This paper presents results of cave investigations at the site of Las Cuevas carried out by the Las Cuevas Archaeological Reconnaissance (LCAR) from 2011-2014. Las Cuevas, located in the Chiquibul Forest Reserve in western Belize, appears to be a typical Late Classic, medium-sized, administrative/ceremonial center, but has something that most others do not—a large cave system that runs directly beneath the main plaza. The cave whose mouth sits directly below the largest eastern pyramid is entered via a sinkhole. The site’s architectural layout and incorporation of natural features creates a cosmologically salient space designed to sanctify the rites and ceremonies that occurred within the precinct. We discuss the site layout and architectural modifications made to the cave as well as our findings from excavated contexts. Because of its elaboration and massive architectural program, we argue that Las Cuevas was likely to have been an important Location of High Devotional Expression in the Late Classic period.
“There are some sites, I would argue, which we can only begin to make intelligible to us if we regard them as the product of a powerful imaginative symbolic system ("a dream") of which we have at first sight no very clear idea. There is implied here a vision, a worldview...” Colin Renfrew 2001:17

Introduction

In his 2001 assessment of Chaco Canyon, Colin Renfrew suggested that the site was a Location of High Devotional Expression (LHDE), a city cosmologically charged whose economy depended on symbolic currency in exchange for tribute or votive offerings. Renfrew suggested that LHDE were the places that dreams were made of, places of ideological significance where rites and ceremonies were conducted that sustained the hopes and aspirations of pilgrims from far and wide. He compared Chaco with other sites such as the temples at Malta, the stones of Stenness on the Orkney Islands of Scotland, and the Church of St. James de Compostella in northern Spain. In his ruminations he examined the material characteristics of such sites and described how we might recognize one in the archaeological record. Renfrew observes that LHDE will often display monumental architecture and structures often define special approaches to the site that may exclude or restrict certain areas. The architecture makes use of “attention focusing” devices (Renfrew 1985:1) and the site contains features of cosmological significance or perhaps special alignments or axis that create cosmological synergies. LHDE are often found in isolated places, away from large population centers where a large scale of labor input might not have been anticipated. At least part of the material culture at these sites will serve to facilitate ritual and objects may come from a wide range of places to be left as offerings. Such locations will also have evidence that large numbers of people participated or witnessed rituals or ceremonies. There may also be evidence of temporal structuring such as periodicity in artifact deposition. Finally Renfrew cautions that LHDE should not be thought of as exclusively religious or symbolic places, but that the sites will certainly have a strong symbolic component.

Based on Renfrew’s insights, we propose that the Las Cuevas site, located in the Chiquibul Forest Reserve in western Belize is an LHDE and perhaps one of the most important LHDE for a large region that included the Belize Valley as well as polities to the south. Las Cuevas has been under investigation by the Las Cuevas Archaeological Reconnaissance (LCAR) since 2011. Our work has included mapping, test pitting, horizontal excavations, and chronology building using ceramic analyses as well as AMS dating. This paper focuses primarily on the cave at Las Cuevas and synthesizes our current thoughts on how it was used, who used it, and how this ritual complex fits into the socio/political landscape of the Late Classic period.

Las Cuevas

Las Cuevas is a mid-sized center located 14km as the crow flies southeast of the mammoth polity of Caracol (Figure 1). In four field seasons, initiated in 2011, we recorded 36 structures situated around two plazas (Plazas A and B), a ballcourt, and a sacbe leading into a hillside as well as an elite plazuela group set on a platform just to the north of Plaza A (Figure 2). The surface architecture surrounds a 15m deep dry cenote (sinkhole) with a huge cave entrance at its base on the west side. In the cave’s interior is an additional cenote where an
underground river surfaces. A 335m cave system runs beneath Las Cuevas Plaza A and directly underlies Structures 1, 3, and 4 as well as the plazuela group.

Las Cuevas’ short history makes its spatial layout more legible than would be expected at a site with a longer temporal span, and therefore a greater number of building programs and political fortunes (Ashmore and Sabloff 2002: 211). Plaza A is reminiscent of Tikal’s twin pyramid complexes, particularly the North Acropolis, with east/west oriented twin structures thought to mark the path of the sun, a northern palace and low southern structures believed to represent the underworld (Ashmore 1991:200-203). In Plaza A we have two similar sized structures that were found to be the same height (8 m post excavation), positioned on an east/west axis. The eastern temple, Structure 1, is located directly above the cave entrance. To the north is a large range structure that has yet to be excavated that we suspect is an elite palace. Although at Tikal there are structures on the southern side of the plaza set with nine doorways, at Cuevas there is a long low linear structure standing .7m in height that defines the southern border of the plaza. The north/south oriented ballcourt (the axis is 23° east of north) sits just south of the eastern structure, similar to that found at Tikal’s North Acropolis. The ballcourt serves as the western structure for Plaza B and has steps off the back protruding into the plaza (Robinson et al. 2013). Plaza B has a northwest/southeast orientation with a southeastern temple facing the ballcourt across the plaza. Bordering the north and south are additional long, low, linear structures similar to those in Plaza A. The structures on the north side curve, hugging the circular rim of the cenote. According to Ashmore and Sabloff (2002), for the ideal Late Classic Maya site plan, the two plazas should be set either on a north/south or east/west orientation depending on political leanings, but at Las Cuevas, Plaza B is placed southeast of Plaza A. Rather than exhibiting an orientation based on the cardinal directions, the cenote defines the shape and size of Plaza B. Additionally, it can be no accident that Structure 1, which anchors Plaza A, was placed directly above the cave entrance nor that the cave tunnel system runs below all three of the large Plaza A structures.

Understanding the importance of Maya sacred geography helps us to appreciate the cosmological salience of the Las Cuevas site layout. What is impressive is that the vertical model of a three-tiered universe containing the sky, the earth, and the watery underworld is writ large at the site. As Brady and Ashmore (1999) noted, this manifests as the sacred mountain/cave/water complex is at the heart of Maya cosmology. Deities are associated with each domain and it is through ritual that the three can be aligned, portals opened through blood sacrifice, and contacts can be sought. Both earth deities such as the rain god Chac and underworld denizens such as the evil Lords of the Underworld were thought to live in caves and could be more easily contacted there (See Moyes 2012 for discussion). This helps explain why deep natural caves were and are exclusively used as ritual spaces (Christenson 2008, Prufer and Brady 2005, Moyes and Brady 2012). Given this underlying cultural logic it is not surprising that in the Classic period, caves became highly politicized spaces (Brady 1989; Brady and Colas 2005; Moyes 2006; Moyes and Prufer 2013; Stone 1995). Sacred ritual was an important political tool that could be manipulated by kings and elites, so that caves operated in political arenas. Therefore control of these spaces also represented control over the natural environment, the earth itself, and its indwelling deities (Moyes 2006; Moyes et. al. 2009).

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 Town Land Titles (Títulos de Pueblos y Tierras), he discussed models of
ideal landscapes that figured prominently into immigrant's decisions regarding where to settle. The ideal location included a centrally located mountain that represented the center of the world. In this ideal case, 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). If the local topography failed to naturally mimic the ideological model, modifications could be undertaken as we see played out at Las Cuevas.

We can be relatively certain that the cave at Las Cuevas with running water in the entrance chamber attracted settlers for both cosmological and practical reasons. The placement of Structure 1 directly above the cave mouth served to reify the existing cosmological referents to create a natural cosmological theatre as a backdrop for rites and ceremonies in a powerful expression of the natural and built environment. In addition, Structure 1 was crowned with a stucco frieze above the doorway leading to the interior rooms (Robinson et al. 2014). Such a feature is normally reserved for apical elite structures and is a highly unusual feature at mid-sized sites such as Las Cuevas. Although the frieze had been completely destroyed, we recovered a single stucco tooth among the rubble. This suggests that the frieze represented an incarnation of a toothy maw, such as that described as the zoomorphic earth monsters in comparative architecture (See Schávelzon 1980 for discussion), marking the structure as a sacred mountain. This is in keeping with other ancient Maya constructions that referred to and replicated the sacred landscape, building temples to represent sacred mountains and constructing rooms at their summits to replicate their caves (Vogt and Stuart 2005), echoing the cosmological significance of the site plan at Las Cuevas.

Las Cuevas appears to be a Late Classic manifestation, though we are fairly certain that people were in the area in the Late Preclassic period. However, there is no evidence of Preclassic cave use or that any of the larger buildings were constructed at that time. The project located one small deposit of Late Preclassic sherds beneath the platform upon which the ballcourt sits (Moyes et al. 2011) and a burial placed in front of the eastern structure of the plazuela group is possibly Preclassic based on the presence of Chicanel ceramics accompanying the remains, but the structure itself appears to have been built in Late Classic period (Carpenter 2013). Based on 25 AMS dates, the structures, as well as the use of the cave, date to between AD 641-985 at the 2 sigma range. Ceramic cross-dating places all building phases at the site into the later part of the Late Classic period (Tepeu 2/ Spanish Lookout), which agrees well with the radiocarbon dates. Additionally, the ceramic types found at the site are typical of the Petén, Belize Valley and points south, suggesting influences from afar, though we are awaiting the results of compositional analyses to determine if they are actually manufactured and imported from elsewhere (Kosakowskyy et al. 2012).

Although Diane and Arlen Chase (2014) argue that large polities in the Maya area were capable of directly controlling areas of 7,000-9,000 square kilometers, our research has been unable to establish any direct connections to Caracol despite Las Cuevas’ proximity to the larger site. Caracol has an extensive road system radiating from the site core, yet there is no road to Cuevas. Based on the perusal of our recent LiDAR surveys we do not find continuous population density between the two sites and a natural karstic ridge separates them. Unlike Hatzcap Ceel (Mountain Cow), a mid-sized civic/ceremonial center east of Caracol (Morris 2004), there are no stelae proclaiming a relationship or control by the larger city. The mosaic-style building
techniques at Cuevas are not consistent with masonry at Caracol, nor do we find burials or caches in our large eastern or western structures as might be expected if burial practices were similar (Carpenter 2013; Robinson et al. 2013). In fact, after extensive excavations we have only encountered a sole burial that was discovered in the plazuela group, which appears to be a single individual. The skull is missing as well as numerous other bones, suggesting the remains are a secondary interment.

The Cave at Las Cuevas

To reach the cave from the site core, one descends into the cenote from Plaza B (Figure 3), and enters it through two narrow passages less than a meter in width between linear Structures 10 and 11 and 11 and 12 respectively. The area behind the structures was filled and leveled and a few remnant steps suggest that there was a formal path leading down the southwest slope to the cave entrance below. Natural bedrock outcrops were modified using uncut limestone boulders to form terracing. Our excavations in Unit 31 demonstrated that there were buried terraces at the base of the path just in front of the cave. Subsurface shovel pit testing of the cenote was instructive because we were able to demonstrate that based on artifact density analyses this was the only part of the cenote that was clearly used. We have suggested elsewhere that the architecture defined a ritual pathway leading to the cave along which offerings were made before reaching the entrance (Arksey 2013; Arksey et al. in press).

The mouth of the cave is a mammoth, east-facing entrance, measuring 28m across with a 7.5m ceiling height, positioned at the base of the western side of the cenote (Figure 4). Stalactites hang from the cave’s drip line so that the entrance itself resembles a large toothy maw, such as that described as the zoomorphic earth monsters in Maya iconography. We have witnessed clouds emerging from the entrance on at least two occasions, events that reinforce the relationship between caves and rain common in Maya belief (Vogt 1969:302).

The cave mouth opens into a cathedral-like chamber measuring 108 m in length, 40 m in width, and 17 m in height. The Entrance Chamber is heavily modified with monumental architectural constructions including terraces, retaining walls, stairs and platforms that are topped with thick plaster (Moyes 2013). Plastered stairs descend into a cenote in the center of the Entrance Chamber that is lined with cut stone block retaining walls. At its base is a river that surfaces and then disappears underground. The water level rises and falls in rhythm to the amount of local rainfall. The cenote is surrounded by 73 platforms (surface and subsurface) connected by stairways rising up to the cave ceiling creating an amphitheater-like space. This suggests that the cave was used for large and well-organized ceremonies and that could be viewed by many observers and supported a large number of participants. We have calculated the number of people that could comfortably use the platforms. The surface area of the combined platforms is 533 square meters. If we assume 2 people per square meter (based on Herbert Jacobs 1960 crowd size calculations), the platforms could support 266 people, or if we assume a more crowded 1 square meter per person, 533 people could attend ceremonies. Others may have stood on stairways or paths, but this gives us an idea of how many people were important enough to have space on the platforms.

The Entrance Chamber is divided into east and west areas separated by an archway that from some angles resembles the representations of a large toothy maw, echoing both the mouth of the cave and the frieze of Structure 1 above. As one proceeds west, the light zone fades to twilight and eventually into darkness at the westernmost end of the chamber. The entrance to the
tunnel system lies at the back of the chamber on the northwesternmost wall, which forms a natural constriction. A constructed wall (Wall 1) spans the 6.2m wide constriction blocking it totally (Figure 5). A formal entrance or “doorway” measuring 0.75m in width and 1.1m in height allows only one person to enter at a time, and forces one to bow or duck when entering Chamber 1 from the Entrance Chamber. Loose limestone boulders strewn on the exterior of the wall suggest that the entrance was blocked off at some point in the past.

The tunnel system is comprised of rooms and passages that circle around on themselves and terminate in a window 8m above the cave floor on the west wall of the Entrance Chamber. The window looks out onto the eastern end of the Entrance Chamber with a view to the cave mouth and cenote, as well as the platforms and terraces on the north side of the cave (Figure 6). The acoustics are quite impressive from the window and even a soft voice may be heard all the way to the north wall of the chamber. On the floor of the window there is a great deal of charcoal but only a handful of potsherds, suggesting that performative activities occurred there as opposed to the deposition of offerings. One can imagine a grand oration being presented from this high vantage point.

As one moves through the system there are three blockages, two additional walls, and a natural morphological restriction (Figure 7). The first blockage is between Chambers 3 and 4. Blockage 1 is constructed with small to medium-sized limestone boulders and speleothems. It further restricts a small 3.3m wide opening with a 0.7m ceiling height forcing one to crawl through a squeeze into Chamber 4. Upright flat stones and a fallen stalactite form an entryway on the northwest side of the entrance. Another blockage, Blockage 2, occurs as one exits Chamber 4 and enters Chamber 5. Here, there is a 2.5m wide natural constriction with a ceiling height of 1m, plugged by piled up limestone boulders to further restrict the entrance.

A natural constriction occurs as one exits Chamber 5. A long narrow tunnel measuring 23m in length and 1-2.3m in width must be traversed in order to enter Chamber 6. The ceiling height is high enough to allow one to walk through the tunnel. The next construction, Wall 2 divides Chambers 6 and 7. Wall 2 was constructed in the 5m wide natural constriction and reaches from floor to ceiling, measuring 1.5m at its highest point. It is 0.5-0.6m thick, and on the north side there is a constructed doorway measuring 0.5m in width and 0.8m in height allowing only one person to enter at a time. The wall is constructed of small to medium limestone boulders and speleothems. It is nicely laid and held in place by mud mortar. Finally, Chamber 7 contains two constructions. At the back of the chamber there is a natural 4.4m opening into Chamber 8 along the west wall. This was completely blocked off from floor to ceiling at one time by Wall 3. The wall is constructed of well-laid small to medium-sized limestone boulders and is 2.5m in thickness. Looters have collapsed the rock to allow entry to Chamber 8 and loose rocks lie on the floor on either side of the blockage. We suspect that this entrance was completely blocked to force ritual participants to enter Chamber 8 via a small constructed crawl space, Blockage 3, beneath a drop in the ceiling on the north side of Chamber 7 (Figure 8). This constriction is 1.1m in width, with a very low ceiling height of 0.7m. The 2.5m crawl has both a constructed entryway and exit fashioned with upright flat stones and speleothems that constrict the entrance to 0.5m in width.

Chamber 8 terminates with a sheer drop off from the window looking onto the Entrance Chamber. The window measures 5.5m across and has a ceiling height of 3.15m. Although the cave has been heavily looted, we have argued elsewhere (Moyes et al. in press) that small finds and remnant artifacts provide good evidence for activity areas in caves. Comparative data between looted and unlooted caves suggest that looters are uninterested in sherds or even partial
vessels that have no economic value. They tend to leave these things behind, carrying only whole objects such as polychrome or slipped vessels, jade, or other items that can potentially be sold on the black market. A density analysis of artifacts from the cave at Las Cuevas illustrates that as one moves through the tunnel system there is a drop off in artifact deposition, and the low density of artifacts toward the tunnel’s terminus suggests that fewer people advanced to the end as they wound their way through the cave (Moyes et al., in press; **Figure 9**). Moyes (2012) has suggested elsewhere that the tunnel constructions created a narrative for the ancient users, representing levels and marking the descent into the underworld realm, finally emerging back into the light high above the cenote at the cave’s entrance. The precipitous drop in artifact density and numerous restricted entrances suggest that only the privileged could make this journey. The journey through the cave is reminiscent of the underworld descent and reemergence of Hun Hunahpu of the *Popol Vuh* story, who is sacrificed and resurrected as the Maize God, returning to the earth as the maize plant. This is replicated by his son Hunahpu, who journeys to the underworld, is sacrificed, and resurrected as the Sun deity. Furthermore, the mythological themes of the journey are at the heart of a Maya religious tradition that is still played out in caves today in the initiation rites of day keepers. In these rites the initiate enters the cave, leaves offerings, and at the culmination of the journey waits for the sun to rise at the cave entrance (Earle 2008:85-88).

**Discussion and Conclusion**

In this paper we suggest that the site of Las Cuevas is a LHDE as defined by Renfrew. A LHDE is not merely a pilgrimage place but one that instantiates cosmological principals in a grand monumentally-constructed setting serving as a backdrop for large ceremonies. Las Cuevas’ isolated location over an hour's walk to any river and away from any large population center, as well as ceramic offerings typical of styles found elsewhere, suggest that supplicants journeyed to the site from far-afield for well-organized ceremonies in these sacred precincts. At Las Cuevas we find a site plan incorporating the natural and built environment that reifies Maya cosmological spatial models on both the horizontal and vertical axes writ large. The mammoth cave Entrance Chamber with its interior water source, modified to comfortably accommodate at well over 200-500 people, created a ritual setting that is unparalleled in the Maya Lowlands. Monumental architecture in the cave entrance suggests polity-sponsored ceremonies, and the restricted entrance leading from Plaza B to the cave indicates that attendance was tightly controlled and that access was granted only to elites and their retinues. Once in the cave, only the privileged few could venture through to the end of the tunnel system eventually emerging into the light to gaze upon the crowds on the platforms below. Jaime Awe and his colleagues (2005) have argued for general elite cave use and it is unfathomable that at Las Cuevas ceremonies could be anything but elite-sponsored due to the size, labor investments, and monumentality of the space. We argue based on these spatial configurations that the cave ceremonies were by elites, for elites, or possibly sub-elites and their retinues. Non-elites may well have visited Las Cuevas and it is possible that the plazas held large markets and ceremonies provided for the public, but this has yet to be determined. We also speculate that pilgrims may have visited the site to collect or receive pure water brought from the cave’s interior water source.

The building of the eastern temple of Plaza A with its stucco frieze as well as the installations of cave platforms all occurred in the Late Classic period after AD 641. Our AMS dates so far do not allow us to refine our chronology, therefore we cannot fully articulate our data
within a regional context, but the ceramic assemblage suggests that the site was constructed in later part of the Late Classic period (Tepeu 2/ Spanish Lookout, post AD 700). With almost no Terminal Classic markers, it is likely that the site fell into abandonment about AD 900.

At Caracol this period was one of political flux. In the early 8th century the elite/commoner dichotomy had been suppressed by what the Chases refer to as “symbolic egalitarianism” (A. Chase and D. Chase 2009). A middle class developed and elites shared wealth and identity with commoners. There was little monument construction in the early part of the 8th century and it did not resume until about AD 798. During this time Caracol also began to lose its control over the site of Naranjo that had been under its political sway. The Chases suggest that Caracol then began to focus on internal infrastructure rather than external control. By AD 800, elites at Caracol had reasserted their status differences and symbolic egalitarianism was no longer practiced. By the Terminal Classic period the site fell into disarray and was abandoned as evidenced by unfinished structures and stockpiled garbage that was never used for construction fill as it was intended (D. Chase and A. Chase 2014). Although we cannot articulate building programs at Las Cuevas with the fortunes and misfortunes of the larger site, it stands to reason that Las Cuevas blossomed during the 8th century down turn when Caracol became more insular, focusing on its own affairs. Because Las Cuevas was clearly not a military state and did not have the sustaining population to engage in warfare, it was unlikely that it was seen as a threat.

It is not lost on us that the site was erected at the onset of a long drying trend culminating in the Late Classic droughts beginning in AD 820 (See Kennett et al. 2012 for discussion). This supports the model developed by John Kantner and Kevin Vaughn (2012) that pilgrimage centers arise when there is climatic unpredictability and religious leaders are thought to influence environmental, subsistence, and/or societal success. It is also possible (and not mutually exclusive) that the site originated as part of the Late Classic Drought Cult proposed by Holley Moyes, Jaime Awe, and their colleagues (2009), as a ritual response to increased societal stress caused by diminishing rainfall and the drying of water resources. Data collected by the Belize Cave Research Project demonstrates that cave use increased dramatically at this time. Many, if not most, caves were used solely in the Late Classic period.

We have suggested that Las Cuevas was an important LHDE, but it was not the only center that sprang up in the Late Classic. Other large caves with monumental architecture such as Actun Chapat in western Belize (Ferguson 2000) or natural features such as the pools of Cara Blanca (Lucero 2013) also may have been visited by pilgrims, ostensibly to supplicate for rain as a result of increasingly dry conditions. From a Durkheimian perspective these ceremonies would have served to promote solidarity during a time of stress. The rites and ceremonies at Las Cuevas would have promoted elite solidarity and therefore impacted the political arena of the Late Classic period. While many of our colleagues will argue, perhaps rightly so, that among the Late Classic Maya environmental change and societal stressors led to increased conflict and warfare, it is comforting to know that there were other responses to uncertainty and duress, and that some groups were coming together in solidarity. Perhaps the cosmological backdrop and elaborate ceremonials at Las Cuevas created a dream of a more peaceful and orderly world set against the stress and chaos of the Late Classic period.

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Figure 1. Map of western Belize showing location of Las Cuevas in western Belize (Courtesy of LCAR).
Figure 2. Site map of Las Cuevas site core showing surface structures and the underlying cave system (Courtesy of LCAR).

Figure 3. Map showing entrance to the cave from the southwest side of the cenote (Courtesy of LCAR).
Figure 4. LiDAR image of the Las Cuevas site core illustrating the cave entrance beneath Structure 1 (Courtesy of LCAR).

Figure 5. Wall 1 blocks the entrance to the tunnel system. Note the constructed doorway (Photo by Holley Moyes, Courtesy of LCAR).
Figure 6. View from the window in Chamber 8 looks onto Chamber 1 cenote, cave mouth, and platforms in the eastern part of the Entrance Chamber (Photo by Oubalit Akeryans, Courtesy of LCAR).

Figure 7. Map illustrating the blockages and walls in the Las Cuevas Tunnel system (Courtesy of LCAR).
Figure 8. Justine Issavi demonstrates the crawl through Blockage 3 (Photo by Oubalit Akeryans, Courtesy of LCAR).

Figure 9. Artifact density map illustrating drop off in deposition as one moves through the tunnel system (Courtesy of LCAR).