



Bridging Landscapes

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Histories of Research

The history of research on landscapes differs dramatically between North America and Iberia. Until the last decade or so, landscape was used as a synonym for environment among North American archaeologists. In the early years of North American archaeology, the idea of “culture areas,” particular environmental regions within which groups shared similar cultural patterns (for example, the Southwest, the Southeast, the Great Plains, the Great Basin), dominated thinking about landscapes (for example Harold Driver’s [1961] classic work on North American culture areas). In the 1960s cultural ecology reshaped the culture area concept into one in which cultural patterns were seen as adaptations to particular environments. This perspective is perhaps best represented by the Southwestern Anthropology Research Group (commonly called SARG), which spent years coordinating archaeological research to explore the relationship between site location and the local environment (see Euler and Gummerman 1978 for a summary). It was only in the 1990s that North American archaeologists began to consider not only cultural adaptations to particular environments, but also how individual cultures might use particular environments in different ways — that is, exploring the cultural construction of environment or landscape (Neitzel 1999 contains a varied collection of papers touching on this theme).

Landscapes for contemporary North American archaeologists include at least two dimensions: (1) the cultural use of an environment as a mnemonic device or element of ritual and (2) the culturally constructed knowledge of a particular environment and its resources (and history and meaning). An important element contributing to knowledge of landscape today are the oral traditions of Native American groups, and an excellent example of this is a recent article by Colwell-Chanthaphonh and Ferguson (2006). In this article, Colwell-Chanthaphonh and Ferguson argue for a “multivocal” approach to understanding archaeological sites and landscapes in the Southwest. They suggest that while oral traditions do not often map well onto the “real” past, they can provide hy-

potheses about the past and suggestions for pursuing research. More importantly, oral traditions convey what the past means to living peoples, and thus allow archaeologists, as anthropologists, a path towards “understanding how people use the past to make meaning of their lives today” (Colwell-Chanthaphonh and Ferguson 2006: 150).

Among Iberian archaeologists the notion of landscape lacked any relevant epistemological-heuristic significance until the 1980s. Before then, Iberian archaeology was dominated by the so-called culture history approach in which the archaeological study of the past was profoundly centered on a single site and artifact-typology level, with little or no notion of intersite or site-environment relationships. From this point of view, the environment or surroundings of archaeological sites were presented (if at all) according to a rather recursive pattern characterized by (1) its descriptive nature (the environment is a “general background, introductory-chapter like” element in archaeological studies and no attempt is made to identify patterns of relationships between human behavior and environmental-landscape variables); (2) its present condition (modern environmental and landscape values are taken as representative of past ones, no evidence of any kind regarding paleoenvironments being compiled or analyzed).

With the democratization of both Portugal and Spain since 1974–1975, an increasing number of young scholars came into contact (through international collaborations, conferences, and graduate training) with approaches to spatial and territorial analysis prevalent since the late 1960s in the Anglo-Saxon world. Thus, cultural ecology and locational geography methods of study (for example, site catchment analysis, theoretical territoriality, and so on) began to be applied in several archaeological projects during early 1980s. An immediate consequence of this was that geoarchaeological and archaeo-environmental evidence became more widespread, enabling the reconstruction of past forms of the landscape and their evolution and interaction with human societies. Approaches based on historical materialism have criticized some of the methods of the so-called ‘spatial archaeology’ but have so far failed to provide working alternatives. Since the late 1980s/early 1990s the British “landscape” approach has gained interest among some Iberian archaeologists. This approach opened the way to considering the ideological-symbolic dimensions of the environment of prehistoric human communities, something that the culture history approach had regarded as little short of epistemological taboo and that the cultural ecology based approach had acknowledged as significant but (to some extent) had failed to actively develop at both the theoretical and methodological levels. As a consequence, more attention is now paid to the analysis of how the environment (with its cultural and natural elements) shapes, and is shaped by, the perception of the world, culture, and society within prehistoric societies. This incorporates a whole series of new elements into the already existing analysis of the environment as the basis for subsistence, including perception (visibility, movement) and time (memory).

Today, Iberian archaeology has quickly caught up with major epistemological developments regarding environmental and landscape analysis. This is, however, largely restricted to prehistoric archaeology, as “classical” (Roman-Iberian) and medieval archaeologies are still largely dominated by culture historical approaches that place little value in the theoretical expansion and scientific formalization of archaeological research.

Dimensions of Comparison

While differing in their history of research on landscapes, current research in North America and Iberia, on the time periods being examined in this volume, share important parallels. These include research on several of the “key themes” in this volume, particularly research on (1) sources of power, (2) ritual practice, and (3) inter-regional interaction (with inter-regional including the “region” of the past). Of interest to both North American and Iberian archaeologists are issues of aggregation (fortification) and disaggregation; why, for example, was Chaco Canyon abandoned ca. AD 1150 and never reoccupied by Puebloan peoples? Was the environment too marginal, or had the region become “marked” as uninhabitable for cultural or religious reasons, as suggested by some contemporary Pueblos (see Lekson and Cameron 1995). In southern Iberia, demographic growth and territorial expansion occurring between the Late Neolithic and Early Copper Age (second half of the fourth millennium and first quarter of the third millennium cal BC) led to significant processes of population aggregation. It has been claimed that, among Neolithic segmentary societies occupying lands with high agricultural potential and approaching demographic critical mass, factional competition was a key factor in this process towards population aggregation (Díaz-del-Río 2004). This was expressed first in the formation of exceptionally large settlements, such as Marroquíes Bajos (Jaén), Valencina de la Concepción (Sevilla) or La Pijotilla (Badajoz) along major river valleys like the Guadalquivir and Guadiana, and second, in the fortification of other smaller settlements, especially in the Spanish Southeast and in central Portugal, like the well-known cases of Los Millares (Almería) and Zambujal (Lisbon). Towards the end of the third millennium BC (that is, the start of the Bronze Age) this process towards population aggregation seems to have followed different evolutionary trajectories in each of these regions. In the Iberian Southeast aggregation gained strength in the form of more socially complex, Argaric communities occupying larger, fortified settlements placed on hilltops. In central Portugal, instead, a pattern of sharp population disaggregation seems to have occurred (Early Bronze Age settlements are almost unknown), suggesting some form of economic and social collapse (Soares and Tavares da Silva 1998) The reasons why late Copper Age communities in central Portugal and southeast Spain underwent such different evolutionary paths are still very poorly understood.

North American and Iberian archaeologists also share an interest in how landscapes were used in the expression and consolidation of political power, and how (or perhaps whether) they became sources of identity. Lekson (1999), for example, argues that a north–south axis played a central role in Ancestral Puebloan cosmology, and that major political centers were repeatedly constructed along that meridian. Although nothing of that degree of sophistication as been suggested for Iberian Late Prehistory, recent research has highlighted the temporal pervasiveness of certain sacred sites and landscapes as places imbued with remarkable ideological significance (whether political or religious, or both). Iberian Copper and Bronze Age societies received from their Neolithic predecessors a legacy of belief systems and cultural practices that incorporated a powerful spatial dimension in the form of prominent sites (and landscapes) where those beliefs became materialized. Acting as places where cultural memory became materially ex-

pressed (that is, places that acted as true cultural archives), some of these sites (most often burials, but also rock art sanctuaries, and so on) were filled with references to the past: artifacts that embodied more or less precise links between the living and the dead, architectural devices (alignments, spatial associations, etc.) and painted and engraved symbols (Lillios 1999, 2003; García Sanjuán and Wheatley 2007).

Finally, North American and Iberian archaeologists are both interested in how current neighbors and previous inhabitants of a landscape were used in ritual and legitimation (especially in regard to interaction and memory (and forgetting) in time and space, as well as the nature of landscapes on a macro-scale and their importance (both symbolic and physical or geographical) in terms of inter-regional interaction (both material and ideological) or core-periphery dynamics. The relationships between the Southwest and Mesoamerica are particularly important in this context, and both Peregrine and Lekson examine them in their contributions to this volume. In Iberia, more attention needs to be paid towards the definition of the relationships established between the Early Bronze Age Argaric communities of the Southeast and the social formations that occupied neighboring regions (most notably the Levant, the southern half of the Iberian Central Plateau, and the Southwest). Regardless of the outstanding debate about the specific political nature of the Argaric society, there is little doubt that the warrior elite played a leading political role within it. One can expect this kind of military elite to have exerted some influence on peripheral communities, whether in the form of raids or more or less peaceful exchange. On the other hand, after the collapse of the “colonial” diffusionist theory, the existence of long distance contact between Iberian and other European (especially Mediterranean) societies during the Copper and Bronze Age has been widely accepted since the 1970s (Harrison 1974; Harrison and Gilman 1977; Schubart 1976). These contacts clearly intensified from the fifteenth to the fourteenth centuries BC onwards, as suggested by the shards of Mycenaean pottery found in a Late Bronze Age context from Llanete de los Moros (Córdoba, Spain) and other evidence — see Vianello (2005) for a recent review. The social and economic consequences of the integration of the Iberian “far-west” within the commercial networks developed in the Eastern Mediterranean regions during the third and (especially) second millennia BC are far from being fully understood.

Directions for Future Research

Archaeologists working in North America and Iberia have come to realize that examining landscapes requires data at scales not commonly used in archaeology, and is thus necessarily difficult. Creating new methods of data collection and analysis, particularly methods for integrating data collected at different scales (large-scale survey aided by integrated GPS and GIS technology has become a major tool in this endeavor), is a primary focus in current and future research. Also important is the exploration of the meaning of landscapes to ancient peoples as opposed to the way those landscapes were used. The latter seems far easier to explore using archaeological data, and engaging the former will require new ways of not only analyzing but also of thinking about data (see, for example, Colwell-Chanthaphonh and Ferguson 2006).

References

- Colwell-Chanthaphonh, C., and T.J. Ferguson
2006 Memory Pieces and Footprints: Multivocality and the Meaning of Ancient Times and Ancestral Places Among the Zuni and Hopi. *American Anthropologist* 108: 148–62.
- Díaz-del-Río, P.
2004 Factionalism and Collective Labor in Copper Age Iberia. *Trabajos de Prehistoria* 61 (2): 85–98.
- Driver, H.
1961 *Indians of North America*. University of Chicago Press, Chicago.
- Euler, R.C., and G. Gummerman (eds.)
1978 Investigations of the Southwestern Anthropological Group. *Museum of Northern Arizona Bulletin* 50.
- García Sanjuán, L., and D. Wheatley
2007 Natural Substances, Landscape Forms, Symbols and Funerary Monuments: Elements of Cultural Memory among the Neolithic and Copper Age Societies of Southern Spain. In *Material Mnemonics. Everyday Memory in Prehistoric Europe*, eds. Katina Lillios and Vassilis Tsamis. Oxbow, Oxford.
- Harrison, R.
1974 Ireland and Spain in the Early Bronze Age. Fresh evidence for Irish and British contacts with proto-Atlantic Bronze Age in the second millennium BC. *Journal of the Royal Society of Antiquaries of Ireland* 104: 52–73.
- Harrison, R., and A. Gilman
1977 Trade in the Second and Third Millennia B.C. between the Magreb and Iberia, Pp. 90–104 in *Ancient Europe and the Mediterranean*. *Studies presented in Honour of Hugh Hencken*, ed. Vladimir Markotic. Aris & Phillips, Warminster.
- Lekson, S.
1999 *The Chaco Meridian: Centers of Political Power in the Ancient Southwest*. Alta Mira, Walnut Creek, California.
- Lekson, S., and C. Cameron
1995 The Abandonment of Chaco Canyon, the Mesa Verde Migrations, and the Reorganization of the Pueblo World. *Journal of Anthropological Archaeology* 14: 184–202.
- Lillios, K.
1999 Lives of Stone, Lives of People: Re-viewing the Engraved Plaques of Late Neolithic and Copper Age Iberia. *European Journal of Archaeology* 7 (2): 125–58.
2003 Creating Memory in Prehistory: the Engraved Slate Plaques of Southwest Iberia. Pp. 129–50 in *Archaeologies of Memory*, eds. R. Van Dyke and S. Alcock. Blackwell, Oxford.
- Neitzel, J. (ed.)
1999 *Great Towns and Regional Politics in the Prehistoric American Southwest and Southeast*. University of New Mexico Press, Albuquerque.
- Schubart, H.
1976 Relaciones mediterráneas de la cultura de El Argar. *Zephyrus* 26–27: 331–42.
- Soares, J., and C. Tavares Da Silva
1998 From the Collapse of the Chalcolithic Mode of Production to the Development of the Bronze Age Societies in the Southwest of the Iberian Peninsula. Pp. 231–45 in *Existe uma Idade do Bronze Atlântico?*, ed. S. Oliveira Jorge. Instituto Português de Arqueologia, Lisbon.
- Vianello, A.
2005 *Late Bronze Age Mycenaean and Italic Products in the West Mediterranean. A Social and Economic Analysis*. British Archaeological Reports International Series S1439. Archaeopress, Oxford.



The North American Postclassic Oikoumene: AD 900–1200

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The title of this chapter employs the term “oikoumene,” meaning the inhabited or known world. Among European archaeologists it has long been assumed that by at least the Bronze Age local populations were in regular contact with one another, forming an “oikoumene” within which processes or events in one region might impact processes or events in another, perhaps distant, region (see, for example, Kristiansen and Larsson 2005). In this chapter, I explore the value of a continental perspective for North American archaeology, one that assumes that populations in North America, like those in Europe, existed within an “oikoumene” of mutually known polities. I pursue this perspective by considering two intriguing questions. First, why are there Mexican sumptuary objects (like copper bells, macaws, and pyrite mirrors) at Chaco Canyon, and none at Cahokia? Chaco and Cahokia were contemporary with each other and with the Mesoamerican Late Postclassic, they were at comparable distances from central Mexico, and yet they appear to have had very different relations with Mexican polities (Lekson and Peregrine 2004). Second, I examine a pattern of synchronous settlement growth and decline that occurs across North America in the Postclassic era (from roughly AD 600 to AD 1500; Peregrine 2006). Why does this synchrony occur? My goal is to illustrate the importance of employing large scales of analysis. Landscapes have often been examined at local or, at most, regional scales. I argue here that macro-regional, even continental, scales of analysis are equally valuable.

Southeast–Southwest–Mexico

Regional-scale analysis of Southwest–Mexico interaction has a long history.¹ Until 1846, the US Southwest was, in fact, part of Mexico. More importantly, a great many artifacts and objects of undeniable Mexican origin have been found in the Southwest — over 600 copper bells, over 400 scarlet macaws, and literally tons of shell from as far south on the Mexican Coast as the Bay of Banderas, to name a few. The flow of material was not one-

way: considerable quantities of turquoise found in Mexico came from the Southwest, much of it having been processed in Chaco Canyon.

As discussed in Chapter 3, Chaco Canyon was the major and perhaps the only near-urban center in Pueblo prehistory. Nothing earlier presaged Chaco, and (less certainly) nothing after rivaled it in size and architecture. The presence of many Mexican objects and even a few architectural elements suggested to many archaeologists that Mexico played a role in Chaco's emergence. Indeed, primary researchers at Chaco in the 1970s concluded that Chaco was the result of direct Mesoamerican intervention, summarized by Alden Hayes (1980: 63): "there is no place to look for the source [of Chaco] except ultimately in Mexico." Despite a marked retreat from this position over the last twenty years (see Mills 2002: 95), there still remain an impressive number of Mexican objects at Chaco, and an extraordinary canyon-wide industry of turquoise bead and tesserae production. Mexico may not be needed as a source for Chaco, but Mexico remains an essential context.

While few items of Mexican manufacture have been found in the Southeast, the ties between the two areas may well have been deep and enduring (White 2005). Iconographic forms such as bird-men and long-nosed gods, unique manufactures such as engraved shell and ceramic effigy forms (for example head pots, hunchbacks), and rituals such as arrow-sacrifice suggest deep connections between Mexico and the Southeast (Hall 1997). More concrete examples of the Southeast's connection to Mexico can be found in the triumvirate of corn, beans, and squash. Not only did these domesticates move consistently, and perhaps repeatedly, into the Southeast, but they must have been accompanied by knowledge of sowing, harvesting, storing, and processing. We might well ask what other information accompanied corn, beans, and squash — means to reckon planting and harvest times? Fertility rituals? Knowledge of associated supernatural beings, such as Tlaloc or Quetzalcoatl?

No less significant are the pyramidal mounds and plazas that form the core of Mississippian centers. While based on patterns of settlement organization reaching back at least to Hopewell times (and perhaps well before), Mississippian communities show striking parallels to some Classic and Postclassic Mexican ones (Dávila Cabrera 2005). Flat-topped mounds elevate temples and/or elite residences above the surrounding community and are arranged around a plaza where public rituals and feasts are held. Plaza and mound groups are often isolated from the rest of the community either spatially or by walls. Plazas and mound groups are aligned to cardinal points or, in some cases, to celestial objects, suggesting that astronomical observations were an important part of Mississippian polity and ideology (this seems especially true at Cahokia, where the presence of several "woodhenge" observatories highlights the important role of astronomy), just as they were in many Mexican ones.

Cahokia and its environs formed the preeminent Mississippian center, and the largest pre-Columbian settlement north of Mexico. Cahokia appeared suddenly out of a landscape of small villages around AD 900. Its peak came about AD 1150, after which it declined dramatically, disappearing altogether by about AD 1250. At its height, Cahokia's population may have reached 10,000 or more. Cahokia is a unique urban center in a landscape of smaller centers and even smaller villages. Explaining Cahokia's rise and fall has been an exercise for generations of Mississippian archaeologists. The presence of

what appear to be clear Mexican parallels in the architecture and iconography led many early researchers to seek a Mexican source for Cahokia. Indeed, one prominent excavator suggested that Cahokia may have been established as a market center for *pochteca* traders from highland Mexico (Porter 1977). But not a single artifact of Mexican origin has been found at Cahokia, and over time the idea that Mexico had any connection at all with Cahokia became anathema.

Does the lack of Mexican-derived material at Cahokia mean that Mexican-derived ideas were not present? Are pyramidal mounds arranged around plazas, bird-man iconography, and other parallels between Mexico and Cahokia all independent inventions, or might we more usefully look at them as part of a larger landscape with a deep history—a North American oikoumene? For example, clear evidence of significant interactions between the Huasteca and Caddoan regions has been recognized since the 1920s, and Mexican archaeologists continue to explore the nature and extent of these interactions (for example, Zaragoza Ocaña 2005). Given the importance of these regions to highland Mexico and the Southeast, respectively, it seems implausible to argue that there was no influence or interaction beyond them. Rather, it seems more realistic to assume that polities in both southeast and highland Mexico were aware of and perhaps even in contact with peer polities in distant regions of the Postclassic world.

Returning to the original question: Why are there Mexican sumptuary goods at Chaco and not at Cahokia? I suggest the answer may lie not in Mexico, but in the Chacoan and Cahokian polities themselves. Mississippian polities built upon millennia-deep traditions of monumentality, exotic materials and their meanings (Townsend 2004). Southwestern polities, such as Chaco, were “start-ups,” creating political symbolism on the run. They looked to Mexico for “ready-made” symbols of power. Fledgling Southwestern hierarchies needed legitimation from Mexico; Mississippian lords did not. Mississippian lords could use and manipulate continental-scale traditions, which can usefully be considered as something like “Mesoamerica in the Woodlands,” without the need for Mexican fripheries. The Southwest’s Mesoamerica was distant West Mexico, separated by spectacular mountains and gorges of the Sierra Madre Occidental; the Southeast’s Mesoamerica was of far easier access, along the Gulf Coast to the Huasteca. Thus, the spectacular presence of Mexican objects, birds, and artifacts in the Southwest and their (apparent) absence in the Southeast may be misleading: the Southwest was perhaps less culturally integrated with its Mexico (West Mexico) than the Mississippian realm reflected the world and world-views of its Mexico (Huasteca).

Framing these ideas in more familiar terms, I would argue that Chaco and the Pueblo world were a periphery of Mexico. Chacoan leaders used Mexico as a source of distant power; imported objects and ideologies supported emerging political hierarchies. In contrast, I would argue that Cahokia and the Mississippian world were a center in their own right, essentially equal to Mexican polities. Cahokia was the northernmost city within a landscape of historically-deep traditions that stretched from Guatemala to Wisconsin. Mississippian leaders adapted deep internal histories of monument-building and intra-regional exotic exchange to symbolize new complex political arrangements. They did not need Mexican objects to demonstrate their power, they were already lords in the North American oikoumene.

Synchrony in the New World

Christopher Chase-Dunn and colleagues have recently demonstrated an interesting pattern of urban dynamics in Europe, North Africa, and Asia over the past 4000 years (for example Chase-Dunn and Hall 1997; Chase-Dunn and Willard 1993).² They show, using the geographical area and estimated population of cities known from historical and archaeological contexts, that changes in city size in one part of this broad region anticipate and perhaps cause change in other parts of the region (Chase-Dunn et al. 2000). Chase-Dunn and colleagues term this pattern “city synchronicity,” and demonstrate long-term patterns of synchrony across large regions of the Old World (Chase-Dunn and Manning 2002).

I replicated Chase-Dunn and colleagues’ findings for the time period from 1000 BC to 500 BC using data on settlement size coded from the *Encyclopedia of Prehistory* (Peregrine and Ember 2001–2002), then applied their method to settlements in the New World (Peregrine 2006). I coded cases in a time series with 100-year intervals for the period from 500 BC to AD 1500. I also divided the New World into three broad regions for comparison — North America, Mesoamerica (including Central America), and South America.

Figure 6.1 plots the percent of cases with settlements with more than 400 residents across time for North America, Mesoamerica, and South America. There appears to be solid evidence for a pattern of settlement synchrony. Specifically, Mesoamerica and South America appear to show a synchronous pattern of growth and decline from about 100 BC to AD 900, with South America lagging behind Mesoamerica by roughly 200 years. After about AD 500, Mesoamerica and North America begin a pattern of synchronous counter-change, with the percentage of settlements over 400 declining as the percentage in North America grows.

What might explain these patterns of synchrony? Chase-Dunn and colleagues propose four explanations for the Old World: long-distance trade, invasions of steppe nomads, epidemic diseases, and climate change (Chase-Dunn and Hall 1997; Chase-Dunn and Manning 2002). Of these, both invasions of steppe nomads and epidemic diseases are unlikely causes of New World synchrony. While warfare and conquest certainly played a role in population centralization in the New World, and sometimes did involve “nomadic” groups like the Chichimecs, these all occurred (as far as we know) on a limited scale, regional at the largest (LeBlanc 1999). No evidence of large-scale conquest covering more than a fairly limited geographic region has been found in the New World until the very end of the period examined here. The same appears true for epidemic diseases. While there is evidence for some epidemic diseases in the prehistoric New World (venereal syphilis and tuberculosis, for example), there is little evidence that they caused widespread disruptions of any kind until the time of European contact or perhaps just before (Ramenofsky 1987). Neither epidemic disease nor conquest (by steppe nomads or others) appear to be adequate explanations for the apparent patterns of New World settlement synchrony.

Many scholars have proposed climate change as an important factor in New World political evolution and devolution (for example, de Menocal 2001; Polyak and Asmerom

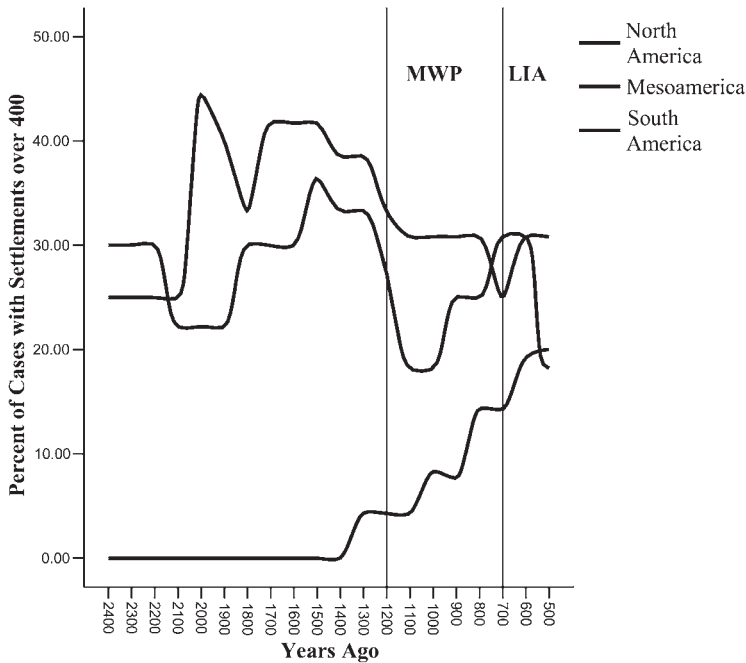


FIG. 6.1 Plot showing the percent of archaeological traditions in the New World with settlements with more than 400 residents for the period between 2500 and 500 years ago. Reference lines show the start of the Medieval Warm Period (ca. 1200 to 700 years ago) and the Little Ice Age (ca. 700 to 200 years ago).

2001). Two climatologic events in the past several thousand years have attracted the particular attention of archaeologists because of their apparent intensity and worldwide effect—the Medieval Warm Period (MWP), ca. AD 800 to AD 1300, and the Little Ice Age (LIA), ca. AD 1300 to AD 1800 (for example, Fagan 2002, 2003; Jones et al. 1999). The Medieval Warm Period is an era in which much of the Northern Hemisphere experienced mild winters and decreased precipitation that produced periodic and sometimes severe drought (Lamb 1995). In contrast, the Little Ice Age is an era of increased precipitation, harsher winters, and cooler summers in the Northern Hemisphere that ended, perhaps suddenly, due to anthropogenically-induced warming associated with the Industrial Revolution (Fisher and Koerner 2003; Lamb 1995).

How well do these two important climatologic events correlate with patterns of settlement synchrony? In the New World the correlation seems modest at best (see fig. 6.1). While Mesoamerica and South America both show a decline in the percent of cases with settlements with over 400 residents at the beginning of the MWP, their decline started at least a century earlier, and both experience significant change within the period. A marked downward dip in Mesoamerica is associated with the onset of the LIA, but this is quickly reversed, and the opposite seems true for South America. North America appears to experience a slow, steady increase in the percent of cases with settlements of over 400 residents during both periods. It seems that neither of these fairly substantial periods of climate change are unambiguously correlated with changes in settlement in the New World.

What about long-distance trade? As I noted earlier, there is abundant evidence that long-distance trade between the southwestern United States and Mexico was continuous over a long period of time. And while there is less evidence for trade between Mexico and the southeastern United States, such evidence does exist (Barker et al. 2002; Kehoe 2005). There is also unambiguous evidence of trade between Mexico and South America. For example, Ecuadoran shell fishers obtained *Spondylus* shells in home waters and transported them by sailing canoe along the Pacific coast from the southern Andes to perhaps as far north as West Mexico (Paulsen 1974). But was trade ever extensive enough to influence settlement patterns? The answer depends on the theory of cultural process to which one subscribes. I believe that even modest inter-regional trade can have profound impact on the societies who are engaged in it (Peregrine 2000; Chase-Dunn and Hall 1997). Others disagree (Wallerstein 1995). Despite disagreements, there are valid theoretical perspectives within which long-distance trade could explain patterns of settlement synchrony (such as Smith 2000), and thus long-distance trade should not be excluded as a possible explanation.

The North American Postclassic Oikoumene

I suggest settlement synchrony is evidence of a North American Postclassic oikoumene, a landscape of mutually-known polities among which a change in one polity may effect change in another, perhaps distant, polity. This is not a climatically or environmentally defined landscape (although both climate and environment may be key factors in processes of stability and change), but rather one of cultural and historical ties. It is a landscape whose valance is measured in knowledge and within which bonds are forged through economic interaction and political conflict. But so what? What is the use of defining a structure like an oikoumene? Nothing, unless we are able to link the origins, continuation, and collapse of the structure to a theory of process, and it is to potential processes of construction, deconstruction, and reconstruction that I now turn.

I suggest the processes creating and maintaining the North American oikoumene are the same ones creating the seemingly odd pattern of Southeast–Southwest–Mexico interaction: the strategies adopted by political leaders to maintain their authority. I frame this theory of process in structural Marxism, and particularly the work of Fredric Jameson and his concept of “strategies of containment.” Jameson developed the idea of “strategies of containment” to help understand the modern Capitalist system, but there is no inherent reason it cannot be usefully applied to non-Capitalist societies (Jameson 1983: 9–10). For Jameson (1983: 266), a strategy of containment is intended “to ‘manage’ historical and social, deeply political impulses, that is to say, to defuse them, to prepare substitute gratifications for them, and the like.” Such strategies can take many forms, and are often developed in the face of specific political or economic challenges (Jameson 1983: 267). These strategies are also not a pure creation of political leaders, but are produced in the context of resistance:

this process cannot be grasped as one of sheer violence ... nor as one inscribing the appropriate attitudes on a blank slate, but must necessarily involve a

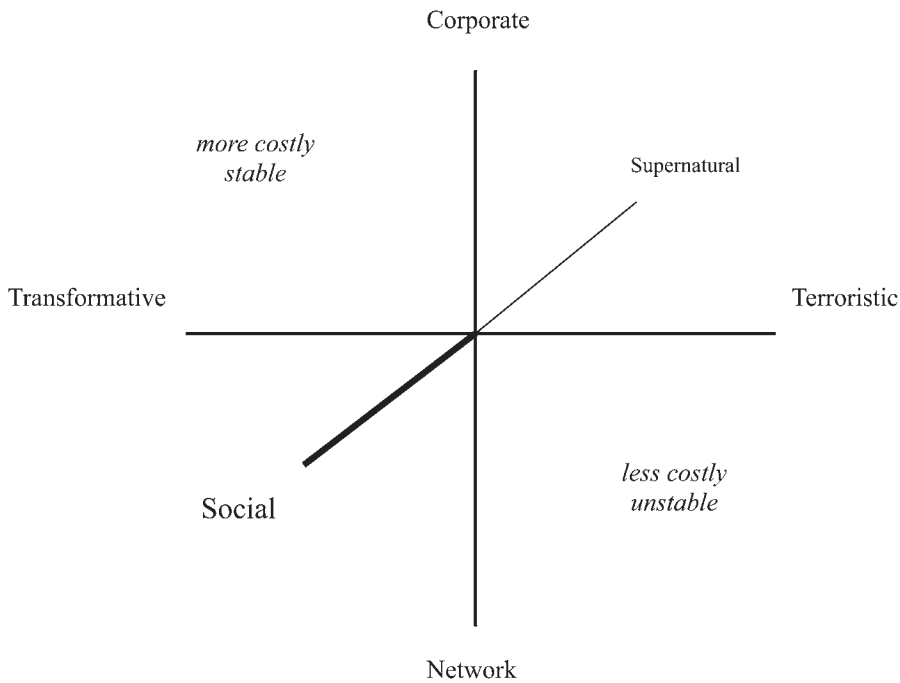


FIG. 6.2 *Strategies of containment. The X dimension reflects strategies for implementation of power. The Y dimension reflects strategies for construction of power. The Z dimension reflects strategies for the source of power.*

complex strategy of rhetorical persuasion in which substantial incentives are offered for ideological adherence (Jameson 1983: 287).

Elsewhere (for example, Peregrine 1995) I have argued rather narrowly that access to prestige goods is a basic incentive offered by political leaders to maintain loyalty, particularly among Mississippian societies. While I still believe that is true, my thinking has developed over the past decade or so, and I now propose a broader range of strategies that political leaders might employ to maintain mass loyalty.

Strategies of Containment

Figure 6.2 displays my conception of three separate dimensions, each of which shows a range of possible strategies that political leaders might employ to contain legitimization crises. The Y dimension has been discussed at length by Blanton et al. (1996) and has been employed by scholars working in the Southeast, the Southwest, and Mexico (for example Blanton 1998; King 2006; Peregrine 2001). On this dimension, which I call here the construction of political power, corporate strategies are those in which leaders attempt to build a power base by developing and promoting activities which reinforce the corporate bonds that tie members of the polity together. A common corporate strat-

egy is, for example, to mobilize goods from across a polity for large public rituals or construction projects that bring members of the polity together in corporate-affirming activities. On the opposite end of this dimension are network strategies. Leaders following a network strategy attempt to build a power base by controlling access to networks of exchange and alliance both within and outside the polity. Thus, a network strategy is one in which leaders attempt to monopolize sources of power, while a corporate strategy is one in which leaders attempt to share power across different groups and sectors of a polity.³

The X dimension reflects what I call strategies for the implementation of political power. At one end is the implementation of power to terrorize individuals within the polity. In this strategy, political leaders essentially force individuals, through the threat of persecution and death, to follow them. It is a strategy that seems all too familiar today. On the other end of this dimension is the implementation of power to transform individuals within the polity, in the sense of what Foucault (1977) called “bio-power.” Transformative power strategies attempt to define the conditions of a “natural” or “just” society, and to create mechanisms through which individuals feel compelled (internally, if possible) to seek to obtain those conditions. Utopian communes certainly fall on this end of the implementation of power continuum, but for Foucault (and others, for example, Toulmin 1984) the entire Enlightenment “project” was one promoted by political elites to establish and maintain a new political system in the aftermath of the Thirty Years’ War. For these scholars, Westfalian nation states are rooted in what I am here calling a transformative strategy for the implementation of political power.

The Z dimension in figure 6.2 represents strategies for establishing the source of power. At one end of this dimension is a purely supernatural source, a strategy in which political leaders claim the source of their power comes directly from the supernatural, from the gods, from magical knowledge, from ancestors. At the other end of this dimension is a purely social source, that power that comes from the will of the people through, for example, direct election. Kin-based strategies lie somewhere in the middle. Political leaders might claim the source of their power is rank within a clan (a more socially-oriented strategy) and the clan’s relationship to the original founder of the polity (a more supernaturally-oriented strategy). Divine kingship and Western democracies perhaps define the ends of the spectrum of strategies for establishing the source of power.

Figure 6.2 also identifies two hypotheses about these strategies. The first is that there is a difference in the relative “cost” of implementing different strategies; that is, some are less “costly” (in terms of energy, goodwill, people, etc.) than others. The second is that there is a difference in the relative stability of different strategies. Some strategies are more stable than others. For example, I hypothesize that terroristic strategies of implementing power are relatively “cheaper” than more transformative ones (all a leader needs to do is threaten and kill — they do not need to change individuals’ minds), but are also relatively unstable, as terrorized followers will tend to flee the polity or overthrow the leader. It is important to note that relatively “cheap” strategies tend also to be relatively unstable, whereas more “expensive” strategies tend to be more stable.

My general theory, then, is that political leaders will tend to implement the least costly strategies of containment possible to avoid a political crisis. Over time, I theorize, a

stable point will be reached where the least costly effective strategies of containment are in place. The stable point will only remain stable if external conditions remain stable. A climate change, an invasion, even an evangelic movement, might tip the balance in the direction of a political crisis, and leaders will have to alter strategies to contain it. This dynamic process of strategic adaptation to emergent conditions is the process of history. It is the process through which settlement synchrony occurs. And it is the process which constructed, deconstructed, and reconstructed the North American Postclassic oikumene.

Containing Collapse

To explore this idea, we need first to look towards Teotihuacán. At its height of power, around AD 600, the Teotihuacán polity influenced much of central and southern Mexico (Cowgill 1997). The city of Teotihuacán itself covered an area of about 20 sq km and had a population of over 100,000 people. But around AD 700 the polity began to decline, and by AD 750 appears to have largely collapsed with tremendous impact on the polities with which it had contact. I suggest direct evidence of this impact can be seen in figure 6.1.

Figure 6.1 shows that a marked pattern of settlement decline in both Mesoamerica and South America began at roughly AD 700 (1300 BP). I suggest this pattern is a direct result of the decline and eventual collapse of the Teotihuacán empire. As the empire fragmented, the processes holding together large communities elsewhere — process of inter-regional exchange, tribute coordination, defense, and the like — also fragmented. The demands fueling large communities disappeared, and consequently, those communities disappeared as well. Interestingly, a long era of settlement growth began in North America at about AD 700 (see fig. 6.1). I suggest this pattern, too, may be related to the collapse of the Teotihuacán empire, and it is the possibility that the Teotihuacán collapse sent ripples of change across North America that I want to explore in the remainder of this chapter.

To contain collapse, I suggest leaders attempt to implement strategies that are the “cheapest” at the time. These may develop, perhaps quickly, into more “costly” and stable ones, but in the immediate struggle to contain collapse, I suggest leaders initially implement “cheap” strategies. Looking at figure 6.2, these strategies include network means of constructing power, terroristic means of implementing power, and supernatural means of establishing the source of power. What might such a constellation of strategies look like archaeologically? First, polities would look outward for new sources of power and for exotic “elite” goods to fund their emerging power base (Helms 1979; Peregrine 1991). Second, there would likely be evidence of terroristic or warrior “cults” appearing — of rituals involving human sacrifice performed by religious officials who are also in political power, or of the conspicuous adoration of warriors, typically also political leaders. Archaeological evidence of this might be very slight. In other words, while a terroristic or warrior cult might be developing, there may be little in the way of clear archaeological evidence for it at this point.

The 150-year-period between the end of the Teotihuacán empire and the rise of the Toltec empire was not one of insignificance or inaction, but rather one in which leaders struggled to regain authority by implementing strategies of containment that were

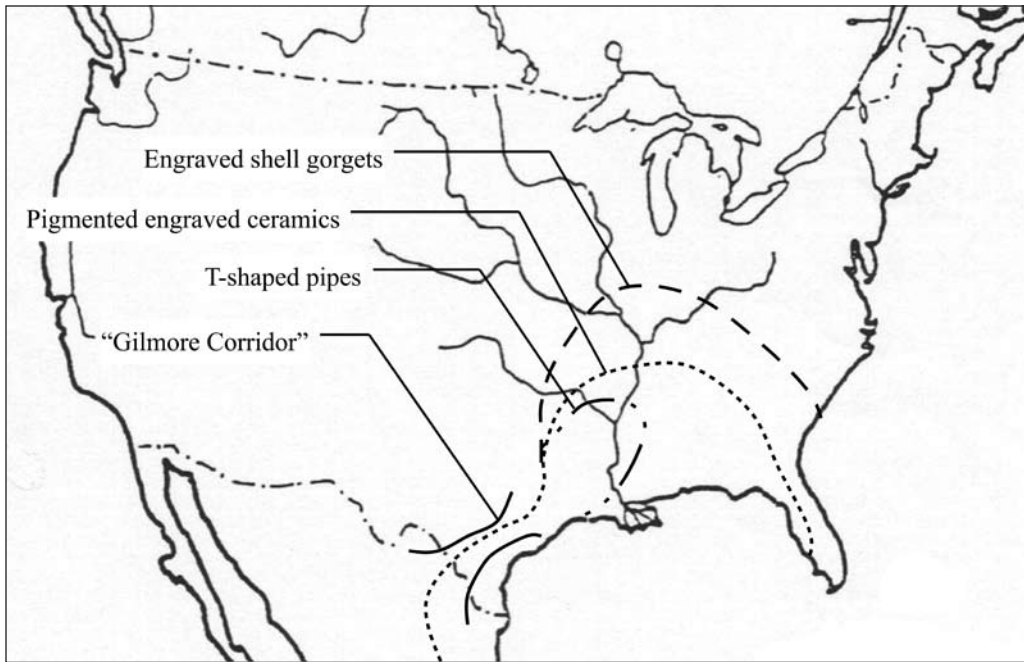


FIG. 6.3 *The distribution of selected artifacts in the Post-Classic Era.*

ultimately successful. To look at the archaeological record, it might appear that nothing much was going on, but I suggest the archaeological record simply reflects a period where the evidence of activity is less obvious, materially, than later. But if there is no clear evidence, then am I just relating a story? I think not, because I think the evidence for what was happening between roughly AD 750 and AD 900 becomes clear in the archaeological record of the Postclassic world.

What's the Evidence?

The first piece of evidence I put forward is pigment-filled engraved ceramics. Engraved ceramics have designs carved into them after firing, and these particular ceramics have pigment — typically red or white — rubbed across their surfaces to fill in and thus highlight the engraved lines. In the realm of ceramic decoration, this is a fairly rare form. Of the 41 archaeological traditions currently in the eHRAF Collection of Archaeology, for example, only eight have engraved ceramics, and of those only three fill-engraved lines with pigment — about 7% of the total sample. Interestingly, all are situated in the Americas, and two are Mesoamerican (Preclassic Maya — probably influenced by Olmec, which also has pigmented engraved ceramics but is not in the current eHRAF sample, and West Mexico Postclassic, which has links to northeastern Mexico in the Postclassic period). Thus, adjacent regions sharing pigmented, engraved ceramics during the same time period is probably not well-explained by independent invention or parallel evolution, but rather is more likely the result of interaction.

Figure 6.3 shows the region of eastern North America in which pigmented engraved ceramics are found in the period around AD 1000. Pigmented engraved ceramics show a clear distribution around the Gulf coast, stretching inland several hundred miles up the Mississippi and other major river valleys leading to the coast. I take this as evidence of interaction along the coast and inland along the river valleys. Note that this realm of interaction stretches well into northeastern Mexico (and, indeed, could reasonably be stretched to encompass West Mexico and the Yucatan). It is also interesting to note that a number of other decorative styles, including negative painting, and imagery, like the sun symbol, are also broadly shared across this same general region (White 2005).

The second piece of evidence I put forward is engraved shell gorgets, which are made from disks cut from the outer shell of *Busycon* and other large marine mollusks. Designs are engraved into these disks, often by removing sections of the disk to form an outline of the design. Holes for suspending the gorget are usually drilled near the top of the disk. Engraved shell is itself relatively rare in the archaeological record. Among the 41 societies in the eHRAF Collection of Archaeology, only two (West Mexico Postclassic and Late Caribbean) manufactured engraved shell ornaments of any kind. This is in contrast to engraved bone, which appears almost universal. One reason is surely access to shell, but the other is likely the great difficulty of engraving shell compared to bone. Engraving such designs is time-difficult and labor-intensive, and their use was likely restricted to high-status contexts.

Despite their high-status context, the overall distribution of engraved shell gorgets in North America is fairly broad, and matches closely that of pigmented engraved ceramics. Figure 6.3 shows the distribution of engraved shell gorgets in eastern North America at roughly AD 1000. Again, it is similar to that of pigmented engraved ceramics. But while engraved ceramics were probably used in a variety of social contexts (albeit some forms were clearly high-status), engraved gorgets were certainly not. These were restricted to high-status individuals. What we see, then, is that both high-status and more mundane, but equally unique, items share a similar geographic distribution. This seems unlikely to have been due to parallel developments, but rather points to regular interaction and the sharing of a broad range of both technical and stylistic knowledge and preferences. Of course, these gorgets share an iconographic language that is both unique and unmistakable (Hall 1997; Townshend 2004).

The final piece of evidence I put forward is the use of ceremonial tobacco pipes. While the history of tobacco (*Nicotana* sp.) itself has not been well established, the history of pipes used for smoking it seems much clearer. Pipe-smoking began in the last centuries BC in eastern North America, and pipe use may have been introduced into Mexico from eastern North America sometime in the late Classic or early Postclassic period. Most pipes used in Mexico were simple tubes (although many styles, including effigy forms, are found), but in northeastern Mexico a number of pipes similar in form to those more commonly called “calumets” have been found. The calumet refers specifically to a “peace pipe” used in political and religious contexts in the historic period, but more generally refers to a cylindrical pipe with a high bowl rising at a right angle to the stem. Pipes of this form have a wide distribution in the Mississippi valley and the Great Plains.

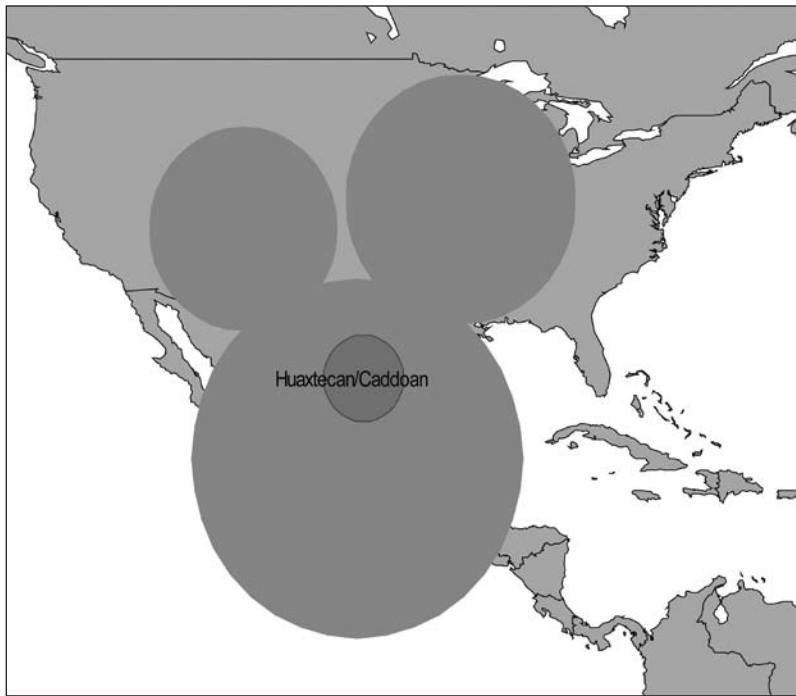


FIG. 6.4 *The North American Postclassic oikumene, ca. AD 1000.*

It is interesting that the first written account of the calumet comes from Jesuit missionary Jacques Marquette’s relation of his journey down the Mississippi River in 1673. He was given a pipe, described as made of “red stone, polished like marble” — probably catlinite, the most common raw material used to make historic calumets — by a group of Illinois Indians “as a safeguard among the nations through which they had to journey” (Marquette 1895–1901 [1673]). The calumet was a recognized symbol of peace along the entire length of the Mississippi River and served to ensure its possessor safe passage. Marquette made regular use of this pipe, and indeed was able to safely journey nearly all the way to the Gulf of Mexico, only turning back on approach of the Gulf from fear of the Spanish. The pipe served him on his return voyage up the Illinois River as well (he had descended the Wisconsin, and it was apparently near the junction of the Wisconsin and Mississippi Rivers that he received the calumet).

The existence of the calumet and its widespread acceptance as an insurer of safe passage suggests that people were moving widely throughout the Mississippi River valley in the late prehistoric period. The presence of calumet-like pipe forms in archaeological contexts suggests that such movement had deep roots the area, potentially reaching into far northeastern Mesoamerica.

Figure 6.3 shows the distribution of a specific form of calumet, the so-called T-shaped pipe. These have been found on sites from San Luis Potosí north to Oklahoma. They date from the Postclassic period and are of similar design. I suggest this may provide evidence of not only a shared pipe form, but perhaps also of a shared symbol of safe pas-

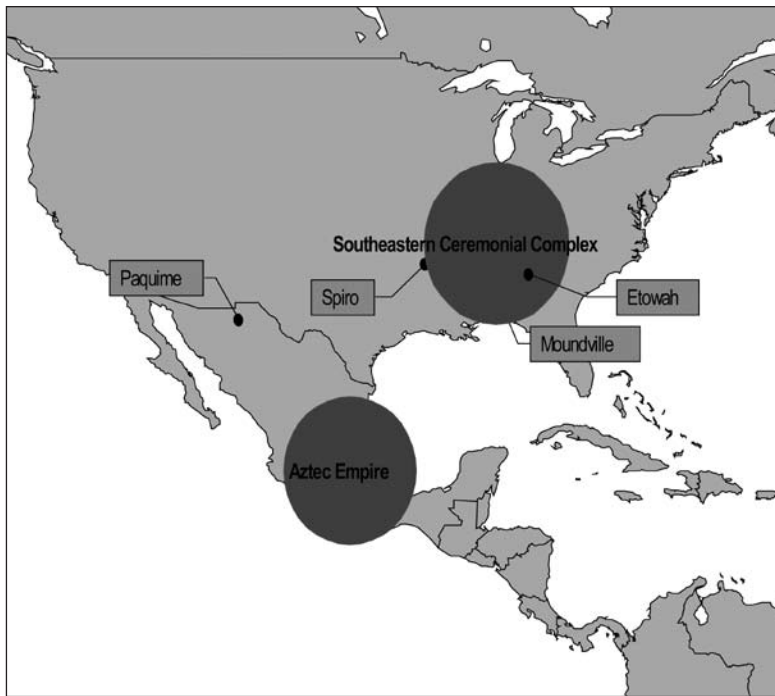


FIG. 6.5 The North American Postclassic oikoumene, ca. AD 1400.

sage for movement across the southern Great Plains. It is interesting that the distribution of T-shaped pipes closely matches the location of the “Gilmore Corridor”, also shown in figure 6.3.

The Gilmore Corridor was proposed by ethnobotanist Melvin Gilmore as a likely route by which maize entered the US from Mexico. The logic of this route is based not only on the more hospitable environment for travel than either the coastal regions or upland pine forests of Texas, but also on the fact that the *Camino Real* ran through this corridor. The *Camino Real* was a historic trail linking Spanish settlements in Mexico with east Texas and the Mississippi River valley. Perhaps T-shaped pipes were a unique form of the calumet used as a symbol of safe movement through the precursor of the historic *Camino Real*.

These connections, albeit ephemeral and irregular, constitute what I call the North American Postclassic oikoumene. Figure 6.4 illustrates this idea for the Early Postclassic period, at roughly AD 1000. Here we see three major areas, each identified by a preeminent center (Chaco, Cahokia, and Tula, respectively), their general spheres of influence, and the region the Huasteca/Caddoan interaction area I have primarily focused on here. The spheres of influence overlap, and it is the implications of this overlapping that I suggest should be of greater interest to North American archaeologists in both the US and Mexico. Figure 6.5 illustrates the North American Postclassic oikoumene in the late Postclassic period, at roughly AD 1400. Here the broader spheres of influence have contracted and the preeminent centers of the Early Postclassic have all fallen.

Conclusions

I suggest that the time period between the end of the Teotihuacán empire and the emergence of the Toltecs, Mississippians, and Ancestral Pueblo (roughly AD 750 to AD 900) was a time of dramatic change in North America. It was a time during which Mesoamerican leaders once aligned with Teotihuacán began to look elsewhere for sources of power. Looking to the Southwest they found sources of turquoise and perhaps slaves, and in return left copper bells, ball courts, and birds. The influence on both sides was real and ongoing, but perhaps only superficial in terms of daily life and culture. Looking to the Southeast, they found a deep and powerful cosmological system, one with which they already had familiarity, but also one that their Southeastern cousins had developed in new and profound ways. Most importantly, the peoples of the Southeast had incorporated pipe smoking rituals into a set of religious complexes involving death, rebirth, and alliance (see Hall 1997). As tobacco smoking rituals moved south, the notion of using mounds as substructures for temples and elite residences moved north. A range of ritual objects and iconography concerning shared or parallel deities — bird men and snakes, morning and evening stars, cardinal directions and world posts — moved in both directions.

In Mesoamerica, where emergent leaders attempted to contain the crises of political fragmentation through “inexpensive” means, these shared ritual items became the focus of terroristic or warrior cults — cults involving human sacrifice and the resulting flayed skins, blood, and trophy heads. Leaders became the embodiment of supernatural beings who carried out these blood rituals as reenactments of mythical events. In the Southeast, the shared ritual items were incorporated into more stable, but more “expensive” strategies of power involving corporate rituals of death and rebirth (Hall 1997). While some human sacrifice took place, they had fewer of the terroristic elements seen in Mesoamerican rituals. Similarly, leaders were not the embodiment of supernatural entities, but rather had ritualistic acumen and strong kin ties that both functioned in the construction of their power base.

Why are there no Mesoamerican goods at Cahokia? There are: fundamental ones having to do with the operation of the universe and the proper functioning of society. But these are not unambiguously reflected in material culture; rather, they are most clearly seen by examining and comparing the parallel cosmology and ritual that developed in the landscape shared by Mesoamerica and Cahokia, the landscape I call the North American Postclassic oikoumene. And this is the point I hope to have made in this chapter — without taking a macro-regional, even continental, perspective on landscape, we unnecessarily limit our analyses and our understanding. Local or regional landscapes are important, but important processes also occur at macro-regional levels, and we should not be afraid to examine those large-scale processes as well.

Notes

- ¹ Much of this section is adapted from Lekson and Peregrine 2004.
- ² This section is adapted from Peregrine 2006.
- ³ It is important to note that corporate and network strategies lie on a continuum and are not “pure” strategies in any given case. Rather, leaders tend to promote more corporate-oriented strategies or more net-

work oriented ones, but it is unlikely any leader will promote a “purely” corporate or network strategy. It is also important to make clear that these strategies are used in societies with varying degrees of political centralization, scale, and technological complexity. They *do not* define societal “types” nor do they define a unilineal evolutionary trend.

References

- Barker, A., C. Skinner, M. Shackley, M. Glascock, and J. Rogers
2002 Mesoamerican Origin for an Obsidian Scraper from the Precolumbian Southeastern United States. *American Antiquity* 67 (1): 103–8.
- Blanton, R.
1998 Beyond Centralization: Steps Towards a Theory of Egalitarian Behavior in Archaic States. Pp. 135–72 in *Archaic States*, eds. G. Feinman and J. Marcus. School of American Research Press, Santa Fe.
- Blanton, R., G. Feinman, S. Kowalewski, and P. N. Peregrine
1996 A Dual-Processual Theory for the Evolution of Mesoamerican Civilization. *Current Anthropology* 37 (1): 1–14.
- Chase-Dunn, C., and T. Hall
1997 *Rise and Demise: Comparing World-Systems*. Westview, Boulder.
- Chase-Dunn, C., and S. Manning
2002 City Systems and World Systems: Four Millennia of City Growth and Decline. *Cross-Cultural Research* 36 (4): 379–98.
- Chase-Dunn, C., S. Manning, and T. Hall
2000 Rise and Fall: East-West Synchronicity and Indic Exceptionalism Reexamined. *Social Science History* 24 (4): 727–54.
- Chase-Dunn, C., and A. Willard
1993 Systems of Cities and World-Systems: Settlement Size Hierarchies and Cycles of Political Centralization, 2000 BC–1988 AD. IROWS Working Paper No. 5. Electronic document, <http://irows.ucr.edu/papers/irows5/irows5.htm>.
- Cowgill, G.
1997 State and Society at Teotihuacan, Mexico. *Annual Review of Anthropology* 26: 129–61.
- Dávila Cabrera, P.
2005 Mound Builders along the Coast of the Gulf of Mexico and the Eastern United States. Pp. 87–107 in *Gulf Coast Archaeology*, ed. N.M. White. University Press of Florida, Gainesville.
- de Menocal, P.
2001 Cultural Responses to Climate Change During the Late Holocene. *Science* 292 (5517): 667–774.
- Dowling, W.
1984 *Jameson, Althusser, Marx: An Introduction to the Political Unconscious*. Cornell University Press, Ithaca.
- Fagan, B.
2002 *The Little Ice Age: How Climate Made History, 1300–1850*. Basic Books, New York.

- 2003 *The Long Summer: How Climate changed Civilization*. Basic Books, New York.
- Fisher, D., and R. Koerner
2003 Holocene Ice-Core Climate History—A Multi-Variable Approach. Pp. 281–93 in *Global Change in the Holocene*, eds. A. Mackay, R. Battarbee, J. Birks, and F. Oldfield. Arnold, London.
- Foucault, M.
1977 *Discipline and Punish: The Birth of the Prison*. Pantheon, New York.
- Jameson, F.
1981 *The Political Unconscious*. Cornell University Press, Ithaca.
- Hall, R.
1997 *An Archaeology of the Soul: North American Indian Belief and Ritual*. University of Illinois Press, Urbana.
- Hayes, A.C.
1981 A Survey of Chaco Canyon Archaeology. Pp. 1–68 in *Archaeological Surveys of Chaco Canyon, New Mexico*, eds. A.C. Hayes, D.M. Brugge, and W.J. Judge. Publications in Archaeology 18A, National Park Service, Washington.
- Jones, T., G. Brown, M. Raab, J. McVickar, W. Spaulding, D. Kennett, A. York, and P. Walker
1999 Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly. *Current Anthropology* 40 (2): 137–70.
- Kehoe, A.
2005 Wind Jewels and Paddling Gods: The Mississippian Southeast and the Post-classic Mesoamerican World. Pp. 260–80 in *Gulf Coast Archaeology*, ed. N.M. White. University Press of Florida, Gainesville.
- King, A.
2006 Leadership Strategies and the Nature of Mississippian Chiefdoms in Northern Georgia. Pp. 73–90 in *Leadership and Polity in Mississippian Society*, eds. B.M. Butler and P.D. Welch. Southern Illinois University Press, Carbondale.
- Kristiansen, K., and T. Larsson
2005 *The Rise of Bronze Age Society*. Cambridge University Press, Cambridge.
- Lamb, H.
1995 *Climate, History, and the Modern World*, 2nd edition. Routledge, London.
- LeBlanc, S.
1999 *Prehistoric Warfare in the American Southwest*. University of Utah Press, Salt Lake City.
- Lekson, S., and P.N. Peregrine
2004 A Continental Perspective for North American Archaeology. *SAA Archaeological Record* 4 (1): 15–19.
- Marquette, J.
1896–1901 Of the First Voyage Made by Father Marquette toward New Mexico. Pp. 86–103 in *Jesuit Relations and Allied Documents* 59, ed. and trans. R. Thwaites. Burrows Brothers, Cleveland.
- Mills, B.
2002 Recent Research on Chaco: Changing Views on Economy, Ritual, and Society. *Journal of Archaeological Research* 10 (1): 65–117.
- Paulsen, A.
1974 The Thorny Oyster and the Voice of God: Spondylus and Strombus in Andean Prehistory. *American Antiquity* 39 (4): 597–607.
- Peregrine, P.N.
1995 Networks of Power: The Mississippian World-System. Pp. 132–43 in *Native American Interactions*, eds. M. Nassaney and K. Sassaman. University of Tennessee Press, Knoxville.
2000 Archaeology and World-Systems Theory. Pp. 59–68 in *A World-Systems Reader*, ed. T. Hall. Rowman and Littlefield, Lanham, Maryland.
2001 Matrilocality, Corporate Strategy, and the Organization of Production in the

- Chacoan World. *American Antiquity* 66: 36–46.
- Peregrine, P.N., and Ember, M.
 2001–2002 *Encyclopedia of Prehistory*. Kluwer Academic/Plenum, New York.
- 2006 Synchrony in the New World: An Example of Ethnoarchaeology. *Cross-Cultural Research* 40 (1): 6–17.
- Polyak, V., and Y. Asmeron
 2001 Late Holocene Climate and Cultural Changes in the Southwestern United States. *Science* 294 (5540): 148–52.
- Porter, J.W.
 1977 The Mitchell Site and Prehistoric Exchange Systems at Cahokia: AD 1000 ± 300. Pp. 137–64 in *Explorations into Cahokia Archaeology*, ed. M. Fowler. Illinois Archaeological Survey, Bulletin 7, Urbana.
- Ramenofsky, A.
 1987 *Vectors of Death: The Archaeology of European Contact*. University of New Mexico Press, Albuquerque.
- Renfrew, C.
 1974 Beyond Subsistence Economy: The Evolution of Social Organization in Prehistoric Europe. Pp. 69–95 in *Reconstructing Complex Societies: An Archaeological Colloquium*, ed. C.B. Moore. Bulletin of the American School of Oriental Research, Supplement 20, Cambridge.
- Smith, D.
 2000 Urbanization in the World-System: A Retrospective and Prospective. Pp. 143–68 in *A World-Systems Reader*, ed. T. Hall. Rowman and Littlefield, Lanham.
- Townsend, R. (ed.)
 2004 *Hero, Hawk and Open Hand: American Indian Art of the Ancient Midwest and South*. Yale University Press, New Haven.
- Wallerstein, I.
 1995 Hold the Tiller Firm: On Method and the Unit of Analysis. Pp. 239–47 in *Civilizations and World-Systems*, ed. S. Sanderson. AltaMira Press, Walnut Creek, California.
- White, N.
 2005 Prehistoric Connections around the Gulf Coast. Pp. 1–55 in *Gulf Coast Archaeology*, ed. N.M. White. University Press of Florida, Gainesville.
- Zaragoza Ocaña, D.
 2005 Characteristic Elements Shared by Northeastern Mexico and the Southeastern United States. Pp. 245–59 in *Gulf Coast Archaeology*, ed. N.M. White. University Press of Florida, Gainesville.

