Research Reports in Belizean Archaeology Volume 6

Archaeological Investigations in the Eastern Maya Lowlands: Papers of the 2008 Belize Archaeology Symposium

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Institute of Archaeology
National Institute of Culture and History
Belmopan, Belize
2009
KAYUKO NAJ TUNICH: A FOUNDATIONAL SHRINE AT UXBENKÁ

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Ethnographic and ethnohistoric models help us to understand the relationship between ancient people and their built and natural environment. Natural features are salient geographic markers defining both the geographic and spiritual boundaries of communities and geopolitical entities. Caves figure prominently in the foundation of communities serving to spiritually anchor the community by providing the most important ritual venue for the propagation of local earth deities. In the past, this connection to the earth provided legitimacy to the ruling elite and bolstered their rights to rule. Based on ethnohistoric models we argue that Kayuko Naj Tunich, a cave site in southern Belize, served as a foundational shrine for the Ancient Maya polity of Uxbenká.

Introduction

In settlement studies archaeologists often seek to define “sites” at various scales and to classify them as types that may be used as heuristics for understanding the patterning found in the archaeological record. Visible architecture is the primary data source and analyses tend to focus on “hotspots” of occupation (Ashmore 2003). We are of course conscious of the fact that “sites” are our own analytical constructs and like all typologies may only partially, weakly, or may not express cultural realities, which has lead Wendy Ashmore to suggest that analytical models need to become more “socially informed” (2003:9) by including ideology, cosmology, and cultural logic. So, how does one go about creating more socially informed models? Years ago Joyce Marcus (1982) advocated the use of ethnohistoric and epigraphic data to create culturally specific models testable in the archaeological record.

When we begin to understand behavior it becomes apparent that decision-making processes are not based solely on functional or economic concerns but that underlying cosmological beliefs in a sacred and animate earth are salient guiding principles among Mesoamerican peoples. In Mesoamerican religion, the earth is not a neutral entity but a powerful force in the universe representing the nexus of all creation and destruction. The sacred earth can be represented in many features, such as rocks, trees, and rivers, and caves. Ashmore and James Brady (1999) have been instrumental in bringing to our attention the role of the landscape in settlement studies noting that archaeologists seldom consider natural landscape features in their formulations. They advocate for not only the inclusion but the primacy of natural features as focal entities in a cognized landscape.

Our research seeks to understand the process by which ancient communities were established and maintained. Rather than trying to define a “site” our goal is to incorporate an emic perspective in our attempts to understand the extent of the Ancient Maya geopolitical entity we refer to as Uxbenká. We argue that natural landscape features reify cosmological ideals and become vital symbols in the establishment of a Classic period community. To define the natural features that orient the community both spiritually and spatially, we have created expectations using Mesoamerican ethnohistoric examples of rituals that established and reinforced the geographic and cosmological boundaries. These traditional rites emphasized the importance of natural features in Maya constructs of spatial integrity that were necessary to the establishment of geopolitical entities.

Caves feature prominently in these constructs and were important in “rites of foundation” (García-Zambrano 1994). Foundational rituals spiritually anchored a community and helped establish a leader’s relationship with indwelling deities when defining and maintaining boundaries. Caves were selected by leaders to serve as ritual venues in the foundational rites that aided in establishing their right to rule. In this paper we argue that Kayuko Naj Tunich, cave with Early Classic period occupation near the mid-sized center of Uxbenká is a “foundational” shrine that
played a major role in early displays of power and authority.

Modeling Geopolitical Units

As both an agrarian and a profoundly spiritual people, the modern Maya are concerned with their ties to the land and the deities associated with it. The earth itself is “owned” by spirits that inhabit the land and its features. These spirits are neither good nor evil but must be treated with respect, honored, and propitiated as reciprocity for their good will. The work of William Hanks (1990) has been integral to our understanding of the relationship between the Maya and the earth deities. From his studies in Yucatán he found that the integrity of space is an important step in every Maya ritual act and refers to this as ritual “binding.” Binding serves to contain ambiguous spirits within a specified zone, functioning as a safety mechanism. Therefore, a space “without its perimeter, a place has no unity and is potentially dangerous” (1990:349). This principle is utilized at a variety of scales from the house, to the milpa, to the entire community. Circumambulatory rites produce a ritually bounded space for the entire community establishing a bond with indwelling earth spirits that serves to define usufruct rights to the land. Therefore, boundary marking is a ritually sanctioned imperative for the well-being of communities and an important community enterprise.

At Zinacantan in highland Chiapas, Evon Vogt (1969:375-391) reported that the sacred world is characterized by a strong emphasis on mountains, caves, cenotes, and sinkholes. Mountains are considered to be homes of ancestral deities and caves as the place where one communicates with deities of the earth. These features are visited by cargo holders during ritual circuits that circumambulate the community, boundary maintenance mechanisms within the social system. The circuit symbolically designates property rights and marks crucial space and functions.

Ancient geopolitical units may have operated similarly as is evident from ethnohistoric records. In his work on early Spanish land titles housed in the National Archives in Mexico City dating from AD 1520 to AD 1550, Angel Garcia-Zambrano (1994) clarifies how indigenous boundaries were established and maintained through ritual action. He began by describing the criteria used by immigrants in deciding where to settle. The ideal location was based on cosmological principles that mirrored the quincuncial model of the cosmos creating a primordial landscape where earth’s fundamental elements interacted. The most sought after landscape consisted of a valley surrounded by four mountains, one for each cardinal direction, irrigated by water holes, rivers, lakes, and/or lagoons. The horseshoe-shaped valley was called a rinconada or axomulli (water-corner) and marked the edges between the human and natural worlds. A fifth mountain representing the center of the model protruded in the middle of the valley. This central mountain ideally contained caves and springs. Within the central mountain a natural cave containing water provided the water used for community rituals. Natural features were circumambulated by the leader to mark the boundaries of a community. Once consecrated the cave became the heart of the new town providing “…the cosmogonic referents that legitimized the settlers’ rights for occupying that space and for the ruler’s authority over that site” (1994:218). It then became the ruler’s duty to guard and keep the territory. The special function of caves in the ideal cosmological landscapes helps to explain why cave symbols are often incorporated into Classic period toponyms or politically charged emblem glyphs of Maya sites (Vogt and Stuart 2005).

Clearly not every landscape was ideal so in practice the landscape could be modified to more closely resemble the model. For instance, the construction of pyramids could substitute as mountains. If there was no nearby cave, a clay olla could be buried in the town plaza to symbolize it. Additionally, natural caves could be modified to enhance their resemblance to the group’s mythological cave of origin. Further, in practice caves and wells were often located on the community’s peripheral boundaries at the corners of the north/south axis of the quincunx. Garcia-Zambrano (1994:223-227) suggests that this configuration related the north/south axis to water and the underworld whereas the east/west axis symbolized the sun’s path and the celestial real tow Mé Cru In t nor eac frot con Zar hav tow the rep use arl ear of tha fou use pre dat a Finc the a Fir fee wh wa Se loc the so U; di M (P th ri su le bt ox
realm. He offers two examples, one from the town of San Mateo Ixtlahuacan (Estado de México) dating to AD 1530 and one from Santa Cruz Yaxkukul in Yucatan dating to AD 1540. In both instances cenotes and springs marked the north/south axis and in the southwest corner of each community was a cave. The documents from Yaxkukul clearly state that the cave contained water whereas at Ixtlahuacan García-Zambrano is unsure but thinks its name may have based on toponyms from surrounding towns containing the suffix apan meaning “near the water.”

Ethnographic examples and historical reports suggest a number of criteria that could be used to explore community boundaries in the archaeological record by examining natural features that may be “foundational.” In the case of caves there are some very specific features that one might expect to locate. First, a foundational site should show evidence of ritual use. Its earliest usage should be coeval or predate the site’s earliest deposits or possibly date to a later expansion assuming that there was a political reorganization initiated either by an incoming group (such as K’inich Yax K’uk Mo’ at Copan) or the rise of a local political faction. We also expect the foundational cave to be centrally located (within the site core) or as in the cases of Ixtlahuacan and Yaxkukul, found in a peripheral area to the south of the core. Finally, we might expect to find water or a water feature within the cave, though it is unclear as to whether the Ixtlahuacan site actually contained water.

Settlement and Chronology at Uxbenká

Uxbenká, is a medium-sized polity located at the base of the Maya Mountains along the eastern periphery of the Maya Lowlands in southern Belize. It is under investigation by the Uxbenká Archaeological Project (UAP), directed by Keith Prufer, University of New Mexico. Based on extensive radiocarbon dating (Prufer et al. in press), it has proven to be one of the earliest major centers in southern Belize. A rigorous program of AMS radiocarbon assays suggests that the Uxbenká was occupied by at least AD 200 and perhaps as early as AD 170 but that a significant modification to the site occurred about AD 250 with the building of the first monumental architecture (Prufer et al. in press). AMS dates are reported as conventional radiocarbon ages corrected for isotopic fractionation with measured δ13C values. Calibrations were made with Calib 5.01 using the IntCal04.

The Group A Plaza or the “Stela Plaza” is located on one of the areas highest points. Excavations conducted in the plaza suggest that when initially settled, Uxbenká was a small agricultural village with residential structures constructed of marl and dirt and capped with thin plaster floors. These buildings would have been situated around the perimeter of the hilltop, inside what was eventually modified into the Stela Plaza. Constructions using cut stone blocks began later, about AD 350 (Table 1). Excavations within structures in Group A produced a number of pre-AD 250 dates but the base of all stone structures dated to between AD 137 and AD 381. Charcoal collected from the base of a stone wall in the center of the plaza dated between AD 137 and AD 323. The base of Structure A6 dated to between AD 223 and AD 381. Structures A1 and A4 both to between AD 255 and AD 381. The context for the date from the base of Structure A1 is particularly compelling because it comes from a burned surface beneath the structure suggesting that this represented either the clearing of the surface or a ritual event in preparation for the building. We have suggested elsewhere (Prufer et al., in press) that the inception of the building program represents a new more complex social hierarchy and political reorganization.

Kayuko Naj Tunich

The Kayuko Naj Tunich is a relatively small dry cave site situated within a sheer limestone cliff face over 200m above the valley floor just 2.3 km due south of the Stela Plaza. It is easily viewed from the plaza and the plaza can be seen from the cave mouth. Secondly, the cave has undergone extensive architectural modifications despite its precarious location. The nature of the modifications that included infilling the cave floor, the construction of walls and steps, and plastering of the entire construction represented a tremendous amount of labor that is somewhat unusual for caves in general. Though caves
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Table 1. AMS Radiocarbon dates from Kayuko Naj Tunich and the Stela Plaza at the Uxkenká site core.

often contain small constructions, massive building projects are rarely found.

According to local people, the steep free climb to the cave mouth discouraged modern visitors from entering the site until approximately five years ago when the cave was heavily looted. Looters destroyed most of the architecture and exposed large holes in the floor fill. Artifacts, rocks and plaster were thrown out of the cave entrance landing on the steep slope below. Salvage operations conducted by the Uxkenká Cave Project (UCP) during the summer of 2007 collected a number of radiocarbon samples for dating and virtually reconstructed the site.

To ensure the safety of the crew and allow us to carry equipment back and forth the cliff face was negotiated by a system of ropes and hand-made ladders constructed by Maya community members. Sherds lined the approach to the cave and Alcove I located west of the entrance contained a fragment of a copal cake that dated to between AD 538 and AD 601. The ladder system led to the cave mouth where a course of relatively intact steps led up a 48° to Chamber 1. The stairway was constructed of medium-sized unmodified tabular blocks clearly chosen for their flat surfaces from the Rio Blanco River located in the valley over 2 km from the cave.

The cave’s morphology is highly unusual in that it is lined with crystalline speleothems. Almost all of the stalactites have been broken either intentionally or by natural causes and some may have been used in rites within the cave. Heavy charring can be seen on the cave wall adjacent to the top step forming a small platform at the entrance to Chamber 1. Rubble on the platform contained charcoal and thousands of burnt crystals (spar) from broken stalactites. A charcoal fragment collected from the base of the pile dated to between AD 230 and AD 335.

The cave is oriented on a N/S axis and measures 19m from the terminus to the north-facing entrance and 2.5m at its widest point (Figure 1). It contains two chambers both of which were architecturally modified. Chamber 1 was the largest with the most extensive modifications. In the site’s initial construction, the Chamber 1 floor was leveled off with medium to large limestone boulders and tabular river stones. The stone fill was overlaid by cobbles and topped with a thick 10cm layer of plaster. Wood beams and stone retaining walls shored up the fill and fragment of a wood
beam (unburned) from the base dated to between AD 241 and AD 338.

Chamber 1 was partitioned into two or possibly three rooms (Figure 2). These had plaster floors and in Room 2 the walls were plastered as well. Eight vertical posts were set in the floor adjacent to the cave walls and corresponding to in situ stone alignments suggesting that these were part of the wall partitions. The tallest post was 2.2m high and they measured between 8-10cm in width. Remnant wood was found at bases of the five of the posts. Three posts were radiocarbon dated, Post 1, Post 5, and Post 8. Post 5, located during excavations, was burned and appeared to have fallen from its plaster post mould onto the floor. It dated to between AD 257 and AD 392. Posts 1 and 8 were located adjacent to each other on either side of the cave indicating that they were a "pair." However, Post 1 dated between AD 427 and AD 535 and Post 8 to between AD 541 and AD 601. There is no overlap in the radiocarbon ranges of the posts and due to their small diameters it is unlikely that the dates represent an old wood problem. We have therefore concluded that they were part of continual modification and maintenance of the site.

Structure 1 was a bench-type feature placed at the southern terminus of Chamber 1 at the highest point and the most remote area from the entrance of the chamber. The cave walls formed three sides of the roughly rectangular structure and 14 courses of stone blocks were stacked in front to create the fourth wall. It measured 1.3m to 2m in its N/S axis and spanned the width of the cave of 2.25m on its E/W axis. The structure was plastered on top and on the exterior of the stone wall, but no plaster was present inside. While initially the structure appeared tomb-like, the absence of human bone— even in such a looted context— suggests that it was not. Rather, the structure served as a focal point in the shrine and was more likely to have functioned as an altar.

A wooden object sat on top of the structure for a prolonged period of time. This was evident from a dark stain in the shape of the object on the surface of the remnant plaster as well as wood dust and small fragments. Locals, referred to the object as a "canoe." Indeed the object resembles a small canoe in that it was hollowed out from a single piece of hard wood. It measured 1.5m in length, .4m in width, and was 15cm in thickness and fit perfectly on the top of the bench suggesting that it was constructed specifically for the space as altar furniture. This is bolstered by the fact that the outside edge of the wood, which would be the outer tree ring suggesting the date at which the tree was harvested returned a radiocarbon date range between A.D. 231 and AD 359 contemporaneous with the initial construction of the shrine. Therefore we argue that the object is an altar piece that was integrated both symbolically and functionally into the shrine's earliest design.

The wooden object does not correspond well to western models of a boat or to modern Maya examples of dugout canoes. Morphologically the altar piece is flat bottomed, shallow and smaller than most canoes. The object does however correspond in size and shape more readily to a batea or wash-basin. The confusion regarding the term can be explained by consulting the Diccionario maya Cordemex (Barrera Vásquez 1980), which lists Maya cognates of the Spanish word batea that include chem che' a large basin for washing or in secondary definition— a handmade wooden canoe used for crossing a river. Ethnographically, we find that similar objects are used in ritual contexts. Raphael Girard
First, the proximity to the site core and clear site lines created a natural connection between the cave and the Stela Plaza. Not only was there a distinct site line, but the cave is located due south of the site core, a pattern similar to that found in ethnohistoric settlements and recognized by Garcia-Zambrano (1994) as a salient cosmological underworld symbolism in landscape use.

AMS radiocarbon dates from Kayuko Naj Tunich Cave and the site core suggest the construction of the shrine was contemporaneous with the earliest known settlements at Uxbenká, but with the social and political reorganization that accompanied the building of the first stone architecture in what was to later become the Stela Plaza (Table 2). The most secure early date from the cave derives from the wooden retaining beam found in situ at the base of the floor fill (AD 241-338). It is supported by two additional dates, the outer edge of the wooden object (AD 231-359) and the charcoal found beneath the burned crystals on the step (AD 230-335). These dates fit nicely with dates collected from directly beneath structures in the Stela Plaza that range from AD 137 to AD 381. The wall in the center of the plaza may have been built slightly prior to the three buildings (Structures A1, A4, and A6) which were most likely begun between AD 223 and AD 360. With current methodology we could not hope for a more solidly coeval match. This suggests that the cave shrine was well-integrated into the original building program. It is unlikely that the shrine could have been constructed without community labor and considerable organization. The importation of building materials alone attests to the human labor costs involved in the construction of the site.

Once constructed the cave was clearly maintained and possibly remodeled throughout its history. Non-overlapping radiocarbon dates for Posts 1, 5, and 8 are testimony to building episodes that occurred between AD 257 and AD 601. Post 5 may have been part of the original building episode but the others were not. Posts 1 and 8 may have then been replacements of the originals or may have been associated with walls that were added later. Post 5 was burned.

(1995) reported that among the Chorti, a wooden basin filled with water referred to as a "canoe" is placed beneath altars during cosmological renewal rites.

The Kayuko altar piece may have been similarly employed. There are no visible residues to suggest that the vessel was a receptacle for offerings. If offerings of food were placed inside of the vessel one might expect some residue to be evident due to the excellent preservation of other organic material at the site. Although further analyses are warranted, we tentatively suggest that the altar piece may have held water and that this could easily have represented the interior water source so often associated with ritual cave sites.

Discussion

A number of features argue that Kayuko Naj Tunich was a foundational shrine constructed by the rising elite class of Uxbenká.
sometime between AD 257 and AD 392, though this most likely occurred in the later part of the range between AD 317-392. Two dates suggest that the shrine fell out of use by the end of the Early Classic period no later than AD 601.

**Conclusions**

We have argued that Kayuko Naj Tunich is a "foundational" shrine for the Uxbenka polity based the geographic position of the cave in relation to the site core, the presence of monumental construction program that required organized labor, and the coeval construction of the cave shrine with the building of the first stone architecture at the site core. Although an indigenous population lived in and around the site core prior to the erection of the shrine, the cave exhibited no use prior to the initial construction of Uxbenka’s site core. This may have implications for ethnicity and may even imply that ruling elite may have come from elsewhere along with their own masons and craftsman. While we might expect to find an interior water source within a foundational shrine, we suspect that the prominent wooden altar piece or “canoe” filled with water served as an acceptable substitute.

The political nature of the use of caves is slowly coming into focus and there is accumulating evidence suggesting that caves were not only sacred space but functioned in political arenas as well. As excavations continue at the site of Uxbenka and more is known of the site's history, it will be possible to link events occurring at the cave to a broader context. It is only through this kind of research that cave archaeologists can hope to understand the true function and meaning of archaeological caves and that those investigating surface sites may obtain a complete picture of both the ritual and political life of the cities they study.

**Acknowledgements**

We would like to thank the Institute of Archaeology for granting permits to the UAP to conduct this research. Particularly we are grateful to Drs. John Morris and Jaime Awe for all of their help and support and to all the members of the Institute of Archaeology who work so hard to advance Belizean archaeology. This study was funded by grants from the Foundation for the Advancement of Mesoamerican Studies, Inc. (2007 to Moyes,
2005-2006 to Prufer) and the National Science Foundation (to Prufer BCS-0620445). Finally, thanks to the Alcalde, Village Chairperson, and Uc'b'enka Kin Ajaw Association of the Mopan Maya community of Santa Cruz, and particularly to Benancio Canti who engineered and built the scaffolding that allowed us access to the site.

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