ARCHAEOLOGY AND THE STUDY OF GLOBALIZATION IN THE PAST

P. Nick Kardulias

To be most useful, the study of globalization must be placed in a temporal context. Even a casual examination of the past reveals significant interconnections between societies. These exchanges took the form of trade, migration, conquest, intermarriage, and other activities. Careful analysis reveals patterns in such interaction that can help us more clearly define globalization as a long-term process with a cyclical nature. Archaeology is critical for extending the study of globalization in this manner in both historic and prehistoric periods; it provides data on places and people not included in historical documents, and also permits examination of periods prior to the emergence of writing.

Keywords: *globalization, long-term process, World-systems analysis, archaeology, historic period, prehistoric period, modern world-system, ancient world-systems.*

World-systems analysis (WSA) is a crucial technique for understanding the nature of globalization because it is a generalizing approach that forces us to look beyond parochial interests and search out the common themes in intersocietal interaction. The more time depth that can be added to such analysis, the more detailed the comparisons that can be evoked, and the more profound the lessons that we can draw. In this respect, history provides a rich panoply of examples. However, historical documents have their limits, primarily in their lack of coverage of areas away from the seats of power. Even in the discussion based on extensive documents, many of the details of how particular systems were created and operated on the ground are missing. In these circumstances, archaeology provides evidence of the material culture that can both supplement and extend the historical record. The present study is an overview of the ways in which archaeology provides the additional time depth and data from a range of cultural settings that can enrich our understanding of both the geographical and temporal extent of globalization. Archaeology reveals long-term patterns of interaction that help us understand the general nature of the process. In what follows, I identify some of these recurring patterns and note some particular studies that have the potential to lead us towards a better comprehension of the activities for which the term globalization is a shorthand.

It is important to note the significant role that archaeologists have played in the use and modification of WSA. Pailes and Whitecotton (1979) were among the first to use the world-system concept in a prehistoric setting with their work on Mesoamerica, followed by Blanton and Feinman (1984). Mesoamerica has continued to be a fertile area for exploring world-system issues (Filini 2004; Santley and Alexander 1992; Schortman and Urban 1987, 1992, 1994; Smith and Berdan 2003). Elsewhere, archaeologists have used

WSA to study prehistoric interaction in North America (Peregrine 1992), Europe (Kristiansen 1998a, 1998b; Kristiansen and Larsson 2005; Rowlands 1998; Sherratt A. and Sherratt S. 1991, 1993), the Aegean (Berg 1999; Kardulias 1999a, 1999b; Parkinson and Galaty 2007), the Near East (Algaze 1993, 2008; Cline 2000; Edens 1992; Kardulias 2007; Kardulias and Yerkes 2004; Sherratt 2001, 2003), and Eurasia (Kohl 1987; Sherratt 2006). In addition, scholars from other disciplines with an interest in long-term social change have turned to archaeological data as evidence to examine aspects of cultural evolution, and thus to identify commonalities in the trajectory of human development. This common interest has led to a significant interdisciplinary effort that has benefited both sides. World-systems analysts have the opportunity to explore the origins and development of mechanisms that define the modern world, while archaeologists find greater relevance for their study of the past.

Archaeologists have long been open to the use of models from other disciplines to explain past phenomena/behavior. As with many other efforts to use theories in this manner, the acceptance by prehistorians of WSA has not been universal. Some find WSA problematic for various reasons, not the least of which is Wallerstein's initial and long-standing position that the approach applies only to the modern world for which it was intended to explain the rise of capitalism starting in the long sixteenth century. As many others have indicated over the past 40 years, though, with some modifications, the approach can be broadened to include the pre-capitalist world. Students of long-term social change have argued that the validity of the approach can extend back to the origins of civilization (see Frank and Gills 1993), and perhaps as far as the beginning of the Neolithic (Chase-Dunn and Hall 1997) when large-scale movements of people both to seek additional arable land as populations increased dramatically and to supply various materials from distant locales to increasingly sedentary settlements, fostered high levels of interaction. Critics have noted various problems in adopting and applying WSA to the past (Stein 1999). Some argue that the basic tripartite subdivision into cores, peripheries, and semiperipheries does not really work outside of the highly developed division of labor and concomitant exploitative potential of the capitalist system. This perspective in part reflects the divide between those who view the ancient economy as primitive or limited in its basic structure (*e.g.,* Finley, Polanyi) and others who see elements of a market mentality in it. While there are clearly differences of scale between the ancient and modern economy, the former was more complex than some would allow. Clearly in the Bronze Age, at least, we see evidence for economic differentiation both internally in early city-states and between regions that spurred long-distance trade and efforts to manage, if not control, sources of prized resources. What was lacking in those early systems was the ability of a core to completely dominate or incorporate a periphery in the manner that European states absorbed various colonies into the modern system. This was due to several factors. One issue was that early states did not yet have the fully developed institutions that would allow them to manipulate local conditions at some distance from the home area. As a result, core groups probably had to decide on which of several industries or products to focus their efforts. For example, in the Aegean region during the Bronze Age, the elites of small centers typically expended most of their economic efforts on controlling the production and distribution of bronze and textiles. The archaeological evidence from various Mycenaean palaces, supplemented by the Linear B texts, indicates that these centers made concerted efforts to regulate the

acquisition, production, and distribution of these commodities. The working of bronze and the production of woolen textiles were under the direct authority of the centers, with workshops located at the palaces or at outlying communities but under centralized control. The production of obsidian tools was another matter. While such implements were critically important to the daily economic activities of the populace, production was not under palace control, as work in the Argolid (Kardulias 1992; Kardulias and Runnels 1995) and Messenia (Parkinson and Cherry 2003) have demonstrated. The palaces concentrated their efforts on controlling the resources that produced the most wealth. Galaty and Parkinson (1999) have argued that this system is an example of a wealth finance system (D'Altroy and Earle 1985). Without a fully developed administrative structure, the Mycenaean centers had to focus their efforts on the activities that generated the highest return. To a greater or lesser degree, this was probably true of all early states. They did not have the military, political, and economic wherewithal to fully dominate peripheries at any great distance from the centers for extended periods; on those occasions when such dominance was in effect, it typically did not last long for various reasons.

A second key difference between modern and ancient world-systems, and something that relates to the preceding statement about the difficulty of long-term domination, was the nature of technology in antiquity. Many of the key industries that generated wealth have been described as portable. Whereas modern production sites often involve massive installations that are not easily moved, ancient systems were often capable of relatively easy dispersal. Early bronze work could be accomplished using small crucibles that could be moved easily. In addition, certain expensive commodities, such as frankincense, were available only in remote spots most easily accessed by local populations with intimate knowledge of source locations. These factors made domination of the sources virtually impossible for cores. The centers were, thus, to a significant extent dependent on the peripheries or semiperipheries for access, and this gave the latter a degree of flexibility and the ability to negotiate both the nature and extent of their integration into the larger system. This process was evident even in the early phases of the modern system. For example, throughout much of the sixteenth and seventeenth centuries, Indians in North America controlled access to the furs that Europeans desired (Kardulias 1990, 2007). Natives trapped the animals and prepared the hides; they bargained shrewdly for European commodities and services they wanted in return. This ability to negotiate the status of their involvement in a world-system gave people a degree of control that one does not typically associate with peripheries. What these several examples demonstrate is the variable nature of incorporation. Chase-Dunn and Hall (1997) discuss this phenomenon in detail. Their continuum of incorporation varies from weak to strong, and the archaeological and ethnohistoric records verify the existence of this spectrum. At the weak end of the continuum, peripheries maintain a greater ability to negotiate, and this lessens as incorporation increases in intensity. One difference between ancient and modern world-systems is that in antiquity peripheries tended to have greater latitude to negotiate. The concept of negotiation addresses one of the other complaints some archaeologists (and other scholars) have about WSA, that is that as a top-down model, it obscures the role of individuals. There has been an ongoing debate in archaeology, as in anthropology and other social sciences, for some time about the most appropriate theories to explain social phenomena. In the 1960s, the so-called New Archae-

ology (also called the processual approach) espoused by Lewis Binford (1962) and others (Watson *et al.* 1971), emphasized the need for a scientific approach to the past that had the potential to produce laws of human behavior, with a stress on generalization. The focus was on cross-cultural comparison to examine similarities between cultures over space and through time to comprehend the universal rules that govern human social processes. The goal was to move from simple description of the material record (cultural historical approach) to an explanation of culture change (processual approach). Scientific regularity and the search for patterns in the material record were the means of gaining this explanatory power. By the 1980s, a post-modern reaction (called post-processual) decried the lack of a role for individual action and variation in processualism and advocated a ground-up approach that stressed cultural differences and individual motivation. The debate became one between processual generalization versus post-processual relativism. The concept of negotiation mediates this difficult theoretical divide by granting individuals a decision-making role while still stressing the importance of identifying general trends in the material record (see Parkinson and Galaty 2007). Similarly, WSA argues that individuals have the ability to negotiate their status within a system to some extent, but this ability is best understood when we examine the layered structures within which persons operate. We miss a great deal, and in fact are subject to significant misinterpretation, if we do not consider the various connections between persons and groups. *Decisions are made in reaction to someone or something, not in a vacuum*. The world-systems approach forces us to consider such networks. While one could argue that Wallerstein's (1974) original schema was geared to stress the impact of cores on peripheries in a unidirectional manner, many scholars since (see Hall 1986, among others), have correctly pointed out that influences go both ways in periods of culture contact.

Archaeology helps to elucidate another key point that WSA emphasizes. Chase-Dunn and Hall (1997) note among the various traits that world-systems exhibit is the tendency to pulsate. That is, they expand and contract over time. In effect, they suggest that systems grow through the process of incorporation, expanding the network of relationships. Such growth has the benefit of bringing more resources (material, manpower, information) into the center or core. Growth also creates strain on the system because of the need to expend more energy and resources to maintain the connections that have been established. When the costs become excessive, the system will contract, shedding peripheries. At times, certain peripheries are between competing cores and switch back and forth in their allegiance or control. These areas are called contested peripheries (Allen 1996), and we see them in the ancient world (*e.g.,* the Jezreel Valley in Israel, fought over by the Egyptians, Hittites, and others [Cline 2000]; Sicily was desired by both Carthage and Rome). In modern history, the region of Alsace-Lorraine is a prime example. The oscillations that comprise pulsation exhibit a degree of regularity if one takes the long view advocated by WSA. For example, Frank (1993) identified a series of fluctuations beginning in the Bronze Age and extending into historic times in the Near East. He describes six cycles that cover the period from 1700 BC to AD 750, with 200 years for each of two phases (ascending and descending) within a cycle. Chew (2007) also discusses long cycles, with a specific focus on the regular appearance of dark ages, which comprise periods of world-system contraction. He argues that overexploitation of key resources leads to depletion and exhaustion of certain areas, followed

by economic collapse during which systems abandon certain areas. There is a benefit in this contraction; the abandoned areas have a chance to regenerate and set the stage for the next phase of system expansion. The importance of this process is that it can help us understand more fully the general trends historians and archaeologists have identified. Pulsation may be seen as a symptom of system instability. An examination of various world areas reveals such oscillations. In Egypt, the Old Kingdom (expansion and political centralization, exemplified by monumental construction such as the Great Pyramids at Giza) was followed by the First Intermediate Period (contraction and political decentralization), then the Middle Kingdom, Second Intermediate Period, and New Kingdom. The Aegean follows a similar timeline, with the Early Bronze Age followed by a period of collapse near the end of the second millennium BC (roughly the same time as the Egyptian First Intermediate Period), then the Middle Bronze Age, with a transitional phase *ca.* 1550 BC; the efflorescence of the Late Bronze Age (with sites like Mycenae, Tiryns, and Pylos at their height) terminates in a system-wide collapse *ca.* 1100–1200 BC and the advent of the Greek Dark Age. The ensuing Geometric Period is a time of reorganization that eventuates in the explosive colonization period of the Archaic when Greeks establish settlements from the Black Sea to southern France and Spain. In the New World, this pattern of centralization and collapse is repeated in Mesoamerica (Classic period, collapse, reestablished centralization in Post Classic) with the Maya and in the Valley of Mexico. A similar sequence is evident in the Andean region, with Horizons marking system growth, and Intermediate periods the times of retrenchment. Archaeology provides abundant evidence to support the trends that WSA identifies at a theoretical level. As a result, many world-system scholars turn to archaeology for case studies. While some may find fault with scholars from other disciplines delving into the particulars of the prehistoric record, I think that this is a welcome activity that archaeologists should applaud and join. The list of such contributions includes work by Chase-Dunn and colleagues (Chase-Dunn and Hall 1998; Chase-Dunn and Mann 1998; Chase-Dunn *et al.* 2006), Frank (1993; Frank and Gills 1993), Hall (Hall and Chase-Dunn 1993; Hall *et al.* 2011), Sanderson (1995), Thompson (2006), Wilkinson (2000), and others. Collaboration between archaeologists and world-system analysts from other fields has produced a number of edited volumes (Chase-Dunn and Hall 1991; Chase-Dunn and Anderson 2005; Kardulias 1999c; LaBianca and Scham 2006; Peregrine and Feinman 1996) and articles (Hall *et al.* 2011; Kardulias and Hall 2008) in which a broad-ranging dialogue has proved useful to the building of theory. Archaeologists continue to examine the applicability of WSA
to different periods and places (Parkinson and Galaty 2010; Smith and Berdan 2003).

Comparative Globalization of the Past

A recent book by Justin Jennings (2011) addresses the issue of globalization in the past directly, and so offers a good case study of how archaeology can contribute to this vital discussion. Jennings' primary concern is to examine what he calls plural globalizations, that is to understand the variation in globalization at various times in the past. He explores the nature of globalization in three ancient societies, the Uruk/Warka period of Mesopotamia, the Huari of the Andean Highlands, and the Mississippian culture centered on Cahokia in the American Midwest. The first and third of these have been examined via the world-systems perspective by other scholars, but Jennings does not sim-

ply review that research; he adds important new insights that expand our understanding of how past societies related to one another. He suggests that scholars must dismantle the 'Great Wall', that is the view that there is an unbridgeable divide between modern and ancient worlds, and that globalization belongs strictly in the former. This perspective inhibits the opportunities to learn from the past by understanding the multiple forms that globalization has taken. This is a clear plea for a generalized approach (see above). Jennings argues that the two main ways of studying past globalization, world-systems theory and what he calls the long-term approach, operate at too general a level to help us see the plural forms that the phenomenon took previously. Here he is a bit too cavalier in dismissing or not fully considering the work of world-systems analysts who have repeatedly addressed this issue and demonstrated the ability of peripheral groups to negotiate with economically more potent intruders. Nonetheless, by borrowing elements from these perspectives, he suggests it is possible to identify earlier phases of large scale integration by looking for a dramatic increase in interregional interaction, and the 'social changes that are associated with the creation of a global culture' (Jennings 2011: 13).

Jennings pursues the question of how to pluralize globalization, that is come to grips with the various ways that this phenomenon can be expressed. He notes that the cultural sequences worked out by archaeologists and historians demonstrate a cyclical pattern in which there are what he calls surges of interaction, followed by collapse and decentralization. His review of the expansion of connectivity since the sixteenth century that makes up the modern era acts as preamble for enumeration of eight trends linked to contemporary globalization whose presence he searches for in the ancient world: time-space compression (*i.e.*, the world is getting smaller), deterritorialization, standardization, unevenness, homogenization, cultural heterogeneity, re-embedding of local culture, and vulnerability.

The model suggests that the emergence of cities, with their multiple needs and complex webs of relationships, led to previously unknown levels of interregional interaction. An interesting discussion of the impacts of the early cities focuses on the long-distance movement of people, goods, and ideas in a cascading effect that simultaneously expanded the system and accelerated the interactions between urban dwellers, people in the hinterland, and those from more distant regions.

Appropriately, the first case study Jennings examines is Uruk-Warka. The development of arguably the earliest city had a significant impact on events in Egypt/North Africa, Eastern Europe, and the Middle East. The economic and social ferment in Uruk reverberated well beyond the city through colonization, assimilation, and other processes, and is reflected archaeologically in burial goods that reflect a creeping level of social differentiation, the use of seals suggesting increased bureaucratic control, and the ubiquitous bevel rim bowls for transporting basic foodstuffs. The large and varied urban population stimulated production and exchange both locally and over great distances. The nature of the Uruk expansion varied from place to place as people selectively accepted and rejected various elements of Uruk culture. Jennings describes material from Tepe Gawra, Tell Brak, and other sites to demonstrate the variation that reflects how local populations managed the flow of goods and ideas that made up Uruk global culture. Jennings paints a complex picture in which 'Many people shared ideas, some people combined new ideas from one source with those from another, and still others tried to check out of the game entirely by embracing local traditions' (Jennings 2011: 76).

The next case study is Cahokia, an interesting choice since there is still some debate concerning its status as an urban site. Jennings argues persuasively for Cahokia as the epicenter of a global Mississippian culture whose effects were felt throughout the great river drainage, and beyond into the Southeastern United States at sites like Moundville and Etowah. Situated on the highly fertile American Bottom on the east bank of the Mississippi River, and at the nexus of numerous trade routes that brought exotic materials (*e.g.,* galena, mica, copper, and marine shells) from great distances, Cahokia's population increased significantly beginning *ca.* AD 1000, accompanied by mound construction on a massive scale. Specialization in the production of beads, elaborate carved shell, and Ramey pottery was part of the economic and social intensification that started at the site and then spread rapidly throughout the Midwest and Southeast. However, the adoption of the various motifs, artifacts, and ideas about social distinction were not accepted uncritically. Jennings notes, for example, that Mississippian influence is evident in Kentucky in the form of mound plaza groups and imported goods, but evidence for craft specialization is lacking. As in the Uruk period, people molded their particular local version of society from the elements offered by the Mississippian global culture.

Jennings turns to the site of Huari in South America for the third case study. The center of the Wari Empire that dominated Peru in the Middle Horizon (AD 600–1000), Huari grew from a collection of hamlets into a huge urban complex with many residential and ceremonial compounds where people gathered from throughout the valley. The needs of this large site required both local and imported items, transforming the surrounding landscape through the construction of terraces and canals, and establishing colonial outposts where architecture mimicked that of Huari. The Wari state could not sustain these colonies for very long, but even in the absence of imperial control there was still significant interaction as witnessed in the distribution of religious iconography, architectural forms, and various artifact types. One of the key points Jennings makes is that Wari global culture was the result of local populations adopting certain styles and artifact forms, but not in the context of political domination. In short, he makes the case for what can be called active peripheries, something that world-systems analysts, like Thomas Hall, have argued for over two decades. Jennings concludes that 'The story of Wari that emerges from the current data is *not* a story of empire but rather the story of the unintended consequences of a city struggling to survive' (Jennings 2011: 119; italics in the original). This instance of globalization, as well as the other case studies, reflects a series of contingent events that grew out of efforts to meet certain immediate needs.

In the concluding section of the book, Jennings assesses the degree to which ancient societies constituted global cultures, and what lessons one can draw about current and future globalization from examining the past. First, he examines the degree to which the eight hallmarks outlined previously were present in the past, being careful to note that, while visible, these traits would not be equally expressed everywhere. In an excellent series of well-argued sections, the author presents a lucid exposition of how each attribute was manifested in antiquity. He selects archaeological examples that clearly support his argument. As a case in point, he deftly illustrates that deterritorialization (in which 'the ties to a single location are weakened as a result of the myriad of long-distance interac-

tions that connect that place to other regions' [Jennings 2011: 125]) can be traced in the adoption and reproduction of certain pottery styles across broad regions so that the difference between what is local and what is global is obscured. The author provides a tight argument for the presence of each of the hallmarks, leading clearly to his conclusion 'that globalization, *not globalization-lite or something like globalization*, has occurred at least three times in human history prior to modern globalization' (Jennings 2011: 142; italics in original).

Jennings uses the concluding chapter to press his argument that globalization is a cyclical process and that tracing its ancient forms can provide deep insights to its present and future manifestations. He sees a focus on current globalization studies as a way to make archaeologists abandon simplistic models of the past. Greater familiarity with current scholarship on globalization would make scholars engage past complexity more fully. In addition, archaeologists could then address the issue of disciplinary relevance – of what importance is prehistory to the modern world? Jennings pointedly states that examination of past cycles of expansion and contraction indicates that our current era of globalization is drawing to a close, with increased balkanization to follow. Demonstrations against major economic summits, and the turn to parochial interests in various parts of the world are examples the author uses to highlight the point that in many ways the world is getting smaller. The important lesson that we should take away is 'that our similarities to earlier generations outweigh these differences' (Jennings 2011: 153); I could not agree more. Exploring how past societies dealt with the wide range of new social and economic relationships generated by enhanced interregional interaction provides markers for making our way through the complexities of modern globalization, especially by keeping local, smaller options viable.

This book is one of several recent publications that have made fruitful use of broader frameworks, including world-systems analysis, to examine antiquity. The study of three geographically and chronologically diverse cultures by Jennings complements the work of Alan Greaves (2010) who focused on one region using a similar model in his *Land of Ionia.* These are very welcome developments since world-systems theorists for some time have urged archaeologists to join the dialogue because we can add great time depth to the conversation about the evolution of intersocietal relationships.

Conclusion

Globalization has had an immense impact on the economic, political, and social structure of the modern world. It is therefore important to understand how the process operates. Central to the discussion is the issue of origins: how did globalization begin, and where. Are there elements of globalization that we can discern in the past that may help us better understand how it works in the modern world? In this quest, archaeology provides us with a detailed set of quantitative data and great time depth, two key elements that make it possible to flesh out the process and extract meaningful comparisons. It is helpful to see that globalization has been part of the human experience since at least the rise of civilization, and that its intensity oscillates in a cyclical pattern that WSA has identified. If nothing else, it is important to know that the current situation is not unique. Notions of exceptionalism need to be placed in historic (and prehistoric) contexts, and WSA facilitates such considerations.

REFERENCES

Algaze, G. 1993. *The Uruk World System: The Dynamics of Expansion of Early Mesopotamian Civilization*. Chicago, IL: University of Chicago Press.

Algaze, G. 2008. *Ancient Mesopotamia at the Dawn of Civilization: The Evolution of an Urban Landscape*. Chicago, IL: University of Chicago Press.

Allen, M. 1996. *Contested Peripheries: Philistia in the Neo-Assyrian World-System*. Ph.D. dissertation, Interdepartmental Archaeology Program, University of California, Los Angeles.

Berg, I. 1999. The Southern Aegean System. *Journal of World-Systems Research* 5: 475–484.

Binford, L. R. 1962. Archaeology as Anthropology. *American Antiquity* 28(2): 217–225.

Blanton, R., and Feinman, G. M. 1984. The Mesoamerican World System. *American Anthropologist* 86: 673–682.

Chase-Dunn, C., and Anderson, E. N. (eds.) 2005. *The Historical Evolution of World-Systems*. New York: Palgrave.

Chase-Dunn, C., and Hall, T. D. (eds.) 1991 *Core/Periphery Relations in Precapitalist Worlds*. Boulder, CO: Westview Press.

Chase-Dunn, C., and Hall, T. D. 1997. *Rise and Demise: Comparing World-Systems*. Boulder, CO: Westview.

Chase-Dunn, C., and Hall, T. D. 1998. World-Systems in North America: Networks, Rise and Fall and Pulsations of Trade in Stateless Systems. *American Indian Culture and Research Journal* 22(1): 23–72.

Chase-Dunn, C., and Mann, K. M. 1998. *The Wintu and Their Neighbors: A Very Small World-System in Northern California*. Tucson, AZ: University of Arizona Press.

Chase-Dunn, C., Pasciuti, D., Alvarez, A., and Hall, T. D. 2006. Growth/Decline Phases and Semiperipheral Development in the Ancient Mesopotamian and Egyptian World-Systems. In Gills, B. K., and Thompson, W. R. (eds.), *Globalization and Global History* (pp. 114–138). London: Routledge.

Cherry, J. F., and Parkinson, W. A. 2003. Lithic Artifacts from Surveys: A Comparative Evaluation of Recent Evidence from the Southern Aegean. In Kardulias, P. N., and Yerkes, R. W. (eds.), *Written in Stone: The Multiple Dimensions of Lithic Analysis* (pp. 35–57). Lanham, MD: Lexington Books.

Chew, S. C. 2007. *The Recurring Dark Ages: Ecological Stress, Climate Changes, and System Transformation*. Lanham, MD: AltaMira Press.

Cline, E. 2000. 'Contested Peripheries' in World Systems Theory: Megiddo and Jezreel Valley as a Test Case. *Journal of World-Systems Research* 6: 8–17.

D'Altroy, T., and Earle, T. 1985. Staple Finance, Wealth Finance, and Storage in the Inka Political Economy. *Current Anthropology* 26(2): 187–206.

Edens, C. 1992. Dynamics of Trade in the Ancient Mesopotamian 'World System'. *American Anthropologist* 94: 118–139.

Filini, A. 2004. *The Presence of Teotihuacan in the Cuitzeo Basin, Michoacán, Mexico: A World-System Perspective*. BAR International Series 1279. Oxford: Archaeopress.

Frank, A. G. 1993. The Bronze Age World System and Its Cycles. *Current Anthropology* 34: 383–413.

Frank, A. G., and Gills, B. K. (eds.) 1993. *The World System: Five Hundred Years or Five Thousand*? London: Routledge.

Galaty, M. and Parkinson, W. A. (eds.) 1999. *Rethinking Mycenaean Palaces: New Interpretations of an Old Idea*. Los Angeles, CA: Institute of Archaeology, University of California.

Greaves, A. 2010. *The Land of Ionia. Society and Economy in the Archaic Period*. New York: Wiley-Blackwell.

Hall, T. D. 1986. Incorporation in the World-System: Toward A Critique. *American Sociological Review* 51(3): 390–402.

Hall, T. D., and Chase-Dunn, C. 1993. The World-Systems Perspective and Archaeology: Forward into the Past. *Journal of Archaeological Research* 1(2): 121–143.

Hall, T. D., Kardulias, P. N., and Chase-Dunn, C. 2011. World-Systems Analysis and Archaeology: Continuing the Dialogue. *Journal of Archaeological Research* 19(3): 233–279.

Jennings, J. 2011. *Globalizations and the Ancient World.* Cambridge: Cambridge University Press.

Kardulias, P. N. 1990. Fur Production as a Specialized Activity in a World System: Indians in the North American Fur Trade. *American Indian Culture and Research Journal* 14: 25–60.

Kardulias, P. N. 1992. The Ecology of Flaked Stone Tool Production in Southern Greece: The Evidence from Agios Stephanos and the Southern Argolid. *American Journal of Archaeology* 96: 421–442.

Kardulias, P. N. 1999a. Multiple Levels in the Aegean Bronze Age World-System. In Kardulias, P. N. (ed.), *World-Systems Theory in Practice: Leadership, Production, and Exchange* (pp. 179–201). Lanham, MD: Rowman and Littlefield.

Kardulias, P. N. 1999b. Flaked Stone and the Role of the Palaces in the Mycenaean World System. In Galaty, M. and Parkinson, W. A. (eds.), *Rethinking Mycenaean Palaces: New Interpretations of an Old Idea* (pp. 61–71). Los Angeles, CA: Institute of Archaeology, University of California.

Kardulias, P. N. 1999c. *World-Systems Theory in Practice: Leadership, Production, and Exchange.* Lanham, MD: Rowman and Littlefield.

Kardulias, P. N. 2007. Negotiation and Incorporation on the Margins of World-Systems: Examples from Cyprus and North America. *Journal of World-Systems Research* 13: 55–82.

Kardulias, P. N., and Hall, T. D. 2008. Archaeology and World-Systems Analysis. *World Archaeology* 40: 572–583.

Kardulias, P. N., and Runnels, C. N. 1995. The Lithic Artifacts. In Runnels, C. N., Pullen, D., and Langdon, S., (eds.), *Artifact and Assemblage: The Finds from a Regional Survey of the Southern Argolid, Greece, Volume I: The Prehistoric Pottery and the Lithic Artifacts* (pp. 74–139). Stanford, CA: Stanford University Press.

Kardulias, P. N., and Yerkes, R. W. 2004. World-Systems Theory and Regional Survey: The Malloura Valley Survey on Cyprus. In Athanassopoulos, E., and Wandsnider, L. (eds.), *Mediterranean Archaeological Landscapes: Current Issues* (pp. 143–164). Philadelphia, PN: University of Pennsylvania Museum of Archaeology and Anthropology.

Kohl, P. L. 1987. The Use and Abuse of World Systems Theory: The Case of the Pristine West Asian State. *Advances in Archaeological Method and Theory* 11: 1–35.

Kristiansen, K. 1998a. *Europe before History*. London: Cambridge University Press.

Kristiansen, K. 1998b. The Emergence of the European World System in the Bronze Age: Divergence, Convergence and Social Evolution during the First and Second Millennia BC in Europe. In Kristiansen, K., and Rowlands, M. (eds.), *Social Transformations in Archaeology: Global and Local Perspectives* (pp. 287–324). London: Routledge.

Kristiansen, K., and Larsson, T. B. 2005. *The Rise of Bronze Age Society: Travels, Transmissions and Transformations*. Cambridge: Cambridge University Press.

LaBianca, Ø. S., and Scham, S. A. 2006. *Connectivity in Antiquity: Globalization as a Long-Term Historical Process*. Oakville, CT: Equinox.

Pailes, R. A., and Whitecotton, J. W. 1979. The Greater Southwest and the Mesoamerican 'World' System: An Exploratory Model of Frontier Relationships. In Savage, W. W., and Thompson, S. I. (eds.), *The Frontier: Comparative Studies*, vol. 2 (pp. 105–121). Norman, OK: University of Oklahoma Press.

Parkinson, W. A., and Galaty, M. 2007. Secondary States in Perspective: An Integrated Approach to State Formation in the Prehistoric Aegean. *American Anthropologist* 109: 113–129.

Parkinson, W. A., and Galaty, M. (eds.) 2010. *Archaic State Interaction: The Eastern Mediterranean in the Bronze Age.* Santa Fe, NM: School for Advanced Research Press.

Peregrine, P. N. 1992. *Mississippian Evolution: A World-System Perspective.* Madison, WI: Prehistory Press.

Peregrine, P. N., and Feinman, G. M. (eds.) 1996. *Pre-Columbian World Systems*. Madison, WI: Prehistory Press.

Rowlands, M. 1998. Centre and Periphery: A Review of a Concept. In Kristiansen, K., and Rowlands, M. (eds.), *Social Transformations in Archaeology: Global and Local Perspectives* (pp. 219–242). London: Routledge.

Sanderson, S. K. (ed.) 1995. *Civilizations and World-Systems: Two Approaches to the Study of World-Historical Change*. Walnut Creek, CA: Altamira Press.

Santley, R. S., and Alexander, R. T. 1992. The Political Economy of Core-Periphery Systems. In Schortman, E. M., and Urban, P. A. (eds.), *Resources, Power, and Interregional Interaction* (pp. 23–49). New York: Plenum.

Schortman, E. M., and Urban, P. A. 1987. Modeling Interregional Interaction in Prehistory. *Advances in Archaeological Method and Theory* 11: 37–95.

Schortman, E. M., and Urban, P. A. (eds.) 1992. *Resources, Power, and Interregional Interaction.* New York: Plenum.

Schortman, E. M., and Urban, P. A. 1994. Living on the Edge: Core/Periphery Relations in Ancient Southeastern Mesoamerica. *Current Anthropology* 35: 401–430.

Sherratt, A. 1997. *Economy and Society in Prehistoric Europe*. Edinburgh: Edinburgh University Press.

Sherratt, A. 2003. The Horse and the Wheel: The Dialectics of Change in the Circum-Pontic Region and Adjacent Areas, 4500–1500 BC. In Levine, M., Renfrew, C., and Boyle, K. (eds.), *Prehistoric Steppe Adaptation and the Horse* (pp. 233–252). McDonald Institute Monographs. Cambridge: Oxbow Books.

Sherratt, A. 2006. The Trans-Eurasian Exchange: The Prehistory of Chinese Relations with the West. In Mair, V. H. (ed.), *Contact and Exchange in the Ancient World* (pp. 30–61). Honolulu, HI: University of Hawai'i Press.

Sherratt, A., and Sherratt, S. 1991. From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems. In Gale, N. H. (ed.), *Bronze Age Trade in the Mediterranean* (pp. 351–386). Jonsered: Paul Astroms Forlag.

Sherratt, A., and Sherratt, S. 1993. The Growth of the Mediterranean Economy in the Early First Millennium BC. *World Archaeology* 24: 361–378.

Sherratt, S. 2001. Potemkin Palaces and Route-Based Economies. In Voutsaki, S., and Killen, J. (eds.), *Economy and Politics in the Mycenaean Palace States* (pp. 214–238). Cambridge: Cambridge Philological Society.

Sherratt, S. 2003. The Mediterranean Economy: 'Globalization' at the End of the Second Millennium BCE. In Dever, W. G., and Gitin, S. (eds.), *Symbiosis, Symbolism, and the Power of the Past: Canaan, Ancient Israel, and Their Neighbors from the Late Bronze Age through Roman Palaestina* (pp. 37–62). Winona Lake, IN: Eisenbrauns.

Stein, G. 1999. *Rethinking World-Systems. Diasporas, Colonies, and Interaction in Uruk Mesopotamia*. Tucson, AZ: University of Arizona Press.

Smith, M. E., and Berdan, F. F. 2003. Spatial Structure of the Mesoamerican World-System. In Smith, M. E., and Berdan, F. F. (eds.), *The Postclassic Mesoamerican World* (pp. 21–31). Salt Lake City: University of Utah Press.

Thompson, W. R. 2006. Trade Pulsations, Collapse, and Reorientation in the Ancient World. In LaBianca, Ø. S., and Scham, S. A., *Connectivity in Antiquity: Globalization as a Long-Term Historical Process*. Oakville, CT: Equinox.

Wallerstein, I. 1974. *The Modern World-System: Capitalist Agriculture and the Origins of European World-Economy in the Sixteenth Century*. New York: Academic Press.

Watson, P. J., LeBlanc, S. A., and Redman, C. L. 1971. *Explanation in Archaeology: An Explicitly Scientific Approach.* New York: Columbia University Press.

Wilkinson, D. 2000. Civilizations, World Systems and Hegemonies. In Denemark, R. A., Friedman, J., Gills, B. K., and Modelski, G. (eds.), *World System History: The Social Science of Long-Term Change* (pp. 54–84). London: Routledge.