

Preclassic in this area, dating to around 500 BC, and has a temporal priority in this part of the Maya world. Early in the chapter Kaplan and Paredes Umaña suggest that the polyglot context of the Southern Maya contributed to its unique development and its distinction from lowland Maya prehistoric cultures. The chapter continues with a long and detailed history of scholarship on the area. Chapter 2 reviews the physical environment and cultural ecology of Chocóla, and Chapter 3 covers its history and ethnohistory. Both chapters contain excellent maps locating Chocóla in southern Guatemala with respect to rivers, annual rainfall, agricultural regions, and modern towns. Chapter 2 also contains tables of the forest plants and fauna of Chocóla.

The core archaeological work is laid out in Chapters 4–6. Chapter 4 reviews detailed excavations that were carried out at five mounds to test for the functions of structures in the northern elite area, a central administrative area, and a southern agricultural commoners' area. Structures had earthen and stone construction techniques, cobble walls, and other features. The project uncovered a stone-lined drainage system made of conduits, with redistribution boxes designed to bring freshwater to elites in the north and to drain excess water from buildings; an extension was found outside the site, making its total length 1.5 km. The gravity-flow system at Chocóla was hypothesized to move water to fields of cacao trees on the southern side of the site.

Chapter 5 presents the ceramics of Chocóla. The authors accept the revised Preclassic chronology recently published by Inomata and colleagues (*Latin American Antiquity* 25:377–408) that moves the Preclassic period forward by 300 years, making elite developments in the Pacific side of the Maya world coeval with those in the Maya lowlands of the Peten Guatemala. This chapter documents some Early Preclassic sherds and pottery of the Middle Preclassic Ixtacapa phase (900–350 BC). The descriptions of ceramic types and the illustrations are strong for the Nimá phase (350–100 BC) and Lolemí phase (100 BC–150 AD) and valuable for comparisons to other centers in the Southern Maya area. There are excellent drawings of whole cache vessels. The presentation lacks a complete analysis, which is planned for a later time.

Chapter 6 is a catalog of 31 carved monuments from Chocóla and the surrounding area. Chocóla Monument 1 and the “Shook Altar” are discussed in detail. The sculptures are varied and include potbellies, altars, heads, pedestal monuments, full-round sculptures, and cupule monuments. There are numerous references to sculptures from at least eight sites located 10 to 35 km from Chocóla. Some comparisons are made to contemporary El Salvadoran sculptures, which are well known to Paredes Umaña. The authors

conclude from this review that the sculptures come from Chocóla's large interaction network that is estimated to extend 500 km<sup>2</sup>.

Chapter 7 explores the materialist factors of water control and cacao, both considered elite features of the culture at Chocóla. The water system, theoretically important for its linkages to sociopolitical development according to Wittfogel's theories, underlies structures at Chocóla and was built by people knowledgeable about canal size and shape, velocity of flow, scouring, and silting, just as are present-day irrigation engineers. The authors admire the drainage system that is capable of holding back flood and stream waters during the rainy season and assert that managers must have been involved in its construction. Caches at change points in the direction and flow of water in the system might have been deposited by cooperative work groups. A helpful review of diverse water conduit systems in Mesoamerica provides a background for comparing the shared features of the Chocóla system to those of Tak'alik Ab'aj and Kaminaljuyu. The physical evidence of cacao consumption found on several vessels recovered from the site is an important finding. Kaplan and Paredes Umaña stress its symbolic importance to Mesoamericans, as indicated by written and visual sources such as the Popol Vuh and representations of cacao on painted Maya lowland ceramics. Chapter 8 presents a concise summary of the key points of the book. The appendixes document archaeobotanical remains, survey data, obsidian sourcing, radiocarbon dates, and theobromine analysis.

This volume on Chocóla has been released at an exciting time for archaeological research in the Southern Maya area. Investigators are using the new chronology and the results of projects at Izapa, Tak'alik Ab'aj, Kaminaljuyu, and Cotzumalguapa, as well as other less well-known sites in the neighboring highlands around Lake Atitlan and in the Kaqchikel area, are being produced by rising and senior scholars. This book has strong theoretical summaries and is suited to a sophisticated lay or academic readership.

*Maya E Groups: Calendars, Astronomy, and Urbanism in the Early Lowlands.* DAVID A. FREIDEL, ARLEN F. CHASE, ANNE S. DOWD, and JERRY MURDOCK, editors. 2017. University Press of Florida, Gainesville. xiv + 626 pp., 133 figures, 10 tables. \$125.00 (cloth), ISBN 9780813054353.

*Reviewed by* Fred Valdez Jr., University of Texas at Austin

E-groups as an architectural design with a particular function were first identified by the Carnegie Institute of Washington's Uaxactun Project. This specialized Maya architecture has been investigated with varying rigor over many decades, yielding interesting interpretations and implications for Maya civilization. This volume brings together recent thoughts/ideas associated with E-groups and provides theoretical, methodological, historical, and interpretive syntheses concerning their origins and development as an architectural form and implications for their impact on ancient Maya cultural institutions. This edited volume consists of 17 chapters divided into 4 parts. The first part covers historical perspectives providing a context for E-groups; the second part has chapters on astronomy, cosmology, and related concepts; the third section is primarily archaeological and is the longest section of the book; and the final part provides a general synthesis from broader perspectives.

Chapter 1, by Arlen Chase, Anne Dowd, and David Freidel, stands out in its contribution to this volume as a thoughtful and insightful overview of E-groups. The introductory part of this chapter provides a nice background to the history of E-groups. Their historiography is a great read, with three significant periods defined for E-group investigations: 1924–1954, 1955–1984, and 1985–2016. Chapter 1 also discusses the distribution and significance of E-group complexes, addressing issues of chronology, conceptual elements, and even kingship. This chapter is in many respects a stand-alone contribution providing both broad and detailed data, analysis, and interpretation.

Arlen Chase and Diane Chase, in Chapter 2, provide additional history and background for E-groups, in particular those in the southeast Maya lowlands. They also present details on the naming, dating, and patterns for this architectural assemblage. Of particular interest is their discovery and definition of the Cenote-style E-group. The authors delve into the Uaxactun excavations and reports on E-groups of southeast Peten. They also provide an informative discussion of early publications and interpretations of E-groups, noting how they have changed for both types of E-group forms and their dating. In the chapter's conclusion, the Chases argue that E-groups "represent the first recognized public architecture of lowland Maya civilization" (p. 64).

The third chapter, by Anthony Aveni and Anne Dowd, posits agricultural necessity as a motivation for E-group alignments and seasonal calendars. The authors acknowledge previous research that argues that sacred geography, ritual performance, and relations to seasonality may be linked. Aveni and Dowd provide a nice review of uses of astronomical

knowledge, as well as other likely uses of the E-group space and conclude that, regardless of E-group origins and process, one of its functions would have related to astronomical considerations (p. 91).

The fourth chapter of the volume is a significant undertaking by Susan Milbrath: it provides a detailed review of E-groups and related calendar developments. Milbrath's approach is first broad, addressing Mesoamerica as a whole, and then zooms in on the Maya to present the changing calendar over time, specifically for the Haab and the Tzolk'in. Beginning with the earliest long count dates in bordering Maya areas and then discussing specific examples through the Early Classic, Terminal Classic, and Postclassic, Milbrath walks us through the significant markers, dates, and event types of each period. A bonus in this chapter may be found in the footnotes, where she expands the discussion of possible E-group manifestations to northwest Belize, referencing recent observations by the late Stephen Hopkins, which may cause us all to reconsider regional variations of E-groups and E-group functions.

The focus of Chapter 5, by Prudence Rice, is on figurines and their use and possible meanings over time. She speculates that they first appeared in the Archaic, a claim that carries several implications beyond the current volume. The chapter provides a very good review of figurines, figurine fragmentation, and concerns of context. Of particular significance is Rice's "Early Ritual Areas" (p. 137), which she sees as effective settings for rituals and gatherings. She states, "The identities of the figurines were socially mediated ... in the recursive process of creating and re-creating meanings to these contexts" (p. 157). Thus, Rice notes the importance of place-making and the metaphorical use of figurines where meaning may be contextually derived.

Chapter 6 by David Freidel moves in a different direction from the E-group discussions thus far in the volume. He provides, instead, some fascinating insights regarding the variety of ways in which the ancient Maya addressed cycles, both longer natural cycles and those of biological concern. Cerros, the site of Freidel's earlier fieldwork, does not have an E-group, but does contain an eastern Triadic structure, named Structure 29. The iconographic complex of Structure 29 may indicate that it served solar commemoration rituals and thus may serve the function of an E-Group in another way. This interpretation, as Freidel acknowledges, follows notions posited by Jaime Awe, Julie Hoggarth, and James Aimers (Chapter 13).

The third part of the edited volume is focused on archaeological interests. Chapter 7, by Takeshi Inomata,

presents an intriguing analysis of early E-groups and their possible Isthmian origin. The earliest known E-group assemblages (as at Ceibal) may have originated from an Isthmian interaction sphere. Inomata comments “that the symbolic values and social roles of these architectural complexes most likely changed through time, as diverse E groups adopted them and reworked them” (p. 232). The original orientation of the architectural arrangements known as Middle Formative Chiapas patterns differed from that of E-groups; the differing orientations of architectural arrangements over time suggest that their associated meaning could have changed as well. These changes may indicate that E-groups were undergoing constant invention and re-creation as traditions developed and changed. We should not, therefore, uncritically accept more recent uses as compared to past placements of early architecture.

In Chapter 8, James Doyle explores the premise that two communities developed similar Middle and Late Preclassic architectural programs. El Palmar developments after the Preclassic moved away from the E-group structure, and no two E-groups are identical, which becomes quite evident as one reads the archaeological chapters in the volume’s third part. Francisco Estrada-Belli in Chapter 9 confirms the presence of many E-Groups, including the Cenote-style E-group, in the Cival area and claims that this architectural form, along with other early architecture, helped connect inhabitants to the land. Estrada-Belli additionally states that “the earliest E-groups, as others note (Chapters 7, 11, 12, and 15 in this volume) were not built at all, but were carved out of soft limestone bedrock that had been previously stripped of topsoil” (p. 319). E-groups may have served as a magnet for social interaction, and as Doyle observed, they are not a standardized phenomenon.

William Saturno, Boris Beltran, and Franco Rossi in Chapter 10 submit an interesting interpretation of an early E-group as it transitioned to a Triadic group, attributing these changes to “emergent forms of political authority” (p. 329). The following chapter by Cynthia Robin addresses the associated symbolism of E-groups. Her concluding comments include the notion that many of the “focal ideas” in Maya religion originally

developed among the community population and were “later appropriated” by the elites (p. 380). This insightful point likely applies to many other ancient Maya activities and rituals. Chapter 12 by Kathryn Brown argues that one of the earliest E-groups, from the Middle Preclassic, may have been present at “early” Xunantunich. It is considered one of the most sacred spots at the site, at which was found the burial of an “ancestor” with a Middle Preclassic ceramic vessel.

Jaime Awe, Julie Hoggarth, and James Aimers, in Chapter 13, shift focus, defining a particular variant of an E-group: the Eastern Triadic Assemblage (ETA). ETAs across the Belize River Valley are found in association with dynastic internment and ancestor veneration. In contrast to the Uaxactun model of E-groups, ETAs of the Belize Valley area focus on (or function as) ancestor shrines. These ETAs had their origins in the Middle Preclassic, as discussed by Brown in Chapter 12. Travis Stanton’s contribution (Chapter 14) claims that the E-group form in the northern lowlands indicates the existence of two inland trade routes and marks Preclassic trade routes between north and south. In Chapter 15, Kathryn Reese-Taylor argues that E-groups in the central karstic uplands region, as at Yaxnohcah, are mostly of the Cenote style and date back to the Middle Preclassic. She also discusses triadic groups, ballcourts, and reservoirs in relationship to E-groups.

The concluding part of the volume has two chapters. Anne Dowd’s contribution is an extensive review (and observations of) religious institutions across Mesoamerica and beyond. Dowd provides comparative data regarding sacred space with a focus on temple precincts (as a model) and their resulting religious institutionalization (see p. 548). In the epilogue, Diane Chase, Patricia McAnany, and Jeremy Sabloff refer to E-groups as the “earliest replicated public architecture” (p. 578). Although retaining a generalized architectural form, the functions of E-groups—“architectural chameleons” (p. 582)—over time are likely tied to issues of context, as is always the case in archaeology.

The breadth, detail, and perspectives provided in this volume make it a must for students of complex society and especially Maya scholars.