



Research Article

Rehabilitating El Pozito, Northern Belize: a Classic Maya town and its socioeconomic history as reflected in ceramics and architecture

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Abstract

This article revisits a long-neglected site in Northern Belize, the Classic Maya settlement of El Pozito, located in the Orange Walk District. Investigations led by Mary Neivens and Dennis Puleston explored the site between 1974 and 1976, documenting its architecture and recovering a substantial quantity of artifacts. Afterward, events conspired to bring these investigations to a close, leaving the site in a half-century scholarly limbo. The research here seeks to rectify this. Combining extant field notes with sporadic publications and recently conducted ceramic analysis, the authors reconstructed El Pozito's sequence of construction, occupation, and usage over 20 centuries. This new research revealed a settlement of surprising complexity, combining aspects of urban functionality amid a landscape of rural complexity. This article argues that the best way to understand such complexity is through the conceptual lens of a “town.” Neither a city nor a dispersed rural settlement, El Pozito functioned as a critical node that connected local, agrarian Maya with each other as well as the whole of the Classic Maya world. In this way, the research here seeks to rehabilitate this site, rescue it from its scholarly limbo, and restore its place in understanding the complex pre-Columbian landscapes of Northern Belize.

Resumen

Este artículo vuelve a visitar un sitio descuidado durante mucho tiempo en el Norte de Belice, el asentamiento maya clásico de El Pozito, ubicado en el Distrito de Orange Walk. Las investigaciones dirigidas por Mary Neivens y Dennis Puleston exploraron el sitio entre 1974 y 1976, documentaron su arquitectura y recuperaron una cantidad sustancial de artefactos. Posteriormente, los acontecimientos pusieron fin a estas investigaciones, dejando el sitio en un limbo académico. La presente investigación busca rectificar esto. Combinando notas de campo pasadas con publicaciones esporádicas y análisis cerámicos realizados recientemente, los autores reconstruyeron la secuencia de construcción, ocupación y uso de El Pozito a lo largo de 20 siglos. Esta nueva investigación reveló un asentamiento de sorprendente complejidad, combinando aspectos de la funcionalidad urbana en medio de un paisaje de complejidad rural. Este artículo argumenta que la mejor manera de entender tal complejidad es a través de la lente conceptual de un “pueblo,” o un “town.” Ni una ciudad ni un asentamiento rural disperso, El Pozito funcionó como un punto crítico que conectaba a los mayas agrarios locales entre sí, así como a todo el Mundo Maya Clásico. De esta manera, la investigación aquí busca rehabilitar este sitio, rescatarlo de su limbo académico y restaurar su lugar en la comprensión del complejo paisaje precolombino del norte de Belice.

Keywords: Maya archaeology; Belize; Maya ceramics; Maya economy

What is El Pozito? Currently, it is a field of sugarcane. More precisely, the site known as “El Pozito” is a set of tumbled mounds spread across and beneath a mix of farmland and scattered trees in Northern Belize. The remains, such as they are, lie in the Orange Walk District, 5 km outside

the village of Guinea Grass, north of the road leading to August Pine. Not much remains above the surface. The various pyramids and platforms have largely melted into the ground, leaving little more than an especially lumpy part of the local landscape. El Pozito receives no tourists and few visitors of any kind. It rarely appears on maps and, when it does, it is often misplaced. Sometimes it is spelled “El Posito.” In her comprehensive tourist's guide to Northern Belize, Vivien Loughheed (2010) gives it small mention, noting that there is little to see. El Pozito is, she writes, “little more than a mound.”

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The neglect of El Pozito is strange, given that it sits in one of the most heavily studied subregions of the Maya world (see Robin 2020). It is surrounded by numerous, well-known major sites and research projects (Figures 1 and 2). To the north are Cuello and Nohmul, both intensively investigated by Norman Hammond in the 1970s and 1980s (Hammond 1985; Hammond 1991). Farther downriver are Santa Rita Corozal, studied by Diane and Arlen Chase (Chase 1981, 1982; Chase and Chase 1988), and Aventura, presently under study by Cynthia Robin (Robin et al. 2017, 2019). David Freidel and Robin Robertson famously explored Cerros in the late 1970s and 1980s (Robertson and Freidel 1986; Walker 2016). To the south and west are other significant, heavily documented sites. These include Lamanai,

first investigated by David Pendergast in the 1970s (Pendergast 1981), then by Elizabeth Graham and associates in the 2000s (Graham 2004, among others). Helen Haines (2011) and Kerry Sagebiel (Sagebiel and Haines 2018) continue their study of the nearby site of Ka'Kabish (McLellan and Haines 2013). Farther to the west, teams led by Thomas Guderjan (2007, 2013, 2016) have examined the Blue Creek area for more than two decades. To the east lies the famous site of Altun Ha, also studied by David Pendergast (1979, 1982, 1990), and the important site of Colha, where Thomas Hester and Harry Shafer brought to light major chert workshops (Hester et al. 1980, 1982). Marilyn Masson (2000, 2002) investigated the nearby rural community of Laguna de On. This is just a sampling of the

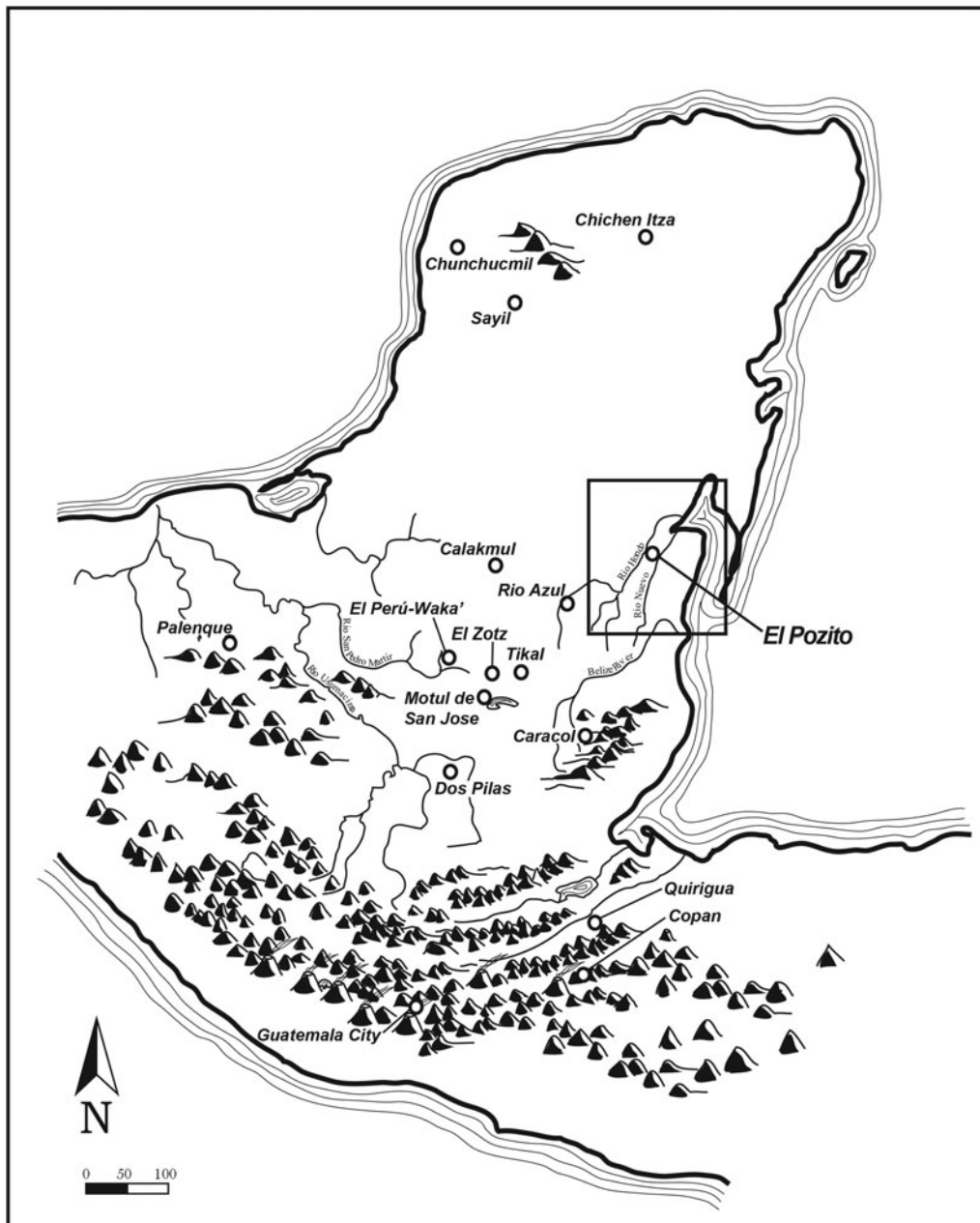


Figure 1. Map of the Maya World (by Eppich).

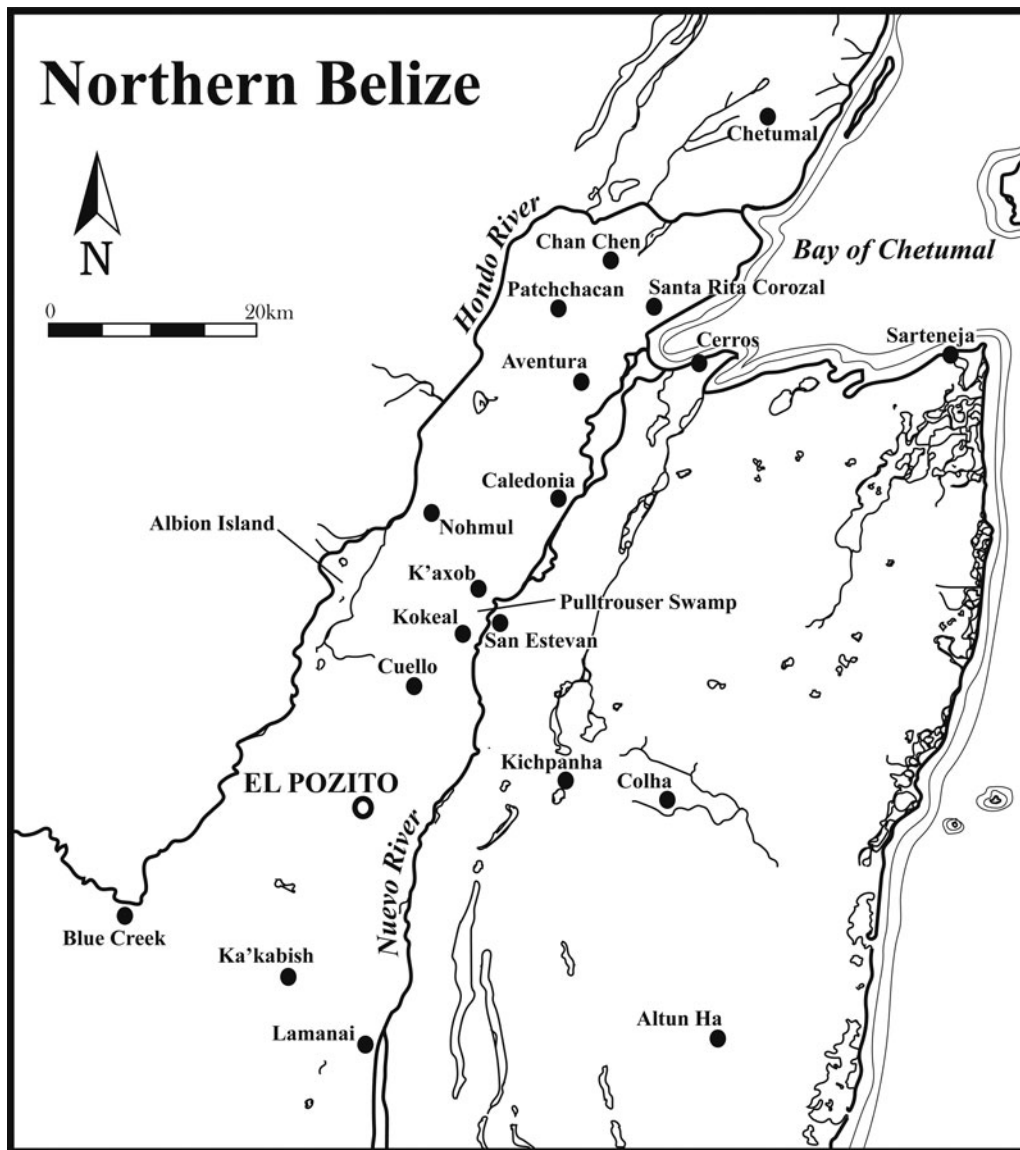


Figure 2. Map of major archaeological sites in Northern Belize (by Eppich).

some of the better-known sites in the area—one that omits a dozen other studies, surveys, sampling programs, small-scale excavations, or regional perspectives (Robin 2020). These investigations have changed our basic understanding of the Maya past and illuminated a remarkable regional history. But not so El Pozito.

For decades, the site remained a curious blank spot on the map, a “little hole” in our understanding of regional antiquity. This article represents an effort to change that. It is an attempt to explain the settlement and its place within the broader framework of Classic Maya civilization, A.D. 250–1000. To the extent possible, this contribution examines the occupational, economic, social, political, and regional context of the site. It draws together the scattered research on El Pozito, including unpublished field notes and illustrations, the few previous publications, mentions in third-party books and articles, and analyses of material culture undertaken years after excavation. Not intended to be a

comprehensive or final report, it simply aims at answering the basic question, “What was El Pozito?” The answer that emerged placed El Pozito on the lower end of a hierarchy of urban development, a settlement that combined aspects of urban functionality on a landscape of rural complexity. This article argues that El Pozito was a Classic Maya town. It is through this theoretical framework—the idea of the “town”—that El Pozito’s socioeconomic and political history and transformations can best be understood, especially as reflected in the ceramic evidence and construction history recovered from the site.

Towns: concept, settlement form, and the Classic Maya urban tradition

Mayanist scholars have well documented the presence of large urban centers in the Classic Maya world (Chase et al. 1990; Smith 1989, 2011). Such cities consisted of

sprawling, low-density habitation with distinct communities interspersed with reservoirs, canals, roadways, cornfields, garden plots, curated woodlands, fallow forests, swampy wetlands, and wholly wild rainforests (e.g., Fedick 1996; Fisher 2014; Fletcher 2012; Isendahl 2012; Isendahl and Smith 2013; Lentz et al. 2015; Marken 2011; Marken and Murtha 2017; Smith 2011). At the center of this conurbation lay the urban core, usually a dense collection of residential compounds, palaces, public areas, and ritual-regal architecture. The Classic Maya urban tradition did not generally produce heavily nucleated centers; instead, it dispersed “Garden-cities” (Chase and Chase 1998; Graham 1999; Sabloff and Tourtellot 1991; Tourtellot and Sabloff 1994). Such a low-density urban settlement pattern was uniquely adapted to life in the delicate environments of subtropical forests, spreading out the impact of human usage across a wide area (Awe et al. 2014; Chase and Chase 2017; Eppich 2015; Isendahl and Smith 2013; Peuramaki-Brown 2014). These patterns led to a proliferation of such cities during the Classic Maya period, with 40 or 50 urban entities scattered across the Maya Lowlands between A.D. 250 and 1000 (Demarest 2004; Martin 2020; Martin and Grube 2008; McKillop 2004). Understanding the Classic Maya urban tradition requires a theoretical shift in how to think about cities (Eppich et al. 2023; Marken and Arnauld 2023). Urban settlement should not be approached solely in terms of population density, or on the scale of monumental architecture, or even in fulfilling a checklist of requirements (see Childe 1950). Urban settlements—cities—are themselves a type of artifact. They should not be thought of as *sui generis* phenomena, but as solutions to specific types of problems (Houk 2015; see also M. L. Smith 2003, 2019). Cities formed because they served a variety of functions. As these functions changed over time, cities themselves changed. A functional definition of “urbanism” is one that examines what functions the city-artifact served and what problems urban settlement attempted to solve. Such functions included, but were not limited to, cities serving as (1) regal-ritual centers housing a sacred royal court, (2) administrative centers that dispensed political power, (3) the foci of economic and commercial activities, (4) places that extracted and distributed resources on a regional level, (5) religious centers that contained and manifested sacred ideologies, and (6) sources of military protection and security on an insecure landscape (Fox 1977; Masson and Freidel 2013; Sanders and Webster 1988; M. L. Smith 2019; Stanish 2010). The importance and scale of each aspect of urban functionality seem to have determined the type of city that was manifested, and perhaps even the size and density of the urban settlement itself.

Yet, these distinct functions did not necessarily require huge conurbations of human settlement, even when they were needed at all. Such political, religious, economic, and military functionality could be spread across a wider landscape in a pattern of “rural complexity” (Iannone and Connell, ed. 2003; Scarborough et al. 2003; see also Lamb 2020, 2022a; Lemonnier and Arnauld 2022; Robin 2012). There, settlements possessed various characteristics and served different functions along a continuum of variation

(Ashmore 2003; Iannone and Connell 2003). Instead of an urban core and a rural hinterland, there existed structured landscapes of resource-specialized communities—different rural communities fulfilling different functions (Scarborough and Valdez 2003). Nested within such rural complexity were “middle-level settlements” at the top of local settlement hierarchies (Connell 2000, 2003; Iannone and Connell 2003). Such important nodes combined two or more aspects of the functionality described above, nucleating small populations and forming the most basic of urban forms. Middle-level settlements were at the top of local, rural hierarchies, yet they are the most basic types of urban settlement. To put it simply, these are towns: minor population centers supplying critical types of urban functionality on a landscape of rural complexity.

The town as a socioeconomic settlement type

There exists a broad and rich literature on the archaeology of towns, particularly in European settings (Astill 1985; Christie and Loseby 1996; Crabtree 2018; Hodges 2000; Schofield and Vince 2003). Christopher Dyer (2003) proposed a “bundle of criteria” to identify towns, describing them as small settlements with fewer than 2,000 inhabitants and with limited architecture (between 50 and 400 houses). That architecture manifests considerable diversity, reflecting the broad social structure of such towns. These settlements contained significant crafting activities, with workshops generally located around their edges. They held a marketplace, one that usually specialized in the goods of the immediate region. Towns also possessed small-scale civil, political, and religious functions, all serving the needs of the local region (see Crabtree 2018). Schofield and Vince (2003:31) framed them even more succinctly, describing the major parts of a medieval town as being “a marketplace, a church, [and] often a castle.”

Towns exist at the bottom of a hierarchy of urban form. They can develop either into new cities or from heavily decayed ones (Hodges 2000; Hodges and Hobley 1988; Schofield and Vince 2003; Speed 2014). In fact, there can be little to distinguish a large town from a small city. Key differences between towns and cities seem to lie primarily in the relationship with the surrounding countryside. Cities command a hinterland, with the surrounding countryside serving the needs of the urban settlement. They function principally as the economic, cultural, political, and religious center of a wide area. Towns possess a decidedly different relationship, serving the needs of the rural countryside around them. They do not seem to project much political or religious authority over a region. The most important function of a town appears to have been a commercial one (Hodges 2000; Schofield and Vince 2003:121; see also Verhulst 2002). Towns held large markets and periodic fairs—places where local farmers could purchase manufactured goods, often made in the town’s workshops. They also served as places where agricultural goods could be sold for shipment to even larger markets. Market towns functioned as the economic interface between local farmers and the much larger world. “Peasants,” Dyer

(2012:46) writes, “produced for a market which included foodstuffs and raw materials for the largest towns, and they contributed indirectly to international trade. Peasant consumers, by buying the products of specialized town-based crafts, participated in long-distance commerce” (see Dyer 1996). He argues that the movement in foodstuffs from farm to town to city proved indispensable for Late Medieval cities, in what he termed the “Feeding the City Project” (Dyer 2012:41; see also Murphy 2012). In their broad survey of medieval towns, Schofield and Vince (2003:151) noted that the “fortunes of a town often depended on the success of its merchant class,” with new towns developing from local market fairs. Richard Hodges (2000) also notes that many towns in the post-Roman period formed around ephemeral, temporary markets. Later, these new market towns developed significant craft production and markets to serve local needs as well as to interface with growing webs of long-distance trade. It seems that although towns possessed important civic and religious roles, their focus was economic.

El Pozito, as proposed here, was one such town. The architectural, ceramic, and other archaeological data suggest limited urban functionality on a local scale, as well as far-flung interactions across widespread areas of the Classic world. El Pozito seems to have served as the interface between local Maya and the much larger world, and it likely

participated in its own indigenous version of the “Feeding the City” project.

Previous investigations

El Pozito was the focus of archaeological investigation from 1974 to 1976 by a University of the Americas team led by Mary Neivens and Dennis Puleston. They mapped the site core, dividing it into six architectural complexes, and they placed excavations into four of these (Figure 3). After 1976, the project faltered and then ceased entirely, owing partly to the death of Puleston in 1978. No final excavation report was ever published, although a collection of highly detailed field notes remains extant (Neivens and Puleston 1976a, 1976b). This article includes information from those field notes, presented here for the first time. However, after so much time—almost five decades—many of the illustrations and most of the notes no longer possess clear attribution. It is impossible to know exactly who mapped or excavated where and what. Regrettably, the names of most of El Pozito’s pioneering investigators have been lost from their endeavors.

Mary Neivens did publish on her work at El Pozito, documenting an obsidian workshop in the northwest corner of the site, recovering more than 12,082 obsidian artifacts (Neivens and Libbey 1976; see also Neivens 1976). In a

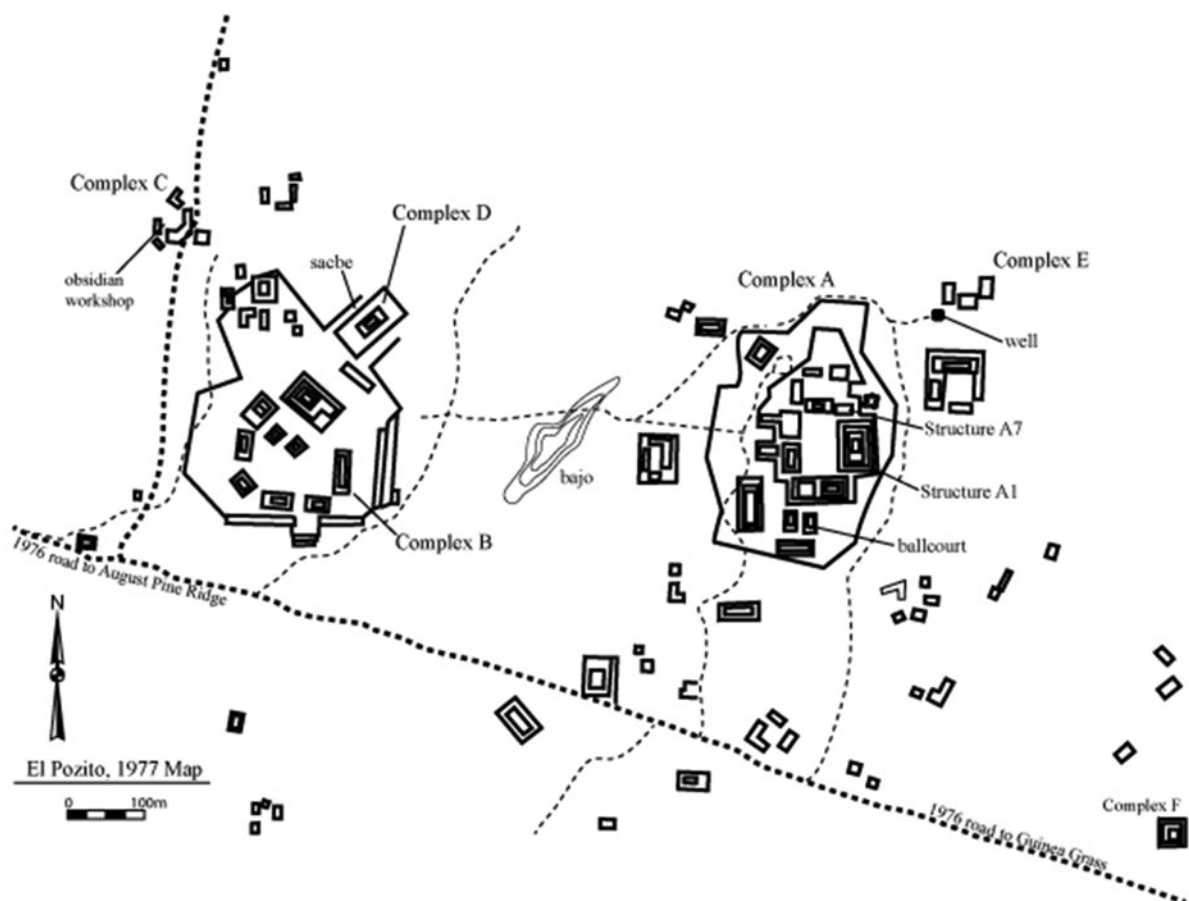


Figure 3. Map of El Pozito, based on a map from Neivens and Puleston (1976a).

1976 article, Raymond Sidrys described an Early Classic tomb in Complex A containing 4,500 pieces of obsidian and more than 40 expended cores. A 1985 exhibition catalog, *The Maya: Treasures of an Ancient Civilization* (Gallenkamp and Johnson 1985), featured a small gold bell, recovered from an intrusive Postclassic burial in Structure A1. Additional gold and copper artifacts are known from the site, although they have never been fully published.

Scholars continued to study the material culture from El Pozito well after the Neivens–Puleston project ended. Thomas Hester (1991) and his colleagues documented the chert artifacts from the site, publishing a detailed lithic typology. They noted the presence of numerous tools from surrounding sites, including many from the famed chert workshops of Colha. Hester argued against local production, characterizing El Pozito as a consumer rather than a producer of chert tools. The ceramics of El Pozito continued to be studied over several decades. Duncan Pring (1976a, 1976b) focused on the Preclassic ceramics, placing them within the regional context of Northern Belize. Robert Case (1982) documented the Protoclassic pottery in detail, using it in a pointed critique of the type-variety approach. The first full-scale ceramic typology for the site emerged at the start of the twenty-first century (Eppich 2000). Since that time, neither the site nor its material culture has received much attention. When the site is mentioned in the literature at all, authors merely cite but one or two of these earlier publications.

Physical description

The site of El Pozito is located between the Hondo and Nuevo Rivers, atop a rolling geological feature known as the San Pablo Ridge. The ridge is a distinct geomorphological feature, high and well drained, gently rising 30–40 m above the riverine floodplains flanking it. The ridge runs from the southwest to the northeast between the two rivers before ending at the Bay of Chetumal. The two rivers are wide and deep, navigable for much of their length. They possess swampy floodplains and often flood during the rainy season (Hammond 1985; Sidrys 1983). Annual rainfall averages 132 cm, mostly falling from May to December.

Ecologically, the area once consisted of subtropical forest, midway between the multicanopied tropical forests of the Central Peten and the scrub forests of the Yucatan. Modern agriculture has mostly deforested the San Pablo Ridge, replacing the low forest with sugarcane—the principal crop of Northern Belize—although corn, potatoes, and soy are also common. A great part of the landscape has been converted into pasturage for large-scale commercial beef cattle.

The soil along the San Pablo Ridge is quite thin, often less than 40 cm in places, with high clay content. This is contrasted with the deep and fecund soils of the floodplain (Hammond 1985; Johnson 1983; see also Fedick 1996). In antiquity, the Maya modified the land substantially, adding raised fields, canals, and terraces along the length of the ridge (Turner 1983; see also Beach et al. 2019; Guderjan et al. 2017; Guderjan et al. 2019). Although it remains

unknown exactly what the ancient Maya grew there, likely crops include corn, beans, squash, camotes, avocado, cacao, and possibly manioc (Bozarth 2009; Guderjan et al. 2017). The scale of the terrain modification argues for large-scale agriculture, far in excess of local requirements, and the implications of this are discussed below.

El Pozito's core covers roughly 1.5 km² (Figure 3). At the very center of the site is a shallow depression, identified as a bajo on the Neivens and Puleston (1976a) map. It is likely a degraded reservoir or a heavily modified natural depression. Such modified or wholly artificial reservoirs are well-documented in the Maya region, particularly in the vicinity of dense settlement (French et al. 2019; Marken and Cooper 2018; Scarborough 1998; Scarborough and Gallopin 1991; Wahl et al. 2007).

Two large architectural complexes lie on either side of the bajo. To the east is Complex A, consisting of six to eight large structures atop a low, broad platform measuring approximately 200 x 200 m. Complex A is the largest architectural group at El Pozito and the site of the single largest building, Structure A1—a pyramid that stood 23 m tall in 1976 (Neivens and Libbey 1976). Excavation of the pyramid included clearing debris and collapse, placing test pits on the summit, and tunneling into the western face and southern side. The tunnels yielded several Early Classic tombs and caches within the pyramid, including one tomb with 4,500 obsidian blades. Sidrys (1983:11) also reported a Late Classic tomb from Structure A1, which held 4,992 obsidian artifacts, mostly blades. Thomas Hester and colleagues (1991) noted that high-quality lithics came from these excavations, including chert eccentrics, macroblades, and lenticular bifaces, all typically associated with funerary contexts. Excavators also uncovered an intrusive burial at the summit, which included Postclassic ceramics and the gold bell mentioned earlier (Gallenkamp and Johnson 1985:223, Figure 196). The excavations along the base revealed that the foundations of Structure A1 are intrusive into the broad platform below it, the Maya having dug through the existing platform to place the pyramid's foundations directly on bedrock. Structure A1 remains the most visible portion of El Pozito today, its remnants being the low mound that failed to impress Vivien Loughheed in 2010.

The remainder of Complex A consists of a number of smaller pyramids on its southern and western sides and a cluster of range structures on the north. Neivens and Puleston carried out shallow excavations and test pits in several of the platforms, proposing a residential function. They also noted diagnostic Late Classic ceramics scattered across the surface. On the south side of the platform supporting Complex A, they mapped but did not excavate a standing ballcourt. Raymond Sidrys (1983:12) noted a long-vanished stela in front of Structure A7, describing it as short and plain and likely of Early Classic date.

Neivens and Puleston excavated a long, deep trench along the west side of the Complex A platform, digging down to bedrock (Figure 4). The trench indicated the presence of at least two Late Preclassic construction phases. They also documented buried architecture within the platform itself, indicating an earlier platform for Complex

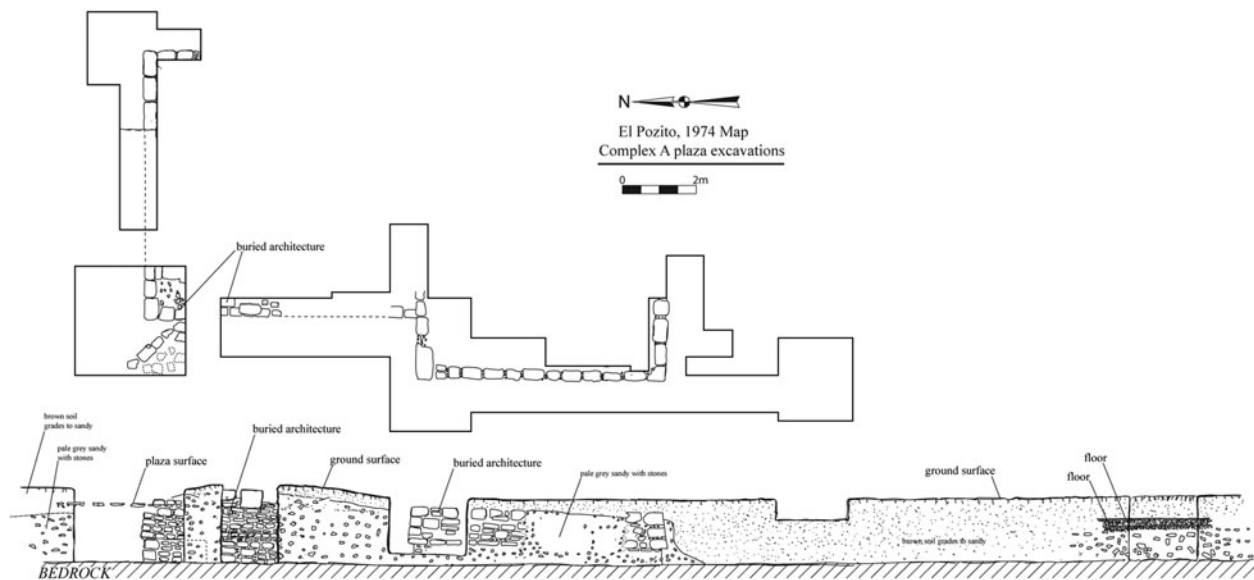


Figure 4. Excavations in Complex A plaza. Illustration by El Pozito Project, Mary Neivens (director).

A. Just to the north of Structure A2, Neivens and Puleston documented a ceremonial hearth dating to the Postclassic, which was constructed directly on the platform flooring. Together with the intrusive burial at the summit of Structure A1 and the Postclassic votive material on its surface, this suggests continued ritual use of Complex A following widespread abandonment.

They designated, as Complex B, a second large architectural complex to the west of the central *aguada*. Complex B consists of a single, broad platform measuring 300 x 250 m and standing 10 m above the rest of the site core. Nine structures formed a loose circle on the platform's southern end. The remains of an elevated causeway extend from the platform in a northeasterly direction. The terminus of the causeway is unknown. Complex D straddled the causeway just outside of its junction with Complex B. Neivens and Puleston carried out only limited probing of Group D and the underlying roadway. Complex C is a small patio group consisting of a few low mounds arranged in a rough rectangle just to the northwest. Neivens placed a single test pit there, recovering 12,082 obsidian artifacts from a 2 m² unit (Neivens and Libbey 1976). The materials included cores and core fragments, rejuvenation flakes, blades, and blade fragments—everything that might be expected from an obsidian workshop.

At the northeast corner of the site is Complex E, the most thoroughly excavated location at El Pozito. The complex consists of two patio groups totaling seven structures arranged around the eponymous well for which the site was named. In 1974, the well measured 5.75 m deep. Neivens recorded large quantities of polychrome pottery from across the group and documented at least six burials. The recovered pottery is predominately Late and Early Classic, but one burial contained Late Postclassic ceramics—again, indicating usage of the site after general abandonment.

Complex F is on the southeast corner of the site core. This complex is a single structure and an adjacent *chultun*

associated with a highly unusual feature. The structure itself is a small pyramid. Neivens noted that looters, apparently thinking that it was an intact tomb, ripped into the *chultun*. Once cleaned and excavated, however, it was revealed that the *chultun* opened into a series of three corbelled chambers, descending downward beneath the ground surface in a spiral pattern. Fifteen separate operations revealed a complex, spiral *chultun*—described as a “labyrinth” in the field notes—carved into the limestone bedrock. Such features are known in the region, having also been documented at the nearby site of Nohmul (Hammond 1985:85). Above-ground versions were documented at Yaxchilan (Tate 1992), Tikal (Orrego Corzo and Larios Villalta 1983), and Oxkintok (Andrews 1993). The Maya likely fashioned these unusual “labyrinth” features to serve as artificial caves, an interpretation supported at El Pozito by the large amounts of associated votive materials. Excavators recovered substantial numbers of ceramics, the pottery ranging in date from the Late Preclassic to the Postclassic. This included many polychrome and censer fragments. The Postclassic sherds suggest that the spiral *chultun*, like Complex E and Structure A1, remained in use after much of the core itself had been abandoned.

Archaeologists also took extensive notes on the abundant ceramic sherds liberally scattered across the surface of the site, and Neivens noted that they were almost entirely of Late Classic date. For this reason, they likely represent the final stage of significant occupation for the site, although some portions—such as Complex E—might have remained in use long afterward.

The ceramics of El Pozito

In the late 1990s, the senior author was tasked with the documentation and analysis of the extant ceramic collections from El Pozito (Eppich 2000). The study described the ceramic types of the settlement, detailed its ceramic

sequence, and attempted to determine the material relationships between El Pozito and its neighbors as reflected in the ceramic corpus (Eppich 2000). The ceramics were sorted and described using the type-variety method—which has long been the accepted standard for ceramic analysis in the Maya Lowlands (Aimers 2013; Foias 2004; Gifford 1960, 1963, 1976; Willey et al. 1967). It was intended to organize the ceramics into temporally consecutive ceramic complexes. Having been in storage so long, however, many of the identifying provenience numbers had flaked off the sherds, so this critical information was not available for most of the ceramics in the collection. Instead, the study employed much broader and looser temporal categories, here termed “macrophases.” These macrophases were built relying on the known chronologies for well-documented ceramic types and modes. Based on these criteria, the full El Pozito ceramic collection was then organized into five ceramic macrophases. Each of the distinguishable macrophases corresponds to the known Lowland Maya ceramic sequence for the Preclassic, Early Classic, Late Classic, Terminal Classic / Early Postclassic, and full Postclassic periods. These five ceramic macrophases likely mirror El Pozito’s occupational and construction histories as well, from its coalescence in the early Middle to early Late Preclassic, florescence in the initial Early Classic through Late Classic, eventual abandonment sometime early in the Terminal Classic, and post-abandonment usage of the center in the full Postclassic. This represents a sequence extending from at least 500 B.C. or earlier to roughly A.D. 1500. Overall, the archeological ceramics of El Pozito are typical of those recovered from across Northern Belize and the adjacent Northeastern Peten (compare Driver and Kosakowsky 2013).

Ceramic Macrophase 1: the Preclassic (ca. 550 B.C. to A.D. 200)

The earliest ceramics recorded are a mix of Middle and Late Preclassic types, and they include such well-known ceramics as Joventud Red, Chunchinta Black, Sierra Red, Laguna Verde Incised, Polvero Black, Society Hall Red, and Sapote Striated (Figure 5). Notably, among other more stereotypic full to late Middle Preclassic forms, the Palmasito Variety (Pring 1982) of Joventud Red appears in a restricted orifice “coke bottle rim” jar form indicative of the later portions of the Early Preclassic and the early periods of the Middle Preclassic (Figure 5e).

Other period-specific forms and modes include large and small dishes and bowls with everted rims; small, simple bowls with direct rims, labial, sublabial, and medial flanges; large striated water jars, often with appliqué on vessel exteriors, and tubular-handled censers.

Excavators recovered large quantities of such mixed Preclassic sherds from within the Complex A platform, in the tailings from the looted Complex F, and scattered throughout the core and foundations of the residential platforms around Complex A. Middle Preclassic sherds tended to be considerably smaller and more worn than those of Late Preclassic date, suggesting that they had

lain on the surface and been subject to far more erosion than later material. Excavations into the Complex A platform exposed at least two consecutive construction phases of Preclassic date. There was an earlier, much smaller platform that was succeeded by a greatly enlarged one. Both contain Preclassic ceramics, but it is not possible to date them more precisely. Altogether, this suggests the presence of an early, Middle Preclassic occupation on the San Pablo Ridge, and only a gradual and late development of the site as a center. El Pozito likely began as little more than a ceremonial platform for Maya farmers from the surrounding countryside.

Ceramic Macrophase 2: the Early Classic (ca. A.D. 150/200 to 550)

Based on the Neivens–Puleston excavations and the recovered ceramics, real florescence of the site appears to have begun sometime in the late second or early third century (see Case 1982). This second ceramic period, also identified as the Protohistoric Stillwater ceramic complex of A.D. 150–350 by Case (1982), is associated with substantial quantities of well-known Terminal Preclassic/Protohistoric and Early Classic types and forms such as Z-angle bowls and dishes, basal-flange bowls and dishes, tripod cylinder vases, Dos Arroyos Orange Polychrome, Aguila Orange, San Blas Red-on-orange, Pita Incised, Balanza Black, Lucha Incised, Paradero Fluted, Pucte Brown, Santa Teresa Incised, Quintal Unslipped, and carryover Sapote Striated (Figure 6; see also Case 1982:92–186, Figures 3–10). Analysis also identified rarer ceramic types, including Yaloche Cream Polychrome, the Opuesto variety of Dos Arroyos Orange Polychrome, Boleto Black-on-orange, Cabro Red, Valladolid Incised dichrome, Xoclan Trickle-on-variegated, and Tituc Orange Polychrome. The last four of these strongly suggest connections with the east-coast littoral zone of Quintana Roo and northeastern Yucatan.

Excavators recovered large quantities of Early Classic ceramics from the upper layers of the Complex A platform and from the tunnels into the core of Structure A1. Such ceramics were also abundant in the Complex E architectural excavations, and in the small pyramids and underground chambers of Complex F. A picture emerges of substantial Early Classic construction activity and a settlement in florescence. In Complex A, the older Preclassic platform was reshaped, and a portion of it was chopped out to make room for the foundations of Structure A1. It is likely that much of the architecture in Complex A dates from this period, including the residential structures and the ballcourt. Most of Complex E—the large elite residence to the northeast—was also constructed at this time, as was the complex *chultun* in Complex F.

The Early Classic also sees clear emergence of recognizable elites. This is evidenced both in the quantity and quality of high-status-linked polychrome ceramics and in their concentration in the architectural residences and tombs of Complex A. The architecture houses a series of elite burials, including the Early Classic tombs in front of Structure A1 and Burials 74-1, 74-2, 74-4, 74-11, 74-13, and 74-14.

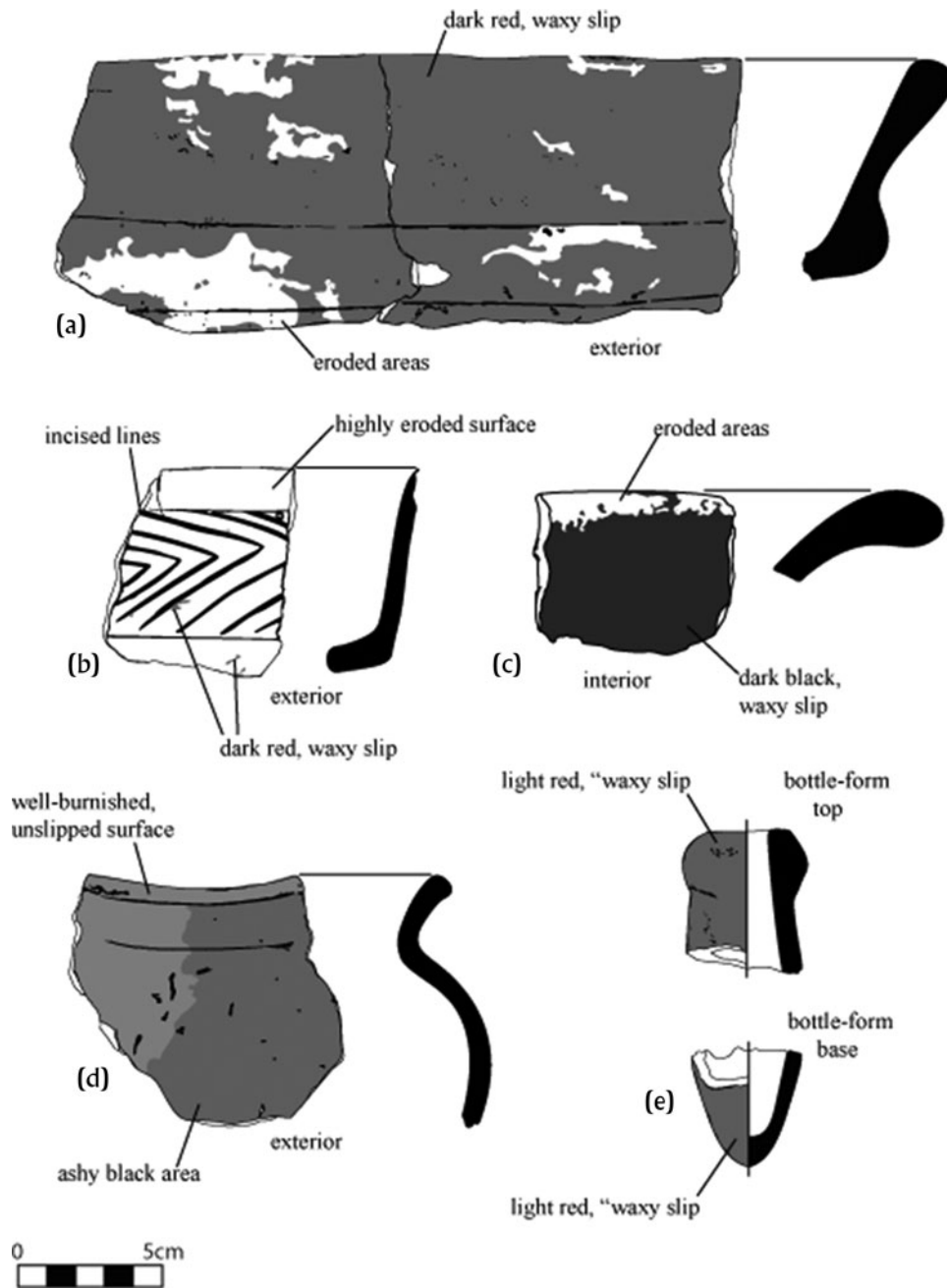


Figure 5. Middle and Late Preclassic ceramic types: (a) Sierra Red; (b) Laguna Verde Incised; (c) Polvero Black; (d) Palia Unslipped; (e) Joventud Red. Drawings by Eppich.

Ceramic Macrophase 3: the Late and Terminal Classic (ca. A.D. 550 to 790/810)

The seventh to ninth centuries saw continued occupation of the El Pozito core but without any evident large-scale construction or expansion. As in the case of the Early Classic, the Late Classic ceramic assemblage consists of ceramic types well known from the Northern Belize–southern Quintana Roo–northeast Peten area (Figure 7). These include such monochromes as Achote Black, Tinaja Red, and Corona Red. Among the elaborate Late Classic decorated types are Petkanche Orange Polychrome, Palmar Orange Polychrome,

Calderitas Polychrome, Azcorra Ivory Polychrome, Agria Orange Polychrome, and Portia Gouged-Incised. Late Classic forms consist of large dishes and bowls with outcurving walls, large platters with outsloping walls and small medial ridges, flat-bottomed vases with direct rims, and small bowls with outsloping walls.

One Late Classic ceramic type deserves special attention –Azcorra Ivory Polychrome, also known as “Posito Polychrome” (Figure 8). First identified at Becan (Ball 1977:79; see also Pring 1976a), it is a highly distinctive ceramic distinguished by well-defined designs in red and

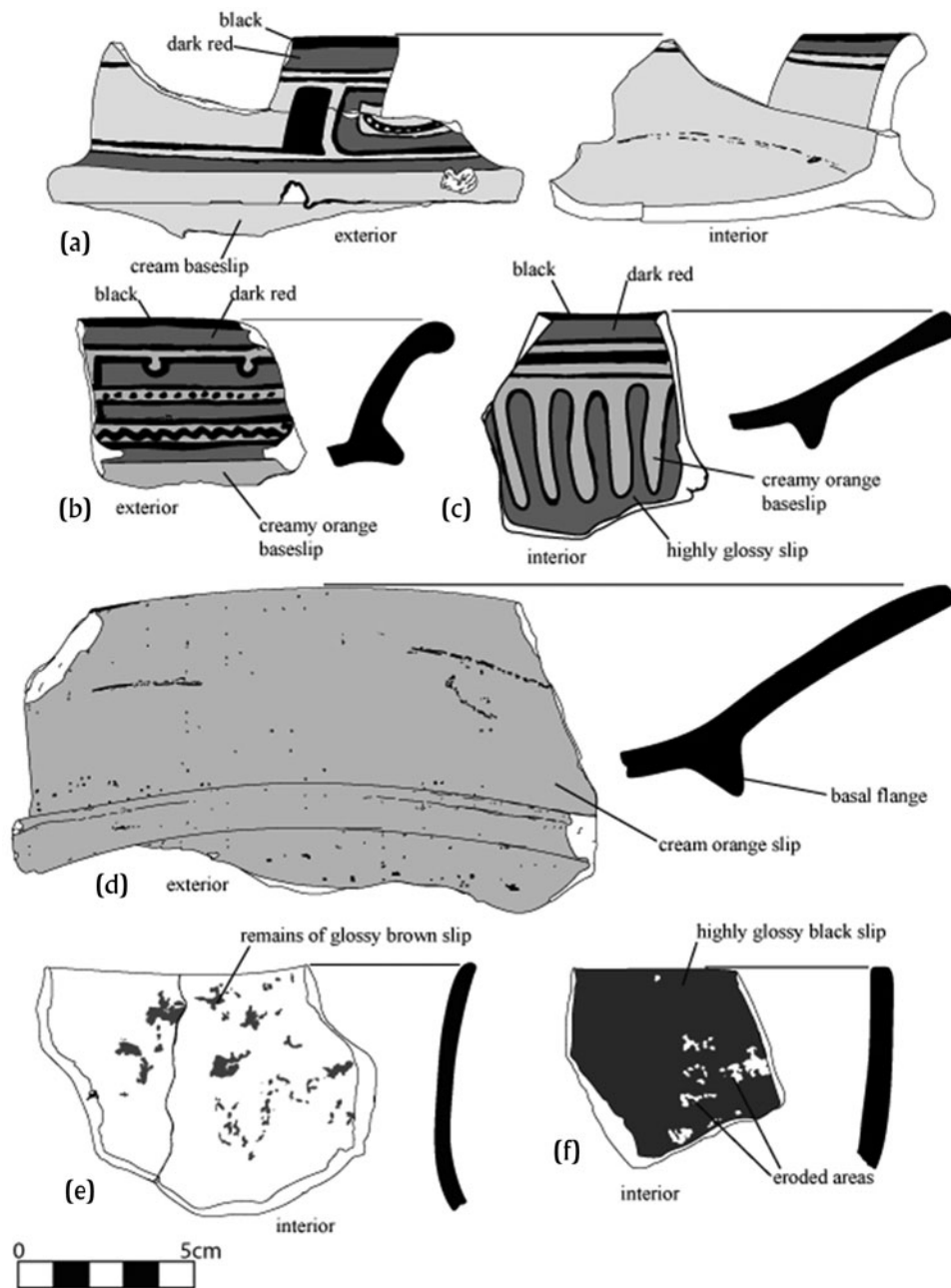


Figure 6. Early Classic ceramic types: (a) Yaloche Cream Polychrome; (b) Dos Arroyos Orange Polychrome; (c) Dos Arroyos Cream Polychrome, Opuesto variety; (d) Aguila Orange; (e) Pucte Brown; (f) Balanza Black. Illustrations by Eppich.

black executed on a light brownish tan or ivory primary slip. In color, this slip is lighter and creamier than more reddish buff slips, possibly owing to the use of yellowish iron oxides in its preparation. Designs consist of fine-line depictions of animals or complex geometrics. Vessel forms are thick walled and robust, including large, steep-sided bowls and basins, and large shallow platters or deep plates (Eppich 2000:101). The type is common at several sites in Northern Belize, as at Pulltrouser Swamp, where Robert Fry (1983:199) estimated that it makes up nearly half the polychrome ceramics there. At El Pozito, the type accounts for 79.6 percent of all Late Classic polychromes, suggesting

that Azcorra Ivory Polychrome was either produced at or near El Pozito. From there, the ceramic was likely distributed outward (Ball 1993:260). It is also present in trace amounts at a number of sites in the Central and Northern Lowlands (Ball 1977; Slater 2014; Walker and Reese-Taylor 2012). This suggests that Azcorra Ivory Polychrome existed as a popular item within a prestige-gift economy or that it served an important role as a commercial commodity from Northern Belize. Of course, it could have been both.

Excavation notes from 1974–1976 make repeated references to Late Classic sherds found across the surface of the entire site. Late Classic ceramics were recovered from

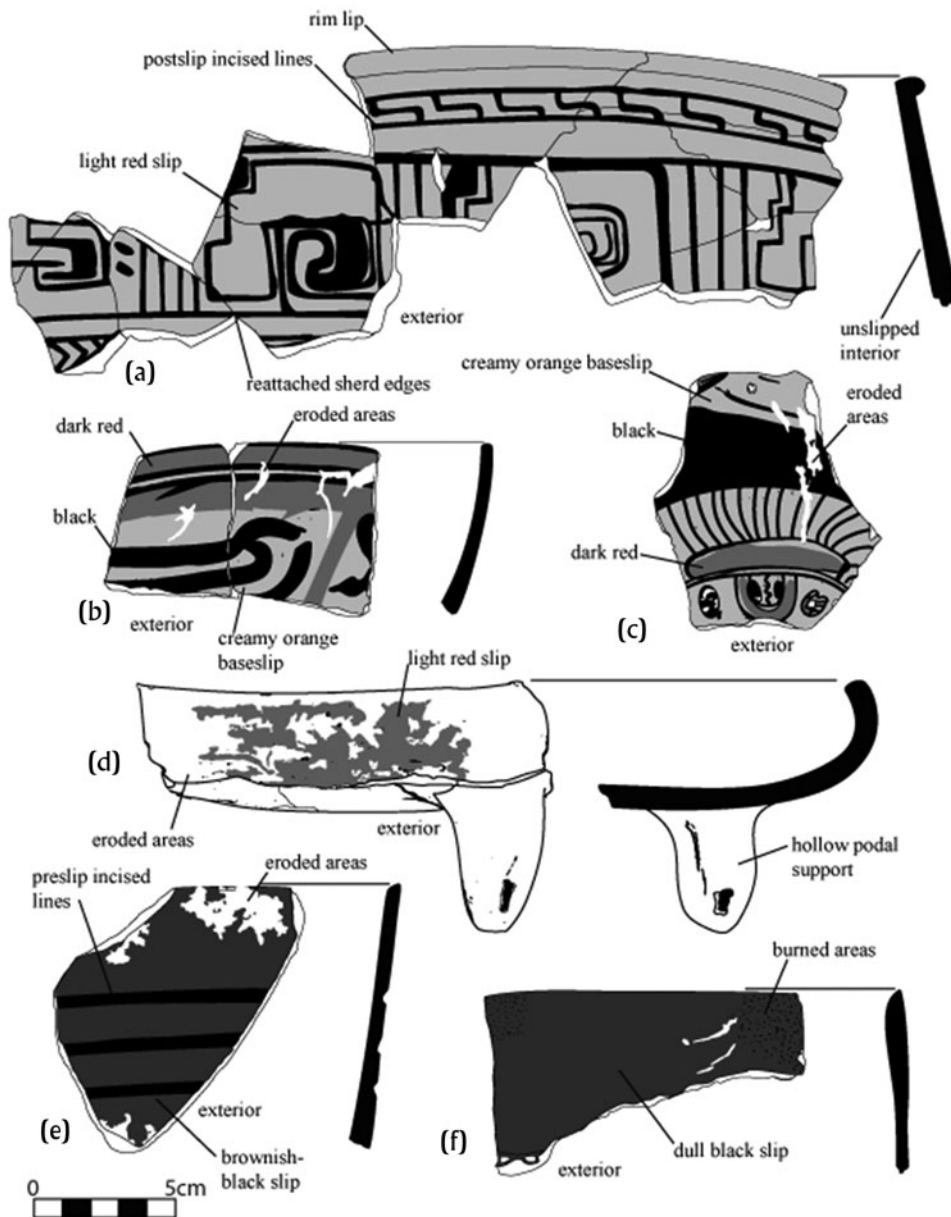


Figure 7. Late Classic ceramic types: (a) Portia Gouged-Incised; (b) Palmar Orange Polychrome; (c) Petkanche Orange Polychrome; (d) Tinaja Red; (e) Cubeta Incised; (f) Achote Black. Illustrations by Eppich.

surface collections and in the upper excavation levels across Complex A, and on the surface and in the construction core at Complex E. Such ceramics were also found throughout the *chultun* of Complex F.

It appears that the Late Classic was a period of substantial occupation at the site. Evidence does not suggest any large-scale construction, but rather the continued use and modification of existing buildings from the Early Classic. At its height, El Pozito's population was likely one or two thousand individuals, comparable to similar estimates for Nohmul (Hammond 1985), although population numbers in the Maya region remain decidedly uncertain. By the end of the eighth century, Neivens and Puleston (1976a, 1976b) believed that people had begun to abandon the El Pozito center. Very little is known about this abandonment—whether it took

place abruptly within a very brief period of time, or slowly over the course of several decades, or even exactly when it occurred. Whatever the case, there does not appear to be any identifiable evidence of occupation at El Pozito by the middle to late ninth century.

Ceramic Macrophase 4: Full Terminal Classic (ca. A.D. 790/810 to 900)

Most likely, a light occupation of El Pozito continued into the ninth century for an indeterminate length of time. This is indicated by the scattered occurrence of small numbers of distinctive Terminal Classic ceramics. These include Daylight Orange, present with both Daylight and Darknight varieties; thin-slate wares, such as Ticul Thin Slate and Tabi

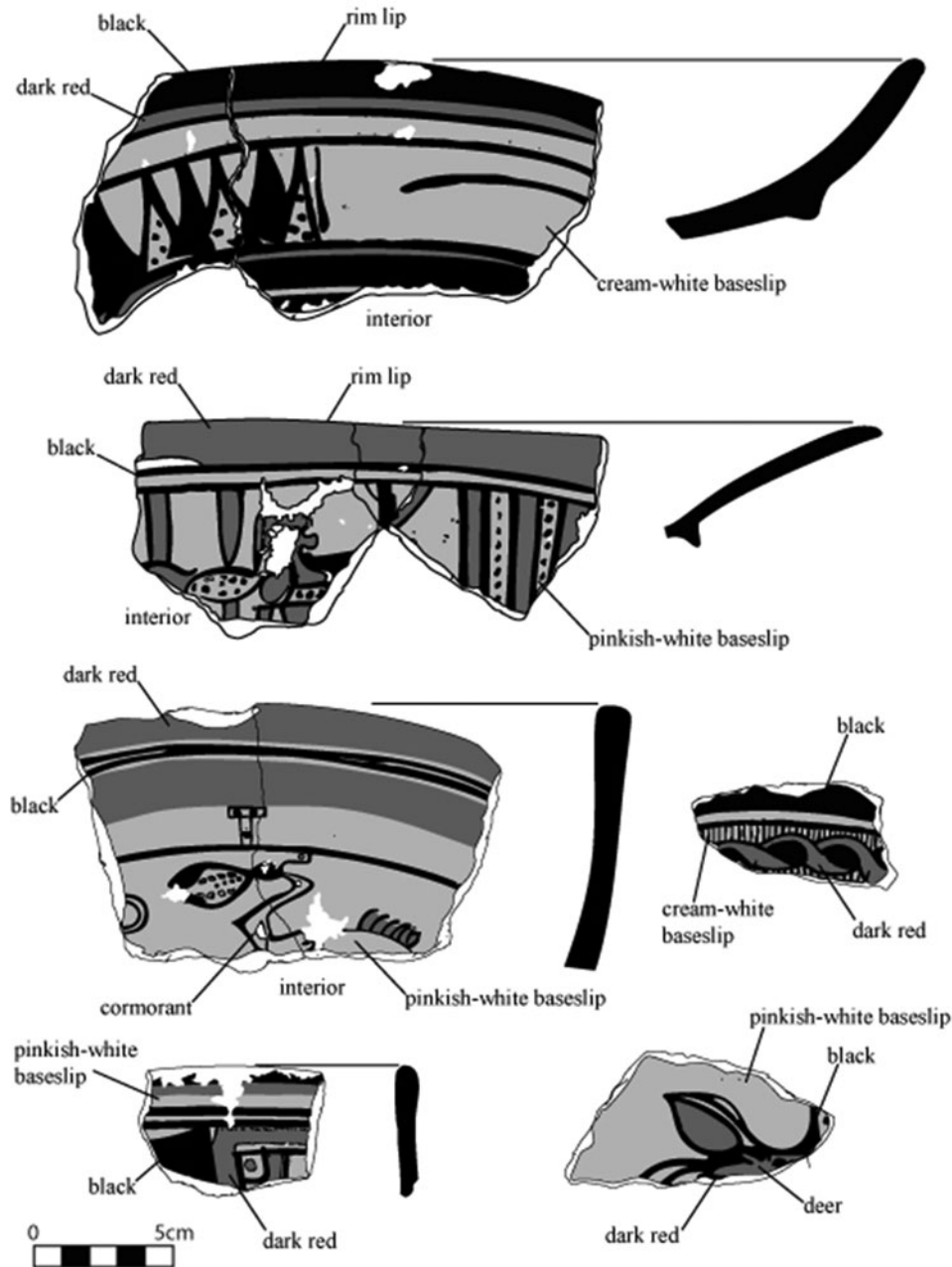


Figure 8. Azcorra Ivory Polychrome. Illustration by Eppich.

Gouged-Incised; as well as the Chichen Red Ware ceramic type Dzibiac Red (Figure 9). This is in addition to as yet undesignated or unspecified local imitations of these. The Daylight Orange varieties have been found as far south as the Belize Valley (Gifford 1976) and north along the eastern Yucatan littoral as far as Vista Alegre in Quintana Roo (Ball et al. 2010). Other identified Terminal Classic exotics occur continuously along the Quintana Roo coast from northern Belize to the northern plains of Yucatan (Ball 1983; Kosakowsky et al. 2020; Sanders 1960; Smith 1971).

Chief among these Terminal Classic types is a distinctive zonal ceramic, Buyuk Striated (Figure 10). This type consists of unslipped, burnished, and striated globular,

double-mouthed jars (Chase 1982). It is also name tagged in the literature as “Aventura Striated” (Ball 1983:206). Buyuk Striated is a zonal diagnostic of the Terminal Classic in Northern Belize, occurring at Calderitas in southeastern Quintana Roo and at distant Dzibilnocac in northeastern Campeche. These small, thick-walled jars likely functioned as ceramic canteens (Sidrys and Krowne 1983:234), and at El Pozito, a number were recovered from the bottom of the well in Complex E. Sidrys and Krowne (1983) provide compelling evidence that Buyuk Striated jars were likely produced at or near Aventura, circulating out from there.

A date for the large-scale occupational abandonment of the El Pozito center could not be determined from the

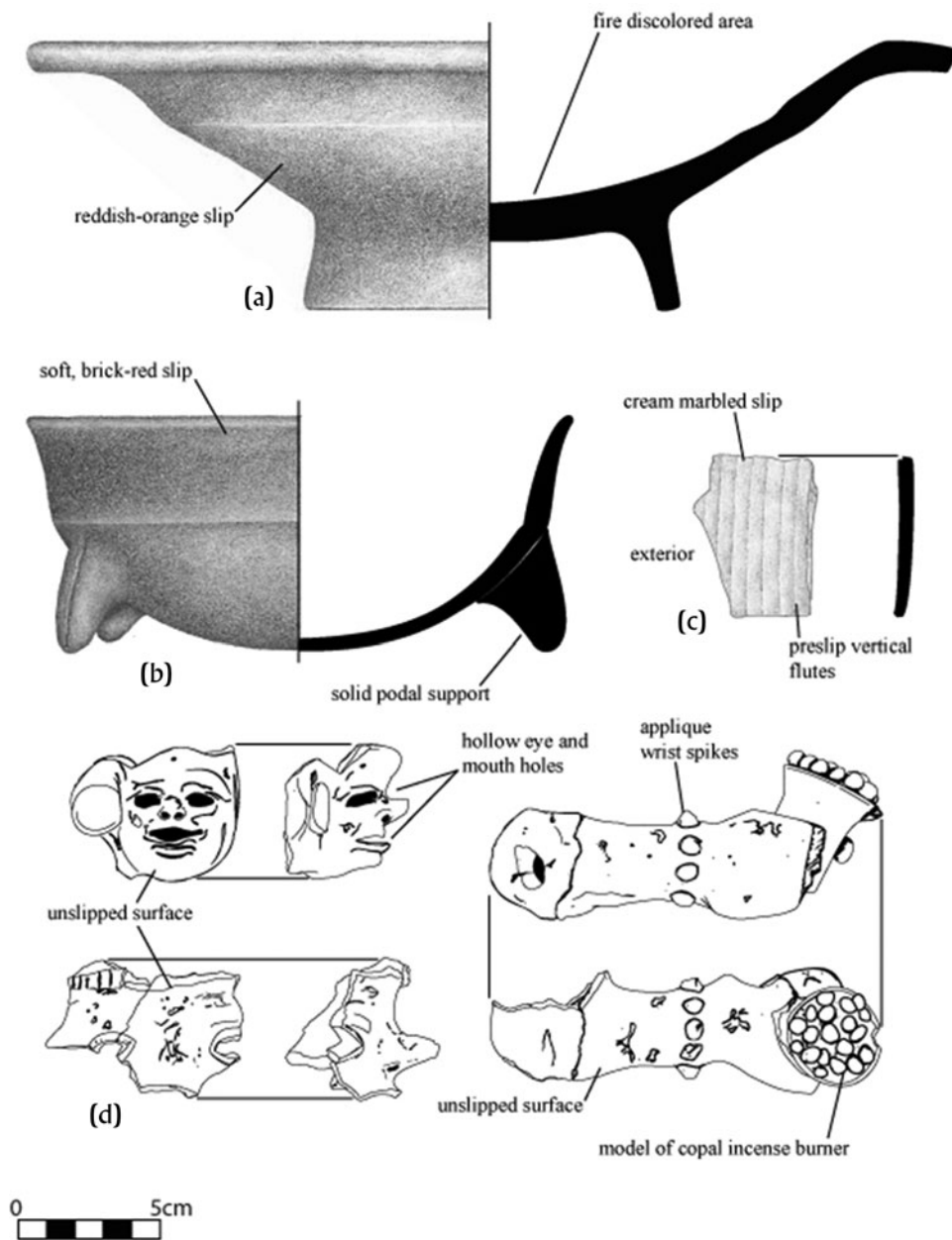


Figure 9. Terminal Classic and Postclassic ceramic types: (a) Dzibiac Red; (b) Payil Red; (c) Ticul Thin Slate; (d) Chen Mul Modeled censer fragments. Illustrations (a–c) by Jennifer Taschek and (d) by Eppich.

limited scatter of Terminal Classic sherds but, based on known ceramic chronologies, this would have been no later than—and likely prior to—A.D. 900. Given the clear evidence of interaction with the Caribbean coast and the Yucatan centers of the era, the apparent absence of plumbe ware of any kind around A.D. 900 is likely significant in this regard.

Ceramic Macrophase 5: Full Postclassic (ca. A.D. 1350–1550)

Even after its presumed abandonment, local and itinerant Maya continued to visit and make use of abandoned El Pozito, a well-documented practice at many sites throughout

the Lowlands (Hammond and Bobo 1994; Lamoureux-St-Hilaire et al. 2015; Stanton and Magnoni 2008). The abandoned structures probably served (1) as foci for ancestor veneration, (2) to build and maintain a connection to the past, (3) to sustain local long-term social cohesion, and (4) as a resting place for the honored dead. Simply by virtue of being ancient and venerated, the abandoned settlement likely took on the aura of a large-scale, open-air ancestor shrine (see McAnany 1995).

Ceramics associated with the full Postclassic include the Tulum Red Ware type, Payil Red, and the fine-paste ware Matillas Orange (Eppich 2000). These hail from coastal Quintana Roo and Yucatan to even as far distant as

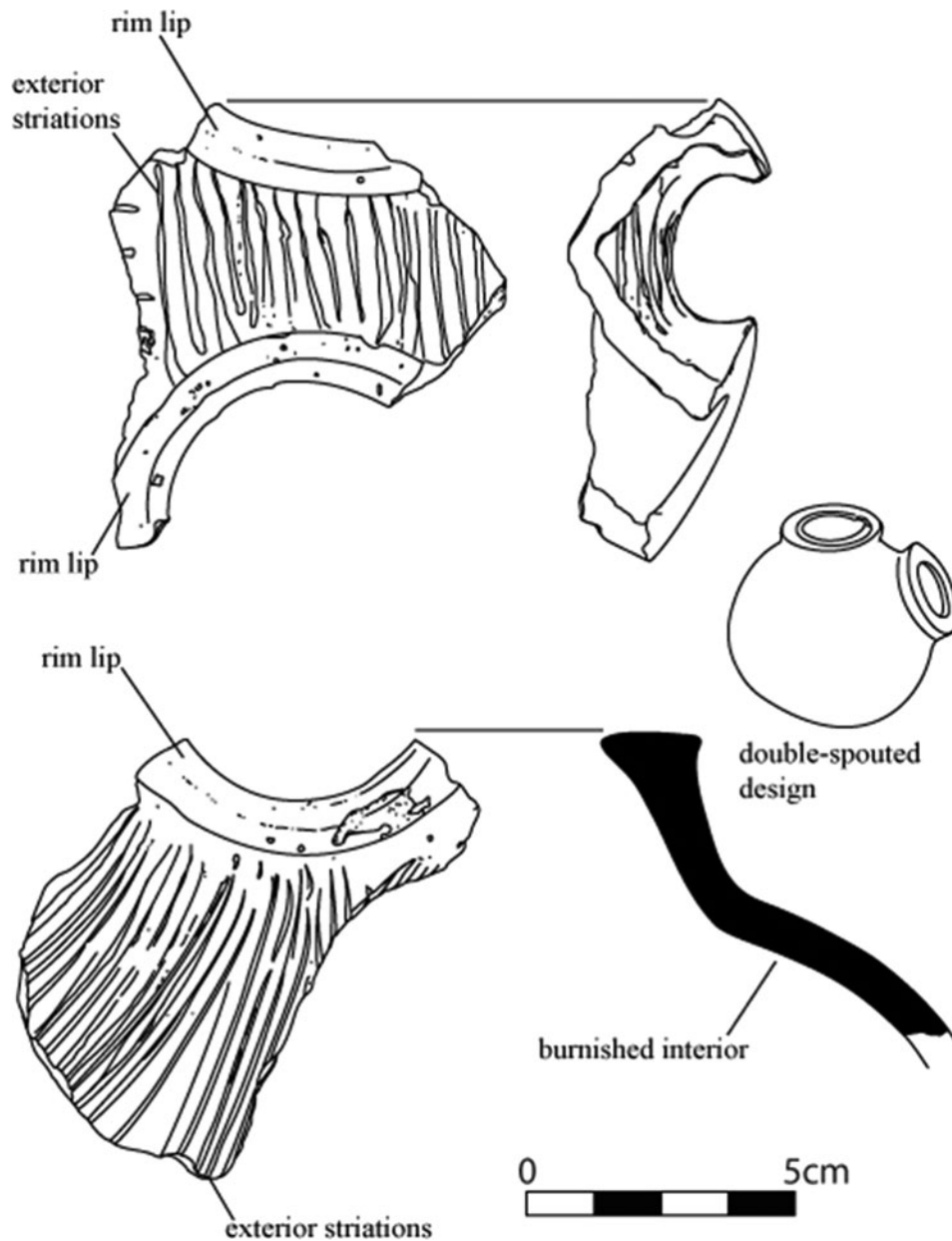


Figure 10. *Buyuk Striated*. Drawing by Eppich; form adapted from Sidrys and Krowne 1983.

southwestern coastal Campeche. The postabandonment collections also contain ritually specialized ceramics, such as fragments of deliberately smashed Mayapan-style incensarios, probably of the *Chen Mul Modeled* type (Figure 9d). They occur in low quantities, lightly scattered across El Pozito. Small clusters appear in ritually significant places, such as the postabandonment hearth directly in front of Structure A1. They are also present in the chambers of the Complex F *chultun*. The largest single cluster was found on the summit of Structure A1. There, excavators encountered an intrusive burial accompanied by the gold bell noted earlier. They also documented fragments of Mayapan-style effigy censers on the summit, clearly marking it as a place of postabandonment ceremony. The local Maya continued to inter their dead at El Pozito, with

Burial 44A in Complex F dating to this period. Several other burials in Complex E may also date from this time. Long after El Pozito ceased to be an active center, it continued to be a place of ritual importance lasting well into the sixteenth century.

Overview

The total sherd counts from the available El Pozito collections, sorted by ceramic macrophase, provide something of a tentative thumbnail sketch of the site's occupational history (Figure 11). Preclassic ceramics occur in modest quantities across the site, suggesting a light and scattered occupation on and around the locality. At some point toward the end of this period, the Maya constructed the

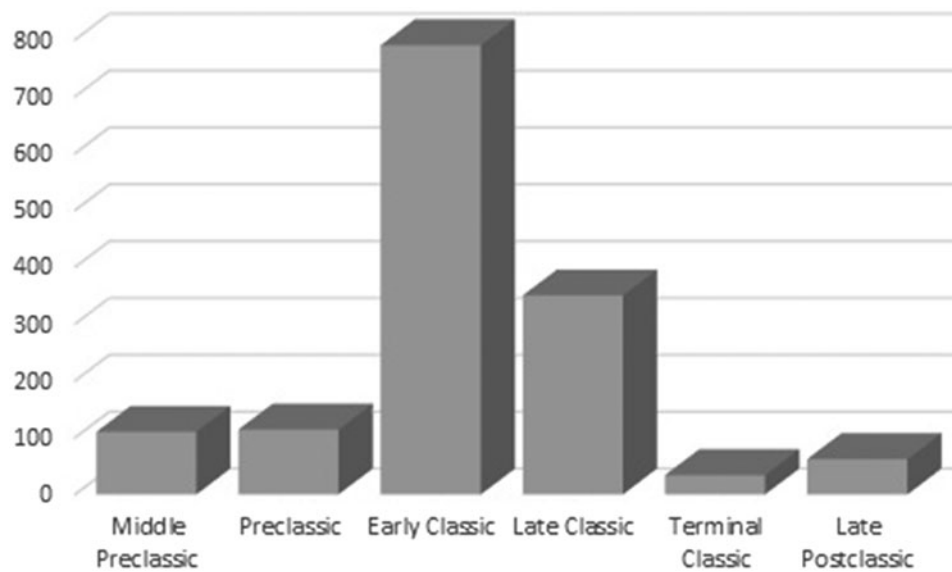


Figure 11. El Pozito total ceramic counts by time period.

initial Complex A platform, but the current resolution of the local ceramic tradition is not clear enough to accurately determine when in the Preclassic this construction occurred.

Quantitatively, Early Classic ceramics dominate the collection and are associated with the construction of most of the visible architecture. The ceramic analysis argues that the Late Classic Maya inhabited a site largely constructed by the Early Classic Maya. The Maya of Late Classic El Pozito apparently preferred to use and modify existing buildings. After this, ceramic counts suggest an abandonment sometime early in the Terminal Classic period. In fact, there are more ceramic sherds from the full Postclassic period of the thirteenth to sixteenth centuries than there are from the ninth and tenth centuries. Veneration of the settlement's architecture and likely pilgrimage to them took place long after its effective abandonment.

In the end, it must be stressed that the sequence described above is only a rough approximation of the site's occupation and construction histories, and that the ceramic collections from El Pozito available for study may not be truly representative.

El Pozito in a regional and interregional context

The ceramics documented at El Pozito attest to a series of far-flung connections to, and interactions with, large parts of the Maya world. This is true both on the regional level of Northern Belize and in an interregional context that includes the entirety of the Maya Lowlands as El Pozito formed in the Preclassic, flourished in the Classic, and diminished in the Postclassic.

Preclassic El Pozito follows well-known ceramic patterns of Northern Belize (Kosakowsky et al. 2020). Across the region, the Early through the Middle Preclassic saw a smattering of small settlements, each possessing roughly similar

sets of ceramic types and forms, all members of the temporally successive Mamom and Chicanel ceramic spheres (Ball 1976; Willey et al. 1967). Although El Pozito has presently yielded no evidence of any Early Preclassic occupation, the Middle Preclassic is represented and indicates Mamom-sphere membership. The same holds true for the Late and Terminal Preclassic, with El Pozito and its neighbors sharing similar Chicanel-sphere ceramic types and forms.

A matter of continuing debate within Maya ceramic studies is what exactly these "ceramic spheres" indicate and what membership in a ceramic sphere signifies. Willey, Culbert, and Adams (1967:306) originally defined ceramic spheres as simple material co-occurrences, when "two or more complexes share a majority of their most common [ceramic] types." Joseph Ball (1976, 1993) expanded on this, describing spheres as composite groupings reflecting "common cultural traditions" but representing neither discrete populations nor political entities. Instead, Ball views spheres as the material expressions of multiple social and economic interaction systems—ones that shared common ideas regarding pottery shapes, surface treatments, slip colors, specific design elements, technology, and even paste recipes. Individual local traditions within ceramic spheres "shared values and information among a populace of both producers and consumers, and an unobstructed flow of both goods and ideas..." (Ball 1993:256–257).

These goods and ideas moved through systems of social, political, and economic exchange. Prestige gift exchange of rare, high-quality ceramics is well documented (Houston et al. 1992; Just 2012; Reents-Budet 1994), with political actors presenting and receiving the products of specialized, court-attached (palace) ateliers that produced the most famous masterworks of Maya ceramic arts. Localized "village traditions," by turns, either copied or inspired the palace schools, producing lesser—although still impressive—examples of polychrome pottery (Ball 1993; Reents-

Budet et al. 1994). Parallel to the prestige exchange system ran strong commercial networks of ceramic trade. Several scholars (e.g., Bill 2014; Forsyth 2005) have suggested a commercial element underlying the patterns of ceramic spheres, and Eppich and Freidel (2015) argued that the overall pattern itself resulted from interlocked regional marketplaces. In any of the foregoing models, El Pozito's membership in these broadly shared ceramic spheres indicates the center's engagement in the complex economic and sociopolitical systems joining these traditions together.

Across Northern Belize, numerous small homesteads and hamlets emerged in the Early and Middle Preclassic to grow and establish themselves as viable village-level settlements and centers by the Late Preclassic (see Guderjan 2007; Houk 2015; López Varela 1996; McAnany and López Varela 1999; Sagebiel 2005, among others). Among many others, these included Nohmul (Hammond 1974, 1985), Santa Rita Corozal (Ball 1983), Cuello (Kosakowsky 1987), La Milpa (Sagebiel 2005), Kichpanha (Reese and Valdez 1987), Colha (Anthony and Black 1994), and Aventura (Ball 1983; Robin et al. 2017; Robin et al. 2019). Lamanai saw the construction of multiple massive platform pyramids, one of which rose over 33 m in height (Pendergast 1981), and Cerros experienced a similar surge in population growth and construction (Freidel 1986). At Pulltrouser Swamp, just 20 km north of El Pozito, the Maya built extensive systems of ditched and raised fields for large-scale agricultural production (Turner and Harrison 1983:247).

Across the area, set patterns of rural complexity began to emerge, and the scale of population and settlement increased exponentially. The entire region shared all but identical sets of polished "waxy ware" ceramics, the easily identified Sierra and Polvero group types with very similar vessels forms (see Kosakowsky 2012; Kosakowsky and Sagebiel 1999; Kosakowsky et al. 2020; Sagebiel 2005; Sullivan and Sagebiel 2003). These same forms and types were documented at El Pozito as well, making the site, even at this nascent stage, part of this emergent complexity (Eppich 2000).

As the Early Classic dawned across Northern Belize, local ceramic traditions underwent significant large-scale transformation. Interactions with the large cities of the eastern Peten and southern Quintana Roo are reflected in the spread of the Tzakol ceramic sphere. El Pozito manifests all the characteristics of this ceramic sphere, possessing what Ball (1976:323) termed "full sphere membership." These characteristics include such hallmark ceramic groups and constituent types as the Aguila, Balanza, Pucte, Dos Arroyos, and early Palmar, all well represented at El Pozito (Case 1982; Eppich 2000). El Pozito blossomed over this period, as did numerous other sites along the Hondo and Nuevo rivers, including Santa Rita Corozal (Ball 1983; Chase 1990; Chase and Chase 1986), Cuello (Hammond 1991; Kosakowsky 1987), Kichpanha (Root-Garey 2010), Aventura (Robin et al. 2017; Robin et al. 2019), Nohmul (Hammond 1985; Kosakowsky and Pring 2001), and Colha, with its large-scale chert workshop in full production by this time (Anthony and Black 1994; Shafer and Hester 1983; see also Pyburn et al. 2013). To the east, Altun Ha grew into a substantial

center, complete with a 2 km² core of palaces and large pyramids (Pendergast 1979, 1982; see also Houk 2015). Meanwhile, other sites began a decline that ended in abandonment. Notable among these is Cerros (Reese-Taylor and Walker 2002), its decline possibly marked with a violent end (see Rosenswig and Kennett 2008). Although no single urban megacenter appears to have emerged in Classic Northern Belize, the region was home to numerous prosperous small settlements scattered across its rivers and ridges.

Throughout Northern Belize, the Early Classic seems to have merged almost seamlessly into the full Late Classic, local ceramic assemblages uniformly falling comfortably within the broader Tepeu ceramic sphere. The patterns of common types and forms extended from the central and northern Peten into northern Belize, southern Quintana Roo, and southern Campeche, and westward into Chiapas. El Pozito followed this pattern, its ceramics reflecting full membership in this expansive sphere. The principal decorated wares of El Pozito's transition from Early to Late Classic were a distinct pair: Pellejo Buff Polychrome and Azcorra Ivory Polychrome. The first, Pellejo, consists of low-gloss red and black designs on an unslipped-burnished buff surface. The second, Azcorra, possesses polychrome designs on a thinly slipped dirty cream base (see Fry 1983:1991). These two ceramic types were first identified at Becan in 1970 and were labeled as exotic ceramics of northern Belizean origin (Ball 1973, 1977:79). Often combined and labeled with a variety of terms, such as "Azcorra Buff" or "Posito Polychrome," they should be recognized as two distinct types, as they originally were (see Ball 1973:163–165).

Apart from Becan, the known distributions of Pellejo Buff and Azcorra Ivory Polychrome extend across a zone from Cuello (Ball 1979:56) south to San Jose (Thompson 1939: Figure 56a, 56f–g) and Altun Ha. It does not appear to be present in the Belize Valley or on Moho Cay, nor is it known from the central Peten (Ball, personal observations 1978–2012). North of Cuello, Fry (1983:199, 208) reports the type as Azcorra Buff and notes its abundance at Kokeal, a site in the southernmost extreme of Pulltrouser. It is also known to occur at Caledonia (Ball 1983:213–215). Fry (1987:117) also notes its appearance at a number of sites in southern Quintana Roo.

Both Azcorra Ivory Polychrome and Pellejo Buff Polychrome were likely manufactured at El Pozito, and their documented distribution signals the settlement's active participation in a dynamic exchange system extending across the whole of Northern Belize and deep into the heart of the southern Yucatan Peninsula, possibly even reaching the center of the massive Kaanu'l polity itself (see Canuto and Barrientos Q. 2011; García Capistrán 2012; Martin 2020). Direct epigraphic links with Kaanu'l are also manifest at this time in a sculpted panel from Tz'unum (Hanratty et al. 2016; Stuart 2017).

The ceramic patterns suggest, however, that such interaction was neither steady nor sustained for the entire Late Classic. Multiple decorated fine ceramics of the seventh and early eighth centuries occur at El Pozito, including Palmar Orange Polychrome, ubiquitous across the Late

Classic Lowlands; Agria Orange Polychrome, itself distributed from Northern Belize to southeastern Campeche; Egoista Resist, widespread and ubiquitous across the northern Lowlands; and even the elegant Petkanche Orange Polychrome, which is concentrated in Northern Belize but widely distributed across the whole of the Maya Lowlands (Ball 1993:Figure 6). In fact, this very striking polychrome may actually have been produced at Altun Ha. On the other hand, well-known eighth-century ceramic types—such as Zacatal Cream polychrome, Paixban Buff Polychrome, and Cabrito Cream Polychrome, popular and documented elsewhere—are notable for their apparent absence at El Pozito. Clearly, these regional and interregional interactions are complex and dynamic, even within the supposed uniformity of the Tepeu ceramic sphere.

At some time in the later eighth or early ninth century, El Pozito was largely abandoned, as were many other once-thriving Late Classic settlements in Northern Belize. Other zonal centers persisted and even flourished during this time, among them Aventura (Ball 1983; Kosakowsky et al. 2020; Robin et al. 2017; Robin et al. 2019), Santa Rita Corozal (Chase 1990; Chase and Chase 1986), Lamanai (Pendergast 1981), and likely yet others that still remain to be documented.

In some cases, small settlements reoccupied older sites, as was the case at Nohmul (Hammond 1985) and Cerros (Walker 1990; see also Vadala and Walker 2020). Clearly, a significant if not substantial Maya population remained across the area. Small-scale ritual activity attests to this, documented at many abandoned sites, such as Altun Ha (Pendergast 1982) and El Pozito. Yet, the area was not divorced from the greater Maya world. Ceramics associated with this ritual activity are strongly suggestive of the Northern Yucatan ceramic spheres, with Cehpech and Sotuta influences reflected in local ceramics (Ball 1976). As has long been observed for the ninth century, the heretofore shared ceramic traditions of the Late Classic splintered into multiple, smaller, highly regionalized patterns (Ball 1993:n13; Willey et al. 1967). Ceramic traditions in Belize grew ever more localized and heterogeneous, so much so that Donald Forsyth (2005) characterized them as separate, distinct traditions within a broader Belize region (see also “co-traditions,” Phillips and Willey 1953:627). Probably, this was the pattern across Northern Belize—highly localized yet interlinked ceramic expressions with scattered exotics and influences from the distant centers of coastal Quintana Roo and Yucatan.

Towns as economic interfaces

The ceramic data clearly show sustained linkage between this one small site and its neighbors, and the greater Maya world, with those connections being at their greatest during the Classic period. What do such linkages imply? Towns, in a medieval European context, served as the economic interface between rural areas and the larger world, with part of this interface consisting of the movement of

agricultural produce toward large population centers (Dyer 2012).

There is considerable evidence suggesting that this may also be the case with Northern Belize. Geographers and archaeologists long ago established the presence of intensive agriculture along the Hondo–Nuevo River systems. Some of the original research documenting the antiquity of such systems took place at Pulltrouser Swamp, 25 km north of El Pozito (Harrison 1996; Turner 1983; Turner and Harrison 1983). Raised and ditched fields and river channelings were begun in the Late Preclassic, by or before 200 B.C., and thereafter continuously used, modified, and expanded throughout the Classic period (Beach et al. 2019). Investigators identified similar patterns at Albion Island on the Rio Hondo just across the ridge from Pulltrouser Swamp (Bloom et al. 1983; Pohl 1990; Pohl and Bloom 1996). There, Anne Pyburn and her associates (2013) also recorded substantial rural settlement that indicated a heavily populated countryside working the ditched fields and canals (see also Kunen and Hughbanks 2003; McAnany et al. 2003; Wyatt 2012). Such extensive field–canal systems would have allowed for substantial levels of year-round agricultural production.

Farther upstream on the Hondo, Thomas Guderjan documented similar systems around the site of Blue Creek (Guderjan and Krause 2011). He points out that the agricultural output of these fields would have far exceeded local needs, concluding from this that “the sheer scale of the production systems at Blue Creek and downstream along the Rio Hondo give us reason to think that the systems were designed for commercial export” (Guderjan et al. 2017:48). Anne Pyburn (Pyburn et al. 2013) goes even further, suggesting large-scale commercial farming for shipment up the Hondo to Nakum and other cities of the eastern Peten. Although still less than certain, palynological data suggest that the most likely crops were corn and possibly cotton (Turner and Harrison 1983:258–259; see also Beach et al. 2019). This exchange served as one portion of a highly complex, commercialized economy, the scope and scale of which scholars have only recently come to appreciate (Freidel et al. 2017; Hirth and Pillsbury 2013; King 2022; King, ed. 2015; Masson et al. 2020).

In return for such produce, material goods flowed into the communities of the Hondo–Nuevo drainage. These goods included not just the tens of thousands of obsidian blades and imported polychromes found at El Pozito but also the sumptuous jades and stunning Tzakol-sphere polychromes of Blue Creek (Guderjan 2007; Guderjan and Hanratty 2016) and the elaborate polychrome ceramics and jade treasures of Altun Ha (Pendergast 1982). Nearby Nohmul also has its own store of jades and rich burials loaded with obsidian and large Peten-style polychrome vessels (Hammond 1984; Houk 2015; Kosakowsky, personal communication 2020). Indeed, one of the striking features of the Classic sites in Northern Belize is the outsized degree of material wealth present, especially for so many scattered settlements of only a few hundred or so individuals. El Pozito was one these communities, thriving amid an intensively farmed landscape, surrounded by a large rural,

agrarian population. These farmers seem to have raised crops for shipment and trade—most likely to the Yucatan and Peten—and received a considerable bounty of branded goods in return.

At least some of the finer polychromes and exotic decorated wares found in Northern Belize likely circulated as prestige goods from the Peten and Quintana Roo, with political gifts and commercial goods crossing paths along the same exchange routes. This does raise some interesting questions about the active participants engaged in such exchange. Politically, Classic Belize north of Lamanai has always been something of an oddity in Maya studies, a collection of prosperous small and medium-sized settlements lacking any truly large urban center. Scholars have characterized this pattern—a collection of smaller, near-peer equals—as specialized communities with heterarchical relationships scattered across a landscape of rural complexity (Iannone and Connell, ed. 2003; Scarborough and Valdez 2003). There are, of course, some larger centers, such as La Milpa, Aventura, and Nohmul, but there is no evidence that they exerted any direct political control over larger swaths of this rural landscape. In much simpler terms, these settlements seem to be wealthy, independent towns surrounded by farming country. Together, town and country raised and sold agricultural produce and, in part, received gifts and goods from distant cities to facilitate that trade.

In this model, the Classic Maya towns of Northern Belize exerted little political influence on the complex rural landscape that surrounded them. Instead, they served the needs of the inhabitants of that landscape, and their principal need was likely commercial. Farmers worked the large-scale, extensive agricultural fields of the Hondo–Nuevo rivers and brought their harvests into these towns for sale and eventual movement upriver to the cities of the Peten, as suggested by Guderjan and colleagues (2017) and Pyburn and colleagues (2013), in a Classic Maya version of Dyer's (2012) "Feeding the City" project. In return, the farmers received payment and purchased tools and luxuries, taking advantage of the commerce present in the local town. At El Pozito, such commercial urban functionality manifested itself in the obsidian from the workshop documented by Neivens and Libbey (1976) as well as the Azcorra Ivory and Pellejo Buff Polychromes likely manufactured there (Ball 1993). The complexity of the countryside contained multiple specialist communities—small settlements focusing on a limited range of products, or even just one (Scarborough et al. 2003:7). These specialist communities contributed to this regional trade, with Colha workshops producing high-quality chert tools, axes, and adzes for those local farmers (Hester et al. 1980; Hester et al. 1982; Shafer and Hester 1983). Small communities along the coast also participated, supplying fish, salt, and possibly shell to those same towns (Mock 1997; Valdez and Mock 1991). These towns, including El Pozito, functioned as economic nodes in a landscape of rural complexity, connecting specialist communities to farming communities and connecting all to the larger Maya world beyond the Hondo and Nuevo rivers (see Ingalls and Yaeger 2022; Valdez

et al. 2022). Such towns, like the El Pozito site, can be understood only within the context of such a complex landscape.

What was El Pozito?

El Pozito was, in academic terms, a middle-sized settlement with low levels of urban functionality in a landscape of rural complexity. The settlement's functionality seems largely limited to commercial roles, manifest in its obsidian and likely ceramic workshops, and in the Colha chert tools and ceramic linkages on both regional and interregional scales. A limited religious function is likely as well, with El Pozito's small pyramid and complex *chultun* serving as the location for sacred and ritual events. Absent entirely is any apparent political authority or military role for the settlement. There is no large, multicourt palace with multiple rooms capable of housing a sizeable noble court. There are no moats, ditches, walls, or other defensive features. There does not seem to be any large-scale population nucleated in the site core. Except for its location in Mesoamerica, El Pozito almost ideally fits Christopher Dyer's 2003 definition of a medieval town.

To draw this out more explicitly, Dyer's definition consisted of a small settlement of fewer than 2,000 inhabitants and fewer than 400 structures—just like El Pozito. The town possessed craft production of items for the surrounding agrarian countryside, just as El Pozito possessed an obsidian workshop and likely one, or possibly two, ceramic workshops. Dyer identified crafting activities around the edges of the town center, reflecting the location of El Pozito's obsidian workshop and possibly predicting the location of ceramics production. Dyer placed a marketplace in the center of the town and, although no marketplace was detected at El Pozito, no one thought to look for one in 1974. Such towns possessed small-scale religious and political functions, such as El Pozito's pyramid and *chultun*, open plaza, and elite residences. Any future research at El Pozito—and it is hoped that such research takes place—would be well advised to look for additional workshops and a marketplace, and to flesh out any additional political or religious functions. Most of the obsidian workshop was never unearthed. Pottery workshops remain rare in Maya archaeology, and El Pozito is a prime candidate to contain at least one. The marketplace of El Pozito, in particular, should be an especially rich trove of information on regional exchange. With secure archaeological provenience, the ceramic macrophases here could even be converted into more formal ceramic complexes.

El Pozito was a Classic Maya town. The town was situated on a low ridge between a pair of rivers (today, the Hondo and Nuevo), whose banks were lined with terraces, raised fields, and canals—extensive earthworks designed to intensify agricultural production. Small farms and farming communities filled the countryside around the town, building, maintaining, and working these earthworks. It was a countryside of small farmers, who were not necessarily beholden to anyone in the nearby town (Robin 2012; cf. Pyburn et al. 2013; see also Díaz et al. 2022; Lamb 2022b). They raised corn, perhaps cotton, and possibly beans, squash, camotes,

avocado, cacao, and even manioc. They brought their harvest into the town for sale. There, they purchased tools from Colha, salted fish from the sea, obsidian blades from the nearby workshop, and buff-colored or ivory-colored polychrome pottery of the local ceramic traditions.

El Pozito was one of several similar towns that dotted the San Pablo Ridge, running all the way to the sea. Some of these towns were smaller, others were larger, and some—such as Aventura—could even be called small cities. Although these towns differed in some aspects, they likely all shared the same broad functionality, serving the system of rural complexity in the farmlands around them. They possessed markets and workshops to serve local commercial needs, as well as sacred roads and pyramids to serve local religious needs. They connected the small farmers to the wider Classic Maya world and even to the distant, big cities of the Peten and Yucatan. These towns were not equal, but they were not likely political subordinates of one another. There is little evidence to suggest regal ambitions among the Maya towns of Northern Belize. The most likely political situation was one of heterarchy—political near peers economically interdependent on one another (Scarborough and Valdez 2003). Such interdependency likely obviated the rise of any single powerful center, as was the case in other parts of the Classic Maya world.

El Pozito consisted of a double center: two sets of shrines and residences separated by a bajo. It possibly comprised a pair of communities, each resident in and tied to its own specific complex. Although admittedly speculative, this may be the Classic equivalent of a twin *cahob* town, a type of settlement described as typical of the Colonial Yucatec by ethnohistorian Matthew Restall (1997:13–40, especially 37–38). These settlements comprised a linked pair of communities, each containing a hierarchy of lineages within them. Structurally, the pattern is very much like what might be expected of what some archaeologists recently have recognized as settlement “neighborhoods” (Peuramaki-Brown 2014; Smith 2010, 2011).

Such communities often extended beyond the town itself and included several villages throughout a given region. If so, El Pozito was dominated by a pair of elite lineages, each the head of its own individual community, but both residing within and sharing the dual town center. Together, they maintained the local market and sponsored local crafters, including obsidian knappers and polychrome potters. Possibly, the dichotomous burnished-surface buff-colored (Pellejo) and thin-slipped ivory-colored (Azcorra) wares reflected and even were a product of this duality. Together, these two potteries represented and even stood for “El Pozito.” Separately, they were produced by and stood for each of the town’s two distinct neighborhoods or *cahob*. The last is just a thought experiment, of course, but it does seem both plausible and possible.

As one, the two sectors that were El Pozito also facilitated the movement of goods in both regional and long-distance exchange, likely serving as the equivalent of a local merchant class upon which the economic and social health of the town was dependent. They likely held religious events in front of their respective pyramid shrines, possibly

coinciding with the height of the market season (Freidel 1981). Inside those pyramids, they buried their ancestors, accompanied by the rich funerary goods that attest to their success in these endeavors.

El Pozito formed as a Maya town sometime in the fourth century. The local Maya built most of their town during the Early Classic, maintaining and elaborating its architecture for the next 400 years—roughly 20 generations. The end of El Pozito came within the broad temporal and cultural context of the “Classic Maya Collapse,” an event that in general did not seem to strike Northern Belize particularly hard (Buttles and Valdez 2016; Guderjan and Hanratty 2016; Houk 2016). The region certainly lacks evidence of the widespread destructions and abandonments seen in other portions of the Classic world (Demarest et al. 2016; Inomata 2003; O’Mansky and Dunning 2004). To some extent, this has even led some scholars to question the idea that the Classic Maya collapsed at all (Aimers 2007; McAnany and Negrón 2010). The research at El Pozito suggests, however, that had it and other similar market towns been tied economically to the major cities of the Classic World, then the end of those big urban centers could well have resulted not in a violent collapse in Northern Belize, but rather a generalized, economic unraveling and failure. Deprived of large-scale external markets, intensive agriculture would have served little purpose, and farmers would have returned to smaller-scale production aimed at local needs or a greatly diminished coastal trade. Certainly, the Dzibiac Red bowls and golden bells of El Pozito do suggest some continued interaction with the centers of Northern Yucatan; however, most market towns would gradually have grown poorer and eventually have been abandoned altogether, as appears to have occurred in the case of El Pozito. Local farmers continued to venerate the fallen architecture, using them as an open-air shrine—a monument to distant ancestors.

El Pozito was a Classic Maya town. It lived and died, not on the margins of Classic Maya civilization, but as an intrinsically interconnected part of it. Just as the big cities of the interior cannot be understood without appreciation of the social, political, and economic interconnectivity of the Classic Maya world, Northern Belize cannot be understood as a series of individual sites, but only as an interconnected composite of many interdependent specialist communities. It is highly likely that the produce of the Hondo and Nuevo Rivers fed the large urban centers of the interior: El Pozito and other similar towns helped interconnect this ancient landscape of rural complexity.

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References

- Aimers, James J.
2007 What Maya Collapse? Terminal Classic Variation in the Maya Lowlands. *Journal of Archaeological Research* 15:329–377.
2013 *Ancient Maya Pottery: Classification, Analysis, and Interpretation*. University Press of Florida, Gainesville.
- Andrews, George F.
1993 *Architectural Survey at Oxkintok: 1971–1993*. University of Oregon, Eugene.
- Anthony, Dana, and Stephen L. Black
1994 Excavations at Operation 2031. In *Continuing-Archeology at Colha, Belize*, edited by Thomas R. Hester, Harry J. Shafer, and Jack D. Eaton, pp. 39–58. Studies in Archeology No. 16. Texas Archeological Research Laboratory, University of Texas, Austin.
- Ashmore, Wendy
2003 Aspects of Maya Settlement Archaeology, 1999. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 7–13. Monograph 49. Cotsen Institute of Archaeology, Los Angeles.
- Astill, Grenville
1985 Archeology and the Smaller Medieval Town. *Urban History* 12:46–53.
- Awe, Jaime J., Julie A. Hoggart, and Christophe Helmke
2014 Prehistoric Settlement Patterns in the Upper Belize River Valley and Their Implications for Models of Low-Density Urbanism. *Acta MesoAmerica* 27:263–286.
- Ball, Joseph W.
1973 Ceramic Sequence at Becan, Campeche, Mexico. PhD dissertation, Department of Anthropology, University of Wisconsin, Madison.
1976 Ceramic Sphere Affiliations of the Barton Ramie Ceramic Complexes. In *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*, compiled by Carol A. Gifford, pp. 323–330. Memoirs of the Peabody Museum of Archaeology and Ethnology Vol. 18. Harvard University, Cambridge.
1977 *The Archaeological Ceramics of Becan, Campeche, Mexico*. Publication 43. Middle American Research Institute, Tulane University, New Orleans.
1979 Ceramic Research at Cuello, Belize, 1978. In *Cuello Project: 1978 Interim Report*, edited by Norman Hammond, pp. 53–57. Douglass College, Rutgers University, New Brunswick.
1983 Notes on the Distribution of Established Ceramic Types in the Corozal District, Belize. In *Archaeological Excavations in Northern Belize, Central America*, edited by Raymond V. Sidrys, pp. 203–220. Monograph XVII. Institute of Archaeology, University of California, Los Angeles.
1993 Pottery, Potters, Palaces, and Politics: Some Socioeconomic and Political Implications of Late Classic Maya Ceramic Industries. In *Lowland Maya Civilization in the Eighth Century A.D.*, edited by Jeremy A. Sabloff and John A. Henderson, pp. 243–272. Dumbarton Oaks, Washington, DC.
- Ball, Joseph W., Jeffrey B. Glover, Dominique Rissolo, and Fabio Amador Berdugo
2010 Ceramic Analysis. In *La Costa escondida: Una investigación arqueológica del Puerto Maya Vista Alegre, Quintana Roo, México: Informe técnico annual de la temporada de campo 2008 y análisis 2009*, edited by Jeffrey B. Glover and Dominique Rissolo, pp. 70–91. Archivo del Consejo de Arqueología, Instituto Nacional de Antropología e Historia, México City.
- Beach, Timothy, Sheryl Luzzadder-Beach, Samantha Krause, Tom Guderjan, Fred Valdez Jr, Juan Carlos Fernandez-Diaz, Sara Eshleman, and Colin Doyle
2019 Ancient Maya Wetland Fields Revealed under Tropical Forest Canopy from Laser Scanning and Multiproxy Evidence. *Proceedings of the National Academy of Sciences* 116(43):21469–21477.
- Bill, Cassandra
2014 Shifting Fortunes and Affiliations on the Edge of Ruin: A Ceramic Perspective on the Classic Maya Collapse and Its Aftermath at Copán. In *The Maya and Their Central American Neighbors: Settlement Patterns, Architecture, Hieroglyphs Texts and Ceramics*, edited by Geoffrey Braswell, pp. 83–111. Routledge, New York.
- Bloom, Paul R., Mary Pohl, Cynthia Buttleman, Frederick Wiseman, Alan Covich, Charles Miksicek, Joseph Ball, and Julie Stein
1983 Prehistoric Maya Wetland Agriculture and the Alluvial Soils near San Antonio Río Hondo, Belize. *Nature* 301(5899):417–419.
- Bozarth, Steven
2009 Analysis of Pollen, Biosilicates, Charred Phytoliths and Concentrations of Particulate Charcoal at the Birds of Paradise Fields. In *The 2009 Season of the Blue Creek Archaeological Project*, edited by Thomas H. Guderjan, pp. 175–188. Maya Research Program, University of Texas, Tyler.
- Buttles, Palma J., and Fred Valdez Jr.
2016 Social-Political Manifestations of the Terminal Classic: Colha, Northern Belize, as a Case Study. In *Ritual, Violence, and the Fall of the Classic Maya Kings*, edited by Gyles Iannone, Brett A. Houk, and Sonja A. Schwake, pp. 187–202. University Press of Florida, Gainesville.
- Canuto, Marcello A., and Tomás Barrientos Q.
2011 La Corona: Un acercamiento a las políticas del reino Kaan desde un centro secundario del Noroeste de Petén. *Estudios de Cultura Maya* 38:14–43.
- Case, Robert Paul
1982 *Type: Variety Analysis and the Protoclassic Ceramics of El Pozito, Belize: A Critical Review*. Master's thesis. San Diego State University, San Diego.
- Chase, Arlen F., and Diane Z. Chase
1998 Scale and Intensity in Classic Period Maya Agriculture: Terracing and Settlement at the “Garden City” of Caracol, Belize. *Culture & Agriculture* 20:60–77.
- Chase, Diane Z.
1981 The Maya Postclassic at Santa Rita Corozal. *Archaeology* 34 (1):25–33.
1982 *Spatial and Temporal Variability in Postclassic Northern Belize*. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, Philadelphia.
1990 The Invisible Maya: Population History and Archaeology at Santa Rita Corozal. In *Pre-Columbian Population History in the Maya Lowlands*, edited by T. Patrick Culbert and Don S. Rice, pp. 199–213. University of New Mexico Press, Albuquerque.
- Chase, Diane Z., and Arlen F. Chase
1986 *Offerings to the Gods: Maya Archaeology at Santa Rita Corozal*. University of Central Florida, Orlando.
1988 *A Postclassic Perspective: Excavations at the Maya Site of Santa Rita Corozal, Belize*. Monograph 4. Pre-Columbian Art Research Institute, San Francisco.
2017 Caracol, Belize and Changing Perceptions of Ancient Maya Society. *Journal of Archaeological Research* 25(3):185–249.
- Chase, Diane Z., Arlen F. Chase, and William A. Haviland
1990 The Classic Maya City: Reconsidering “The Mesoamerican Urban Tradition.” *American Anthropologist* 92:499–506
- Childe, V. Gordon
1950 The Urban Revolution. *The Town Planning Review* 21(1):3–17.
- Christie, Neil, and Simon T. Loseby (editors)
1996 *Towns in Transition: Urban Evolution in Late Antiquity and the Early Middle Ages*. Scholar Press, Aldershot.
- Connell, Samuel V.
2000 Were They Well Connected? An Exploration of Ancient Maya Regional Integration from the Middle-Level Perspective of Chaa Creek, Belize. Ph.D. dissertation, Department of Anthropology, University of California, Los Angeles.
2003 Making Sense of Variability among Minor Centers: The Ancient Maya of Chaa Creek, Belize. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 27–41. Monograph 49. Cotsen Institute of Archaeology, University of California, Los Angeles.
- Crabtree, Pam J.
2018 *Early Medieval Britain: The Rebirth of Towns in the Post-Roman West*. Cambridge University Press, Cambridge.
- Demarest, Arthur
2004 *Ancient Maya: The Rise and Fall of a Rainforest Civilization*. Cambridge University Press, Cambridge.

- Demarest, Arthur, Claudia Quintanilla, and José Samuel Suasnavar
2016 The Collapses in the West and the Violent Ritual Termination of the Classic Maya Capital Center of Cancuen: Causes and Consequences. In *Ritual, Violence, and the Fall of the Classic Maya Kings*, edited by Gyles Iannone, Brett A. Houk, and Sonja A. Schwake, pp. 159–186. University Press of Florida, Gainesville.
- Díaz, Luis Pantoja, Iliana Ancona Aragon, Maria Gomez Coba, and Claudia Gongora Aguilar
2022 Rural Social Complexity in the Ichcaanzihó Region, Yucatan, Mexico. *Ancient Mesoamerica* 33:186–209.
- Driver, W. David, and Laura J. Kosakowsky
2013 Transforming Identities and Shifting Goods: Tracking Sociopolitical Change through the Monumental Architecture and Ceramic Assemblages at Blue Creek. In *Classic Maya Political Ecology: Resource Management, Class Histories, and Political Change in Northwestern Belize*, edited by Jon Lohse, pp. 69–98. Cotsen Institute of Archaeology Press, University of California, Los Angeles.
- Dyer, Christopher
1996 Market Towns and the Countryside in Late Medieval England. *Canadian Journal of History* 31(1):17–35.
2003 The Archaeology of Medieval Small Towns. *Medieval Archaeology* 47(1):85–114.
2012 Did Peasants Need Markets and Towns? The Experience of Late Medieval England? In *London and Beyond: Essays in Honour of Derek Keene*, edited by Matthew Davies and James A. Galloway, pp. 25–47. Institute of Historical Research, University of London, London.
- Eppich, Keith
2000 Ceramics and Interaction at El Pozito, Belize: A Type-Variety-Based Perspective. Master's thesis, Department of Anthropology, San Diego State University, San Diego.
2015 The Decline and Fall of the Classic Maya City. In *Archaeology for the People*, edited by John Cherry and Felipe Rojas, pp. 81–94. Joukowski Institute. Oxbow Books, Oxford.
- Eppich, Keith, and David Freidel
2015 Markets and Marketing in the Classic Maya Lowlands. In *The Ancient Maya Marketplace: The Archaeology of Transient Space*, edited by Eleanor King, pp. 195–225. University of Arizona Press, Tucson.
- Eppich, Keith, Damien B. Marken, and Elsa Damaris Menéndez
2023 A City in Flux, the Dynamic Form and Functions of El Perú-Waka', Guatemala. In *The Flexible Maya City: Attraction, Contraction, and Planning in Lowland Urban Dynamics*, edited by Damien B. Marken and M. Charlotte Arnould, pp. 72–98. University Press of Colorado, Boulder.
- Fedick, Scott L.
1996 Conclusion: Landscape Approaches to the Study of Ancient Maya Agriculture and Resource Use. In *The Managed Mosaic: Ancient Maya Agriculture and Resource Use*, pp. 335–347. University of Utah Press, Salt Lake City.
- Fisher, Chelsea
2014 The Role of Infield Agriculture in Maya Cities. *Journal of Anthropological Archaeology* 36:196–210.
- Fletcher, Roland J.
2012 Low-Density, Agrarian-Based Urbanism: Scale, Power, and Ecology. In *The Archaeology of Complex Societies: Comparative Approaches*, edited by Michel E. Smith, pp. 285–320. Cambridge University Press, New York.
- Foias, Antonia E.
2004 The Past and Future of Maya Ceramic Studies. In *Continuities and Changes in Maya Archaeology: Perspectives at the Millennium*, edited by Charles W. Golden and Greg Borgstede, pp. 143–163. Taylor and Francis, New York.
- Forsyth, Donald W.
2005 A Survey of Terminal Classic Ceramic Complexes and Their Socioeconomic Implications. In *Geographies of Power: Understanding the Nature of Terminal Classic Pottery in the Maya Lowlands*, edited by Sandra L. López Varela and Antonia E. Foias, pp. 7–22. BAR International Series 1447. British Archaeological Reports, Oxford.
- Fox, Richard G.
1977 *Urban Anthropology: Cities in Their Cultural Settings*. Prentice Hall, Hoboken.
- Freidel, David A.
1981 The Political Economics of Residential Dispersion among the Lowland Maya. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 371–382. University of New Mexico Press, Albuquerque.
- Freidel, David A.
1986 *Archaeology at Cerros, Belize, Central America. An interim report*. Southern Methodist University Press, Dallas.
- Freidel, David A., Marilyn A. Masson, and Michelle Rich
2017 Imagining a Complex Maya Political Economy: Counting Tokens and Currencies in Image, Text and the Archaeological Record. *Cambridge Archaeological Journal* 27(1):29–54.
- French, Kirk, Kirk D. Straight, and Elijah J. Hermit
2019 Building the Environment at Palenque: The Sacred Pools of the Picota Group. *Ancient Mesoamerica* 31:409–430.
- Fry, Robert E.
1983 The Ceramics of the Pulltrouser Area: Settlements and Fields. In *Pulltrouser Swamp, Ancient Maya Habitat, Agriculture, and Settlement in Northern Belize*, edited by Billie L. Turner II and Peter D. Harrison, pp. 194–211. University of Texas Press, Austin.
1987 The Ceramic Sequence of South-Central Quintana Roo, Mexico. In *Maya Ceramics, Papers from the 1985 Maya Ceramic Conference*, edited by Prudence M. Rice and Robert J. Sharer, pp. 111–122. BAR, Oxford.
- Gallenkamp, Charles, and Regina E. Johnson (editors)
1985 *Maya, Treasures of an Ancient Civilization*. Harry N. Abrams, New York.
- García Capistrán, Hugo
2012 El Reino de la Serpiente Bajo la Mirada de sus Aliados. *Contributions in New World Archaeology* 4:39–55.
- Gifford, James C.
1960 The Type-Variety Method of Ceramic Classification as an Indicator of Cultural Phenomena. *American Antiquity* 25(3):341–347.
1963 *A Conceptual Approach to the Analysis of Prehistoric Pottery*. Ph.D. dissertation, Department of Anthropology, Harvard University, Cambridge.
1976 *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. Peabody Museum of Archaeology and Ethnology, Harvard University Press, Cambridge.
- Graham, Elizabeth
1999 Stone Cities, Green Cities. In *Complex Politics in the Ancient Tropical World*, edited by Elisabeth A. Bacus and Lisa J. Lucero, pp. 185–194. American Anthropological Association, Washington, DC.
2004 Lamanai Reloaded: Alive and Well in the Early Postclassic. In *Archaeological Investigations in the Eastern Maya Lowlands: Papers of the 2003 Belize Archaeology Symposium*, edited by Jaime J. Awe, John Morris, and Sheryl Jones, pp. 223–241. Institute of Archaeology, National Institute of Culture and History (NICH), Belmopan.
- Guderjan, Thomas H.
2007 *The Nature of an Ancient Maya City: Resources, Interaction, and Power at Blue Creek, Belize*. University of Alabama Press, Tuscaloosa.
2013 Landscapes and Maya Settlement in Northwestern Belize. *Research Reports in Belizean Archaeology* 10:227–240. Institute of Archaeology, Belmopan.
2016 *The Ancient Maya City of Blue Creek, Belize: Wealth, Social Organization and Ritual*. BAR, Oxford.
- Guderjan, Thomas H., and C. Colleen Hanratty
2016 Events and Processes Leading to the Abandonment of the Maya City of Blue Creek, Belize. In *Ritual Violence, and the Fall of the Classic Maya Kings*, edited by Gyles Iannone, Brett A. Houk, and Sonja A. Schwake, pp. 223–242. University of Florida Press, Gainesville.
- Guderjan, Thomas H., and Samantha Krause
2011 Identifying the Extent of Ancient Maya Ditched Field Systems in the Río Hondo Valley of Belize and Mexico. *Research Reports in Belizean Archaeology* 8:127–136. Institute of Archaeology, Belmopan.
- Guderjan, Thomas, Joshua Kwoka, Colleen Hanratty, Timothy Beach, Sheryl Luzzadder-Beach, Samantha Krause, Sara Eshleman, Thomas Ruhl, and Colin Doyle
2019 Early Onset Anthropocene: Control of the Landscape by the Ancient Maya in Northwestern Belize. *Research Reports in Belizean Archaeology* 17:105–117. Institute of Archaeology, Belmopan.
- Guderjan, Thomas, Sheryl Luzzadder-Beach, Timothy Beach, Steven Bozarth, and Samantha Krause
2017 Production of Ancient Wetland Agricultural Commodities in the Maya Lowlands. In *The Value of Things: Prehistoric to Contemporary Commodities in the Maya Region*, edited by Jennifer

- P. Mathews and Thomas H. Guderjan, pp. 30–48. University of Arizona Press, Tucson.
- Haines, Helen R.
2011 How the Other-Half Lived: Continuing Discussions of the Enigma That Is Ka'Kabish, Belize. *Research Reports in Belizean Archaeology* 8:137–150. Institute of Archaeology, Belmopan.
- Hammond, Norman
1974 Preclassic to Postclassic in Northern Belize. *Antiquity* 48 (191):177–189.
1984 Holmul and Nohmul: A Comparison and Assessment of Two Maya Lowland Protoclassic Sites. *Ceramica de Cultura Maya* 13:1–17.
1985 *Nohmul: A Prehistoric Maya Community in Belize: Excavations 1973–1983*. BAR, Oxford.
- Hammond, Norman (editor)
1991 *Cuello: An Early Maya Community in Belize*. Cambridge University Press, Cambridge.
- Hammond, Norman, and Matthew R. Bobo
1994 Pilgrimage's Last Mile: Late Maya Monument Veneration at La Milpa, Belize. *World Archaeology* 26:19–34.
- Hanratty, Colleen, Bruce Love, Stanley Guenter, and Tom Guderjan
2016 First Evidence of the Ka'an Dynasty in Northern Belize. *Mexicon* 38(6):142.
- Harrison, Peter D.
1996 Settlement and Land Use in the Pulltrouser Swamp Archaeological Zone, Northern Belize. In *The Managed Mosaic, Ancient Maya Agriculture and Resource Use*, edited by Scott L. Fedick, pp. 177–192. University of Utah Press, Salt Lake City.
- Hester, Thomas R., Jonathan D. Eaton, and Harry J. Shafer
1980 *The Colha Project: Second Season 1980 Interim Report*. Center for Archaeological Research, San Antonio.
- Hester, Thomas R., Jonathan D. Eaton, Harry J. Shafer, and Robert E. W. Adams
1982 *Archaeology at Colha, Belize: The 1981 Interim Report*. Center for Archaeological Research, San Antonio.
- Hester, Thomas R., Harry J. Shafer, and Thena Berry
1991 Technological and Comparative Analyses of the Chipped Stone Artifacts from El Pozito, Belize. In *Maya Stone Tools: Selected Papers from the Second Maya Lithic Conference, Volume 2*, by Thomas Hester, pp. 67–84. Prehistory Press, Madison.
- Hirth, Kenneth G., and Joanne Pillsbury (editors)
2013 *Merchants, Markets, and Exchange in the Pre-Columbian World*. Dumbarton Oaks, Washington, DC.
- Hodges, Richard
2000 *Towns and Trade in the Age of Charlemagne*. Duckworth, London.
- Hodges, Richard, and Brian Hopley (editors)
1988 *The Rebirth of Towns in the West, AD 700–1050*. CBA Research Report 68. Council for British Archaeology, Alden Press, Oxford.
- Houk, Brett A.
2015 *Ancient Maya Cities of the Eastern Lowlands*. University Press of Florida, Gainesville.
2016 Signs of the Times: Terminal Classic Surface Deposits and the Fates of Maya Kingdoms in Northwestern Belize. In *Ritual, Violence, and the Fall of the Classic Maya Kings*, edited by Gyles Iannone, Brett A. Houk, and Sonja A. Schwake, pp. 203–222. University Press of Florida, Gainesville.
- Houston, Stephen D., David Stuart, and Karl Taube
1992 Image and Text on the “Jauncy” Vase. In *The Maya Vase Book, Volume 3*, edited by Justin Kerr, pp. 499–512. Kerr Associates, New York.
- Iannone, Gyles, and Samuel V. Connell
2003 Perspectives on Ancient Maya Rural Complexity: An Introduction. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 1–6. Monograph 49. Cotsen Institute of Archaeology, University of California, Los Angeles.
2003 *Perspectives on Ancient Maya Rural Complexity*. Monograph 49. Cotsen Institute of Archaeology, University of California, Los Angeles.
- Ingalls, Victoria, and Jason Yaeger
2022 Focal Nodes and Ritual Economy in Ancient Maya Hinterland Communities: A Case Study from San Lorenzo, Belize. *Ancient Mesoamerica* 33:116–131.
- Inomata, Takeshi
2003 War, Destruction, and Abandonment: The Fall of the Classic Maya Center of Aguateca, Guatemala. In *Archaeology of Settlement Abandonment in Middle America*, edited by Takeshi Inomata and Ronald W. Webb, pp. 43–60. University of Utah Press, Salt Lake City.
- Isendahl, Christian
2012 Agro-Urban Landscapes: The Example of Maya Lowland Cities. *Antiquity* 86(334):1112–1125.
- Isendahl, Christian, and Michael E. Smith
2013 Sustainable Agrarian Urbanism: The Low-Density Cities of the Mayas and Aztecs. *Cities* 31:132–143.
- Johnson, William C.
1983 Further Comments on Raised Fields. In *Pulltrouser Swamp: Ancient Maya Habitat, Agriculture, and Settlement in Northern Belize*, edited by Billie L. Turner II and P. D. Harrison, pp. 91–93. University of Texas Press, Austin.
- Just, Bryan R.
2012 *Dancing into Dreams: Maya Vase Painting of the Ik' Kingdom*. Princeton University Art Museum, Princeton.
- King, Eleanor M.
2022 Maya Commerce. In *The Maya World*, edited by Scott R. Hutson and Traci Ardren, pp. 443–458. Routledge, New York City.
- King, Eleanor M. (editor)
2015 *The Ancient Maya Marketplace: The Archaeology of Transient Space*. University of Arizona Press, Tucson.
- Kosakowsky, Laura J.
1987 *Preclassic Maya Pottery at Cuello, Belize*. University of Arizona Press, Tucson.
2012 Ceramics and Chronology at Chan. In *Chan: An Ancient Maya Farming Community*, edited by Cynthia Robin, pp. 42–70. University Press of Florida, Gainesville.
- Kosakowsky, Laura, and Duncan C. Pring
2001 *The Nohmul Ceramic Sequence: A Summary Analysis*. Manuscript on file, Institute of Archaeology, Belmopan, Belize.
- Kosakowsky, Laura J., Robin A. Robertson, Kerry L. Sagebiel, and James J. Aimers
2020 Five Decades of Ceramic Research in Northern Belize. *Research Reports in Belizean Archaeology* 17:17–23. Institute of Archaeology, Belmopan.
- Kosakowsky, Laura J., and Kerry Sagebiel
1999 The Ceramic Sequence of La Milpa, Belize. *Mexicon* 21(6):131–136.
- Kunen, Julie L., and Paul J. Hughbanks
2003 Bajo Communities as Resource Specialists: A Heterarchic Approach to Maya Socioeconomic Organization. In *Heterarchy, Political Economy, and the Ancient Maya: The Three Rivers Region of the East-Central Yucatán Peninsula*, edited by Vernon L. Scarborough, Fred J. Valdez, and Nicholas P. Dunning, pp. 92–108. University of Arizona Press, Tucson.
- Lamb, Céline C.
2020 Ancient Maya Rurality: Past Assumptions, Current Research and Future Directions. In *The Maya World*, edited by Scott R. Hutson and Traci Ardren, pp. 307–327. Routledge, London.
2022a Rethinking the Rural in Ancient Maya Studies. *Ancient Mesoamerica* 33:51–61.
2022b Rural Social Differentiation in Early Classic Chunchuayum, Yucatan, Mexico. *Ancient Mesoamerica* 33:162–185.
- Lamoureux-St-Hilaire, Maxime, Scott Macrae, Carmen McCane, Evan Parker, and Gyles Iannone
2015 The Last Groups Standing: Living Abandonment at The Ancient Maya Center of Minanha, Belize. *Latin American Antiquity* 26:550–569.
- Lemonnier, Eva, and M. Charlotte Arnaud
2022 Defining Rurality at La Joyanca (Petén, Guatemala): Architecture, Land Use, and Social Dynamics. *Ancient Mesoamerica* 33:83–100.
- Lentz, David L., Kevin Magee, Eric Weaver, John G. Jones, Kenneth B. Tankersley, Angela Hood, Gerald Islebe, Carmen E. Ramos, and Nicolas Dunning
2015 Agroforestry and Agricultural Practices of the Ancient Maya at Tikal. In *Tikal: Paleoecology of an Ancient Maya City*, edited by David Lentz and Vernon Scarborough, pp. 152–185. Cambridge University Press, Cambridge.
- López Varela, Sandra L.
1996 The K'axob Formative Ceramics: The Search for Regional Integration through a Reappraisal of Ceramic Analysis and Classification in Northern Belize. Unpublished Ph.D. dissertation, Department of Anthropology, University of London, London.

- Lougheed, Vivien
2010 *Northern Belize: Altun Ha, Corozal, Crooked Tree, Sarteneja, Orange Walk & Beyond (Adventure Guides)*. Hunter, Buchanan, New York.
- Marken, Damien
2011 *City and State: Urbanism, Rural Settlement, and Polity in the Classic Maya Lowlands*. Unpublished Ph.D. dissertation, Department of Anthropology, Southern Methodist University, Dallas.
- Marken, Damien B., and M. Charlotte Arnaud (editors)
2023 *The Flexible Maya City: Attraction, Contraction, and Planning in Lowland Urban Dynamics*. University Press of Colorado, Boulder.
- Marken, Damien B., and Zachary Cooper
2018 WK22: Excavaciones en estructuras residenciales asociadas con rasgos de manejo del agua en el Barrio Ical. In *Proyecto Arqueológico El Perí-Waka': Informe No. 15, Temporada 2017*, edited by Juan Carlos Pérez, Griselda Pérez, and David Freidel, pp. 196–254. Fundación de Investigación Arqueológica Waka', Guatemala City.
- Marken, Damien B., and Timothy Murtha
2017 *Maya Cities, People and Place: Comparative Perspectives from El Peru and Tikal*. Paper presented at the 14th Belize Archaeology Symposium, San Ignacio, Julio.
- Martin, Simon
2020 *Ancient Maya Politics: A Political Anthropology of the Classic Period 150–900 CE*. Cambridge University Press, Cambridge.
- Martin, Simon, and Nikolai Grube
2008 *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya*. 2nd ed. Thames & Hudson, London.
- Masson, Marilyn A.
2000 *In the Realm of Nachan Kan: Postclassic Maya Archaeology at Laguna de On, Belize*. University Press of Colorado, Boulder.
2002 *Community Economy and the Mercantile Transformation in Postclassic Northeastern Belize*. In *Ancient Maya Political Economies*, edited by Marilyn A. Masson and David A. Freidel, pp. 335–364. AltaMira Press, Walnut Creek.
- Masson, Marilyn A., and David A. Freidel
2013 *Wide Open Spaces: A Long View of the Importance of Maya Market Exchange*. In *Merchants, Markets, and Exchange in the Pre-Columbian World*, edited by Kenneth G. Hirth and Joanne Pillsbury, pp. 201–228. Dumbarton Oaks, Washington, DC.
- Masson, Marilyn A., David A. Freidel, and Arthur A. Demarest (editors)
2020 *The Real Business of Ancient Maya Economies: From Farmers' Fields to Rulers' Realms*. University Press of Florida, Gainesville.
- McAnany, Patricia
1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. University of Texas Press, Austin.
- McAnany, Patricia A., Kimberly A. Berry, and Ben S. Thomas
2003 *Wetlands, Rivers, and Caves: Agricultural and Ritual Practice in Two Lowland Maya Landscapes*. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 71–81. Cotsen Institute of Archaeology, University of California, Los Angeles.
- McAnany, Patricia A., and Sandra L. López Varela
1999 *Re-Creating the Formative Maya Village of K'axob: Chronology, Ceramic Complexes, and Ancestors in Architectural Context*. *Ancient Mesoamerica* 10:147–168.
- McAnany, Patricia A., and Tomás G. Negrón
2010 *Bellicose Rulers and Climatological Peril: Retrofitting Twenty-First-Century Woes on Eighth Century Maya Society*. In *Questioning Collapse: Human Resilience, Ecological Vulnerability and the Aftermath of Empire*, edited by Patricia A. McAnany and Norman Yoffee, pp. 142–175. Cambridge University Press, Cambridge.
- McKillop, Heather I.
2004 *The Ancient Maya: New Perspectives*. ABC-CLIO, Santa Barbara.
- McLellan, Alec, and Helen R. Haines
2013 *Casting a Light in the Wilderness: The Ancient Maya Site of Ka'kabish, Northern Belize*. *Research Reports in Belizean Archaeology* 10:187–198. Institute of Archaeology, Belmopan.
- Mock, Shirley Boteler
1997 *Monkey Business at Northern River Lagoon: A Coastal–Inland Interaction Sphere in Northern Belize*. *Ancient Mesoamerica* 8 (2):165–183.
- Murphy, Margaret
2012 *Feeding Another City: Provisioning Dublin in the Late Middle Ages*. In *London and Beyond. Essays in Honour of Derek Keene*, edited by Matthew Davies and James A. Galloway, pp. 3–24. Institute of Historical Research, University of London, London.
- Neivens, Mary
1976 *El Pozito, A Late Classic Site*. *Recent Archaeology in Belize, Occasional Publications* 3:53–63. Institute of Archaeology, Belmopan.
- Neivens, Mary, and David Libbey
1976 *An Obsidian Workshop at El Pozito, Northern Belize*. In *Maya Lithic Studies: Papers from the 1976 Belize Field Symposium*, edited by Thomas Hester and Norman Hammond, pp. 137–150. The University of Texas at San Antonio, San Antonio.
- Neivens, Mary, and Dennis Puleston
1976a *Field Notes, El Pozito Project, 1974–1975*. Unpublished manuscript.
1976b *Field Notes, El Pozito Project, 1975–1976*. Unpublished manuscript.
- O'Mansky, Matt, and Nick Dunning
2004 *Settlement and Late Classic Political Disintegration in the Petexbatun Region*. In *The Terminal Classic in the Maya Lowlands: Collapse, Transition, and Transformation*, edited by Artur Demarest, Prudence M. Rice, and Don S. Rice, pp. 83–10. University Press of Colorado, Boulder.
- Orrego Corzo, Miguel, and Carlos Rudy Larios Villalta
1983 *Reporte de las Investigaciones Arqueológicas en el Grupo 5E-11, Tikal*. Ministerio de Educación, Instituto de Antropología e Historia de Guatemala, Guatemala City.
- Pendergast, David
1979 *Excavations at Altun Ha, Belize, 1964–1970: Volume 1*. Royal Ontario Museum, Toronto.
1981 *Lamanai, Belize: Summary of Excavation Results, 1974–1980*. *Journal of Field Archaeology* 8:19–53.
1982 *Excavations at Altun Ha, Belize, 1964–1970: Volume 2*. Royal Ontario Museum, Publications in Archaeology, Toronto.
1990 *Excavations at Altun Ha, Belize, 1964–1970: Volume 1*. Royal Ontario Museum, Publications in Archaeology, Toronto.
- Peuramaki-Brown, Meaghan M.
2014 *Neighbourhoods and Dispersed/Low-Density Urbanization at Buenavista del Cayo, Belize*. *Research Reports in Belizean Archaeology* 10:67–79. Institute of Archaeology, Belmopan.
- Phillips, Philip, and Gordon R. Willey
1953 *Method and Theory in American Archeology: An Operational Basis For Culture-Historical Integration*. *American Anthropologist* 55:615–633.
- Pohl, Mary D. (editor)
1990 *Ancient Maya Wetland Agriculture on Albion Island, Northern Belize*. Westview Press, Boulder.
- Pohl, Mary D., and Paul R. Bloom
1996 *Prehistoric Maya Farming in the Wetlands of Belize: More Data from Albion Island and Beyond*. In *The Managed Mosaic: Ancient Maya Agriculture and Resource Use*, edited by Scott L. Fedick, pp. 145–164. University of Utah Press, Salt Lake City.
- Pring, Duncan
1976a *Report on the Excavations at El Pozito*. In *Archaeology in Northern Belize, British Museum–Cambridge University Corozal Project 1974–1975 Interim Report*, edited by Norman Hammond, pp. 128–131. Cambridge University Press, Cambridge.
1976b *Outline of the Northern Belize Ceramic Sequence*. *Ceramica de Cultura Maya* 9:11–51.
1982 *The Stratigraphic Priority of Swasey Ceramics at Cuello, Belize*. *Ceramica de Cultura Maya* 12:43–48.
- Pyburn, K. Anne, Boyd Dixon, Patricia Cook, and Anna McNair
2013 *The Albion Island Settlement Pattern Project: Domination and Resistance in Early Classic Northern Belize*. *Journal of Field Archaeology* 25(1):37–62.
- Reents-Budet, Dorie, Ronald L. Bishop, and Barbara MacLeod
1994 *Painting Styles, Workshop Locations and Pottery Production*. In *Painting the Maya Universe: Royal Ceramics of the Classic Period*, by Dorie Reents-Budet, pp. 164–233. Duke University Press, Durham.
- Reents-Budet, Dorie J.
1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Duke University Press, Durham.
- Reese, Kathryn V., and Fred Valdez Jr.
1987 *The Ceramic Sequence of Kichpanha: 1979–1985 Seasons*. In *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference*,

- edited by Prudence M. Rice and Robert J. Sharer, pp. 37–45. BAR, Oxford.
- Reese-Taylor, Katherine, and Debra Walker
2002 The Passage of the Late Preclassic into the Early Classic. In *Ancient Maya Political Economies*, edited by Marilyn A. Masson and David A. Freidel, pp. 87–122. AltaMira Press, Walnut Creek.
- Restall, Matthew
1997 *The Maya World: Yucatec Culture and Society, 1550–1850*. Stanford University Press, Stanford.
- Robertson, Robin A., and David A. Freidel (editors)
1986 *Archaeology at Cerros, Belize, Central America, Volume I: An Interim Report*. Southern Methodist University Press, Dallas.
- Robin, Cynthia
2020 The Role of Northern Belize in Shaping Maya Archaeology. *Research Reports in Belizean Archaeology* 17:3–16. Institute of Archaeology, Belmopan.
- Robin, Cynthia (editor)
2012 *Chan: An Ancient Maya Farming Community*. University of Florida Press, Gainesville.
- Robin, Cynthia, Laura Kosakowsky, Kacey Grauer, Zachary Nissen, and Kat Fitzgerald
2019 Aventura in a Northern Belize Context: Challenging Traditional Narratives of Ancient Maya Civilization. *Research Reports in Belizean Archaeology* 16:227–236. Institute of Archaeology, Belmopan.
- Robin, Cynthia, Laura Kosakowsky, Kacey Grauer, Zachary Nissen, and Melissa Jones
2017 Urban Design, Its Antecedents and Successors, at Aventura: Results of the 2015 Field Season. *Research Reports in Belizean Archaeology* 14:167–176. Institute of Archaeology, Belmopan.
- Root-Garey, Emily D.
2010 *A Household Perspective: Ceramics from a Domestic Structure at Kichpanha, Belize*. Ph.D. dissertation, Department of Anthropology, University of Texas, Austin.
- Rosenswig, Robert M., and Douglas J. Kennett
2008 Reassessing San Estevan's Role in the Late Formative Political Geography of Northern Belize. *Latin American Antiquity* 19:124–146.
- Sabloff, Jeremy A., and Gair Tourtellot, III
1991 *The Ancient City of Sayil: The Mapping of a Puuc Regional Center*. Middle American Research Institute, Tulane University, New Orleans.
- Sagebiel, Kerry L.
2005 Shifting Allegiances at La Milpa, Belize: A Typological, Chronological, and Formal Analysis of the Ceramics. Unpublished Ph.D. dissertation, Department of Anthropology, University of Arizona, Tucson.
- Sagebiel, Kerry L., and Helen R. Haines
2018 "Fools Make Feasts, and Wise Men Eat Them": Interpreting Problematic "Smash and Trash" Deposits at Ka'kabish, Belize. *Research Reports in Belizean Archaeology* 15:115–119. Institute of Archaeology, Belmopan.
- Sanders, William T.
1960 *Prehistoric Ceramics and Settlement Patterns in Quintana Roo, Mexico*. Carnegie Institution of Washington, Washington, DC.
- Sanders, Williams T., and David Webster
1988 The Mesoamerican Urban Tradition. *American Anthropologist* 90:521–546.
- Scarborough, Vernon L.
1998 Ecology and Ritual: Water Management and the Maya. *Latin American Antiquity* 9(2):135–159.
- Scarborough, Vernon L., and Gary G. Gallop
1991 A Water Storage Adaptation in the Maya Lowlands. *Science* 251 (4994):658–662.
- Scarborough, Vernon L., and Fred Valdez
2003 The Engineered Environment and Political Economy of the Three Rivers Region. In *Heterarchy, Political Economy, and the Ancient Maya: The Three Rivers Region of the East Central Yucatan Peninsula*, edited by Vernon L. Scarborough, Fred Valdez Jr., and Nicholas P. Dunning, pp. 3–13. University of Arizona Press, Tucson.
- Scarborough, Vernon L., Fred Valdez, and Nicholas P. Dunning (editors)
2003 *Heterarchy, Political Economy, and the Ancient Maya: The Three Rivers Region of the East Central Yucatan Peninsula*. University of Arizona Press, Tucson.
- Schofield, John, and Alan Vince
2003 *Medieval Towns: The Archaeology of British Towns in Their European Setting*. Equinox, London.
- Shafer, Harry J., and Thomas R. Hester
1983 Ancient Maya Chert Workshops in Northern Belize, Central America. *American Antiquity* 48(3):519–543.
- Sidrys, Raymond V.
1976 Classic Maya Obsidian Trade. *American Antiquity* 41:449–464.
1983 *Archaeological Excavations in Northern Belize, Central America*. Institute of Archaeology, University of California, Los Angeles, Los Angeles.
- Sidrys, Raymond V., and Clifford Krowne
1983 The Aventura Double Mouth Jar. In *Archaeological Excavations in Northern Belize*, edited by Raymond V. Sidrys, pp. 221–237. Institute of Archaeology, University of California, Los Angeles.
- Slater, Donald A.
2014 Into the Heart of the Turtle: Caves, Ritual, and Power in Ancient Central Yucatan, Mexico. Ph.D. dissertation. Department of Anthropology, Brandeis University, Waltham.
- Smith, Michael E.
1989 Cities, Towns, and Urbanism: Response to Sanders and Webster. *American Anthropologist* 91:454–460.
2010 The Archaeological Study of Neighborhoods and Districts in Ancient Cities. *Journal of Anthropological Archaeology* 29:137–154.
2011 Classic Maya Settlement Clusters as Urban Neighborhoods: A Comparative Perspective on Low-Density Urbanism. *Journal de la Société des Américanistes* 97(1):51–73.
- Smith, Monica L.
2019 *Cities: The First 6,000 Years*. Penguin Books, New York.
- Smith, Monica L. (editor)
2003 *The Social Construction of Ancient Cities*. Smithsonian Institution Press, Washington, D.C.
- Smith, Robert E.
1971 *The Pottery of Mayapan: Including Studies of Ceramic Material from Uxmal, Kabah, and Chichén Itzá*. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.
- Smith, Robert E., Gordon R. Willey, and James C. Gifford
1960 The Type-Variety Concept as a Basis for the Analysis of Maya Pottery. *American Antiquity* 25(3):330–340.
- Speed, Gavin
2014 *Towns in the Dark: Urban Transformations from Late Roman Britain to Anglo-Saxon England*. Archaeopress, Oxford.
- Stanish, Charles
2010 Labor Taxes, Market Systems, and Urbanization in the Prehispanic Andes: A Comparative Perspective. In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher P. Garraty and Barbara L. Stark, pp. 185–205. University of Colorado Press, Boulder.
- Stanton, Travis W., and Aline Magnoni
2008 Places of Remembrance: The Use and Perception of Abandoned Structures in the Maya Lowlands. In *The Ruins of the Past: The Use and Perception of Abandoned Structures in the Maya Lowlands*, edited by Travis W. Stanton and Aline Magnoni, pp. 1–24. University Press of Colorado, Boulder.
- Stuart, David
2017 An Intriguing Date on the Tz'unun Panel. Maya Decipherment, January 20, 2017. Electronic document, <https://mayadecipherment.com/2017/01/20/an-intriguing-date-on-the-tzunun-panel/>.
- Sullivan, Lauren A., and Kerry L. Sagebiel
2003 Changing Political Alliances in the Three Rivers Region. In *Heterarchy, Political Economy, and the Ancient Maya: The Three Rivers Region of the East-Central Yucatan Peninsula*, edited by Vernon L. Scarborough, Fred Valdez Jr., and Nicholas Dunning, pp. 25–36. University of Arizona Press, Tucson.
- Tate, Carolyn E.
1992 *Yaxchilan: The Design of a Maya Ceremonial City*. University of Texas Press, Austin.
- Thompson, J. Eric S.
1939 *Excavations at San Jose, British Honduras*. Carnegie Institution of Washington, Washington, DC.
- Tourtellot, Gair III, and Jeremy A. Sabloff
1994 Community Structure at Sayil: A Case Study of Puuc Settlement. In *Hidden among the Hills: Maya Archaeology of the*

- Northwest Yucatan Peninsula, edited by Hanns J. Prem, pp. 71–92. Acta Mesoamericana, Verlag von Flemming, Möckmühl.
- Turner II, Billie L.
1983 The Excavations of Raised and Channelized Fields at Pulltrouser Swamp. In *Pulltrouser Swamp: Ancient Maya Habitat, Agriculture, and Settlement in Northern Belize*, edited by Billie L. Turner II and Peter D. Harrison, pp. 30–51. University of Texas Press, Austin.
- Turner, B. L. II, and Peter D. Harrison (editors)
1983 *Pulltrouser Swamp: Ancient Maya Habitat, Agriculture, and Settlement in Northern Belize*. University of Texas Press, Austin.
- Vadala, Jeffrey R., and Debra Walker
2020 The Rapid Rise and Fall of Cerros, Belize: A Generational Approach to Chronology. *Latin American Antiquity* 31:143–162.
- Valdez, Fred Jr., and Shirley B. Mock
1991 Additional Consideration for Prehistoric Salt-Making in Belize. *American Antiquity* 56(3):520–525.
- Valdez, Fred Jr., Rissa M. Trachman, and Marisol Cortes-Rincon
2022 Complexity, Function, and Rurality: Prehistoric Maya Communities of Northwest Belize. *Ancient Mesoamerica* 33:132–147.
- Verhulst, Adriaan
2002 *The Carolingian Economy*. Cambridge University Press, Cambridge.
- Wahl, David, Thomas Schreiner, Roger Byrne, and Richard Hansen
2007 A Palaeoecological Record from a Late Classic Maya Reservoir in the North Petén. *Latin American Antiquity* 18:212–222.
- Walker, Debra S.
1990 *Cerros Revisited: Ceramic Indicators of Terminal Classic and Postclassic Settlement and Pilgrimage in Northern Belize*. Ph.D. dissertation, Department of Anthropology, Southern Methodist University, Dallas.
2016 Life and Afterlife at Cerro Maya, Belize. In *Perspectives on the Ancient Maya of Chetumal Bay*, edited by Debra S. Walker, pp. 56–75. University Press of Florida, Gainesville.
- Walker, Debra S., and Kathryn Reese-Taylor
2012 Naachtun, Peten, Guatemala: First Analyses, Guatemala. Electronic document, <http://www.famsi.org/reports/06035/>.
- Willey, Gordon R., Patrick Culbert T., and Richard E. W. Adams
1967 Maya Lowland Ceramics: A Report from the 1965 Guatemala City Conference. *American Antiquity* 32:289–315
- Wyatt, Andrew R.
2012 Agricultural Practices at Chan: Farming and Political Economy in an Ancient Maya Community. In *Chan: An Ancient Maya Farming Community*, edited by Cynthia Robin, pp. 42–70. University Press of Florida, Gainesville.