Research at Las Cuevas, a mid-sized site located at the Las Cuevas Research Station in the Chiquibul Reserve in western Belize, began in 2011. The site is of interest because it consists of both surface architecture and a massive cave ceremonial complex. It is also one of the closest sites to the mammoth polity of Caracol, yet, very little is known about it or its relationship to its larger neighbor. During the summer field season, the Las Cuevas Archaeological Reconnaissance (LCAR) began mapping and conducted test excavations. Based on ceramic cross-dating, our preliminary results suggest that both the cave and surface architecture investigated were constructed in the later part of the Late Classic period (700-900 AD).

Introduction

The Las Cuevas Archaeological Reconnaissance (LCAR) began investigations of the ancient Maya archaeological site of Las Cuevas, located in the Chiquibul Reserve in western Belize, Central America (Figure 1) during a four-week field season in 2011. Originally referred to as "Awe Caves," Las Cuevas has received little investigation, with the exception of one notable project. In 1957, working for the British Museum, Adrian Digby (1958) and then Commissioner of the Belize Department of Archaeology A. H. Anderson conducted excavations at the site and produced a sketch map. Digby wrote a brief article for the London News describing the site and reporting his excavations, and Anderson mentions a 1938 visit to La Cuevas in his 1962 paper for the Americanists' Congress, but no other reports have been found. Some of Digby's correspondence and excavation notes are on file at the British museum, and his artifact collections are housed there, but have not been accessioned (Mariëka Arksey, British Museum, personal communication 2010).

The current investigations by the LCAR address cultural dynamics during the Late to Terminal Classic periods, a time of severe stress in the ancient Maya world, by examining the ritual life of a Maya community on the eve of collapse. Recent studies (Aimers 2007; Demarest et al. 2004:546) question the usage of terms such as "collapse" or "fall" because they are colorful but misleading, but Demarest and his colleagues suggest that the events of the late 9th century do represent changing political systems and ideologies. In other words, instead of representing the total failure of an entire civilization, the "collapse" has been redefined as the decline of the elite class and the abandonment of the institution of kingship in the Maya Lowlands. Most Mayanists agree that there was in fact a major change in both population and social organization, and it is clear that many sites were abandoned during the mid to late 9th century.

Agency theories remind us that it is not the event per se but the human response to adverse conditions that causes changes in the social order. What is now of interest for archaeologists is not if there was a collapse, but...
how the system collapsed. In this project we take on this question in our investigations at the site of Las Cuevas. Our goal is to articulate our findings within the historical contexts of the 9th century. We specifically want to shed light on elite strategies and ritual responses that mitigate social and environmental stresses, and the success or failure of these strategies.

Las Cuevas offers an excellent venue for exploring this issue. It is a medium-sized minor administrative/ceremonial center whose nearest neighbor is the mammoth site of Caracol, located approximately 14km to the east as the crow flies. On the surface Cuevas seems to be typical of many Late Classic sites found in Belize such as Baking Pot, Floral Park, Blackman Eddy or Minanha (Iannone 2004). However, this site has something that these other sites do not—a large cave system that runs directly beneath the main plaza. The cave entrance is situated below the eastern pyramid or “shrine,” that as noted at both Caracol and Tikal, are the foci of ancestral burials (Chase and Chase 1994:53, Becker 2003:258-262). The cave entrance itself is massive, cathedral-like, and architecturally modified, suggesting that it was used for large public performances. The LCAR aims to articulate constructions in the cave with those of the surface site to produce a picture of the ritual life of the community, and contextualize ritual practice within the sociopolitical as well as the natural environments.

In this paper we will begin by discussing our understanding of the function and meaning of ancient Maya caves, and the cosmological implications of the site’s layout. We will go on to discuss our findings from the first field season of the LCAR, which focused on mapping and test excavations for chronology building. Finally, we will contextualize our findings within the greater Maya area.

Caves as Contexts
The ancient Maya considered caves to be entrances to the Underworld and the home of deities associated with fertility, rain, and the sacred earth. This helps explain why natural caves were used exclusively as ritual spaces in the past and continue to be used in a variety of rites today (Christenson 2008, Prufer and Brady 2005, Moyes and Brady 2012). Caves also served as fundamental anchoring points for Maya communities and played an important role in settlement. Work by ethnohistorian Angel García-Zambrano (1994) demonstrated that caves and waterholes functioned as salient geopolitical entities. In his study of the mid-16th century land titles, he discussed models of ideal landscapes that figured prominently into immigrant’s decisions regarding where to settle. The ideal location was based on a quincunxial model of the cosmos of four cardinal directions and a central point. The model was ratified in the natural environment by a group of four mountains, which functioned as the peripheries of the community with a fifth centrally located mountain representing the center point or axis mundi. In the ideal world, the central mountain was dotted with caves and springs. Caves with water emitting from their interiors were favored, but man-made substitutes or modified crevices could be created to fit the model. A chosen cave would then function as the mythological place of origin of the people and the sacred core of the community providing the "cosmogonic referents that legitimized the settler's rights for occupying that space and for the ruler's authority over that site" (García-Zambrano 1994:217-218). The leader or ruler of the group conducted rituals in the cave to petition the local deities. If the local topography failed to naturally mimic the ideological model, modifications could be undertaken. For instance, pyramids could be constructed to represent mountains. In the absence of a natural cave, an artificial cave could be excavated or a large clay water jar could be interred in the town plaza to represent the cave.

These ideal landscapes were at the heart of ancient Maya cosmology. The landscape was sacred and animate and had to be acknowledged and honored (Brady and Ashmore 1999:126). In many of their constructions, ancient Maya people referred to and replicated the sacred landscape, building temples to represent sacred mountains and constructing rooms at their summits to replicate sacred caves (Vogt and Stuart 2005). Natural caves are the most sacred of cosmological features, particularly those that contain life-giving water (Brady and Veni 1997). Noting their importance in settlement and the
Caves also held a prominent role in Classic Maya religion. In the mid-16th century, caves were considered as salient cosmological forces associated with them, it is not surprising that in the Classic period, caves became highly politicized spaces (Brady 1989; Brady and Colas 2005; Moyes 2006; Stone 1995) and sacred rites conducted within caves became important political tools that could be manipulated by kings and elites. Therefore control of these spaces also represented control over the natural environment, the earth itself, and its indwelling deities (Moyes 2006; Moyes and Prüfer 2009; Moyes et. al. 2009).

Las Cuevas

Understanding the importance of Maya sacred landscape helps us to appreciate the cosmological salience of the Las Cuevas site. The surface site core consists of 19 buildings including temples, a range structure, a ball court, and linear structures arranged around a large dry sinkhole or cenote (Figure 2). The structures are arranged on a east/west orientation around two open plazas-- A and B (Figure 3). A small plazuela group with an additional five structures arranged in a U-shape, sits on a constructed platform about 85m west of Plaza A.

Plaza A, located to the west of the cenote, consists of Structures 1-4. The eastern structure measures 23m on its N/S axis and 19.5m E/W, and stands 8m in height. An apron and possible staircase facing into the plaza. Structure 2, the northern range structure, measures 21.6m E/W, and stands 10.6m in height, with a central staircase facing the plaza. Structure 3, the northern range structure, measures 21.6m E/W and 10.4m N/S with a height of 5m., and also has a central staircase that facing the plaza. Immediately to the east of Structure 3, is Structure 2--a small square 8m x 8m mound and 1.4m in height. The mound adjoins the range structure by what appears on the surface to be a cut stone walkway. The mound, constructed of dry-laid medium-sized boulders, was previously excavated by A. H. Anderson who described it as “unusual” (Digby 1958: 276). It is unclear as to whether he discovered any artifacts within the structure, but he did note that atop it was a four-stone hearth and sherds from an unslipped “spiked” vessel, that we assume was an incensario. Anderson’s excavation remained open so we were able to clear profile the north wall, but found no artifacts that allowed us to date the structure or aid in establishing its function.

Bounding the south side of the plaza is a long, linear structure that stands approximately 0.7m in height that Digby (1958) referred to as a “low bank.” There are a total of 10 of these structures at the site, over half of which ring the south side of the cenote and enclose Plaza B. Digby argued that these had a step that faced the plaza suggesting that they were used as “viewing stands” for spectators watching events that occurred there. A trench placed across the north end of Linear Structure 11, did in fact reveal a step on the southwest side facing toward the ballcourt. Arlen Chase (2011 personal communication) suggests that these structures may have been associated with market activities, and also notes that in the Caracol site core, similar constructions may have been platforms used to support perishable structures, possibly for housing soldiers.

The ballcourt sits to the west of the cenote dividing Plaza A and Plaza B. It was built atop a constructed platform that appears to level out the undulating natural landscape. The platform measures approximately 50m x 50m and stands roughly 1 meter in height. The two ballcourt structures, Structures 5 and 6, are orientated at 209° along the north-south axis with a 5m wide alley separating them. Structure 5 measures 17.5m N/S x 9.3m E/W and 3m in height. Structure 6, the eastern structure serves as the western boundary of Plaza B. It measures 17.5m N/S x 12.9m E/W and 3m in height. A trench excavated across the ballcourt revealed an inset staircase on the east side of Structure 6 that faces onto Plaza B.

Plaza B is bounded on the north by 6 linear structures that follow the curvature of the cenote, and terminate to the east of Structure 1, on the surface above the cave’s mouth. Three additional linear structures set parallel to these bound the south side of the plaza. Two 7m-10m gaps between these 3 structures provide access to the site from the south and an aguada is situated south of Linear Structure 18. Structure 7, a pyramidal construction measuring 29m N/S x 16m E/W and standing 4m in height, bounds the eastern side of the plaza.
Figure 2. Digital Elevation Model of Las Cuevas site core and plazuela group.

Figure 3. Map of Las Cuevas structures.
A large cave with an extensive dark zone tunnel system resides directly beneath Structure 1, and runs directly beneath Plaza A. The opening of the cave is at the base of the cenote located in the center of the site. While it is not unusual for Maya sites to be associated with caves, we rarely see such a direct connection or such an extensive tunnel system beneath a site core (Moyes and Brady 2012). Not only this, but located directly inside the cave's cathedral-like entrance is an additional cenote with a natural spring at its base (Figure 4).

The cave mouth is massive, measuring 28m width, opens into a cathedral-like entrance chamber measuring 108m in length and 40m in width that is heavily modified with monumental architectural constructions such as terraces, retaining walls, stairs and platforms covered with thick plaster. The cave's cenote, measuring 32.4m length x13m in width, is ringed by a rectangular, cut stone retaining wall and stairs that lead down to the water. A system of stairs and platforms ascend upward from the retaining wall to the inner cave walls creating a raked amphitheater-like space. A total of 52 separate platforms, many of which still have intact plaster floors, have been noted thus far in the entrance. One eroded platform clearly exhibits two stages of plastering and in our excavations we encountered additional constructions. The extensive constructions suggest that the cave was used for large and well-organized ceremonies and that could be viewed by many participants.

At the rear of the Entrance Chamber a dry-laid wall with a constructed entryway restrict the entrance to the cave's tunnel system (See Figure 4 map). The tunnels form a loop that comes back into the Entrance Chamber, opening into a window high on the southwest wall approximately 15m above the cave floor. Charcoal covers the floor at the lip of the
window suggesting that ceremonies or burnings occurred there in antiquity that would have been viewed from the chamber below.

Excavations and Mapping

The first field season of the LCAR focused on mapping the site and conducting test excavations for chronology building. The site was surveyed by Rafael Guerra, Erin Ray, and Mark Kile, using a Sokkia 650X 6" reflectorless total station on loan from the University of California, Merced and a Topcon 3" total station on loan from Lisa Lucero. Data were displayed and organized using a Geographic Information System. Maps were produced by Justine Issavi, Lauren Phillips, Rafael Guerra, and Holley Moyes. We created a digital elevation model (DEM) of the site (See Figure 2), a plan view map of the constructions in the site core and plazuela group (See Figure 3), a partial map of the cave (See Figure 4).

We conducted test excavations both in surface contexts and within the cave to begin to establish the site’s chronology. Surface excavations were supervised by Mark Robinson and cave investigations by Barbara Voorhies. Laura Kosakowsky, assisted by Jenny Smedra, analyzed the ceramics for chronology using standard type variety designations largely in line with the Belize Valley (Gifford 1976).

In this paper we often refer to the Late Classic Spanish Lookout Complex (AD 700-900) as defined by Gifford at Barton Ramie. Elsewhere it is referred to as "late Late Classic to Terminal Classic" or "Spanish Lookout/Tepeu II/III." At Las Cuevas, our interest is to clearly distinguish between Tepeu I, II, and III—so to the Late Classic, late Late Classic and Terminal Classic periods. For our designations, we rely on recent work that identifies Terminal Classic ceramics, particularly that of Lisa Lecount (1999) who classified TC ceramics at Xunantunich and dated the beginning of the period to A.D. 790. Other markers of the TC exist as well, such as molded-carved vessels often found in caves (Helmke and Reents-Budet 2008).

Eight test units were placed in surface contexts. A trench (Unit 3) designed to define the final architectural phase, spanned the ballcourt and was partially excavated. From this trench we were able to define positions of the playing alley, bench, playing walls and range structures (Figure 5). A total of 141 sherds were recovered, of which only 14 are identifiable to type. Although we found few diagnostic sherds, all dated to the Late Classic Spanish Lookout/Tepeu II period (AD700-900), suggesting that the ballcourt was constructed during this time.

Additionally, Unit 2, a 1m x 1m unit placed in the center of the ballcourt alley and dug to bedrock revealed a single major phase of construction in which graded fill, from small boulders to small pebbles, were laid atop the natural bedrock to form a flat playing alley. The surface of the alley appears to have been plastered. Few artifacts were recovered during excavation, but a single sherd in the basal level can be attributed to the Cayo Unslipped ceramic group, dating the alley construction to the Late Classic Spanish Lookout/Tepeu II complex. No cache or ballcourt marker was found.

Unit 4, a 1m x 2.5m unit was laid along a north-south axis on the southern end of the ballcourt, 4.5m behind Structure 6 at a bearing of 209°. This unit was placed in an attempt to provide better chronological control for the construction of the platform underlying the ballcourt and the ballcourt itself. Additionally the northern end of the unit (Section A) was placed to date Str. 16, as well as the ballcourt platform’s uppermost levels. Section B was intended to date the larger platform on which the ballcourt sits.

Structure 16 (Section A) produced one diagnostic sherd identified as a Late Classic, Spanish Lookout/Tepeu II, suggesting that it was constructed during that time. The southern portion of the unit (Section B) continued through the platform to the bedrock below. It revealed that the platform was a single construction of medium to large-sized dry laid boulders, but no plaster or facing stones were found. While the majority of the sherds were too eroded to identify the time period, the lowest levels above bedrock included some well-preserved types from the Sierra Red Group suggesting an earlier occupation of the site dating to the Late Preclassic period (300 BC-AD 250). Because the material was located below the boulder fill, it is unlikely that they date the construction. This
was the only in situ material found during this preliminary season dating earlier than the late Late Classic period.

Two test units were placed in Plaza A, Unit 5 in the center, and Unit 6 abutting the stairway on the east side of Structure 4. Both were excavated to bedrock. Highly eroded remnant plaster was located between 0.2m and 0.3m below the surface, suggesting that the plaza was built in a single construction, but no diagnostic sherds were encountered in either unit. Additionally, a 1m x 1m test unit was placed in the center of the courtyard of the plazuela group (Unit 8), which produced highly eroded sherds, one of which dated to the Late Classic Spanish Lookout/Tepeu II period.

A second trench (Unit 7) was placed on the north end of Linear Structure 11 to define the architecture and date the structure. The building appears to have been a single phase construction that incorporated a step facing Plaza B and an upper platform. The step is approximately 50cm high and the upper structure 1m in height. The east side of the structure faces the cenote and a platform appears to protrude into the sloping cenote wall. A large number of sherds were encountered on this eastern side but it is unclear as to whether this is a primary trash deposit or fill used to level the platform by filling gaps in the bedrock.

The building’s location and association with the other linear structures that ring the top of the depression, suggests that Digby may have been correct in that the structures may have served as a place to view activities that occurred in the cave or in Plaza B. The majority of the ceramics recovered from the structure were Late Classic Spanish Lookout/Tepeu II providing a terminus post quem date for that structure.
Three test units and nine shovel test pits placed in the cave. All of the units and two test pits produced datable material and all contained ceramics dating to the Late Classic Spanish Lookout/Tepeu II complex. Unit 1 was of particular interest. This unit was placed in the Entrance Chamber into a partially eroded platform with a plaster floor. A second floor was encountered below suggesting that there was more than one phase of construction within the cave. Initially we thought that this earlier construction may have been quite old, but ceramic analysis clearly demonstrated that this was not the case and that the cave was modified on more than one occasion in the Late Classic period. A total of 316 sherds were excavated within the unit, of which 62 were identifiable to type. Although there were redeposited sherds from the Late Preclassic (Sierra Red Group) and Early Classic period Petén Glosswares, both constructions primarily contained sherds dating to the Spanish Lookout/Tepeu II complex. Additional artifacts encountered including chert flakes, a chert-biface, and animal bone, bolster our argument that, rather than representing a unique cave assemblage, the artifacts in the fill of the platform are typical of mixed fills from surface site excavations elsewhere.

Discussion

Based on test excavations conducted in the 2011 field season we tentatively suggest that, as per the ceramic cross-dating, the surface site and cave architecture was erected in the late Late Classic period between AD 700-900, though people were present in the area during the Late Preclassic (300 BC-AD 300). Although we have not excavated into the larger structures, what we have found is that the structures associated with cove use and performance aspects were constructed at this time—the linear structures surrounding the cenote and bounding the plazas were late Late Classic single constructions coeval with cave modifications. This is an interesting finding because the cave is in such close proximity to the site of Caracol (only 14km from the site core and 4km from its eastern terminus structure). Caracol was one of the largest polities in the Maya lowlands, settled as early as the Middle Preclassic Period (600BC) (Chase and Chase 1987:13 Table 1), yet it does not appear to have incorporated the Las Cuevas cave site early on in its history, nor is it clear to what degree Caracol exerted its influence during the late Late Classic.

In the Late Classic period, Caracol's settlement was at an all-time high and there are indications of its expansion northeast to the site of Mountain Cow (Morris 2004) where a road was constructed connecting the two sites, and a stela was placed bearing Caracol’s emblem glyph. Although Las Cuevas is an obvious contender to be incorporated into Caracol’s expansion, there is no evidence to suggest that the site was under its authority. Data collected thus far indicate that there were no roads leading from Caracol to Cuevas, no epigraphic or iconographic indications of apical elite use of the cave such as glyphs or cave drawing like those at Naj Tunich, and no stela at all, much less one with the Caracol emblem glyph. Diane and Arlen Chase (Iannone et. al. in press) suggest that, although Caracol is thriving economically at this time, a different form of government replaced the earlier system of divine kings following the death of K’an II in AD 680. The proximity of Cuetas to the Caracol site core may further evidence the weakening of the traditional kingship at Caracol or even political upheaval and fragmentation during this period. This may have opened up an opportunity for lesser nobility or political upstarts to break from Caracol, or possibly an aspiring elite from further afield to create the ritual complex at Cuevas.

Aside from its regional relationships, Las Cuevas has its own story to tell. There can be little doubt that settlers selected that particular spot because of the location of the cave, and that the eastern structure was deliberately built overlooking the cave entrance. One reason for this choice may have been that there was a constant and reliable water source (the spring in the cave). This may have been a salient issue when we consider that the site was likely constructed in the Late Classic period. Based on paleo-environmental data, we now know that western Belize suffered a series of droughts beginning around 780AD (Webster et al. 2007). Long-term drought was likely to have been the proximal cause for the political collapse and could explain why the area was depopulated never to return to
its Classic period populations or social organization.

Alternatively or perhaps concomitantly, our models of Maya settlement choice, as 
outlined by García-Zambrano (1994), suggest that there were cosmological underpinnings for 
choosing to build over a natural cave. The settlers were most likely not just attracted to a 
reliable water source, but also wished to establish a cosmological referent, and to create a 
profundly sacred landscape for their Late Classic performances and ceremonials. The 
incorporation of the natural landscape into the site's architecture created a cosmo logically - 
charged space that reified the mountain/cave/water complex at the heart of 
Maya ideology, and was clearly designed to sanctify the rites and ceremonies that occurred within those precincts. From a Durkheimian perspective, the massive ceremonials at Las Cuevas may well have been an attempt to create 
social solidarity and a sense of community in a 
time of stress. As noted by Inomata and Cohen (2006:24), it is the co-presence, the gathering of 
both performer and audience together, that 
creates these social effects. David Kertzer (1988:76) reminds us that solidarity is produced by 
people acting together, not thinking together; so during times when social dissent is in the air, 
performance and spectacle have the ability to reduce social tension, even in dissenters. The 
ritual elaborations and massive ceremonials at the Las Cuevas site were likely to have served 
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