


Research Article

The Life and Death of Homes at Noh K'uh: The Cosmological Ceremonies of Late Preclassic Corporate Maya Households

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Abstract

The Late Preclassic (400 B.C.–A.D. 200) site of Noh K'uh in Chiapas, Mexico, is home to extended residential groups that aggregated around a small ceremonial complex at the bottom of the Mensäbäk Basin. Evidence collected from domestic contexts indicates that the Late Preclassic households of this site were organized under corporate political systems that emphasized collective identity and cosmological renewal. This article reveals how the people of Noh K'uh integrated cosmological beliefs and practices within the construction of their dwelling spaces, particularly through using cache deposits and participating in other architectural renewal ceremonies. Residents of Noh K'uh may have engaged in these practices to create “semipublic” gathering spaces for administrative and ceremonial activities at the level of the household.

Resumen

El sitio del preclásico tardío (400 a.C.–200 d.C.) de Noh K'uh en Chiapas, México, estaba compuesto de grupos residenciales extensos que se agruparon alrededor de un complejo ceremonial en el fondo de la cuenca Mensäbäk. Este artículo revela cómo la gente de Noh K'uh integró creencias y prácticas cosmológicas dentro de la construcción de sus espacios domésticos, particularmente mediante el uso de depósitos de caché y la participación en otras ceremonias de renovación arquitectónica. Depósitos ceremoniales incluyen ofrendas de cuentas, ollas enteras y hachas de piedra verde y que se encuentran dentro de contextos domésticos revelan un conjunto complejo de rituales que transformaron el significado y la importancia de los espacios domésticos. La integración de estos objetos debajo los pisos de casas transformaron estas estructuras en símbolos cosmológicos que pueden haber servido impara imbuir la casa con una fuerza vital. El énfasis doméstico en la vida, la renovación y la cosmología sugiere que esta sociedad estaba organizada debajo un modelo económico político corporativo.

Los residentes de Noh K'uh pueden haberse involucrado en estas prácticas para crear espacios de reunión semipúblicos para actividades administrativas y ceremoniales a nivel del hogar. Los contextos domésticos indica que las casas del Preclásico Tardío de Noh K'uh revelaron un estilo de organización corporativa en el que los hogares construyeron sus propios espacios de reunión semipúblicos que eran ricos en simbolismo cosmológico. Estos espacios habrían servido para alejar algunas actividades administrativas y rituales afuera del núcleo ceremonial. El tamaño de los hogares y las actividades rituales que tuvieron lugar dentro de estos espacios grandes y abiertos indica que los hogares de Noh K'uh funcionaron como grupos corporativos individuales organizados a través de un linaje extendido. Por lo tanto, Noh K'uh parecía haber sido organizado como un colectivo de pequeñas comunidades domésticas.

Keywords: Maya; Late Preclassic; household; corporate; cosmology

Introduction

Among the ancient Maya, household ceremonial activities focused on commemorating religious principles while simultaneously fostering a common identity among complex and diverse communities (Hendon 2010; Lucero 2008, 2010). Studies of ancient Maya households, in general, have provided greater understanding of the development

of hegemonic authority, societal inequality, economic distribution, and broader social trends (e.g., Ashmore and Wilk 1988; Hendon 2010; Lucero 2010; Robin 2012; Sheets 2000). Household research has also highlighted the relationship between the social and economic processes of everyday people and broader-scale social and political processes (Burham 2022; Gonlin 1994; Hendon 1996; LeCount and Yaeger 2010; Robin 2003; Robin et al. 2010). For example, multiple minor temple complexes at the Preclassic (1000 B.C.–A.D. 250) site of Ceibal (Burham 2022:278; Burham et al. 2020) demonstrate how multiple domestic groups gradually grew over time to create distinct neighborhoods, where people

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Cite this article: Juarez, Santiago (2023) The Life and Death of Homes at Noh K'uh: The Cosmological Ceremonies of Late Preclassic Corporate Maya Households. *Ancient Mesoamerica* 34, 670–689. <https://doi.org/10.1017/S0956536122000311>

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planned and maintained their own sectors. Similarly, long-term analyses of ritual deposits within the site of Chan, Belize (Kosakowsky et al. 2012; Robin et al. 2012), reveal a direct correlation between the expansion of household shrines and of domestic ceremonial activities and the waning influence of the nearby polity of Xunantunich.

During the Late Preclassic (400 B.C.–A.D. 250), many Maya communities experienced increased population growth, expansion of monumental construction programs, and greater investment of both time and labor into ceremonial practices (Coe and Houston 2015; Rice 2007; Rosenswig and Lopez-Torrijos 2018). Recent research has brought increased attention towards how households contributed towards this period of expansion, especially in regard to sociopolitical organization. In the study of emergent civilizations, Inomata et al. (2015b) have called for research that does not position hierarchical elites in opposition to the broader population. I consider this holistic approach at the Late Preclassic (400 B.C.–A.D. 250) site of Noh K'uh in Chiapas, Mexico by analyzing how households sought to distinguish group identities through differences in settlement patterns (Juarez 2021) and ritual offerings (described in section Commemorative Ceremonies below), while simultaneously commemorating a collective identity at the level of the site through the construction of a ritual center. Using an approach that begins with the analysis of domestic contexts, this article discusses how household caches and dwelling renewal ceremonies reflect the general trend toward centralization (Guernsey and Love 2005; Kaplan 2011; MacLellan 2019a, 2019b) and urbanization (Burham et al. 2020; Burham 2022; Hansen 2001; Ringle 1999) that occurred in Late Preclassic Mesoamerica. At Noh K'uh, extended household clusters of 12 or more structures were aggregated to create the community of Noh K'uh. Every household cluster was constructed on top of artificial plateaus, which contained open-air gathering spaces, numerous domestic activities, and an array of pyramid and elongated platform structures (Juarez 2021). In other words, the individual artificial plateaus appear to have functioned as their own distinct communities, with their own defined spaces for social and religious gatherings. The presence of a well-defined monumental center, however, suggests that a separate space was needed for community-wide activities. The ceremonial activities discussed in this article indicate that household rituals shared a cosmological theme with the monumental center and blurred the line between centralized and noncentralized political organization.

Noh K'uh was a Preclassic site with a ceremonial center located in the northern base of the Maya highlands along the southern border of the lowlands (Juarez et al. 2019). During the Late Preclassic, Noh K'uh may have been one of the largest communities near the Usumacinta River region, where most of the population was scattered across the region in small communities (Golden et al. 2008). The concentration of households and a public arena reflects a broader Preclassic trend towards centralization, signified by the construction of defined spaces for political, religious, residential, and economic activities (Sanders and Webster 1988; Fox 1977; Smith 2003).

This article focuses on offerings made during the construction of these mounds and other moments of architectural renewal. The burial of caches in household spaces was a common activity in the Americas (Barber et al. 2013; Bauer 2005; Becker 1992; Coe, 1959; Harrison-Buck 2004), and examples from Noh K'uh reveal how residential ceremonial activities sustained distinct and influential households by commemorating domestic spaces. On their own, rituals of household renewal are ubiquitous across time and space in the Maya region, but when contextualized with previous research on extended household design (Juarez 2018), large domestic construction programs (Juarez 2021), and broader monumental programs dedicated to cosmological practices (Juarez 2022), domestic ceremonies reveal a social pattern typical of corporate-leaning societies. The complexity and scale of Noh K'uh's ceremonial practices may indicate that multiple households played a guiding role in organizing the broader community, which would have divided power and control across the populace residents, as is common in communities with corporate forms of social organization (Beekman 2008; Blanton et al. 1996). I argue that the house society model, a form of corporate organization, helps to describe the patterns observed across the households of Noh K'uh and that most of Noh K'uh's community was organized through the prominent households that participated in large-scale ritual practices within domestic gathering spaces.

The study of ceremonial offerings deposited during domestic construction events and other architectural renewal ceremonies can enable us to better understand the relationship between individual households and the broader sociopolitical shifts of increased urbanization during the Maya Late Preclassic. In their discussion of corporate societies, Blanton et al. (1996:13) argue that corporate political-economic systems were accompanied by rituals practices based on themes of social and cosmological renewal. Corporate strategies also promote technological innovation and expansion, focused on rituals of renewal. In Noh K'uh, I argue that similar themes of ritual renewal and large-scale investments in the domestic sphere coincide with corporate strategies. Commemorative offerings and ceremonies visibly emphasized the significance of domestic spaces and residential shrines. For instance, the internment of necklaces, jade, complete vessels, and other intact objects demonstrates how the ceremonial behavior within domestic habitation and ritual spaces resembled patterns observed in monumental contexts. The scale and cosmological symbolism of household ceremonial activities highlight the importance of group gatherings in semipublic spaces, which may have complemented the larger scale gatherings in Noh K'uh's monumental public sphere. Such practices are consistent with models of corporate house societies (Beck 2007; Carballo 2011; Gillespie 2000a, 2000b; Monaghan 1996). The Late Preclassic expansion of caching activities across the Maya region (Harrison-Buck 2004; Kosakowsky et al. 2012; MacLellan 2019a) is a testament to how households also grew in prominence during this era.

Giving life to the home

Mesoamerican households were complex places in which identity, community, and ideology were expressed, negotiated, and sometimes contested (Ashmore and Wilk 1988; Hendon 2010; Joyce 2000; Lucero 2008; Robin 2002). In ancient Mesoamerica, houses were spaces for both utilitarian and religious practice and were seen as an inextricable part of the broader cosmological universe (Grove and Gillespie 2002; Harrison-Buck 2004; Lucero 2010). The importance of cosmology, ancestor worship, and deities to everyday life was often manifested in ritual caching (Barber et al. 2013; Bauer 2005; Becker 1992; Coe 1959; Harrison-Buck 2004; Lucero 2008, 2010). Caching refers to the intentional burial of objects during ritual events that transformed the meaning of particular spaces and features and by invoking references to gods and a living Earth (Becker 1992:193). Caches were particularly common in the termination and renewal ceremonies of Preclassic public construction projects, such as those found at Ceibal (MacLellan 2019a). These offerings ranged in size and complexity; some caches assembled objects into intricate and meaningful patterns that evoked references to the creation of the multileveled and multidirectional universe (Bauer 2005; Harrison-Buck 2004; Robin et al. 2012). For example, a complex cache at the site of Cival, Guatemala, consisted of five intact ceramic jars, multiple jade celts, and beads arranged within a cross-shaped pit that included shelves organized along different elevations (Estrada-Belli 2006). The emphasis on cardinal directionality and differences in elevation may represent an axis mundi in the site's central ceremonial plaza (Estrada-Belli 2006), transforming the space into a microcosm of the cosmological universe. References to the universe also often integrated cardinal symbolism with an emphasis on the center (Vogt 1976). Aimers and Rice (2006:79) argue that the emphasis on cosmological symbolism and ritual geography played a significant role in political structures of the Preclassic Maya.

The ancient Maya did not compartmentalize sacred and nonsacred practices, behaviors, and places, because they considered that all aspects of the universe were alive and interconnected (Astor-Aguilera 2011). Scholars have described this Maya universe as an axis mundi, in which all its elements were organized according to a cosmological order that juxtaposed life and death (Scherer 2015), the heavens and the underworld (Ashmore and Sabloff 2002), and east and west (Ashmore 1991; Estrada-Belli 2006). Mesoamerican versions of the axis mundi, however, were complex and included various multidirectional symbols that extended beyond the cardinal directions, and were particularly focused on axial centers (Rice 2004). All aspects of the world "were alive, pervasively imbued with cosmological meaning, or cosmovision" (Ashmore 2009:185).

Houses were no exception to this holistic worldview, as evidenced by the association of ancestor worship, household offerings, and cosmological symbolism with ancient household contexts across the Maya world. For example, Hammond (1999) found evidence of ritual destruction and reconstruction of house platforms at the Preclassic site of

Cuello, Belize, which he connected to the growth and development of dwelling structures and the importance of ancestral worship. Robin et al. (2012) found cached offerings in houses that referenced cardinal directionality and ancestral worship during the Middle Preclassic (1000–400 B.C.) within a small agrarian community in Chan, Belize. Ceremonial practices associated with cosmological renewal were observable in all aspects of ancient life, but they were nonetheless influenced by societal changes over time. Ceremonies that referenced broader ancestry eventually gave way to rituals that commemorated specific individuals, which coincides with the rise of early elites at the end of the Preclassic. McAnany (2001, 2002), for example, revealed a trend toward increasingly lavish adornments in the burials of prominent ancestors, which contributed to the unequal distribution of power and influence in these communities and eventually led to the creation of royalty at the site of K'axob, Belize.

Houses were also central to the construction of social identity and were even regarded as living beings (Grove and Gillespie 2002:17; Lucero 2010; Plunket and Uruñuel 2002). Grove and Gillespie (2002) argue that a home experienced birth, death, and a type of afterlife in which the building was transformed from a dwelling to an ancestral shrine. As a living being, the house was maintained and renewed through specific ritual practices that combined images of birth and death. For example, dwelling renovations involved both the destruction and creation of physical structures, thus, paralleling the processes of death and rebirth (Lucero 2010). Maya houses were part of a larger ideological system that treated all things in the world as living entities that had to be sustained through repeated offerings (Lucero 2008, 2010).

Even though houses and offerings were smaller in scale than those in ceremonial centers, they still connoted the same emphasis on cardinal directionality and a multilevel universe as did public gathering spaces. Caches were also often a component of dwelling termination and renewal ceremonies that worked to animate structures (Lucero 2006:60–63, 2008, 2010). Within the Maya region, residential caches grew in popularity during the Late Preclassic (MacLellan 2019a:1260; McAnany and Lopez Varela 1999:158). The presence of multiple ceremonial offerings in the same dwelling structure also became increasingly common during the Late Preclassic. In K'axob, Belize, for example, a single household floor could contain several human burials and complex object caches that integrated quadripartite symbolism (Harrison-Buck 2004; McAnany and Lopez Varela 1999). At Ceibal, researchers found a distinct shift in ritual caching over time. In the Middle Preclassic, caches were in public spaces and contained greenstone celts, and domestic caches were rare (MacLellan 2019a:1261). For example, at the site of Chan (Robin et al. 2012:118), a single jade object was represented the only domestically cached item that was interred during the Middle Preclassic. In the Late Preclassic caches were more variable, including ceramic vessels, inhumations, obsidian, and other common objects found in both public and domestic contexts (Aoyama et al. 2017b; MacLellan 2019a:1260–1261). New trends began to emerge, such as the use of inverted vessels and increased numbers of

inhumations (McAnany and Lopez Varela 1999). By the Late Preclassic, ceremonial responsibilities were spread across entire communities and could be observed in both public and private contexts.

Corporate house societies

Corporate-leaning societies are organized under group leadership systems and they promote collaborative approaches towards labor, resource distribution, and religious practices to inhibit exclusionary strategies (Beekman 2008; Blanton et al. 1996). While these societies demonstrated some egalitarian principles in the distribution of power and resources, they still exhibit hierarchical divisions, inter-community competition, and tensions between groups (Gillespie 2000b:477). I utilize a broad definition of corporate-leaning societies so that I can draw comparisons to contemporary societies that follow a similar political-economic model but demonstrate drastically different material cultures. Corporate political-economic systems attempted to find a balance between providing a centralized authoritative body, but also prevented individuals from seizing too much control and authority. I pay particular attention towards the ceremonial activities in households, because they indicate a level of independence that Carballo et al. (2021) describe as “semipublic,” in which large households functioned as distinct units but were still coordinated around a shared ceremonial plaza. Carballo and colleagues indicate that semipublic spaces were used by intermediate elites to host larger group gatherings that reified their status within their neighborhoods. Large open courtyards were used as marketplaces, for ballgames, and for ritual performances, and each apartment complex included specialized spaces for food preparation and storage (Carballo et al. 2021:558). Preclassic societies like Noh K’uh bear almost no resemblance to the city of Teotihuacan, especially in regard to the size and complex architecture described in Teotihuacan’s apartment complexes. The same emphasis on specialized activity spaces, open-air gathering areas, and ceremonial structures, however, was present in Noh K’uh domestic spaces (Juarez 2018, 2021). In fact, a ball-court like structure exists in between two large domestic clusters, which served to physically bridge two modified hilltops (Juarez 2021:7). The size and scale of domestic spaces suggests that these semipublic spaces were used for group activities beyond the immediate household.

Blanton et al. (1996) argue that, in the Preclassic, public rituals focused on cosmology and renewal ceremonies in which groups of local leaders used concepts of fertility and renewal to organize and construct large cities. They claim that Preclassic leadership was more concerned with creating group solidarity than accumulating individual prestige and, as a result, there was a deemphasis on individual leaders—a hallmark of corporate political organization. Group-oriented cosmological renewal practices have been documented across many monumental centers of Preclassic Maya communities. Inomata et al. (2015a) argue that civic-ceremonial activities in public gathering spaces fostered the construction of communal identity, even before populations became fully sedentary.

Scholars have documented several material correlates of corporate systems of organization in ancient Mesoamerica. First, there was a lack of individualistic imagery, particularly images related to local leadership; this served to promote a greater emphasis on the group than on individual identities (Blanton 1998:149; Blanton et al. 1996; De Lucia 2008). Second, resources were distributed evenly across groups, rather than concentrated among select individuals (Joyce 1999:16). Religious ideals and structured political interactions enforced egalitarianism that focused on inhibiting exclusionary strategies across communities (Beekman 2008; Blanton et al. 1996). Third, religious systems placed great importance on cosmology and the broader universe, particularly ceremonies of renewal (Blanton et al. 1996:6). Finally, in some corporate societies, households included many people, consolidating their group identity through construction programs that embellished dwellings and ancestral shrines (Gillespie 2000b, 2011:104).

In house societies, originally described by Lévi-Strauss (1963), the “house” is a symbolic label for a corporate household in which membership extends beyond kinship lines and integrates concepts of territory into group identity. Gillespie (2000b) applied the corporate house model to explain the connection between Classic Maya households and ancestral worship and shrine construction; she also explored how households grew in size and influence, as the construction of shrines and the development of ancestral worship established permanent lineage rights over an occupied territory. The metaphorical and physical “house” came to represent a permanent manifestation of a lineage group as ancestry, property, and future descendants.

Evidence of house societies can be observed at different times and places throughout Mesoamerica, but Carballo (2011:150–152) emphasized variability in strategies of affiliation. House societies took on different forms and scales in the Mixtec, Nahua, and the Maya, and their existence often relied on the establishment of inclusionary political systems and more commercialized economies. Additionally, the same model of affiliation may also not apply to an entire community; for example, Gillespie (2000b:477) described corporate structures in only the largest and most influential households of the Classic Maya period. House societies therefore existed under particular conditions in which both the domestic sphere and the broader community were organized according to inclusionary corporate systems. I argue that Noh K’uh was organized according to a corporate system, which allowed several influential households to foster alliances that sustained a larger collective identity.

Given the diversity of Preclassic societies, researchers (Carballo 2011; Watanabe 2004) have warned against applying social and political models too broadly or simplistically. Large-scale shifts in sociopolitical systems occurred in the Late Preclassic, but nothing was absolute or universally experienced. Noh K’uh’s households share many characteristics with sites across the Chiapas region, but still distinguish themselves in small variations in settlement pattern and site design. Drawing upon ethnographic parallels can also be problematic, as no modern or historic society demonstrates the same lifestyle patterns observed in these

Preclassic communities. Furthermore, ethnographic parallels reveal that social organizations within a single community are regularly contested and prone to change, which is why Watanabe (2004) warns against applying the corporate house model either too broadly or in a conclusive manner. Watanabe further argues that corporate organization systems and lineage based social structures are indistinguishable in the archaeological record, because his ethnographic observations describe how individual families fluctuate between different social systems depending on shifts caused by marriages, inheritance, and death. Significant changes in social structure caused by colonization, nationalism, and globalization also limit the applicability of ethnographic data. Disregarding ethnographic observations, however, can also be an overcorrection, especially in the pursuit of non-Western modes of thinking. Flawed as they may be, models like the corporate house model provide a means of understanding a society that was fundamentally different from the prevalent individualistic and capitalistic structures of the modern global economy. Additionally, I employ such corporate models as a provisional explanation for the large and extended household groups that converged together at this site. Watanabe's observations on the ambiguity of material correlates between differing systems of filiation are valid for well-defined domestic units known as patio groups in the Maya region, but Noh K'uh's households did not follow this pattern. Noh K'uh's mound groups tended to be larger and the boundaries between groups are ill-defined (Juarez 2021). My use of corporate political economical models is an attempt to explain why these large household clusters formed within such proximity to each other within an environment of limited resources. The house model provides some insight into the paradoxical relationship between large and influential households and a shared community identity.

Corporate systems of affiliation produced observable architectural trends in both the public and domestic spheres. In Teotihuacan, Carballo et al. (2021) highlight how cosmological symbols were integrated in residential plazas and courtyards to create semipublic spaces. MacLellan and Castillo (2022) similarly identify heterarchical organization systems in domestic platforms that were used for ritual performances (possibly feasting and dancing), which reveal a sphere of interaction between domestic and public contexts in Middle Preclassic Ceibal. Such spaces spread power and resources across these communities by enabling ritual and administrative activities to take place across the entire site. Noh K'uh's domestic areas had large plaza spaces between their habitations, and each plaza included a pyramid-shaped shrines among the aggregate of domestic mounds (Juarez 2018, 2021). In this article I demonstrate how these extended household groups integrated cosmological symbols into their foundations, thus providing Noh K'uh with semipublic gathering spaces that would have promoted gatherings outside the main ceremonial core.

The site of Noh K'uh

Noh K'uh is a Late Preclassic site located in a small intermontane basin found along the northeastern edge of the

state of Chiapas; it is known as Mensábäk by local Lacandon residents (Figure 1). It is one of several sites located within the basin and is part of a larger umbrella investigation, the Mensábäk Archaeological Project (MAP), which is directed by Joel Palka of Arizona State University and Fabiola Sanchez of Xanvil Asociación Civil. The site was originally identified in 2010 within the agricultural field of the modern-day Lacandon of Puerto Bello Metzabok (Mensábäk is an alternative spelling). Noh K'uh was further divided into subsites when large concentrations of house mounds were identified surrounding the ceremonial core. To date, 176 mound features have been identified through traditional survey methods using a laser theodolite and GPS technology. A recent light detection and ranging (LiDAR) scan collected and compiled by the National Center for Airborne Laser Mapping in the summer of 2019 revealed the full extent of the site with multiple household mounds congregating near the ceremonial core and covering a space of more than 200 hectares (Figure 2).

Settlement data from Noh K'uh indicate a sizable population along the northeastern borders of the Chiapas Highlands and just past the southern boundary of the Lowlands. The Usumacinta River Valley is located 30 km to the east of the Mensábäk Basin. During the Late Preclassic, the Usumacinta region was home to small populations in sites characterized by large earthen and stone construction works in association with small habitations that were engaged in the construction of large (possibly defensive) structures. Such sites included Yaxchilan, Piedras Negras (Houston et al. 2003), El Cayo (Lee and Hayden 1988), El Kinel, La Técnica (Scherer et al. 2006), and Zancudero (Arroyave et al. 2006). Other sites like Sak Tz'i' (Golden et al. 2020:73) and Rancho Bufalo (Dobereiner and Jimenez Alvarez 2015) further establish the presence of Preclassic occupations in this region during the Middle Preclassic.

MAP investigators continue to find that sites throughout the basin—including Chak Aktun (Palka 2014), Tzunun (Hernandez and Palka 2017), and Tz'ib'ana (Deeb 2011; Hernandez 2019)—have similar Preclassic origins. Except for Noh K'uh, all the sites investigated by MAP were reoccupied and repurposed during the Postclassic (A.D. 1000–1500). The basin may have been home to a large and thriving community during the Late Preclassic, but distinct differences in settlement patterns and material culture could signify that the occupations were not all simultaneous. Most sites were closely associated with the Mensábäk lake system, but Noh K'uh was located two km from the shoreline. Ceramic investigations thus far reveal minor differences in forms: the lakeshore sites have more jars (Ocampo 2013), whereas Noh K'uh contains more dishes and bowls with labial flanges (Juarez 2014). The lakeshore also offers a rocky terrain that, although not well suited for agriculture, provided a steep topography that was good for defensive purposes (Hernandez and Palka 2017). Survey data from Tzunun provide an image of a small population that was invested in the construction of large defensive barricades (Hernandez 2014). Noh K'uh, which is in the center of the basin, has yet to demonstrate any defensive features. Even though chronological data place all these sites within the Late



Figure 1. Location of Noh K'uh and other Preclassic sites. Map by the author.

Preclassic, it is not clear whether differences among them were the result of variable cultural affiliations, shifts in settlement practices, or sudden occupational relocations that all took place within the Late Preclassic period. Residents of the basin may also have altered their settlement practices in the face of broader regional forces, such as increased warfare, but more precise chronological information is needed to support this interpretation.

Dates from intact features in four distinct areas of Noh K'uh all cluster between 482 and 1 B.C., but materials collected from architectural fill provide dates as early as 893–761 B.C. (Juarez 2021:4); this fill is a heterogeneous mix of clay, stone, and small amounts of human refuse. Given the size and scale of Noh K'uh, it would only be logical to expect a deeper chronological history, but intact Middle Preclassic features have yet to be identified. The Late Preclassic construction process tended to incorporate large amounts of cultural fill, which led to the destruction of older features.

Methods

Thirty-two 2 × 2-m test pits were excavated near visible mound walls to better understand the architecture of

individual mounds. Test pits from 2011 had identified Mound NK-B-5 as a domestic structure, and in 2016, a 6 × 8-m horizontal excavation was done on top of a small mound in subsite NK-B. The excavation was placed over the southeastern half of the structure because the northwestern portion of the mound was heavily damaged by looting activity. A small operation to clean the looter's pit backfill (labeled NK-3B-C), and the stratigraphic profile revealed by the looting activity was used to guide the larger horizontal excavation (labeled NK-3B-B). The profile of both suboperations is depicted in Figure 3.

Commemorative ceremonies

In general, houses were complex spaces that were built in multiple construction phases. Residents reshaped their local environment to accommodate extended households across earthen platforms that measured 150 m in length or more (Juarez 2018). Subsites NK-A and NK-B represent distinct mound clusters aggregated along modified hilltops; excavations identified evidence of ceremonial activities that related to animism in houses, particularly elements relevant to the renewal of dwellings. Operations within a third subsite (NK-F) highlighted differences between construction

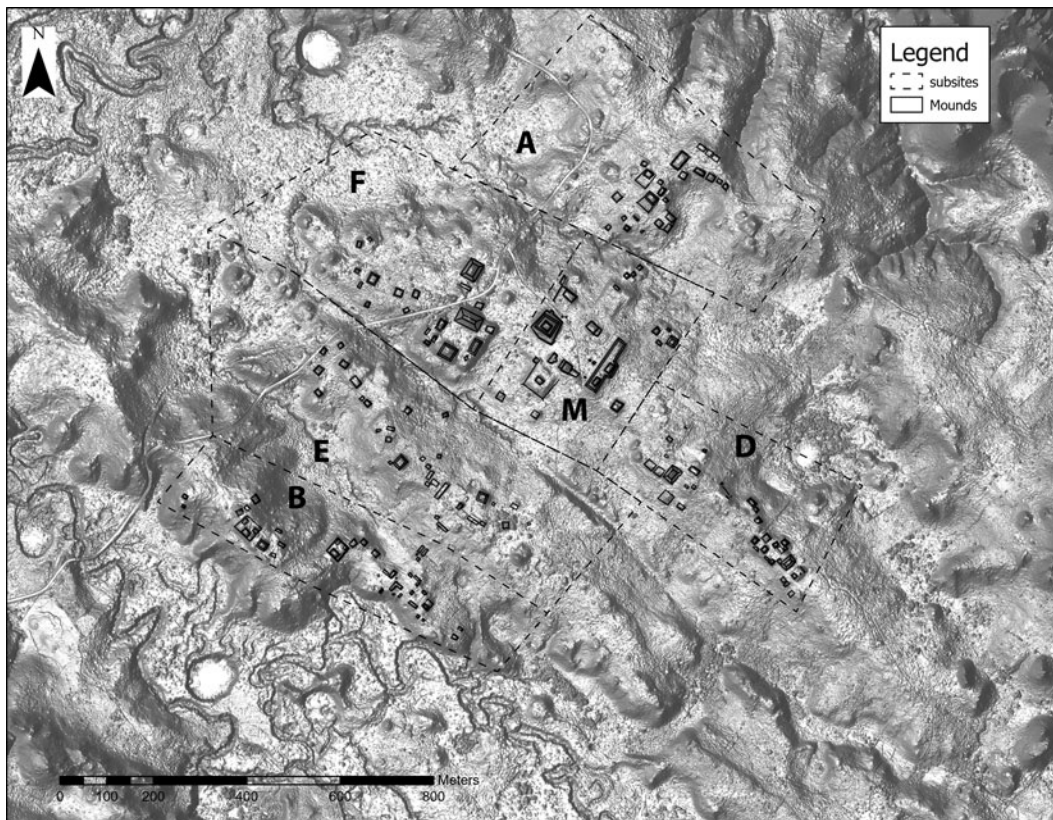


Figure 2. LiDAR map of recorded monumental structures and house mounds with subsites delineated. Map by the author.

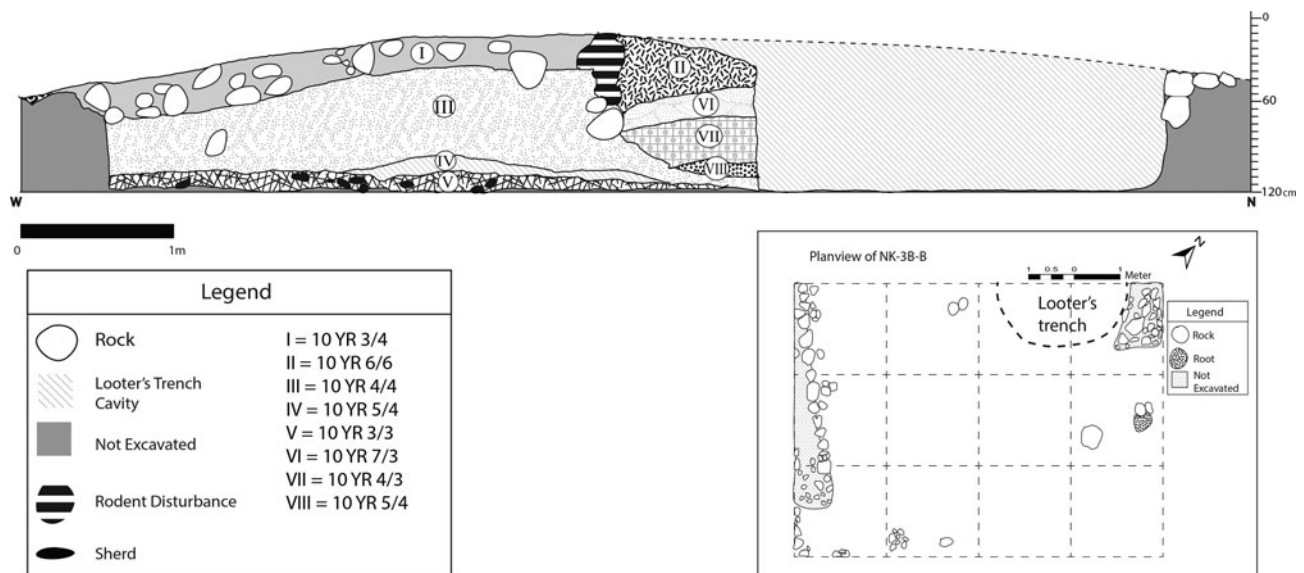


Figure 3. Northwest profile of excavations NK-3B-B and NK-3B-C. Illustration by the author.

of the ceremonial core and of the rest of the site. This subsite represents a set of monumental constructions that were immediately adjacent to the site's central ceremonial center. Analysis of these three subsites revealed a diverse set of household ceremonies that commemorated the construction of individual dwelling spaces.

Subsite NK-A

NK-A, a subsite located at the northern extent of Noh K'uh, reshaped the topography of a hill through a series of 24 mounds that increase in size and architectural complexity as the elevation rises. Four test pit excavations in subsite

NK-A revealed an accumulation of cultural deposits comprising a heterogeneous mix of dense clay and mixed artifacts. After excavating to a depth of two m below the surface, we did not reach any sterile deposits, indicating that the entire space underneath mounds NK-A-1 through NK-A-4 was formed by human activity. The more elaborate mounds integrated the construction of basal platforms, giving the formation the appearance of complexes referred to as plazuelas in the Maya region. Plazuelas are defined by the presence of large platforms that house multiple perishable structures and often include a household shrine in the form of an elevated dwelling foundation (Ashmore 1981; Chase and Chase 1996:69–70). Recent settlement surveys and LiDAR data now indicate that these mounds were not representative of a single house lot but were instead subsidiary structures of a larger and more complex collection of mounds immediately to the northeast.

I placed test pits NK-2-A-1 and NK-2-A-2 (Figure 4) directly along the edges of stone walls on the edges of Mound NK-A-3, which revealed that it was primarily made of clay with stone cobbles used to construct small retaining walls. The clay within these retaining walls was dense enough to break excavation tools, suggesting that they

could have served as compact earthen floors. Profile images from Mound NK-A-3's test pit excavations exhibit evidence of multiple construction phases, in which each layer was composed of dense clay and mixed cultural fill. Within this test pit there is evidence of at least two separate construction phases in which a new platform was constructed over an older one. The 1.3 m worth of fill and clay reveal how the façade of the hill was reshaped over time (Figure 5). The construction of new supporting structures necessitated the movement of earth that, over a few generations, led to the transformation of Noh K'uh's environment. The amount of earth used in the construction, however, was greater than what was needed to build a shelter: the entire space surrounding Mound NK-A-3 was also reshaped and flattened. The amount of labor invested in the construction of this mound accentuates the value of this space, and associated caches provide further evidence that these constructions had deep ceremonial meaning.

Test pits identified only small amounts of material culture mixed within the dense clay used to construct the foundation. The exceptions were a deposit of necklace beads and a complete pot on top of the surface of the older platform; both the beads and the pot appear to have

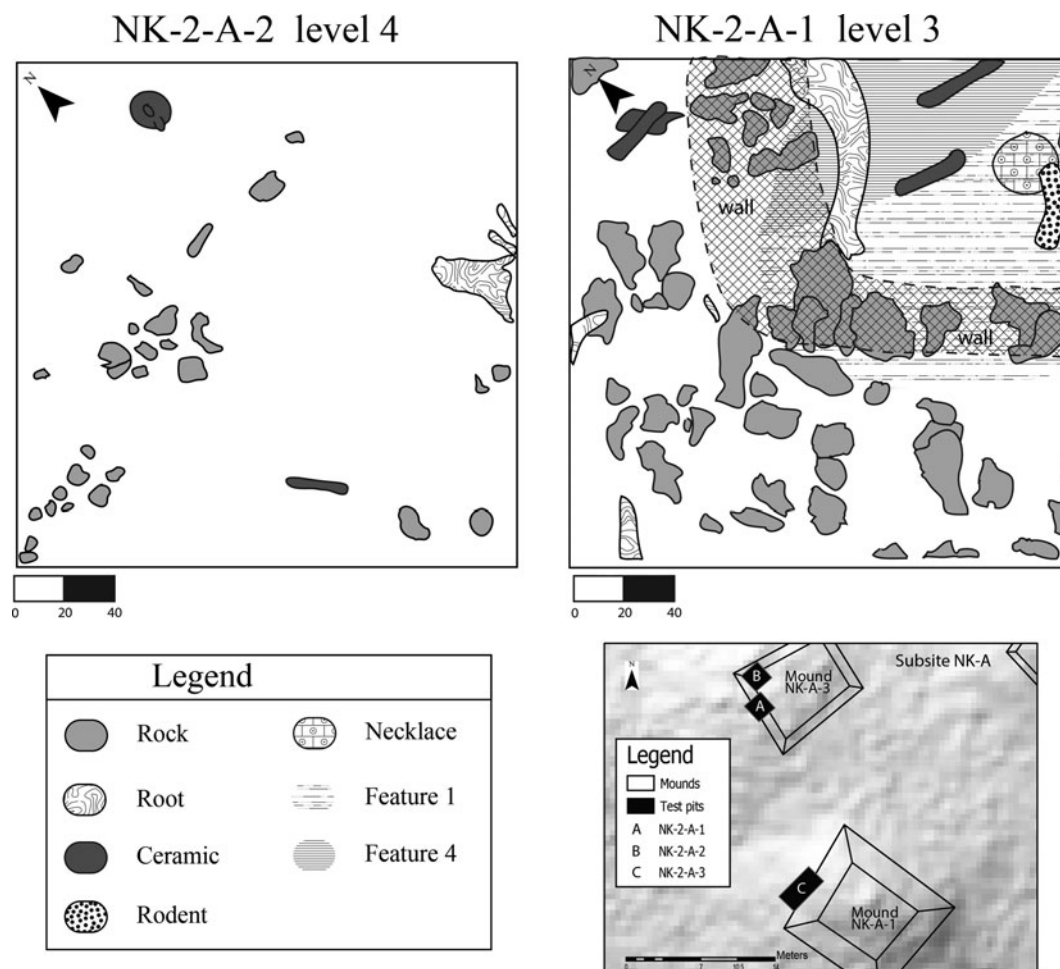


Figure 4. Plan views of test pit excavations NK-2-A-2 and NK-2-A-1. Illustrations by the author.

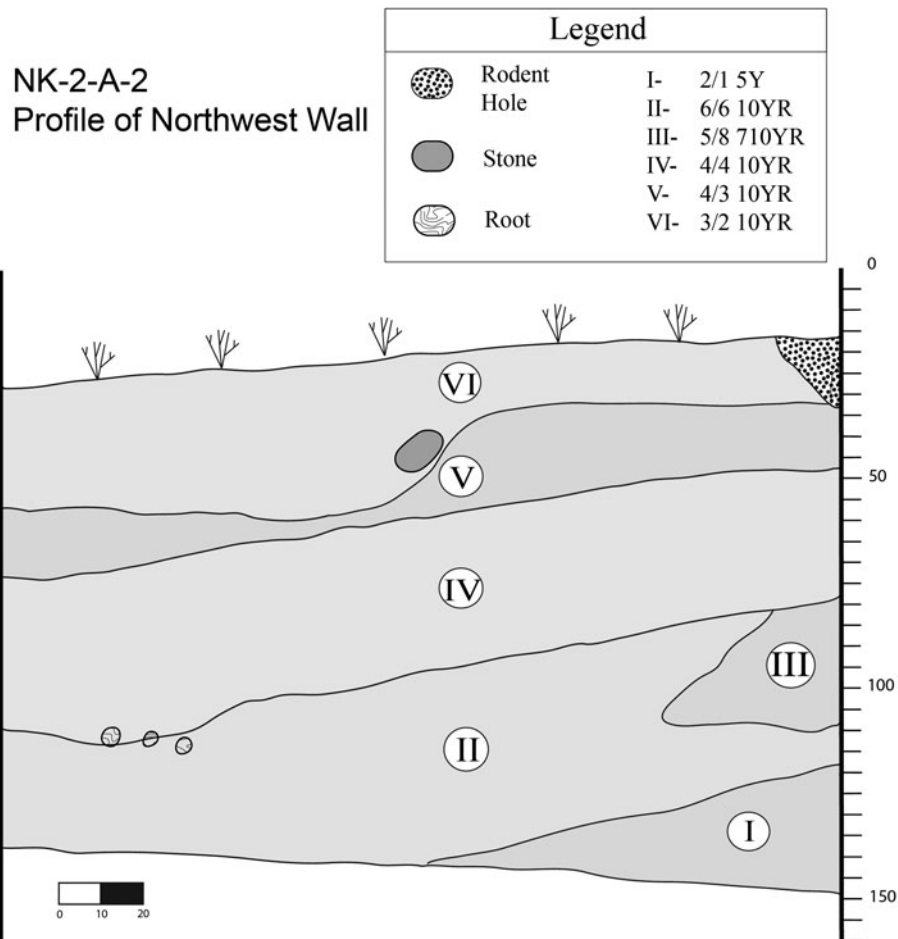


Figure 5. Profile of northwest wall of excavation NK-2-A-2. Illustration by the author.

been intentionally buried underneath the fill of the newer platform. No associated pit was identified with either of these deposits, indicating that these objects were placed during the process of construction. Hammond (2001:36–37) described a similar phenomenon in the site of Cuello, in which the offerings were placed on top of the remains of deconstructed dwellings. At Cuello, the stones and retaining walls of dwelling foundations were removed, leaving only the earthen mound that made up the body of the original platform. The earthen mound was then covered with a layer of fill and stone to construct a newer and larger platform. MacLellan (2019a:1253) also described evidence of nonintrusive caches at the site of Ceibal. Findings from these test pits suggest that similar activities could have taken place at Noh K’uh.

Excavation NK-2-A-3 identified a cache of beads (Figures 4 and 6) along the western edge of Mound NK-A-3. The tight clustering of the beads implies that they may have been deposited as one complete necklace or possibly two. The dense matrix of the clay, combined with its high moisture content, severely degraded many of the beads, especially those made of ceramic and bone. The poor condition of an associated jade pendant further hints that the necklaces could have been damaged by a firing activity that shattered this normally durable artifact into several jagged fragments.

No ash was identified in association with this cache, however, and like other deposits discussed here, this collection of beads was deposited in the architectural fill.

A second and better-preserved ceramic pendant was in the form of a zoomorphic figure (resembling a coati or other long-snouted animal). The cluster also included three jade beads, four human teeth, and a single imitation tooth made of ceramic. The blackened color of the molars illustrates that the teeth were also exposed to fire at some point, but again no evidence of ash was visible in the surrounding matrix (Figures 4 and 6). The three teeth were found directly in a straight line, indicating that they were arranged in a sequence.

A complete vessel with a spout and handle was discovered in the northern corner of excavation NK-2-A-2 within the fill of the most recent construction phase along the northwest side of Mound NK-A-3 (Figure 7). The vessel suffered significant deterioration from the surrounding matrix. To date, this is the only complete vessel found in Noh K’uh—all other ceramics have been found in fragments in either architectural fill or Late Preclassic middens. The vessel itself was placed in an upright position with its spout facing due south. Its reconstruction reveals a rim with inward curved shoulders formed around the open mouth of the vessel located at the top. The lip of the mouth is traversed by a

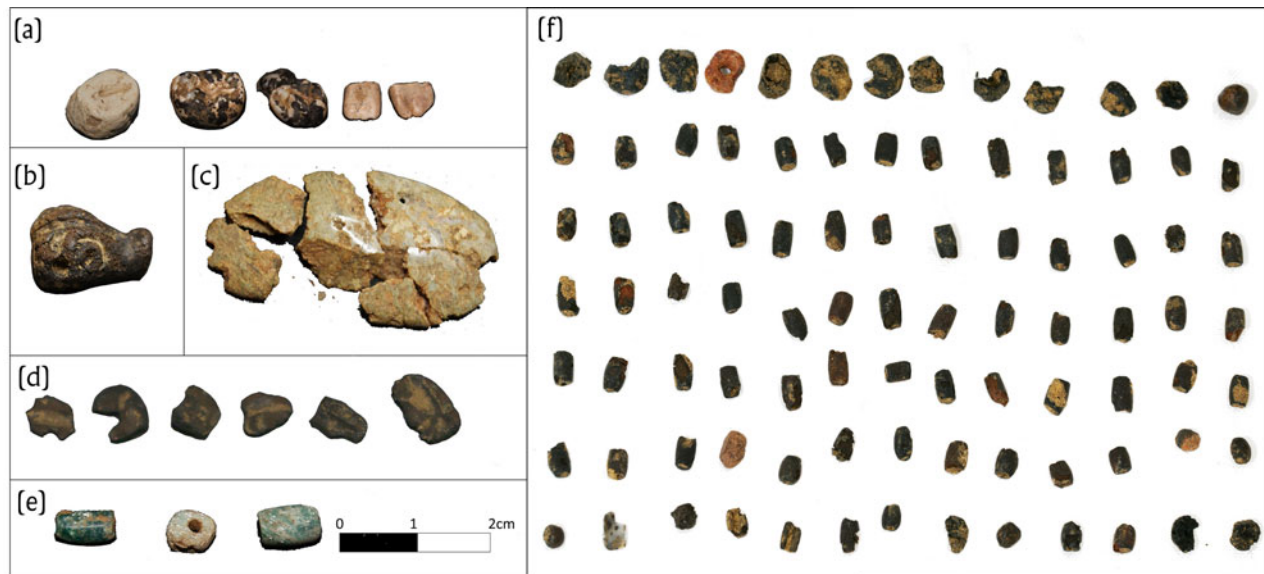


Figure 6. Images of bead cache recovered from test pit NK-2-A-1. (a) Human teeth. (b) Ceramic coati head. (c) Shattered greenstone pendant. (d) Ceramic beads. (e) Jade beads. (f) Ceramic beads. (a–e) Photographs by the author; (f) photograph by Yiduo Heo.

ceramic handle that runs along the length of the pot. The completeness and careful positioning of the vessel are strong indicators of intentional placement. The interment of this vessel may also be linked to a Late Preclassic transition in ceremonial offerings in which the burial of pottery became a common practice (MacLellan 2019a:1261). Although it cannot be presumed that the vessel was used in this space, it is worth noting that the only complete vessel found in this project is associated with ceremonial behavior. Test pits exposed the stratigraphy of Mound NK-A-3 and found no evidence that the caches were intrusive features within its foundations. The precise function of Mound NK-A-3 remains unclear, but it was one of the subsite's smaller and simpler structures. The level of labor investment in such a small building likely signified the ubiquity of caches in household construction contexts at Noh K'uh.

Mound NK-A-1

A 2 × 4-m test pit placed near Mound NK-A-1 (NK-2-A-3) uncovered more evidence of continuous reconstruction activities and a burning activity buried underneath a more recent construction event (Figure 8). Remnants of small ceramic bowls were found in association with a dense ash deposit located on the western corner of this mound. Two carbon samples collected from this deposit date to the first half of the Late Preclassic, with dating ranges of 378–171 B.C. (Juarez 2021:4) and 379–121 B.C. (Juarez 2021:4), which fall within a similar temporal range of other surface sites investigated at Noh K'uh. In addition to a small collection of ceremonial bowl fragments, the assemblage collected from this deposit included a speleothem (cave stone), turtle shell, carnivore teeth, a small fragment of fossilized bone, and some charred unidentified paleobotanical remains.

The final levels of the excavation unearthed the remnants of a dense layer of clay used as the base structure of Mound NK-A-1. Most clays encountered during excavation were

dense, but this particular layer was notably compact and homogeneous. This layer of light-gray clay (5/8 10YR) was shaped into a trapezoidal platform at 135 cm below datum. Local Tzeltal Maya field assistants indicated that they had used this type of clay in the construction of dirt floors before they gained access to concrete. One assistant also noted that this material achieves a durable hardness when exposed to the sun. The excavation profile along the southeast wall of unit NK-2-A-3 revealed the corner of this solid clay structure (context I and II in Figure 8). Unfortunately, our field season was closing when excavators reached this layer, so it is not clear whether this was the earliest construction phase.

Subsite NK-B

Subsite NK-B was the most intensively investigated subsite in all of Noh K'uh, with a total of 15 test pits, one separate 6 × 8-m horizontal excavation spread over three suboperations: NK-2-B, NK-2-C, and NK-3B-B. More than 42 mounds were found within three mound aggregates located on the uppermost elevations of a low-profile, elongated hill. This elongated hill was used to delimit the boundaries of subsite NK-B. The investigation centered on a cluster of mounds that included several stone and earthen platforms constructed in various sizes and shapes. These mounds are oriented along an intercardinal axis but are otherwise loosely dispersed across this hilltop. The test pits that I placed across this space (Figure 4) revealed several complex behaviors where domestic and ceremonial activities overlapped with each other. Elsewhere, I discussed how this space was artificially flattened to make room for all these mounds, making it a suitable space for public gatherings (Juarez 2018).

Mound NK-B-5

Mound NK-B-5 was among the smaller structures of the larger conglomerate of mounds investigated in subsite

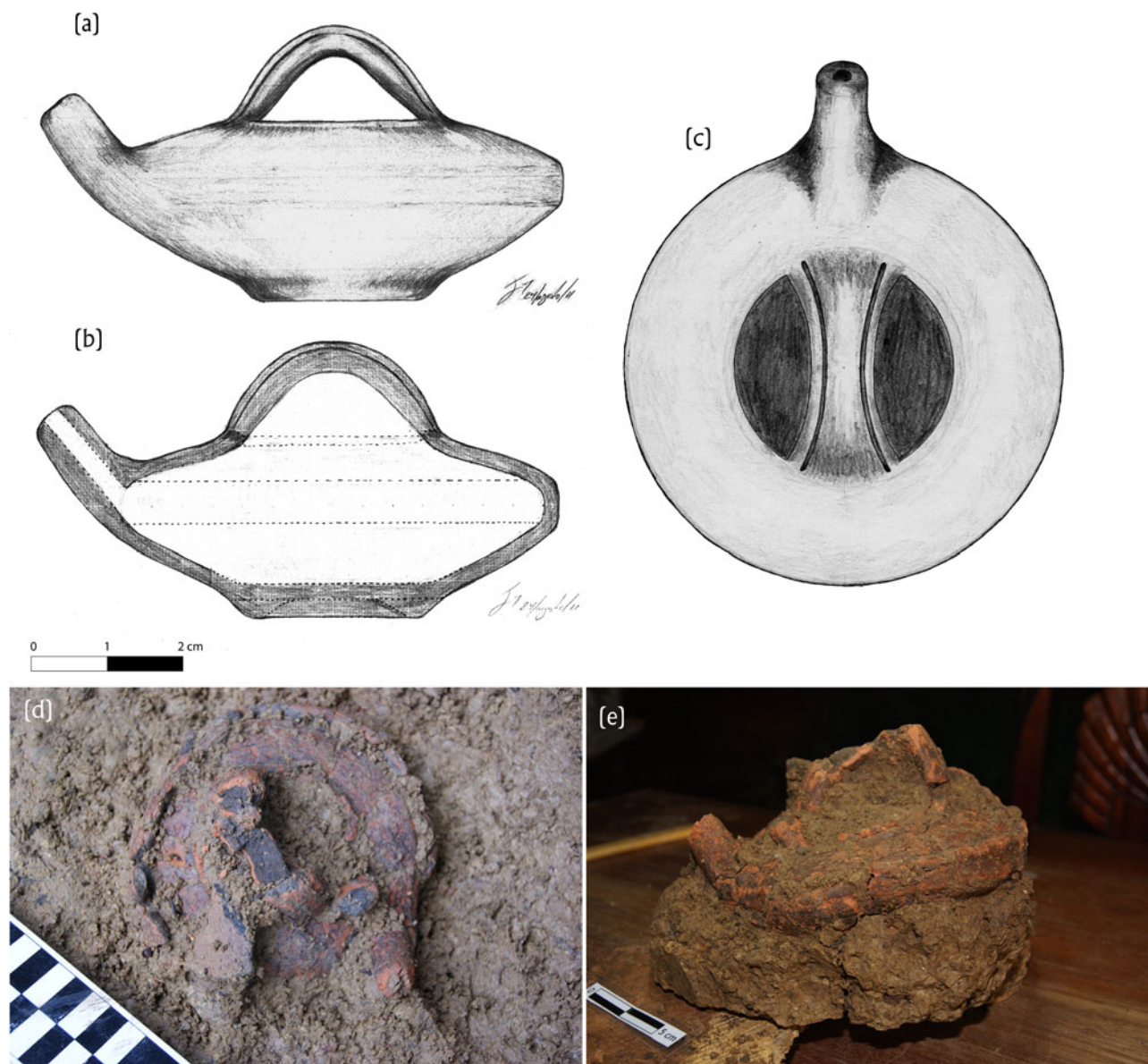


Figure 7. Artistic reconstruction of vessel found in test pit NK-2-A-2. (a) Lateral view. (b) Cross section. (c) Top view. (d) Photograph of vessel in situ. (e) Photograph of vessel during the cleaning process with clay matrix still attached at the bottom. Illustrations and photographs by Josue de Jesus Gomez.

NK-B. Yet the subsurface survey identified high concentrations of artifacts in the area immediately surrounding the base of this mound. I chose this mound for intensive investigation because of its smaller size, its large number of artifacts, and its close association with household activities. The goal was to better understand the life patterns and construction methods used to construct dwelling structures in Late Preclassic Noh K'uh.

In 2011, Mound NK-B-5 was the focus of four test pit excavations that were situated based on a shovel test pit survey that recovered high concentrations of artifacts surrounding the edges of this mound. These excavations uncovered the remains of an intact midden found adjacent to the mound's foundation. The midden materials were associated with

Noh K'uh's most recent occupation phase during the first half of the Late Preclassic. The upper layer of stratigraphy contained most of the cultural material found within the excavations, including domestic materials including ceramics, obsidian, chert, ground stone, and occasional faunal remains. Test pits from other subsites found a similar pattern in which most materials dated to the Late Preclassic. In 2016, I conducted a 6 × 8-m horizontal excavation to further investigate the chronology of the site and better understand the construction of a single dwelling structure.

Operation NK-3B uncovered a multitiered foundation created by two single courses of stone that functioned as retaining walls (Figure 3). Roughly measuring 49 m² at its base, the mound was mostly composed of a heterogeneous

Testpit NK-2-A-3 Southeast profile

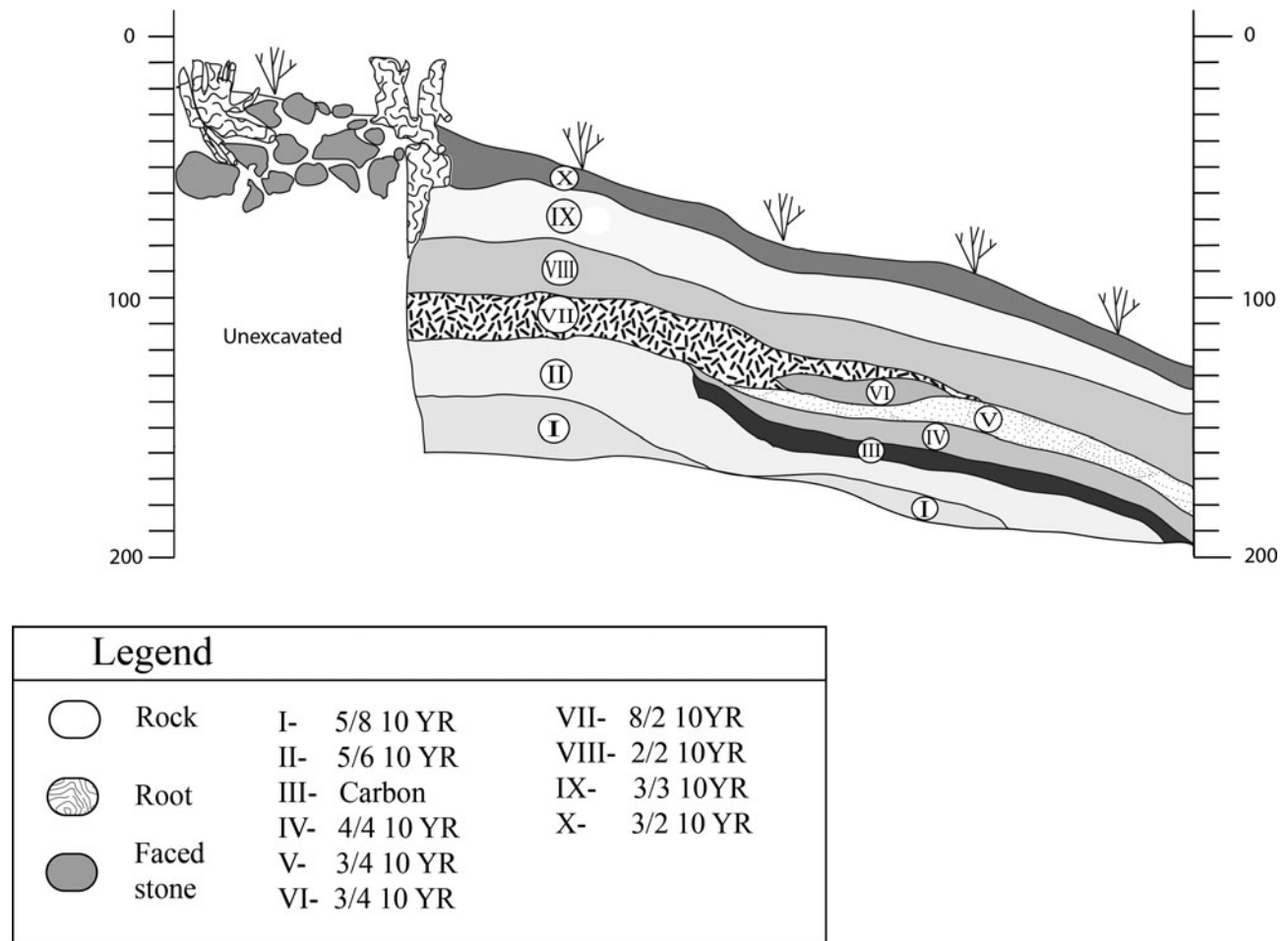


Figure 8. Southeast profile wall of test pit excavation NK-2-A-3. Illustration by the author.

mixture of clay and sand with a light mixture of material culture elements, including lithic, ceramic, and faunal artifacts. Its stratigraphy indicated that much of the mound's height was accomplished in a single phase, depicted as context 3 in Figure 3. The elaborate construction of a multi-tiered platform reveals a willingness to invest time and effort into the construction of a dwelling that went far beyond the requirements for a shelter, even within the context of a smaller mound.

As with the offerings in subsite A, this structure included several formal caches that were intermixed within the fill of the mound, again similar to sites like Ceibal (MacLellan 2019a:1253) and Cuello (Hammond 2001:36–37). In one case, two miniature greenstone axes were located near the center unit NK-3B-B-5. One was broken at the base, but the other was complete. Speleothems were also present in the fill of contexts 3 and 5, but in a way that may alter our understanding of architectural fill and caches. Like the miniature greenstone celts, speleothems were located within the fill and were not defined by a separate pit. Analysis of these stones is

ongoing, but excavators noted that there were dozens of speleothems intermixed across the horizontal excavation of Mound B-5. Many of the smaller cave fragments were identified during the screening process, but others were identified in situ. Like all other caches described here, the speleothems were not associated with a pit activity but were intermixed with construction fill.

Two figurine fragments (Figure 9)—both partial faces with thick eyelid features that were common in the Middle Preclassic (Guernsey 2012:103–111)—were also recovered from context 5 in excavation NK-3B-B. Both were found in the heterogeneous fill that made up the bulk of the dwelling foundation, but no other figurine fragments have been identified thus far. Although found in a secondary context, these fragments stand out because these heads are the only representations of anthropomorphic figurines yet to be found in Noh K'uh. When compared to the regularity with which figurines have been found in Mensabäk's Postclassic assemblages (Ocampo 2013), the dearth of humanistic images stands out.

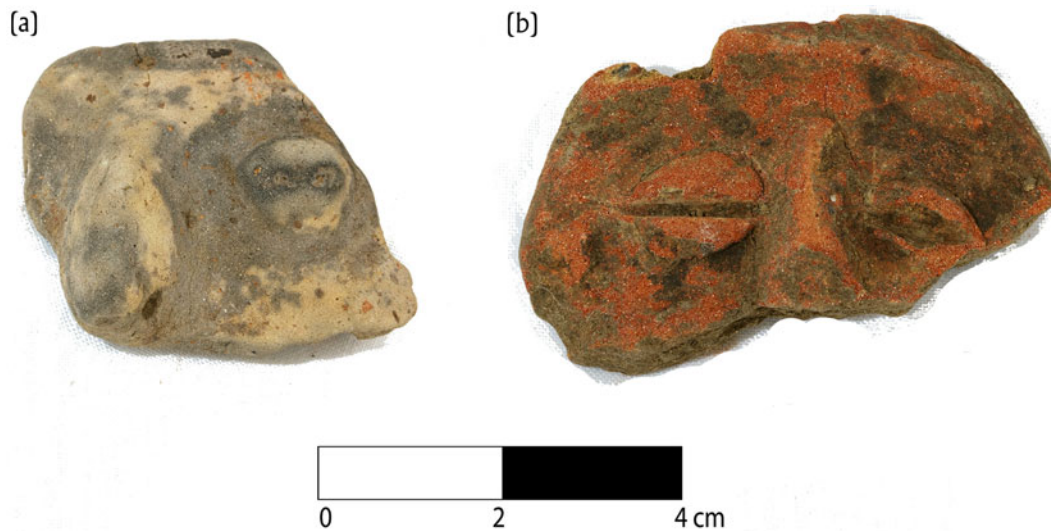


Figure 9. Two figurine fragments from NK-3B-B. (a) Partial anthropomorphic face with left eye and nose preserved. (b) Partial anthropomorphic face with upper half of face and nose preserved. Photographs by the author.

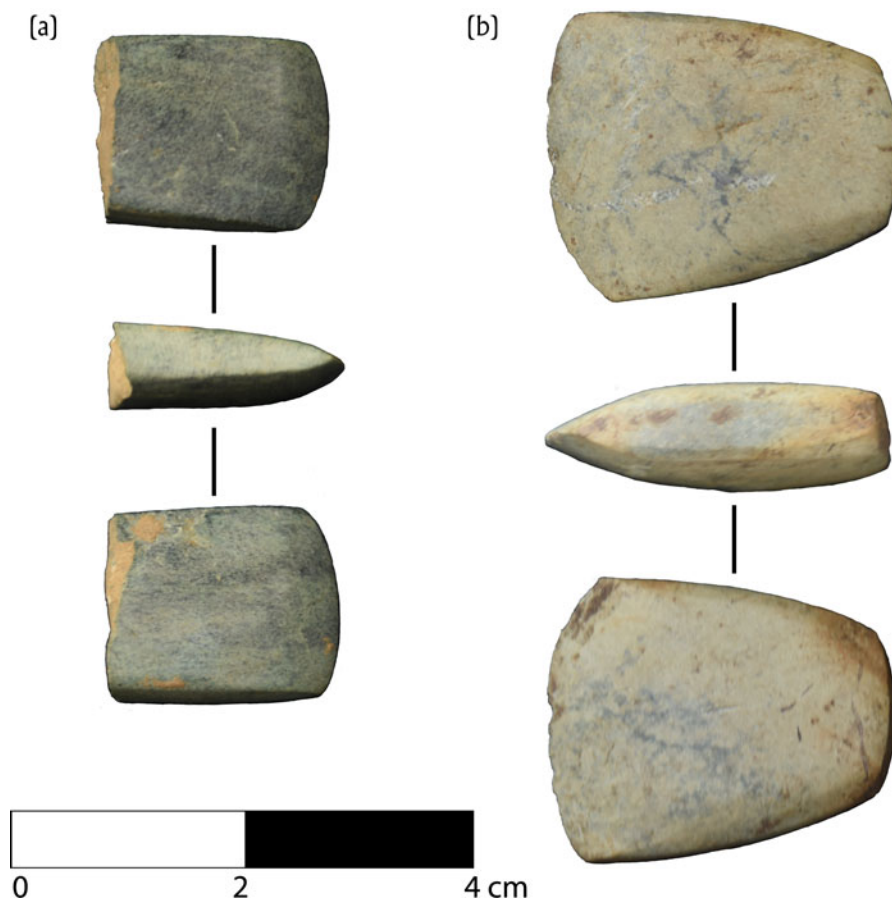


Figure 10. Greenstone celts from excavation NK-3B-B. (a) Celt fragment, FSA-NK-3B-12-2016. (b) Complete celt, FSA-NK-3B-15-2016. Photographs by the author.

Subsite NK-F

The mounds of subsite NK-F represent an offshoot of the monumental complex that includes the site's central E

Group. The set of mounds identified as NK-F-10 through NK-F-21 superficially resemble the plazuela structures found across different household areas of the site. The relationship to the central monumental complex remains

unclear, as does this mound group's role in relation to the rest of the site. Nine test pit excavations revealed a change in construction method that has only been observed in this formation. Unlike most other buildings made of earthen material, both the mounds and the basal platform were constructed from large limestone boulders and cobbles. The surface was constructed out of a plaster that has hardened over time, likely caused by the leaching of minerals from the supporting fill, which was made almost entirely of stone. Most test pits revealed an intact plaster amalgam that resembled modern concrete. Test pit NK-4-A-1 revealed an area where the plaster surface was no longer present, which provided a clearer view of the basal platform's construction material. The most recent survey field season in 2017 uncovered evidence of a limestone quarry about 1.5 kilometers to the southeast, indicating that the ancient residents were selective about the building materials used for this structure. Preliminary field notes reported a drop in the amount of obsidian recovered from excavations but an increase in chert debitage. Overall, the test pits placed in this area of the site recovered small amounts of material culture, which could be a result of sampling or differential use of this space. Although preliminary evidence indicates that some activity took place here, there is thus far no evidence of domestic activity within NK-F.

Test pit NK-4F-A-1 identified a solid fragment of plaster with a visible fragment of carbon. This fragment was sent to the University of Arizona Accelerator Mass Spectrometry Laboratory lab for radiocarbon analysis, which produced a date of 386–206 B.C. (Juarez 2021:4). The construction phase of this monumental area coincided with the first half of the Later Preclassic, much like most structures studied in this project (Juarez 2021). Data thus far indicate that the Late Preclassic residents of Noh K'uh dedicated more time and energy to the construction of this space, as required by the integration of stone architecture.

Discussion

The investigation of Noh K'uh's domestic rituals reveals the presence of a corporate ideology through which dwellings, household compounds, and monumental structures served to unite residents. Ritual offerings in household spaces, along with evidence of large household gatherings in semi-public shared spaces and a community-wide space at the site's central E Group (Juarez 2018, 2021), signify the presence of a corporate organization system. E Group formations are defined by an artificial plaza that is enclosed by a pyramid structure on a lateral side and an elongated platform on the opposing lateral side (Aveni and Dowd 2017). Societies organized through corporate political-economic strategies distribute leadership and power across multiple individuals or lineages and allocate resources more or less equitably across groups. Carballo et al. (2021) describe this phenomenon within the apartment complexes of Teotihuacan, which had central courtyards that drew some administrative and ritual activities away from the urban core. Noh K'uh's settlement pattern does not resemble that of Teotihuacan, but the open-aired courtyards and the integration of cosmological

symbols created the semipublic gathering spaces that were common to both sites. Extended households in both societies created large spaces for public and private needs, but Noh K'uh had the open-aired, low-density spacing that is typical of societies in the tropics (Isendahl and Smith 2013). Although they are not quite egalitarian, corporate-leaning societies are focused on fostering solidarity and often engage in rituals based on themes of fertility and renewal (Blanton et al. 1996), which are well represented in the offerings found at Noh K'uh.

The lack of anthropomorphic imagery in Noh K'uh's archaeological assemblages similarly signals an attempt to create solidarity by deemphasizing the role of individuals in the community (Blanton 1998:149; Blanton et al. 1996; De Lucia 2008). To date, only two anthropomorphic images have been discovered: partial ceramic faces found in the fill context of Mound NK-B-5. Their presence within the oldest architectural fill (context 5) indicates that at least some anthropomorphic imagery was used before the Late Preclassic occupations and that the dearth of anthropomorphic figurines within Noh K'uh final phases was intentional. Rice (2017:137) describes how figurines were also uncommon in the northern Maya lowlands but are found associated with E Groups in the southern lowlands; they tend to lack detail, particularly in regard to sexual markers (Rice 2015:12). Ringle (1999:193) describes a sudden drop-off in the creation of figurines at the time of increased monumentalization in parts of the Maya region. Guernsey (2012:113) similarly notes a sudden attenuation of the figurine tradition in the Late Preclassic, but warns that “no one formula accounts for the multiple ways in which traditions of human figuration, in clay and stone, evolved alongside the new sociopolitical realities.” Guernsey's (2020) volume on figuration summarizes broader Mesoamerican shifts in Late Preclassic social order, but also highlights regional distinctions that reflect the different sociopolitical trends of separate communities. In this case, Noh K'uh's downward trend in humanistic depictions appears to coincide with increased investment in both the household and the monumental center.

The ritual offerings discussed earlier also demonstrate that prestige items were distributed equally across the community. The presence of jade beads (Figure 6) in site NK-A and the burial of greenstone celts (Figure 10) in Mound NK-B-5 indicates that local households had access to prestige materials and could include items of value in sacrificial offerings. Furthermore, when the distribution of obsidian is analyzed at the level of household clusters, this material is found to be spread evenly across the community. High concentrations of obsidian within specific test pits corresponded to specialized uses of outdoor spaces where the presence of lithic debitage signaled the presence of tool manufacturing. Table 1 provides a summary of the obsidian distribution across different subsites. This pattern suggests that Noh K'uh's extended households had equal access to obsidian, as would be expected in a corporate society model.

The dedicatory offerings at Noh K'uh also display a variety of cosmological symbols that connected constructed spaces to the broader Maya universe. In some cases, a combination of multiple symbols was used to construct

Table 1. Summary of obsidian distribution across subsites. Quantities include all forms of obsidian artifacts, including small flakes and debitage.

Quantity of Obsidian per Operation				
Operation	Subsite	Obsidian Artifacts	Excavated Soil (m ³)	Obsidian Items per Cubic Meter of Fill
NK-2-A-1	A	18	3.09	5.8
NK-2-A-2	A	11	4.61	2.4
NK-2-A-3	A	14	6.41	2.2
NK-2-A-4	A	0	NA	0.0
NK-2-B-1	B	26	2.08	12.5
NK-2-B-2	B	57	1.38	41.3
NK-2-B-3	B	61	2.57	23.8
NK-2-B-4	B	19	1.84	10.3
NK-2-C-1	B	56	4.07	13.8
NK-2-C-2	B	89	1.07	83.0
NK-2-C-3	B	53	0.82	64.8
NK-2-C-4	B	10	2.05	4.9
NK-2-C-5	B	31	2.43	12.8
NK-2-C-6	B	62	2.89	21.5
NK-2-C-7	B	19	1.64	11.6
NK-2-C-8	B	6	0.94	6.4
NK-2-C-9	B	7	0.87	8.0
NK-2-C-10	B	56	2.43	23.0
NK-2-C-11	B	57	3.62	15.8
NK-2-D-1	D	18	0.88	20.5
NK-2-D-2	D	101	1.88	53.7
NK-2-D-3	D	15	2.16	6.9
NK-2-D-4	D	31	1.70	18.2
Quantity of Obsidian per Subsite				
	Subsite	Obsidian Artifacts	Excavated Soil (m ³)	Obsidian Items per Cubic Meter of Fill
	NK-A	43	14.1	3.0
	NK-B	609	353.5	1.7
	NK-D	165	99.3	1.7

multilayered offerings that conveyed the broader universe. The presence of offerings and destructive activity in all of Noh K'uh's subsites suggests that all buildings were ceremonially renewed during their lifecycle, regardless of their function. For example, the bead cache in excavation NK-2-A-3 juxtaposed jade beads and human teeth, which may have symbolized life and death. Where jade is often associated with life and the primordial waters of creation (Reilly 1994b:128), as well as the seeds of life (Taube 1996:42, 2000:300), the use of human teeth could signify death since osteological symbolism is associated with death and ancestry (Geller 2012).

The inclusion of miniature greenstone celts (Figure 10) near the center of Mound NK-B-5 reflects an emphasis on

both cosmology and renewal. The caching of jade objects originates from the Olmec region (Taube 2000), but it was also present in Preclassic sites across the state of Chiapas. Some Maya sites like Cival (Estrada-Belli 2006) and Ceibal (Aoyama et al. 2017a) also took part in the caching of jade celts during the Middle Preclassic as part of an intricate dedication ceremony at the center of these sites. Thus, the practice of caching jade celts had already been integrated in Maya area communities well before the Late Preclassic, along with images of the Olmec Maize deity, which served as a central figure in the centralization of many Preclassic Maya sites (Saturno et al. 2017; Stanton and Freidel 2003). Taube (1996:42, 2000:300) describes jade celts as representing ears of corn, and Reilly (1994a) explains that

the quincunx organization of maize sprouts served as a reference to the world tree, itself referring to the axis mundi. The act of burying these green stone items would have imbued the structures with images of renewal and cosmological order. The miniature green stone cache in NK-B-5 is often depicted as a metaphor for elite authority in both the Olmec and Maya region (Estrada-Belli 2006), where the placement of these objects makes a symbolic connection to sacred maize and cosmological order (Reilly 1994b; Taube 1996:42, 2000:300). Although these objects are typically found in either elite contexts or in the context of the main ceremonial plaza, their presence in a small residential structure indicates that such caching was not limited to the monumental core or a burgeoning elite. At the same time, the miniature scale of these objects and their inter-mixed placement within the fill of the mound suggest that a different set of practices surrounded these small objects.

The inclusion of speleothems in construction of the matrix of Mound NK-B-5 may further signify that Late Preclassic residents made references to the cosmological universe at multiple levels. Cave symbolism is strongly associated with death (Prufer and Brady 2005; Brady and Prufer 1999; Halperin et al. 2003; Stone 1995), and its presence in household foundations imbued these supported structures with forces of the underworld. Additionally, the composition of the fill from the deposit was consistent across the entire unit: small amounts of material culture (pottery, lithics, and faunal material) were evenly dispersed together with clay, sand, and stone. This construction method necessitated the destruction of older occupational phases, and efforts to create an even, heterogeneous mix reveal another level of ceremonial activity in the building of homes. This could explain why the use of fill is ubiquitous in the construction of house mounds in Noh K'uh. The inclusion of speleothems in the construction of dwelling platforms may have linked the foundation of the home with the earthly world.

Like many of the dwellings observed across Mesoamerica, the house itself served as a microcosm of the broader universe. The inclusion of sacrificial goods (e.g., beads and vessels), cave stones, and debris from previous occupations imbued the supporting platform with cosmological meaning. Residents of Noh K'uh may have constructed building foundations as representations of the Earth and the underworld. Rice (2018, 2019) describes a similar phenomenon at the site of Nixtun-Ch'ich' in Guatemala, where an entire city's foundation was the result of a well-coordinated construction program that reshaped the local landscape into geometric shapes, possibly in the form of a crocodile. Throughout the Maya Preclassic, construction projects were rich with symbolic meaning. Gillespie's (2000b) description of house societies contextualizes many of the ceremonial activities taking place in Noh K'uh's domestic contexts. House societies employ images of lineage and ancestral worship to establish and embellish their status within a given community. Domestic spaces were expanded with repeated reconstruction events, so that the households could perpetuate themselves through permanent commemorations of ancestry (shrines and plazuelas) within an occupied territory.

In the Maya region, the interment of objects transformed a building into a memorial of an important family member or lineage (Grove and Gillespie 2002; Lucero 2010; McAnany 2002, 2004; Robin et al. 2012). Objects found within the ritual caches at Noh K'uh may serve as a physical reminder of important ancestors. For example, the bead cache in NK-2-A-2 likely represented complete necklaces, indicating that residents were willing to bury objects that still had value in their intact form. The intact pot in the same unit may convey a similar practice, in which a fully functional personal item was buried under a household floor. Kovacevich (2013) argues that intact and functional objects may have had an inalienable relationship with their owner, and their inclusion in commemorative rituals would have imbued the constructed space with the memory of that person. Increased investment in household spaces carried multiple meanings, which included establishing the permanency of household identities, communicating the durability of the household to future generations, and commemorating the memory of important ancestors (Harrison-Buck 2004; McAnany 1995).

Conclusion

Ceremonial caches ranging from bead caches, full pots, and greenstone celts and found within household contexts reveal a complex set of rituals that transformed the meaning and significance of domestic spaces. The integration of these objects into house foundations transformed these structures into cosmological symbols that may have served to provide the house with a life force. The household emphasis on life, renewal, and cosmology suggests that this society was organized around a corporate political-economic model. Elsewhere (Juarez 2018, 2021), I described Noh K'uh's households as large collectives made of a dozen or more structures, each with its own domestic shrines and semipublic gathering spaces. Based on the size of the households and the ritual activities that took place within these large and open spaces, I argue that Noh K'uh's households functioned as individual corporate groups organized through an extended lineage. Thus, Noh K'uh may be best understood as a collective of household communities. As individuals pooled their resources and labor into larger extended households, they would have become more reliant on each other for their success (Wilk 1982).

In conclusion, the houses of Noh K'uh revealed a style of corporate organization in which households constructed their own semipublic gathering spaces that were rich with cosmological symbolism. These spaces would have served to draw some administrative and ritual activities away from the ceremonial core, which would have accommodated communal ceremonies that complemented the smaller-scale group activities taking place within domestic contexts. Teotihuacan exhibited a similar muted hierarchy where administrative and ritual activities took place within large apartment complexes and the urban core (Carballo et al. 2021). Noh K'uh demonstrates a similar relationship between the central core and the nearby domestic groups that constructed open-aided spaces for gatherings of

different sizes. Ultimately, this research demonstrates how domestic and public spheres complemented each other, with the entire community working together to solidify a communal identity focused on cosmological renewal.

Acknowledgments. I gratefully acknowledge the community of Puerto Bello Metzabok for their continued support of this project and for their tireless commitment to the protection of the local rainforest and their ancient heritage. This research was conducted with the permission of Mexico's Instituto Nacional de Antropología e Historia (INAH) and the town of Metzabok in Chiapas. It was part of the much larger Mensäbäk Archaeological Project (MAP), directed by Joel Palka of Arizona State University and Fabiola Sanchez, CEO of Xanvil Asociación Civil. MAP was supported by the National Endowment for the Humanities (Grant #196404) awarded to Palka. I also thank Kristin De Lucia, Cynthia Robin, Joel Palka, Rebecca Mendelsohn, Emilio Spadola, Michelle Bigenho, Jordan Kerber, Elana Shevar, Mary Moran, Jonathan Hyslop, Chris Henke, Rebecca Upton, and Paul Lopes, who commented on several drafts of this article.

Funding. This research was funded by a Dissertation Fieldwork Grant (Grant #8446) from the Wenner-Gren Foundation for Anthropological Research, a National Science Foundation Doctoral Dissertation Improvement Grant (Grant #1141371), and a Social, Behavioral and Economic Sciences Postdoctoral Fellowship (Grant #1409754) awarded to Juarez. Additional funding and support were provided by Colgate University.

Data availability statement. The data presented in this article can be found in informes archived at Mexico's Instituto Nacional de Antropología e Historia (INAH). Copies of all data are available from the same institution and the authors.

Competing interests. The author declares none.

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