargon (209), Chin Shih-huang (26), Asoka (201), Augustus (164, 183), Timur (128), Ghengis Khan (12, 167), Pachakuti (140), and Akbar (168). These founders or consolidators of empire were dynamic and brilliant leaders, who typically combined military skills with administrative abilities. The charisma of great leaders in empire formation is not incidental; the creation of personal loyalties and alliances between emperors and newly conquered elites may ameliorate costs of military domination, and the awesome or sacred name and reputation of the emperor may encourage conciliation and submission without the need for military activity or a permanent military presence.

**CONSOLIDATION** For an empire to endure beyond the reigns of individual rulers, individual personal relations between rulers and the ruled must be transcended to create an imperial system of structural connections and dependencies among diverse regions and cultural traditions. This process involves a range of constructive and destructive strategies (EM Brumfiel, unpublished manuscript), including the creation of new institutions, administrative structures, and ideological systems, and the disruption of previously autonomous local institutions, as imperial elite seek to strengthen political and ideological allegiances to the center and regulate the flow of resources to imperial coffers (198). In different empires these ties can be effected in different ways, yielding considerable variation in the extent of imperial centralization, as well as varied

organization within individual empires. Following Mann (127), I attempt to disassociate different dimensions of organization and imperial control, while at the same time acknowledging their interconnectedness (see also 78).

*Politics and administration* Variation exists in the extent to which elites in conquered areas are incorporated into the imperial framework or displaced by imperial functionaries. The cooption of local elites may be a preferred strategy in the early stages of empire formation and in the less centralized empires described above, because existing organizational and revenue collecting structures can be exploited with relatively little central intervention. As long as obligations of tribute and loyalty are fulfilled, imperial administrators or military may not overtly intervene in many aspects of local affairs.

The extent to which local political relations are incorporated or disrupted is an outcome of several factors, including pre-existing political structures, the territory's strategic value and its resources, and resistance to imperial incorporation. For example, among the Aztecs, the status of local nobility and intensity of tribute demands were in large part determined by the degree of resistance to imperial authority; in those territories where surrender to Aztec rule preceded military intervention, tribute demands were much lighter and elites were less likely to be deposed than in areas where warfare had occurred (19, 42, 101, 104).

Connections between local elites and the imperial family may be solidified through the creation of kin relations; through royal marriages, adoptions, or fosterage, and required attendance at royal rituals and ceremonies (43, 170); as well as by the bestowal of elite goods and material symbols of empire, and other material and symbolic benefits that accrue to loyal retainers and followers (33, 182). Although ties between local elites and the center are encouraged, ties among local elites may be discouraged to limit potentials for alliance formation and organized resistance to imperial rule (57, 104).

The size and complexity of imperial bureaucracies and administrative institutions vary considerably, from the massive Chinese (108), Ur III, Old Babylonian, Assyrian, and Byzantine imperial bureaucracies (88, 160), to the much more limited bureaucracies of the Roman (86), Aztec (94, 101, 190), Inka (111, 140), and Vijayanagara (138, 188, 196) empires. Variations also exist in the extent to which administrative institutions are differentiated (70) and the degree to which they are autonomous of the imperial household (23).

Temporal changes in administrative strategies must also be considered and the direction of such changes (toward more or less control) may vary. Several scholars have suggested that just before Spanish conquest, the Inka were engaged in a series of reforms that would have led to increased centralized control of provincial territories and populations (57, 141). However, the oppo-

site pattern seems to have occurred in the Neo-Assyrian empire, where centralized administrative control may have become less direct over time (156, 157).

*Economy* The acquisition of regularized revenues through tribute or taxes is both a major goal and a significant outcome of imperial expansion and consolidation. Rulers may engage directly and/or indirectly in production activities and in the collection of taxes and tributes. Indirect routes of revenue collection involve multiple levels of regional and community leaders, local elites, or organizations of producers (e.g. guilds), or may employ tax farmers who are awarded rights to collect and transfer resources from local regions to imperial centers or outposts (17, 157, 188). Such indirect routes allow for revenue collection in the absence of a developed bureaucracy, but also permit local elites to amass and, potentially, retain significant revenues beyond what is transported to the imperial center, creating the potential for independent bases of power and authority. The existence of multiple levels of extraction can also exacerbate economic stresses on tax-paying populations, and revolts are common, as are mass migrations of artisans and agriculturalists (105, 141, 152, 196).

The control of labor may contrast or complement the control of materials. Labor may be recruited for monumental constructions, the fulfillment of military obligations, or various productive tasks. The coordination of labor obligations can be left in the hands of local elites, provincial administrators, or central institutions (e.g. the centralized Inka decimal hierarchy, 111). A dramatic expression of the control of labor is seen in the practice of forced resettlement, documented from the Inka empire (118, 140, 171, 203) and also known from many other archaic empires, for example, Roman (7, 8), Aztec (45), Sassanian (208), Assyrian (144, 158), and Vijayanagara (196). Such resettlement probably serves a variety of purposes, shifting occupational communities to areas where resources are abundant and/or direct regulation of production activities is possible, and removing individuals and communities from their traditional territories and sources of authority to minimize the potential for resistance.

The nature and intensity of imperial involvement in production and acquisition varies with administrative structure, distance to accumulation points (the imperial capital or other centers), the distribution of centralized institutions (centers, garrisons, or outposts), and the economic and symbolic significance of specific products. We should expect therefore the simultaneous existence of multiple levels of economic organization and control, varying with products, location, cultural meanings, and environmental conditions. The Aztec empire exhibited a well developed market system alongside elaborate tribute requirements, international trade by private and state merchants, and local exchange relations among producers (20, 21, 94). D'Altroy & Earle (59, 66) have distinguished between empires that focus predominantly on the production and

control of staples (staple finance) and those that emphasize the production and control of high status or valued goods (prestige finance), and they have suggested we should expect distinct organizational features and institutions in each of these contexts.

Transport conditions also affect the movement of goods. Vast quantities of foodstuffs, ceramics, and other goods were transported across the Roman empire and into the capital via maritime and riverine routes (85, 92, 107, 154, 163). The Inka capital in the rugged terrain of the central Andes received foodstuffs primarily from the Cuzco region, though precious metals and cloths were transported to the capital from much greater distances along the extensive Inka road system (109, 110).

The transformability of commodities, whether into currency or other categories of goods, also significantly affects patterns of revenue flow and transport of wealth. For example, the exchange of silver in the Neo-Assyrian empire (157) and the monetization of the Roman economy (92) allowed for some movement of wealth independent of the movement of bulk commodities (though this occurred as well). In the New World empires, we see marked differences in the transferability of commodities. Texts indicate that Aztec workers could exchange the products of their labor in markets for goods required to fulfill tribute obligations (20, 32, 36). In the Inka case there is little evidence for markets, and obligations were assessed as labor requirements (67, 140), although this may have been changing just prior to collapse (e.g. 141). Whether imperial involvement in production and acquisition of goods is indirect or direct, productive intensification is a common, though not inevitable (see 6), outcome of imperial incorporation. Along with increased revenue demands, intensification can result from improved conditions of transport, larger potential markets, and the needs of an expanding imperial elite (76). Productive intensification can lead to significant changes in the organization of labor and community structure (31, 37, 97). Near an imperial capital, intensification, especially in agriculture, may reflect security concerns and desires for a stable subsistence base (18, 136, 137), as well as the difficulties of transporting bulk goods (94). Intensification of craft production may contribute to increasing urbanization and the emergence of regional nodes of production and revenue collections (32, 33, 47, 195, 196).

*Military* The ability to field large and effective military forces is essential to imperial success. These forces do not necessarily have significantly better technological resources than their opponents (95, 96, 113) but succeed on the basis of their numbers, organization, and ability to intimidate. For the empire, military success provides the basis for territories, revenues, and, often, slaves, employed as attached laborers or used as sacrifices. For the individual soldier,

military success provides a route to social advancement; rewards of status, land, tribute, and other resources accrue to successful soldiers.

Military forces and strategies vary widely between empires and over time (141). In most cases, there is a core of professional fighting forces and an institutionalized military hierarchy. These forces are typically expanded as needed through recruitment from the population at large, including from recently conquered regions. Maintaining the allegiance of military leaders, whether local elites or centrally appointed officials, and of their troops is a high priority for imperial leaders, and requires substantial rewards for success (such as land grants, booty, and honors), as well as strict sanctions for disobedience. In Vijayanagara, mercenaries and landless populations constituted the heart of the military at the imperial capital, creating a community whose success lay primarily with the success of the imperial center; away from the core, military leaders who controlled substantial armies often posed a potent threat to imperial hegemony (138, 196).

Military confrontation is one extreme in a continuum of relations between dominant and subordinate polities. As noted above, coercive diplomacy (127), with the implied threat of force, is often the preferred alternative to conflict. The use of terror is also documented in a number of early empires, and includes the Roman destruction of Carthage and Corinth, which was later rebuilt as a Roman center (8), and the Inkan annihilation of the Cañari and Caranqui (151). Even in the absence of modern communication channels, word of such large scale destruction no doubt spread rapidly, and may have limited resistance in other areas that were the focus of imperial expansion. The practice of large-scale human sacrifices by the Aztecs is another example of the use of terror in imperial control (95).

*Ideology* Recent studies on the importance of ideology in archaic empires have had two main emphases: 1. the role of ideology in motivating action, in particular, imperial expansion (50, 51, 122), and 2. the role of ideology in providing legitimation for and explanations of extant and emergent inequalities, especially in relations between superordinate and subject populations (5, 116, 117, 130, 161, 162). Both perspectives seek to situate ideology within a broader political and economic context, and both are concerned with what ideology does, beyond identifying specific beliefs (63). Research on imperial ideologies has tended to take a top-down approach, with an emphasis on centralized imposition of beliefs and practices, although more attention is now being paid to bottom-up ideological practices that result from local and potentially divergent responses to central institutions and current events (5, 39, 161).

Significant commonalities can be seen in top-down practices of early empires. Imperial leaders customarily seek to seize control of sources of legitimacy, through the cooption of local religious beliefs and/or the creation of new

systems of belief that build on traditional elements. The appropriation of local beliefs and local deities is common. Davis (62) has viewed appropriations of sacred images as highly consequential political acts that express and establish relations of dominance and authority (see also 7, 19, 91, 104, 116, 139, 152). Such images often are transported to the imperial capital (e.g. the temple for the defeated gods at Tenochtitlán, 42). Appropriated images do not lose their sacred import but instead gain a new level of meaning associated with changing political realities (62).

The imposition or development of new imperial beliefs, gods, and practices among imperial populations in central and incorporated regions is also seen. This may involve the creation of new sets of beliefs that reposition the role of the emperor and/or empire within existent frameworks for understanding the world (50, 51, 116, 122, 123, 162, 168). Ideological, historical, and material (e.g. architectural or iconographic) connections may be drawn to earlier empires and emperors (52, 124). In other contexts, existing beliefs may be supplemented or reconfigured. In a controversial argument, Conrad & Demarest have stressed the conscious reconfiguration of traditional beliefs by Aztec and Inka elites into a set of beliefs that motivated, and demanded, continued imperial expansion (51; but see 95 for an emphasis on political and economic motivations for expansion). Ideological changes may also occur as subordinated peoples try to make sense of their new position in the world. Price (161) has examined the development of the Roman imperial cult in Asia Minor as the outcome of local elites' attempts to place the Roman emperor and their relations to him within a sacred framework.

**COLLAPSE** As noted above, the duration of empires varies considerably. In many, if not all, areas where archaic empires emerged, specific imperial formations formed part of a cyclical pattern of political expansion and fragmentation (96). Fragmentation, or collapse, entails the dissolution of the centralized institutions that created and defined relations of control and dependency between political centers and subjugated territories (215). Tainter (200) has taken an economic perspective, arguing that imperial collapse is an outcome of inevitable declining marginal returns, as the immediate rewards of conquest are offset by the long-term costs of administering and regulating incorporated territories. When geographic expansion ends, the costs of maintaining empires soon exceed their material benefits. This may lead to a range of outcomes, including sacrifice of some territories in order to maintain a strongly ruled central core, emergence of new forms of organization, or political collapse. Contributors to a volume edited by Yoffee & Cowgill (217) examine collapse from a variety of perspectives and regions. Most focus on political collapse, instead of smaller scale dynastic transitions or larger scale civilizational collapse (4, 55). Both internal and external factors are considered. External factors

include the impact of foreign intruders (30, 160), other states and empires, environmental changes (207), and collapse of long distance trade networks and mercantile systems (216). Internal factors include overcentralization (108, 216), communication problems (55), failure to integrate elites or establish legitimacy over diverse territories and long distances (4), and regional, ethnic, and factional dynamics and conflicts (38).

The web of complex relations between imperial centers and conquered territories is a delicate one (72). As the contributors to Yoffee & Cowgill emphasize, although individual political systems may last only a short time, this does not imply a total civilizational collapse. Institutions, social relations, and ways of perceiving the world may long outlast polities, and studies of collapse need to examine what persists in localized patterns, as well as to establish what has ended (72). Further, the idea of empire or impulse of expansion (44:147) seems to outlast specific polities or dynasties, and later empires often build on the cultural traditions and strategies and infrastructure of rule of earlier polities (96, 125, 139).

## THE MATERIAL CONSEQUENCES OF EMPIRE

Empires are often characterized by dramatic material remains—large scale architecture, road systems, urban centers, temples, and elaborate prestige goods. But the absence of this set of imperial indicators does not demonstrate that specific areas were outside of an empire. Variations in the nature of imperial integration can be expected to lead to variations in its material indicators (193). Much recent archaeological research on archaic empires has focused on documenting economic and political transformations that occurred in formerly autonomous regions after their conquest or incorporation into imperial polities. Research on imperial centers or capitals has also been conducted (27, 28, 84, 149), although in many contexts it has been limited by post-imperial destruction and/or modern construction.

### *Imperial Geography*

**CORE AND PERIPHERY** An ideal graphic model of an empire might consist of multiple concentric rings depicting decreasing imperial authority with increasing distance from the imperial center (213), but the reality is often far more complex and inconstant. Territories are not necessarily continuous. Some regions may be bypassed while more distant, strategically and economically important areas are incorporated (45, 180). Core areas expand and contract and may be defined differently depending on variables considered (e.g. economic, political, or ideological). A weakly ruled periphery may contain dispersed areas with intense imperial presence in the form of garrisons or fortresses. A more

realistic geographic model of specific empires would allow for a complex and changing mosaic of political, economic, and ideological interconnections.

## IMPERIAL CAPITALS

Who could conquer Tenochtitlan  
 Who could shake the foundation of heaven  
 (from an Aztec poem, 44:130)

If there is paradise on earth  
 It is here, it is here, it is here  
 [inscription Shahjanabad (Delhi), Mughal capital, 15:197]

The imperial capital is typically the demographically, spatially, and symbolically highest order site in empire-wide settlement patterns (166). Like other capitals, imperial capitals are centers of administration, ritual, and economic activities. As royal residences and sacred centers, imperial capitals are characterized by monumental architecture and massive labor investment in the construction of defensive features, elite residences, administrative facilities, and sacred structures. Evidence for agricultural intensification may also be found in and around imperial capitals, to ensure stable food supplies during periods of conflict and to minimize transport costs (110, 115, 136, 137, 147). The extent to which a capital had a pre-imperial history and the potential for and range of elite participation in construction activities (e.g. Augustan Rome; 219) provide important sources of variation in the form and content of imperial centers.

As symbolic centers of empire, imperial capitals are characterized by a formal organization of space, often around a sacred place (28, 29, 44, 83, 84, 110, 129, 170). The construction of new capitals (189, 216) or additions to existing capitals (115, 219) can be an important political and ideological act differentiating a ruler from his predecessors and redefining the sacred center. New constructions may remove recalcitrant elites from traditional sources of power. Representations of the diverse territories claimed by imperial rulers are found within imperial capitals, including appropriated sacred objects and other goods associated with defeated peoples and polities, syncretic architectural styles (131, 139), and residences for elites of subject populations, who are often obliged to spend at least part of the year in the capital (42, 101, 110, 170). Imperial capitals are characterized by high artifact diversity, especially in elite goods, which reach the capital through tribute or trade from throughout the empire (33). These cities are also characterized by high ethnic and social diversity (40), as populations are drawn in through force or attracted to the capital's wealth and opportunities from regions within and beyond imperial boundaries.

**REGIONAL SETTLEMENT** The impact of imperial incorporation on regional settlement varies with the nature of imperial control in specific parts of an empire (180). Where control is direct, significant impact is expected and regional centers may be constructed in formal imperial styles or with important imperial features (135, 155). In areas of weaker or indirect imperial control, impact on settlement distribution and content may be much less, although emulation of imperial styles and current material symbolism of political authority may occur (193). Features that facilitate movement such as roads, bridges, way-stations, and storehouses (92, 94, 109, 174) may be more widespread than formal imperial settlements or urban centers. Although the initial construction of transport features is often associated with military activities, such facilities may also enhance the movement of goods and people across imperial territories.

Shifts in regional settlement patterns may also occur. In many areas of the Andes we see population shifts from upland to lowland locations following Inka conquest. This has been seen as an outcome of deliberate Inka policy that removed populations from potentially defensible locations and into lowland maize-growing areas (97). This kind of movement may also be a response to declining levels of local conflict that permit settlement in more optimal environmental locales or along trade routes, for example. The forced resettlement of populations can lead to the creation of new kinds of sites, or the presence of distinct ethnic styles outside of their traditional territories. Land grants to imperial administrators, military elites, and successful, non-elite soldiers are a common imperial practice that can have significant impact on local settlement patterns and access to land and resources (6, 8). The distribution and form of sacred sites may also be affected dramatically by imperial incorporation (7, 8, 110). Imperial investment in new or existing temples and other religious facilities is often an important dimension of imperial legitimation (7, 8, 171, 187, 188). Other sites may fall out of use after removal of important images or the loss of their sacred power to changing political and ideological circumstances. Still other sacred sites may be foci for local activities or worship or for challenges to imperial rule.

### *Imperial Economy*

Incorporation into an imperial system often has significant impact on local economies, as a result of top-down processes (i.e. tribute and labor demands) and bottom-up processes (i.e. local and individual responses to incorporation into larger political, economic, and prestige networks). The differentiation of these processes is difficult and requires the extremely fine resolution of participants, political boundaries, and the flow of goods. The much studied process of Romanization provides evidence for impositions of and local responses to the Roman imperial presence (132, 165).

Archaeological studies of production in imperial societies have ranged from the small-scale household level to larger scale studies of urban and regional economies. Some recent studies have focused on the impact of empire on patterns of production, the organization of labor, and community organization and differentiation at the local level. The Upper Mantaro Archaeological Project in highland Peru (53, 54, 57, 67, 68, 97–99) has examined changes in production and access to a range of subsistence and non-subsistence goods in elite and commoner households of the Wanka II (pre-Inka) and Wanka III (Inka) periods. Evans (75, 76) has examined community structure and relations in the Aztec period settlement of Cihuatecpan, and Brumfiel (31, 32, 35–37) has focused on the organization of labor and the impact of empire in a series of studies of pre-imperial and imperial Aztec materials from surface collections at the sites Xico, Huexotla, and Xaltocan in the Valley of Mexico (see also 190, 192, 193).

The organization of specialized production in rural and urban contexts has also been examined (33, 66). Studies on ceramics and other craft goods have focused on standardization, production scale and organization, and the identification of imperial styles and prestige goods (32, 33, 53, 54, 58, 66, 153, 154, 186, 210, 211). Agricultural sites such as raised field beds, canals, terraced fields, and reservoirs are common features in imperial landscapes, around the central and provincial capitals, imperial outposts, and in areas of high fertility or along major routes of transport (14, 41, 136, 137, 146–148). Storage features also provide important evidence of large-scale accumulation of goods (121, 135). Production demands and the movement of agricultural and other resources are linked to transport conditions and technologies.

The movement and structure of distribution mechanisms for raw materials and finished products is a research topic relevant to all ancient societies, and studies of imperial exchange and tribute relations are numerous. Patterns of tribute-flow (e.g. goods and obligations) to imperial centers vary with distance. Bulk goods typically are transported over shorter distances than are high-value low-bulk goods (21, 45, 59, 95, 97, 105, 138; but see 85). The coexistence of multiple mechanisms of material transfers (e.g. tribute, markets, and reciprocal trade relations) requires careful study of a range of material products, including their sources, quantities, and context of recovery (36, 47, 191). The exchange of high status goods among elites, as acknowledgments of subordination and acts of imperial beneficence, provides evidence for changing political relations (32, 66). With imperial expansion we might expect to see increased flows of elite goods of imperial status between local elites and imperial centers and declines in intraregional movement of regional status goods among local elites as their social connections and political prosperity are linked increasingly to the imperial center (97).

## CHALLENGES OF THE ARCHAEOLOGY OF EMPIRE

The specific techniques of archaeology and approaches to analysis do not differ in the study of empires vs other kinds of early states, but the spatial scale, geographic and organizational variability, and the rapid rates of change in empires pose considerable challenges to archaeologists, whose focus of research is necessarily a small part of a large phenomenon.

### *Chronology*

Empires are often characterized by extremely rapid growth and, in many cases, equally rapid dissolution. The major territorial expansion of the Inkas, for example, occurred over about 50 years under two dynamic rulers; imperial collapse followed soon thereafter, following the arrival of Pizarro in 1532. Few absolute dating techniques can yield the kind of chronological resolution necessary to document such rapid geopolitical changes. Specific elite goods or architectural styles may be affected dramatically by imperial developments, although imperial styles may be embedded in developments of broader regional styles and systems of material and political value. More common and archaeologically significant goods such as utilitarian ceramics and stone or metal tools may be relatively unaffected by large-scale political transformations, and patterns of technological and stylistic change cannot a priori be assumed to parallel or be directly related to political changes (6, 143, 180). For example, the broad ceramic chronology of the Aztec period (Early Aztec, 1150–1350, and Late Aztec, 1350–1520) only corresponds partly to the historical sequence of Aztec ascendancy (1428–1520; 106). The difficulty of chronological resolution creates a considerable challenge for documenting sequences of imperial growth and decline using material remains alone. In some contexts, this challenge can be partly met through the incorporation of inscriptions found on elite structures, mortuary goods, and other archaeological contexts as well as analyses of texts, but the association of written sources with material remains is often far from straightforward (190).

### *Sources of Data*

In a recent discussion of Mesopotamia research, Adams (4) has lamented the traditional antipathy between scholars whose research focuses on texts and those who study material remains. For the majority of early empires, the methods of field archaeology examine only some of the potential sources of information, and anthropological archaeologists comprise a small portion of the scholarly community studying particular periods of regions. Productive studies from a variety of perspectives can only benefit from the judicious use of multiple lines of data. Anthropologists studying early empires must acquire the skills necessary to evaluate work from other academic traditions, and they

must examine the range of sources of data relevant to their research questions. It is hoped that while drawing from other disciplines, we will contribute to them, through publishing in appropriate venues and, as much as possible, with non-exclusive terminologies.

### *Scale and Variability*

Throughout this review, I have stressed issues of scale and variability in imperial histories and organization. I have discussed a general array of material signatures of empire, but I have also acknowledged that specific remains or kinds of remains will vary over space and time, and with the diverse ways in which particular regions were incorporated into particular empires. Individual archaeological or historic studies typically focus on only a small part of a much larger phenomenon. As such they contribute greatly to the understanding of empires, but the big picture requires syntheses of work in many areas by diverse scholars. The extent to which that can be accomplished depends on ongoing communication and cooperation in the development of archaeological classifications of materials, sites, and regional patterns, and in the development of comparable, or at least clearly stated, methodological and analytical approaches.

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