

considerable period of time before their neighbors to the west and north began to take up year-round residence and the Steed-Kisker pattern of horticulture. When the change does occur, there is no evidence for a gradual spread out of one or more centers but, rather, a set of simultaneous changes that encompassed not only the Central Plains but some of the Southern Plains as well. Richard Drass' (1995: table 5) radiocarbon dates for the Redbed Plains variant of southwestern Oklahoma suggest that it began at about the same time as the Solomon River, Upper Republican, and Nebraska phases.

There is one more point to be made. There is a striking contrast between kinds of evidence available for the basic transitions discussed in the volume between the Northern and the Central Plains. Tiffany has a whole complex—Great Oasis—that is clearly transitional between the Late Woodland and the IMMV. Ahler and Krause discuss the Menoken site that lies at the transition from even later Woodland to the EMMV. In the Central Plains, however, no one has yet identified a single transitional site, much less a transitional phase or variant. If transitional sites have been excavated, they have not been recognized.

Given the lack of space to address each of the other chapters, I will finish this review by pointing to some common issues among the various chapters. I find it interesting that the various authors seem to have been inoculated by an earlier generation against facile assumptions about climate as a cause of the changes they are addressing. Laird and colleagues (1996) have identified the onset of a wetter regime in eastern North Dakota around A.D. 1200, but although this work is cited by several authors, none use climate change as a sole reason for the cultural changes they are addressing. Nevertheless, more moisture may have made maize horticulture more productive and that may be part of the reason for the development of the EMMV in North Dakota and perhaps for the northwestern migration of Cambria populations [pp. 83–95].

Another topic of interest is shifting patterns of exchange. That is the primary topic of Henning's masterful summary (Chapter 6) of what happened on the Eastern Plains and prairie peninsulas from the Late Woodland period to early historical times. Exchange across boundaries and frontiers is also addressed by Bamforth and Nepstad-Thornberry (Chapter 11) for the 15th century and by Mark Mitchell (Chapter 12) for the period A.D. 1450–1650. Both of these contributions are real advances in our understanding of the shifting patterns of exchange and warfare (including both internal and external conflicts).

Another theme that emerges more indirectly from reading all of the contributions is the need for more precise

dating than the current set of radiocarbon samples allows. Although many of the authors who address issues of chronology supplement their radiocarbon dates with other forms of data, we cannot hope to resolve important issues with the dates at hand. For instance, this volume demonstrates the existence of a set of roughly simultaneous events: the decline of Cahokian influence, the disappearance of the IMMV, the northward movement of some CPT populations, the emergence of the EMMV, the westward expansion of Oneota populations, and the northwestern movement of Cambria populations. To what extent is the apparent simultaneity the result of imprecise dates? While AMS dating of cultigens would remove the old wood problem, we cannot expect that new excavations will provide samples that are distributed appropriately in time and space and among the various archaeological complexes, certainly not any time in the near future and certainly not in the numbers needed. Perhaps we could turn to the plentiful faunal remains from these sites using the methods pioneered by Tom Stafford (e.g., 1990). Judiciously selected and precisely dated, such samples would provide the framework for a new generation of explanations.

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Settlement Archaeology at Quiriguá, Guatemala

WENDY ASHMORE. *Quiriguá Reports Volume IV*, Robert J. Sharer, general editor, *University Museum Monograph* 126. 362 pages, 34 figures, 50 tables, bibliography, index, CD-ROM (PDF format, 186 pages, 22 plates, 183 figures, 84 tables, index). Philadelphia: University of Pennsylvania Museum, 2007. \$100.00 cloth. ISBN 978-1-931707-91-6.

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One of the greatest legacies of Gordon R. Willey is settlement archaeology. As a reaction to criticism that archaeology was little more than the identification (or even creation) of cultural sequences, Willey's (1953) functional approach to settlement pattern studies helped to redirect the field of archaeology. Although settlement archaeology had its roots in the culture history period of Americanist archaeology, it was enthusiastically embraced by practitioners of the New Archaeology. Along with studies of subsistence and cultural evolution, settlement pattern archaeology became central to the materialist, environmental, and processual archaeology of the second half of the 20th century.

Maya archaeology has sometimes been faulted as slow to adopt theoretical and methodological change. Despite the conservative nature of our discipline, Mayanists were quick to incorporate settlement pattern archaeology into their research programs. By the 1960s, scholars had grown uneasy with J. Eric S. Thompson's depiction of Maya cities as empty ceremonial centers. Settlement pattern studies were an obvious way to answer questions about the urban nature of Classic Maya society. Research by Willey in Belize and by Carnegie scholars at Mayapán presaged the settlement pattern studies of the 1960s, but settlement archaeology truly began at Dzibilichaltún, Tikal, Seibal, and Quiriguá; the first two are immense and densely populated cities. Quiriguá was one of the first small sites to see intensive settlement research.

Settlement Archaeology at Quiriguá, by Wendy Ashmore, describes research she conducted from 1975 to 1979. The methods, data, and results of her program of research are well known (Ashmore 1981, 1987, 1990). What makes this volume intriguing and timely, therefore, is not the freshness of the data, but the way that old data can be reinterpreted in light of new theory and inter-site comparison. The arguments presented in this volume have as much to do with Ashmore's recent studies of site planning and cosmology, social memory, and heterarchy at Copán and Xunantunich as they do with research conducted at Quiriguá 30 years ago.

The monograph and accompanying CD are structured in three parts. Part I describes the history of research at Quiriguá as well as the methods and results of settlement research at the site. The research was done within three nested geographic zones: the Site Core (essentially the fenced archaeological park), the Floodplain Periphery (an area of 10 sq km surrounding the Site Core), and the

Wider Periphery (the 85 sq km surrounding both the Floodplain Periphery and the Site Core). Part II presents summaries for all of the features encountered in the Floodplain Periphery. Part III is similar to Part II, but describes sites and features in the Wider Periphery. Parts II and III, therefore, can be thought of as appendices that present the data discussed in Part I. All three parts are roughly equal in length, but Part III is relegated to a CD. Also relegated to the CD are about half of the figures and tables from Parts I and II, as well as 22 plates. For most readers, Part I of the volume is of greatest interest.

Part I is organized in eight chapters. The substantive, methodological, and theoretical goals of the volume are discussed in Chapter 1. These include interpreting Quiriguá settlement data, emphasizing "the continuing need for wide-ranging systematic survey coverage in the study of ancient settlement patterns" [p. 4], and providing an example of an integrative theoretical approach to settlement data. Specifically, Ashmore argues that ecological, economic, political, social, and ideational frameworks should be employed when interpreting settlement data. Chapter 1 also considers the history of settlement archaeology in the Maya region, as well as work at Quiriguá. The final half of the chapter discusses developments in Maya archaeology, theory, and epigraphy since 1981. This sets the stage for new interpretations that move beyond those in Ashmore's dissertation and increases the relevance of the monograph for readers today.

Chapter 2 considers local flora and fauna (perhaps unnecessarily, because these data are not used in later chapters), geology, and field methods. The last two topics are closely related because the dynamic alluvial nature of the floodplain surrounding the site core has buried many features and destroyed others. From 1977 to 1979, a Guatemalan subsidiary of the Del Monte company dug a series of drainage ditches across the Floodplain Periphery in order to prepare the land for commercial banana farming. Although highly destructive, these trenches allowed systematic sampling of features buried below recent alluvium. The remainder of Chapter 2 estimates the effects of the sampling strategy on settlement results. Chapter 3 discusses the typology and taxonomy used to classify the features observed during survey, as well as the site-unit hierarchy. Also described are "Quiriguá Patterns" (QPs): special categories of more complex architectural arrangements similar to Becker's (2003) Tikal "Plaza Plans."

Chapter 4 discusses the occupation history of Quiriguá as revealed by settlement studies in the floodplain. Ashmore defines six "Periphery Time Spans" (PTS) ranging from the Middle or Late Preclassic until the 19th century A.D. The PTS correlate with changes in construction

techniques and materials. The PTS are compared with the ceramic chronology of the site, as well as with the dynastic chronology and with the Acropolis Construction Stages (ACS) (Jones 1987). This is somewhat confusing, and it may be time to combine these stages and sequences into one conjunctive chronology for the site. In summary, results of the floodplain survey demonstrate: a minor occupation before the legendary founding of a royal dynasty in A.D. 426; a small but significant presence during the late Early Classic; a major flooding event in the early Late Classic; a vibrant late Late Classic occupation; the contraction and abandonment of Quiriguá during the Terminal Classic; and very light and sporadic occupation thereafter.

Chapter 5 is entitled “Demography and Land Use,” but is more concerned with the former than the latter. Most of the chapter presents estimations of structure densities and counts of houses, as well as evaluations of the accuracy of these estimates. This is a very cautious and circumspect section, and will be useful for scholars who study ancient Maya demography. The population of Quiriguá was small, with two estimates in the range of 1000 to 2000 inhabitants. Ashmore, however, cautions that, at its peak, a population of about 3000 “might also be reasonable” [p. 106]. Clearly, Quiriguá was more important a place than its demography suggests. Ashmore hints that Copán may have imposed limits on the population size of Quiriguá [pp. 107, 110]. In an exciting section on land use, she argues that fertile land was reserved for specialized farming. Quiriguá may have been an important cacao producer (the evidence for this is “still equivocal” [p. 111]) or it could have provided a significant portion of the food consumed by the Copán kingdom. In other words, Ashmore proposes that Quiriguá was founded by Copán and served—until A.D. 738—as an important farming community with population limits dictated by its specialized function.

Chapter 6 considers the social structure of Quiriguá. Artifactual and architectural data demonstrate that although Quiriguá society had distinct strata, differences between those strata were only weakly developed when compared to larger sites such as Copán. Economic specialization in non-agricultural activities was also only weakly developed, with a small degree of “dispersed, individual-level specialization” in the Floodplain Periphery [p. 125]. For Ashmore, this underscores the importance of specialized agricultural production, especially for consumption at Copán [p. 127]. Feasting and ritual activities helped integrate society, and these were held principally in the Site Core and the Plaza 3C-1 civic arena 250 m NW of the Great Plaza.

Chapter 7 returns to architecture, particularly the QPs, and considers how space was meaningfully structured and socially constituted at the site. Much of the discussion

focuses on architectural groups classified as belonging to QP 3 and QP 5. The first of these is interpreted as “imposing and tightly closed residential groups” [p. 141], and the second combines residential and ritual functions. Ashmore argues that the distribution of these groups at the site in “nested arcs...plausibly mark differences in subroyal social standing in the local hierarchy” [p. 147]. She also sees social memory reflected in the use of architecture. Group 3C-7, where an Early Classic stela was erected, maintained its importance as a feasting place into the Terminal Classic period. Events held there perhaps commemorated the early rulers of the site. Final sections of the chapter consider civic planning at the Site Core. Parallels between the plan of central Quiriguá and Copán have long been known. Ashmore argues that the break-away ruler K'ak' Tiliw consciously modeled his capital on Copán, but—because of a lack of labor and a long building history—concentrated more on spacious displays of stelae than on architectural mass. She also links the early dynastic core of Copán to a “Tikal-based template,” which she sees as derived from Teotihuacan [pp. 153–154]. Moreover, Ashmore hints that the addition of Str. 1A-11 (a south-facing, square pyramid just north of the ballcourt) at Quiriguá might imitate a “Calakmul-based template.” The adoption of this template honored a strategic alliance supposedly formed between Calakmul and Quiriguá two years before the latter gained its independence from Copán (seeLooper 2003).

Ashmore's earlier writings (1991, 1992; Ashmore and Sabloff 2002) concerning the cosmological meaning of Maya architecture are inspiring. Nonetheless, I find much of the final discussion in Chapter 7 to be too speculative. First, the “Tikal-based template” (in which the north is associated with the heavens and ancestor worship) was established at that and many other Maya sites long before any contact with Teotihuacan. The North Acropolis of Tikal served as an elite necropolis in the Preclassic period and it seems more profitable to think of this directional pattern as pan-Mesoamerican in character, with one early expression (but perhaps not the first, and certainly not the only) at La Venta. Second, even though there was a clear connection between Copán and Tikal during the 5th century A.D., there is very little evidence implying that this alliance lasted into the 8th century. Although a glyphic reference to Calakmul at Quiriguá implies a royal visit (Looper 2003), the suggestion that the visit led to Calakmul's support of Quiriguá against Copán (and, by extension, Tikal) is pure speculation. The ruler of Calakmul may have visited Quiriguá for entirely different reasons, or—for all we know—even to prevent a war. Looper (2003) pairs careful and meticulous epigraphic research with injudicious historical interpretation, and the role of his narrative is both

too central and too unchallenged in this chapter of Ashmore's monograph. In Maya studies, when unfalsifiable narratives like Looper's are left unchallenged, they all too often become uncontested truths. This is unfortunate. At present, we have very little concrete information regarding the roles played by Tikal and Calakmul in the southeastern Maya periphery during the 8th century, so I am inclined to view their interference in regional affairs as minimal. More to the point, I can think of few ways—other than waiting for less ambiguous hieroglyphic texts to be discovered—to test any of these ideas.

The final chapter in Part I summarizes the principal conclusions of the volume, and also frames those conclusions in terms of broader theoretical questions regarding heterarchy, interaction, social memory, and the dynamics of archaic states. It is a strong conclusion that helps to keep the settlement data from Quiriguá relevant and current.

The CD included with the volume merits attention, not only because of its content, but also because of its format and structure. There is a long history of presenting archival data in site reports. *Tikal Report No. 14* (Coe 1990), also published by the University of Pennsylvania Museum, consists of three volumes of text and three of figures. It is a cumbersome presentation, but—with a large enough desk—it is possible to spread out and read the text while looking at the relevant figures. The current volume could have been published this way, but at greater cost. A second approach is to present data in the form of printed appendices. Blanton (1978), for example, included many pages of data in columns of numbers—what used to be called “computer printout.” I find that particular presentation to be unusable. Healan (1988) provided a disk containing valuable data, but few of us own a 5 1/4 inch floppy drive or remember what Fortran was. In this volume, Ashmore included a CD with both figures and text in an Adobe Acrobat PDF file. Optical drives are rapidly giving way to solid state and other recording media, and it seems likely that the CD format will become rare within a decade. It would not surprise me if Acrobat eventually goes the way of dBase and Lotus 1-2-3. An important lesson here is that given the speed at which technology changes, archival formats must be flexible and constantly updated. What does not seem to be disappearing is the internet. Publishers who choose to include recorded media must commit to providing data and relevant software online *in perpetuity*. This means they must dedicate resources to maintaining websites that contain the data. The University of Pennsylvania Museum is not doing this, and in a few years the data that Ashmore has archived on the CD may be lost. This is a disservice to her and to the archaeological community.

The content of the CD parallels that of Part II of the

printed volume, but considers the Wider Periphery rather than the Floodplain Periphery. I do not know why Part II merits publication in print form but Part III does not. It would have been logical to either print all three parts or to include both Part II and Part III on the CD. The CD itself contains a single PDF text file, suggesting that the original plan was to print this portion of the manuscript. In reading the CD, I was struck by the fact that the publishers have not taken advantage of the medium. Specifically, it is structured very much like a book manuscript. A much more useful and creative approach would have been to present the map as a searchable and interactive entryway into Quiriguá settlement archaeology. I would have liked active portions of the map as “clickable,” bringing up excavation profiles, plans, feature descriptions, artifact tables, and all the other data presented in the linear PDF file. Instead, the maps, figures, and tables appear rather small on my screen, and when they are “zoomed” to a good size resolution is lost. There was an opportunity to do something original, inventive, and useful here, and instead, the publisher treated Part III of the volume—as well as many of the most important figures and plates—as something too expensive to print and not worth the effort of presenting in a new format. This, too, is a disservice to the scholar who wrote the book and to the readership. My suggestion to library buyers is to print, bind, and shelve the PDF alongside the volume.

Despite the disappointing CD, this is an important book that merits attention and should be read by scholars interested in settlement studies and the broader subjects of contemporary archaeological theory. Ashmore's monograph demonstrates that archaeological inference is an iterative process, that longitudinal studies are of great value, and—as anyone who has run a project will say—that no archaeological research is ever truly finished. As new theoretical frameworks emerge, there will, no doubt, be value in decanting and re-bottling the Quiriguá settlement data in another 30 years.

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Prehispanic Change in the Mesitas Community: Documenting the Development of a Chiefdom's Central Place in San Agustín, Huila, Colombia

Cambio Prehispánico en la Comunidad de Mesitas: Documentando el Desarrollo de la Comunidad Central en un Cacicazgo de San Agustín, Huila, Colombia.

VÍCTOR GONZÁLEZ FERNÁNDEZ. *University of Pittsburgh Memoirs in Latin American Archaeology* No. 18. 150 pages, 69 illustrations, bibliography. Pittsburgh and Bogotá: University of Pittsburgh, Instituto Colom-

biano de Antropología e Historia, and the Universidad de los Andes, Departamento de Antropología, 2008. \$26.00 paper. ISBN 978-1-877812-84-2.

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One of the very strong pluses for this volume, as with several others in this Pittsburgh series, is that the volume is completely bilingual—recto in English and verso in Spanish. While many archaeologists see the need to make research results available to publication outlets in host countries in the local language, unfortunately this obligation is rarely honored. This current volume is an abbreviated version of Victor Gonzalez Fernandez's 1998 Ph.D. dissertation, but electronic access to the complete dataset is available through the URL (www.pitt.edu/~laad).

González was interested in evaluating in the Mesitas area in Colombia what he characterizes as the three factors usually identified as responsible for the development of "chiefdom" polities: resource control, demographic changes, and craft specialization. The archaeological data was not as informative as he had hoped, however. In terms of resource control, he writes that it was "difficult to see evidence of the economic differentiation that characterizes other examples of chiefdom development" [p. 3], that social and political factors prevailed over economic ones in determining the location of the small polities, that the "elite" goods did not seem to correlate with the wealth differences that are usually assumed to correspond to differences in prestige, and that household excavations showed only minimal economic differences. With respect to demographic change, he found no strong evidence for either agricultural intensification or widespread warfare, such that "evidence for population pressure in the Alto Magdalena is also, at present, mostly negative," and that while "existing demographic data do provide some correlation of population growth with changes in social and political organization," the relationship is unclear [p. 7]. With respect to craft production, he found the evidence of the importance of craft specialization to be "very scant in the regional and household data," with "no direct evidence of intensive craft specialization" [p. 9]. Thus González was trying to investigate "chiefdom" formation, but he found he had few of the standard archaeological correlates presumed to be associated with such socio-political institutional development.

His methods have recently become much more common in the Andes. From 1993 to 1997, the field crews surveyed transects spaced about 30 m apart in his research