

## Diverse Voices

### Toward an Understanding of Belize Valley Archaeology

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The archaeological research that has been undertaken in the Belize Valley and the chapters included in this volume provide a snapshot of lowland Maya settlement archaeology. This is appropriate, as the Belize Valley was the site of Gordon Willey's seminal settlement archaeology at the site of Barton Ramie, the first project intentionally focused on Maya settlement archaeology and the nonelite segments of Maya society.

While the focus of research in the region may have varied over the years, the Belize Valley is one of the longest and most intensively worked regions in the Maya lowlands. It is distinct from other long-term research—such as that at Tikal, Copan, or Palenque—in that the focus of the majority of the investigation has been on settlement as well as on minor or intermediate-sized sites rather than on major centers. This research emphasis is related to both the nature of the settlement in the Belize Valley and to the ease of working south of the Belize River and in the area near the modern town of San Ignacio.

This volume and the investigations in it focus on many different topics related to settlement pattern studies and Maya archaeology. They also raise many questions. The chapters run the full gamut from culture history to methodology and theory. Terminological differences are also apparent, especially as seen in the multiplicity of architectural typologies (e.g., major centers, minor centers, ceremonial centers, regal-ritual centers) that are used and in the varying opinions about what is considered to be “royal” and about which sites housed royalty as opposed to elite inhabitants. Top-

ics considered here include all time periods and both the origins and “collapse” of Maya civilization. Several chapters focus on the earliest remains in the valley and the degree of internal and external involvement in these early remains, especially as expressed in ceramics. A number of chapters also discuss the Terminal Classic period, some noting the existence of incomplete construction efforts. Still other chapters focus on the Classic and Postclassic occupation of the valley.

Functional interpretations are also raised. Authors concern themselves with difficult questions such as the determination of ethnicity. Potentially problematic interpretations and topics include the identification of ritual feasting as well as dedication and termination events in opposition to more neutral functional inferences based on use-related on-floor debris or refuse. Middens are discussed but are not always clearly distinguished from redeposited structure fill or more temporally distinctive refuse. Not all authors are in agreement with regard to these functional interpretations. And it would seem that more effort should be expended in clearly identifying and operationalizing the distinctions among the various interpretations.

The chapters in this volume incorporate the use of different kinds of analysis, ranging from iconography (chapter 11) to specific material remains such as ceramics (chapter 19). And some chapters attempt to include all of the separate reports synthetically, while others are more specialized. There are different research approaches in this volume. Some authors have had a predominantly regional perspective (chapter 15). Others have focused on differences within and between minor centers and larger centers (chapters 17 and 18). Researchers also have varied in their approach to sampling. The scale of survey varies substantially from region to site. Likewise excavations vary in size and scale from test pits to trenches to larger areal clearing. No single project covers the entire Belize Valley area, yet there is enough information from the different research projects to attempt synthetic interpretations. There is, however, some disagreement among these syntheses (for example, see chapters 10 and 12).

Of particular interest is the interpretation of the political integration of the Belize Valley. There are differing interpretations offered by volume participants. It is necessary to consider variations in researchers' databases in assessing differences in interpretations. One impediment to the assessment of site integration in the valley is the sparse monument record. The majority of sites and the majority of the occupation in the valley existed without any significant use of hieroglyphic texts, leaving much of the Belize Valley outside of strict Maya historical perspective. Thus, there is

heavy emphasis on both stratigraphy and ceramic associations. Other questions that arise include the definition of “community.” How tightly integrated was the valley settlement? And what was the relationship between the Belize Valley settlement and the areas beyond it? Given the nature of the archaeological remains in the Belize Valley, can these data help us assess the different models of Maya social and political organization that are now in use? These topics will be returned to following a brief discussion of the individual chapters.

### The Voices of Belize Valley Archaeology

Arlen Chase and James Garber (chapter 1) provide a summary of the history of settlement research in the Belize Valley. They further subdivide the valley into headwaters (upper Belize Valley) and valley proper (middle Belize Valley) and define significant geographical and settlement differences between these two areas. The settlement in the headwater area is formed by definable sites, such as Cahal Pech, Buenavista del Cayo, and Xunantunich, that are all characterized by sparse intersite settlement. The settlement that follows the Belize River is more continuously and densely spread along the bank of the Belize River, as Willey and his colleagues (1965) originally noted. Both Blackman Eddy and Baking Pot comprise larger architectural nodes within the alluvial lands that immediately flank the river.

Gordon Willey’s wonderful retrospective essay (chapter 2) provides historical perspective to the volume. He describes the earliest attempts to do settlement archaeology and the difficulty of cutting transects through the jungle. He also demonstrates how important opportunistic sampling and survey was to settlement archaeology at Barton Ramie, for he conjoined his archaeological research program with the clearing of the site of overgrowth for agricultural purposes. In describing his work with Linton Satterthwaite and William Bullard, his chapter makes it clear how successful archaeological research is often based on the interactions and good relations among field researchers. He also makes it evident that there is historical tradition even in watering holes for Belize’s archaeologists. Willey found out about the site of Barton Ramie in the social setting of the Western Club. Both the Western Club and the Stork Club have been relocated since Willey’s times. The Stork Club, now located in the San Ignacio Hotel, is still a popular place for the exchange of news and ideas for Belize’s archaeological community on Friday evenings.

James Garber and his colleagues write about the Middle Formative pe-

riod occupation at the site of Blackman Eddy (chapter 3). They focus on their salvage investigations of a mound partially destroyed by a bulldozer cut in the 1980s. These investigations encountered Middle Formative (Middle Preclassic) occupation that they date to between 1100 and 850 B.C.; the authors further suggest that this material predates the early Jenney Creek materials at Barton Ramie. The authors then enter into a discussion concerning the local versus nonlocal origin of these early ceramics and what this might mean for considerations about the ethnic composition of the earliest Maya in the Belize Valley—a topic previously considered in some depth by Joseph Ball and Jennifer Taschek (2000). However, more archaeological data (other than ceramics alone) need to be obtained to resolve this complex issue. Garber and his colleagues also describe what they interpret to be ceremonial ritual that resulted from feasting. While problematic for later eras in Maya prehistory, their interpretation of ritual feasting may be appropriate for this time horizon, location, and evidence.

James Garber and his colleagues also discuss the broader project at Blackman Eddy, one of the major architectural nodes in the Belize Valley proper (chapter 4). They present a map of the site's core. An area measuring 200 m × 95 m formed the focus of their investigations, resulting in the partial excavation of 12 structures. As indicated in their initial article, the earliest occupation at Blackman Eddy dates to the Middle Formative (1100 B.C.); occupation, however, continued through the Late Classic period. The authors plausibly suggest that Blackman Eddy was the administrative center for Barton Ramie, which is located only 2 km distant. The excavations at Blackman Eddy produced typical Belize Valley remains as well as some surprises, such as a non-lowland Maya style eighth-cycle monument. However, an Early Classic interment (of approximately the same date as the monument) encountered in Structure A4 indicates that Blackman Eddy interments are consistent with broader patterns seen at both Caracol and Tikal in that this interment consisted of a primary individual combined with secondarily interred individuals.

James Conlon and Terry Powis report on their investigations of the Bedran Group, located 2.27 km southwest of the architectural concentration known as Baking Pot (chapter 5). Unfortunately, it was not possible to survey the area between these two groups to determine if there was continuity in settlement. A variety of burials and caches were recovered from excavations in the Bedran Group. Notable burial offerings include one ceramic vessel that exhibits hieroglyphs that form a “primary standard sequence.” Burials 9 and 11 in the Bedran Group include both primary and secondary human skeletal remains, the latter interpreted as being the result

of sacrifice. A cache in front of Structure 2 included chert and obsidian like that found earlier by Bullard in the center of Baking Pot. This clearly significant group is described both as a “minor center” and as a “larger plazuela group,” thus reinforcing the problematic nature of the architectural typologies used in the Belize Valley. Differing opinions on architectural typologies constitute a recurring topic in many of the articles in the volume.

Lisa Lucero and her colleagues (chapter 6) use the land evaluation model originally established for the Belize Valley by Scott Fedick (1996). They look at the relationship between settlement and land classification types in a study area of 308 km<sup>2</sup> (although their project did not attempt to survey this entire area but, instead, considered known sites). Of the sites in the survey area, Saturday Creek served as a focus for their archaeological investigation. They confirmed a general correlation between good soil and settlement location in this study area. Just as interesting as the correlation of land types and settlement, however, are the exceptions that they note, such as Cara Blanca, a site that was likely situated for reasons other than agriculture. The study also shows that many areas with soils well suited for farming were not settled, suggesting that the Belize Valley area as a whole had additional room for population growth.

Paul Healy and his colleagues (chapter 7) describe the Early and Middle Formative at Cahal Pech, a medium-sized Maya center first occupied between 1100 and 1000 B.C. They define the various material culture remains associated with these excavations and indicate that the earliest ceramics at Cahal Pech are similar to those of the Jenney Creek complex at Barton Ramie. Among the more distinctive remains recovered at Cahal Pech are over 300 figurine fragments from assorted secondary contexts. Their analysis also suggests a change in lithic production from spar flakes to blades at some point between 650 and 330 B.C. Stable isotope analysis of human remains suggests that there was a diverse diet at Cahal Pech with less reliance on maize than in the succeeding Classic period. The authors use stable isotope data to suggest the existence of social distinctions by sometime during the Middle Formative period. There is cranial deformation and inlays in interments during this time along with a series of pathologies; however, the authors suggest that porotic hyperostosis, indicative of anemia, is more common in the subsequent Classic period. Discussion of ritual activity focuses on both burials and caches as well as on circular platforms thought to have been used for public performance.

David Cheetham (chapter 8) discusses the Zopilote terminus group, located 750 m south of the Cahal Pech site core at the end of the Martinez

Causeway. He attempts to place the Zopilote group within a broader context of other known terminus groups. However, Cheetham only focuses on one potential terminus pattern, arguing that “terminus groups represent the fusion of two disparate classes of architecture—distant temple buildings and causeways” and that causeways were not cosmological because there are not standard causeway directions (based on angles). However, his generalizations are not always matched by comparative data. His Caracol examples represent only residential plazuela groups and do not account for different kinds of known termini or their diverse functions (e.g., A. Chase 1998, A. Chase and D. Chase 1996c:fig. 3). Another source of comparative data on causeways and terminus groups is an issue of *Ancient Mesoamerica* (2001) dedicated to the topic. Cheetham also focuses on the excavation of Structure A-1, outlining its occupation history and defining the contents of Tomb 1 (which he ties to warfare because of iconographic representations of warriors on one vessel and the presence of a skull) and Tomb 2 (with its associated and ritually repositioned early stela). Significantly, this structure contains evidence of some ritual patterning similar to that found at Caracol, including multiple finger-bowl caches as well as the secondary interment of individuals.

Joseph Ball and Jennifer Taschek (chapter 9) provide an overview of the occupation of Buenavista del Cayo. It is located on the Mopan River within 5 km of Cahal Pech and 6 km of Xunantunich. It is 13 km from El Pilar and 14 km from Naranjo. The site is a medium-sized center covering 18 hectares. Ball and Taschek call it a “level 9” site, following an earlier typology of centers proposed by Hammond (1975). Buenavista del Cayo’s earliest occupation dates to the Middle Preclassic. Ball and Taschek believe, based on the Buenavista data and comparisons to other sites covered in this volume, that there was not a smooth development from the Preclassic to the Classic period; they argue for discontinuities in ceramic types. Further changes took place during the Late Classic period. Three caches in Structures 2, 3, and 4 are suggested as having “activated and empowered the Buenavista Central Plaza complex as the sacral heart of the center.” Tikal and Caracol ritual data have similarly been used to suggest the centering functions of certain epicentral caches (D. Chase and A. Chase 1998:325–326). They also further document the existence of a “palace school” of decorating polychrome ceramics at Buenavista (see also Ball and Taschek 2001). Interestingly, Terminal Classic household occupation at Buenavista contains ceramic vessels and types that Ball views as being similar to northern coastal Yucatec ceramics.

Richard Leventhal and Wendy Ashmore (chapter 10) write about the

importance of using a large-scale broad regional approach in settlement archaeology. They focus on Xunantunich and on their five years of archaeological research at that site. Their Xunantunich Archaeological Project employed a strategy of both intensive excavations and survey transects, one of which reached a length of 8 km. They argue that the predominant occupation of Xunantunich occurred between A.D. 650 and A.D. 1000, when the site occupied a preeminent position in the valley. In arguing for the predominance of Xunantunich and its hierarchical overshadowing of both Cahal Pech and Buenavista, the authors significantly disagree with Ball and Taschek (1991; chapter 12) over the social and political ordering of the upper Belize Valley.

Virginia Fields writes about the iconography of Xunantunich using the modeled stucco from Structure A-6 (chapter 11). Her analysis indicates both the local style of Xunantunich and the relationships of aspects of the stucco friezes to iconography elsewhere in the Maya world. She shows that the symbolism at Xunantunich focuses on rulership, particularly on the ruler as the axis mundi of the community and on the relationship of the ruler to the Maya gods and the acts of creation. Her detailed iconographic study is unique to the volume and shows the value of conjoined interdisciplinary approaches to ancient Maya remains.

Jennifer Taschek and Joseph Ball discuss the relationships that must have existed between the sites of Buenavista del Cayo, Cahal Pech, and Xunantunich (chapter 12). They suggest how these sites, each with their own distinct occupation history, were at the same time part of a single system. They review the Late and Terminal Classic occupation at each site before attempting a synthetic interpretation. They elaborate on previous interpretations that Cahal Pech and Buenavista were occupied by the same high elite or royal group with one site (Cahal Pech) serving a more private function and the other (Buenavista) serving a more public function; they further suggest the possibility of varying seasonal occupation. They suggest that Xunantunich was established as a holy place during the reorganization of the valley following the 7th-century defeat of Naranjo by Caracol. They believe that Xunantunich superseded Buenavista and became a year-round residence during the eighth and ninth centuries. While at odds with interpretations made by Leventhal and Ashmore, Taschek and Ball indicate that their interpretations are only hypotheses that require additional testing.

Paul Healy and his colleagues describe the archaeology of Pacbitun (chapter 13). This site is not in the Belize Valley but in the distant foothills that bound the south side of the valley. Healy and his colleagues suggest

that the site has ties both to the Belize Valley (especially given the predominance of head to the south interments) and to Caracol (in terms of burials containing multiple individuals). They suggest that the site had a population of between 4,000 and 8,000 people circa A.D. 700–900; looking at their settlement data, I suspect that this number may be high. The site has an E Group that was previously identified as relating to cosmic geomancy rather than to astronomical factors (Aimers 1993). The possible non-astronomical functions of E Groups have been explored previously by others (Aveni and Hartung 1989; A. Chase 1985; A. Chase and D. Chase 1995).

Healy and his colleagues also describe a Late Classic “royal” burial at Pacbitun (chapter 14). This chapter goes hand in hand with two earlier chapters by M. Coe (1988) and A. Chase (1992) that define royal interments at larger sites. Those chapters, along with the current one, bring to the forefront a consideration of what “royal” means. Characteristics of this interment include a bed of chert flakes over the chamber’s slate slab roofing as well as a large number of burial offerings. Included in the tomb were 19 ceramic vessels as well as beads, earflares, complete spondylus shells, and cinnabar. The head of the individual was placed to the south. The tomb measured 3 m in length by 1 m in width. Although not overly spacious in terms of Caracol or Tikal standards, the burial offerings included in the chamber are plentiful. Moreover, this variation in tomb size is consistent with concepts of site hierarchy; Pacbitun is a center smaller than Caracol or Tikal and, thus, potentially had a lesser “nobility.” Slate tomb roofing is not common at Caracol, but was used for an early chamber at one of the outlying elite groups (Tulakatuhebe) near the Pajaro-Ramonal terminus; like Pacbitun, this chamber likely housed a member of the site’s lesser nobility.

Anabel Ford writes about El Pilar, a site first occupied in 700 B.C. in the Middle Preclassic period. El Pilar ceased to be occupied between A.D. 900–1000, as indicated by an incomplete Terminal Classic construction (chapter 15). She estimates that the site occupies 50 hectares of land and that the core of the site exhibits a density of 200 structures per square kilometer. Her settlement survey indicates differential occupation in three major resource zones; settlement density is higher in the valley and ridgetlands but low in the foothills. Her work is important for understanding production and consumption activities in the Belize Valley and for an examination of hierarchical relationships among sites both within and bordering the Belize Valley.

Heather McKillop’s chapter on the trading port of Moho Cay is an



excellent reminder of the importance of trade in the Maya lowlands (chapter 16). Moho Cay is strategically located in the mouth of the Belize River, with access to both coastal and riverine trade. It would have formed a transshipment point for materials going upriver to be off-loaded in the Belize Valley headwaters or for materials coming out of the interior. Excavations confirm participation in both coastal and riverine trade during the Late Classic period, relating to both long distance and more local Belize trade. Moho Cay had access to marine resources as well as goods from more distant locations. Artifactual remains indicate extensive contact with both northern Belize and the Belize Valley. The temporal occupation on the island matches the occupation recorded inland and it is certain that this important node played a long-term role in the trade going to and through the Belize Valley.

Gyles Iannone's chapter is concerned with the variability in middle-level settlement in the Belize Valley (chapter 17). He reviews the various terminology that has been used to describe settlement, beginning with the work of Willey (1956a; Willey et al. 1955) and Bullard (1960). He suggests that there is a continuum of settlement in the valley and recommends using the terms "lower-," "middle-," and "upper-level" settlement and then dividing these groupings by subtypes. Again, the issue of consistent terminology is a significant one for the overall Belize Valley area.

David Driver and James Garber (chapter 18) also discuss Willey and Bullard's three-tiered hierarchy of sites (Bullard 1960:352; Willey et al 1965:561). They further review Garber et al.'s (1993) earlier work on settlement patterning in the valley. They suggest that major centers along the Belize River (Xunantunich, Cahal Pech, Baking Pot, Blackman Eddy, and Camelote) are 9.9 km apart. They then discuss what they call "Type 1" sites, those located within 2 km of a major center, "Type 2" sites, those beyond the 2-km range, and "Type 3" sites (Floral Park, Esperanza, Nohoch Ek, Ontario, and Warrie Head), those located equidistant between major centers. Their typology works well for most of the Late Classic settlement along the south bank of the Belize River. The pattern is altered, not surprisingly, in the upland area between the Macal and Mopan Rivers, specifically around Xunantunich, Buenavista del Cayo, and Las Ruinas. This is an excellent attempt to define the functional distinctions among the various kinds of sites noted in the valley. More work on the intermediate sites equidistant between major centers would be of interest and would further refine their typological distinctions.

James Aimers uses ceramic data to discuss the Terminal Classic to Post-classic transition in the Belize Valley (chapter 19). He indicates the wide-

spread nature of Terminal Classic occupation as opposed to the more limited nature of Postclassic settlement (with focal areas in Barton Ramie, Baking Pot, and caves). He reviews the Postclassic ceramics and agrees with previous authors that the Late Postclassic ceramics are a break in the ceramic tradition with ties to both the Petén and the northern Maya area. Key to his discussion is the idea that the Belize Valley is a zone of interaction with increased influence from the northern Maya lowlands, the Gulf Coast, and Central Mexico over time.

Arlen Chase examines the role of settlement archaeology in discussing Maya social organization (chapter 20). He provides a different context for the Belize Valley by comparing and contrasting it with patterns from the site of Caracol. He raises the question of how the major and minor sites of the Belize Valley fit into broader settlement reconstruction, considering the problem of different research methodologies as well as the relationships of Belize Valley sites with settlements exterior to the valley. He notes the need to combine epigraphic and settlement data when both are available and points to the very different interpretations about polity size and organization that can be garnered from these two very different databases. In describing the Caracol polity, he refers to a Caracol cultural and ritual tradition involving the use of eastern buildings for burials and caches that extends into the southeastern Petén, but that was never fully shared by the Belize Valley. Instead of viewing the Belize Valley as a separate entity composed of one or more smaller political units, he views the Belize Valley as a “border area,” likely varying its political allegiances over time from Caracol to Naranjo and, ultimately, to Xunantunich.

### **Concluding Thoughts on the Belize Valley: Toward a Uniform Language**

The importance of the long-term archaeology that has been undertaken in the Belize Valley cannot be overstressed. In fact, because of the quantity of work, much of it reflected in this volume, the Belize Valley can ideally be viewed as comprising some of the most comprehensive settlement work that has been done in the Maya area. Settlement transects have been undertaken in the upper Belize Valley around Xunantunich (chapter 10), in the terrain southeast of the valley proper (chapter 6), and to the northwest of the valley (chapter 15). Nodal, architecturally significant archaeological remains and settlement have also seen extensive work at Xunantunich (chapters 10 and 11), Buenavista del Cayo (chapter 9), Nohoch Ek (Coe

and Coe 1956), Cahal Pech (chapters 7, 8, and 12), Baking Pot (Bullard and Bullard 1965; chapter 5), and Blackman Eddy (chapters 3 and 4). Immediately outside the valley, excavation has been undertaken at Arenal (Las Ruinas; Taschek and Ball 1999), El Pilar (chapter 15), Negoman-Tipu (Graham et al. 1985), and Pacbitun (chapters 13 and 14). When combined with Willey et al.'s (1965) initial work at Barton Ramie, this continuous archaeological effort makes the Belize Valley one of the most intensively investigated areas in Mesoamerica.

But what do we know from all of the data that has been collected? And what new insight have we gained on the ancient Maya? One of the most glaring points that can be gleaned from the collected archaeological data is that there is no top-tier site in the Belize Valley. Thus, there has been an archaeological focus on intermediate-sized sites without a corresponding focus on any primate center. From the Belize Valley archaeological data we know a great deal about what happens in mid-level centers, but without knowing anything specific about higher-level integration. And while archaeologists undertaking settlement research at nonprimate centers traditionally point to the fact that their work reveals more about day-to-day Maya life and avoids relying on any elite focus, these chapters suggest that even settlement work on minor centers and outlying groups can provide substantial variation that raise questions very similar to those found in archaeological work at larger sites. For instance, the data from the Bedran Group (chapter 5) show how the social system is not easily broken down into presupposed elite and nonelite complexes based on the presence of hieroglyphic writing and cylinder tripods. There is a clear need for viewing the broader patterns.

Thus, a key question is how the different parts of the Belize Valley are related to each other and to neighboring areas. It would be a mistake to consider the Belize Valley settlement in isolation. Importantly, this volume appropriately includes data from outside the valley itself at sites like Caracol, Pacbitun, and Moho Cay. Undoubtedly, all these sites and areas interacted with and both conditioned and were conditioned by the ancient inhabitants of the Belize Valley. However, the exact nature of these interactions is still not well known.

To some extent, different models and researcher perceptions color interpretations, as may differences in the varied data themselves. Arlen Chase, writing from the vantage point of the larger Vaca Plateau site of Caracol, suggests that the Belize Valley is a border area, variously under either direct or indirect control of larger order centers such as Naranjo or Caracol within some sort of a hierarchically arranged political order. In contrast,

Ball and Taschek, writing from the vantage point of their excavations in the Belize Valley, view Cahal Pech and Buenavista del Cayo as regal-ritual cities, modeling these sites with Xunantunich as part of the same heterarchical social system. Viewing the Belize Valley in isolation, it could well be the case. With the addition of more massive sites like Caracol and Naranjo and considering the limits of the Belize Valley, it becomes evident that the overall Maya political landscape was more complex. Perhaps a better understanding of Buenavista del Cayo's "palace school" that produced distinctive polychrome pottery will eventually shed more light on the broader political, economic, and social interactions that once existed. Partially due to differences of opinion over social and political models, there is also significant controversy over the positioning of Xunantunich temporally and politically in the Belize Valley; no matter what position is taken, however, it certainly represents a Late to Terminal Classic move to a more defensive location.

From a temporal standpoint the archaeology undertaken in the Belize Valley has confirmed, and amplified, the unique character of its earliest remains. The Jenney Creek materials from Barton Ramie were initially viewed as being within their own ceramic sphere and separate from early ceramic development seen in the neighboring Guatemalan Petén (Willey et al. 1967). Excavations at Cahal Pech and Blackman Eddy have recovered a host of other intriguing early materials, which again stress the unique ceramic development of this area, perhaps representative of an early "non-Maya" settlement (Ball and Tashek 2000). Yet thus far all of this early material derives from redeposited fill. It is only when associated constructions and special deposits containing *de facto* materials of this early date are eventually uncovered in the Belize Valley that we will be able to better contextualize these materials.

The archaeology of the Belize Valley also promises to better inform us about the transition from the Classic to Postclassic periods. Virtually all researchers note the presence of Terminal Classic occupation at their respective sites. But the nodal architectural concentrations in the valley all suffer the "Maya collapse." Some researchers indicate the existence of incomplete construction efforts, suggesting relatively rapid events. Yet Postclassic occupation is plentiful, if not ubiquitous, in the valley-bottom alluvial areas, something noted by Willey and his colleagues (1965) for Barton Ramie and also well documented in the outlying Baking Pot settlement (J. Awe, personal communication 2002). Thus, without doubt further research in the Belize Valley should help resolve longstanding questions over the nature of the transition between the Classic and Postclassic periods and

help to explain the visible shift in settlement patterns seen not only here, but also elsewhere in the Maya southern lowlands.

The Belize Valley is an excellent place to consider scale in relation to population, land use, and social relationships. Willey and his colleagues (1965:577) estimated that the Belize Valley housed approximately 24,000 individuals within a 600-km<sup>2</sup> area (60-mile strip of land along the river extending 5 km to either side); the work reported on in this volume does not appear to significantly modify Willey's original estimate. Although the original research at Barton Ramie did not focus on land use and social relationships, the more recent archaeological work permits both of these questions to be tentatively addressed. With regard to land use, the survey work that has been undertaken by Fedick and Lucero clearly shows that there was far more arable land in and around the valley than there was population available to use it. Perhaps the lack of pressure on available agricultural land explains why there are not extensive terrace systems in the Belize Valley, like those at Caracol (A. Chase and D. Chase 1998b). However, the fecundity of the alluvial soils may have been amplified to some extent by irrigation via canal systems, as indicated in the data from Baking Pot.

Even more intriguing are the spatial patterns that are inherent in the Belize Valley settlement. David Driver and James Garber report that there are an average of 9.9 km between major architectural nodes in the Belize Valley and that other smaller architectural nodes are located at the mid-points between the large architectural concentrations. Thus, there appear to be architectural nodes equidistantly spaced every 5 km. These spatial relationships are to some extent reflected in architectural concentrations that are embedded in other mapped settlement areas—such as Caracol (A. Chase and D. Chase 2001a), Tikal (Puleston 1983), Coba (Folan et al. 1983), and even the wider Dos Pilas area (Demarest 1997)—but the linear Belize River really emphasizes the regularity and the possibility of water transportation likely conditioned distances, at least to some degree. Thus, there would appear to be general patterns and principles of Maya nodal settlement location that may have been established in the southern lowlands as early as the Late Preclassic period. Whereas the astronomical “E Group” became the focus in the southern Petén (A. Chase and D. Chase 1995; Laporte 1996a), this was not necessarily the strict focus within the Belize Valley. However, the regularity of spacing seen in the Belize Valley settlements must be related to specific social or political factors that were once operational.

Researchers seeking answers to broader questions in the Belize Valley

archaeological data remain challenged by the diverse data and research projects. After 50 years, we are not yet in a position to answer some of the questions originally posed by Gordon Willey regarding the nature and integration of the ancient Maya community. As in other parts of the Maya lowlands, the research sample has been skewed toward architectural concentrations with very little vacant terrain actually being investigated; however, many architectural concentrations are of a much smaller size than normally would be investigated elsewhere. Although the database has grown substantially and many more sites and groups within and adjacent to the valley have received some excavation, much of the raw archaeological data is not fully analyzed, “digested,” or published—and, outside of this volume, there are no focal books or series that focus on Belize Valley research. And even though the Belize Valley has been more extensively studied than most parts of the Maya lowlands, there is still a need for more survey between centers and in upland areas, especially on the north side of the river away from the Western Highway (see chapter 1). There are also a plethora of different models and theoretical perceptions that can be and have been applied to the ancient Maya, often in conjunction with differing archaeological methodologies, techniques, strategies, and standards. In truth, the multiple projects and multiple researchers in the Belize Valley make it difficult to synthesize the extant data to answer broader questions. Each project operates to a large degree as a microcosm, focusing on specific questions that vary from site to site and excavation to excavation. Each project also seeks to emphasize the importance of their specific database. It is only by collecting these diverse data and voices into one place, as has been done in this volume, that one can begin to understand and appreciate the complexity of the archaeological record that comprises our interpretation of the ancient Maya.

The Belize Valley was chosen long ago by Gordon Willey to start the process of understanding how the Maya comprised their society and settlement; the chapters in this volume valiantly continue this tradition.