creation of the necessary archaeological models for Bayesian calibration, we are able to achieve extraordinary results at a variety of scales. Where appropriate studies are lacking, the results are reduced to local architectural histories. Nonetheless, they also deliver a great deal of significant information.

In sum, we should congratulate Whittle for this inspiring compilation of theoretical concepts, deep knowledge and a new dating approach through Neolithic time and space. Many more books of this calibre are necessary—not only for the study of prehistory, but also for archaeology in general.

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Jonathan Kaplan & Federico Paredes Umaña. *Water, cacao, and the early Maya of Chocolá*. 2018. Gainesville: University Press of Florida; 978-0-8130-5674-6 $125.

Jonathan Kaplan and Federico Paredes Umaña's *Water, cacao, and the early Maya of Chocolá* investigates water control and cacao production at Preclassic-period Chocolá in the upper Guatemala piedmont of the Southern Maya region. The area is known for fast-flowing rivers, rich soils and high rainfall, making it an ideal location for cacao production. This exceptional book combines archaeological, historic, iconographic and environmental data to present the site as completely as possible. The authors suggest that water management and cacao were critical to the development of rulership in the Middle (900–400 BC) to Late (400 BC–AD 150) Preclassic.

Kaplan and Paredes Umaña begin with three chapters on the history of archaeology in the area, the modern and colonial history of the town, and the local environment. Cacao grows well in the area of Chocolá and consequently has historically been produced there. Chapter 4, 'Archaeological operations', summarises the survey and excavations at the site. The buildings appear oriented towards the cardinal directions, indicating coordination of construction. The site extends about 3000m north–south and slopes in the same direction, with the northern end at 900m asl and the southern end at about 700m asl. This characteristic is observed at other sites, where it facilitated drainage—for example, Nixtun-Ch'ich', a Lowland Maya site in Guatemala, is laid out west–east and consistently slopes in the same direction. While a north–south *axis urbis* is not evident in the site plan of Chocolá, some of the buildings certainly seem aligned. Such alignment parallels nearby Kaminaljuyu, Semetabaj and Takalik Abaj, as well as Preclassic sites in Chiapas (notably, Chiapa de Corzo, and Izapa) and Olmec sites such as La Venta. This layout is notably different from Lowland Maya sites. The plan of Chocolá does not exhibit bilateral symmetry.

Extensive excavations at Chocolá focused upon four buildings: structure 2, a possible administrative building; structure 15, a "spring house/temple" (p. 126); structure 5, which was possibly used to manage agriculture; structure 7, a possible palace; and structure 6, a shrine or temple. Of particular note are structures 7, 9 and 15, which included buried and open conduits to control the flow of spring water. These conduits appear to have extended across the site. Their composition is similar to that seen at the sites of Kaminaljuyu and Takalik Abaj, so the three sites may have shared information concerning construction techniques. Chocolá also has ceramics and iconography similar to these sites. Further water-management features may have been located near structure 5, which would have facilitated cacao farming near this building. As a Mayanist focusing on the Preclassic period, I appreciate the detail in the descriptions of the excavation, but this might be a little too much for non-Mesoamericanist archaeologists or researchers in other fields. I do not wish to nit-pick, but some of the figures could be improved—their lines are too fine, text is too small

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and/or their contrast is insufficient. Other figures (4.13 & 4.14, for example) could be removed. Overall, the book would be more useful to other researchers if the authors had focused upon the water-control features. They might have added illustrations depicting how water flowed through the features, and considered quantifying both flow and water loss.

The obsidian-sourcing data (Appendix C) was wonderful, but I would have liked it to have been better integrated into the excavation summaries. It would be useful to know how these sources varied through time, especially between the Middle Preclassic and Late Preclassic periods. As the site has Late Classic deposits, it would also have been a good idea to separate these results from the others. It is, however, clear that San Martin Jilotepeque provided the majority of obsidian to Chocolá, as with other sites in the area.

The discussion of the monuments at Chocolá and nearby sites (Chapter 6) synthesises a great deal of useful sculptural data. The cupule monuments, large stones with circular depressions apparently used in water rituals, are particularly fascinating. They are common at Preclassic sites of the Southern Maya region, but are only occasionally found in the Lowland Maya region—examples exist at Nixtun-Ch'ich' and Zacpetén in Petén, Guatemala. Of course, good work leaves one wishing for more. I would have liked more figures in this section documenting the various monuments. In addition, it would have been useful to label some of the identified motifs in some figures—for example, a non-Mesoamericanist would have trouble seeing the 'u'-shaped element in Chocolá monument 1. It would also be useful to summarise better the meaning of these monuments. Kaplan and Paredes Umaña encountered a potbelly figure possibly associated with a cupule monument at the top of the stair of structure 6-1. Could these be a variant of the stela/altar pair? What is the significance of the potbelly figures, especially in light of their possible association with the cupule monument? Kaplan and Paredes Umaña's assessment that the Shook Altar probably originated near Chocolá as a 'marker' for the exchange network seems sound. Yet I would not agree that it necessarily indicates direct interaction with the Olmec proper. It seems more probable that Chocolá was connected to a long-distance network of ideas and commodities. More broadly, we should not assume that the Olmec were the ultimate origin of the various traits that are classified as Olmecoid.

As with other recent scholarship, Kaplan and Paredes Umaña clearly reveal that social complexity developed in the Maya region earlier than previously thought. The landscape of Chocolá, including the placement of the site, coordination of the architecture and creation and maintenance of the system of conduits, would have required a degree of coordination and planning. The surplus production of cacao probably allowed the emergence of an early state centred upon Chocolá, and the authors propose that this was grown in formal orchards. While there is limited evidence for this interpretation, the fact that they found cacao residue on a large number of vessels, and that the area still produces cacao today, certainly shows it is a possibility. I respectfully disagree with Kaplan and Paredes Umaña, however, on the necessity of kingship in this early state—we might call this the Camelot syndrome. The search for kingship was one of the factors delaying the realisation that states emerged earlier than the Early Classic period. Many societies—the Preclassic Maya among them—developed in a more cooperative manner without using kings as dominant symbols. Overall, however, this excellent book will be useful to scholars interested in the early Maya and those concerned with the role of water management in the development of social complexity.

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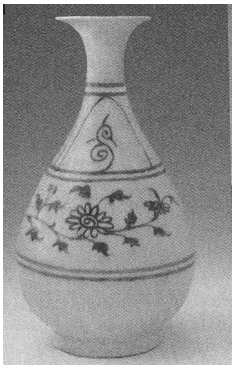

This edited volume provides a compilation of research carried out on the Swahili coast and its archaeological sites. It is divided into three parts: Part I: environment, background and Swahili historiography; Part II: the Swahili age; and Part III: the early modern and modern Swahili coast. The Introduction explains that the book focuses

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