Excavations at Pacbitun have been undertaken since the mid-1980s. Over these past 25 years, Paul Healy and colleagues have focused their work primarily on the site core. Settlement studies did take place, but were limited to testing house mounds within two kilometers of the epicenter. As a result, our knowledge of the periphery of Pacbitun, extending beyond this limit, is poor. The Pacbitun Preclassic Project set out to remedy this, in part, by examining some of the caves sites located in the periphery of Pacbitun. To date, twelve caves have been identified around Pacbitun. One of them, Actun Petz, is the only one to have been investigated archaeologically. In the summer of 2009, three of these caves were investigated. The focus was on mapping, recording, and photographing the artifactual and architectural remains located inside each cave.

Introduction

Over the past decade, a number of caves have been investigated in western Belize, primarily by the Western Belize Regional Cave Project (Awe et al. 2005; Awe and Lohse 2007, Griffith 1998; Helmke 1999; Ishihara 2000; Lohse et al. 2006; Moyes 2002; Moyes et al. 2009). The project, led by Dr. Jaime Awe, has systematically explored, mapped, and intensively excavated a number of caves in this region, including Actun Tunichil Muknal, a cave well-known for its whole pottery vessels, burials, and carved slate stelae. With the exception of this single project, few caves in western Belize have been thoroughly explored. Western Belize has an abundance of caves, but relatively few archaeological investigations have taken place. Reasons for this may be the financial cost, accessibility, and/or the physicality needed to work in such an environment.

Situated between the ancient Maya site of Pacbitun, located on the southern rim of the Belize Valley, and the modern Maya village of San Antonio, there are 12 unnamed caves that have never been archaeologically investigated. While all of the caves are located on private property, many have already been entered by collectors, looters, and tourists.

One of the main goals of the Pacbitun Preclassic Project is to investigate caves located in the periphery of the site. This research program is designed to complement the settlement studies conducted by Dr. Paul Healy in the mid-1980s (Healy 1990: Healy et al. 2007). In his settlement survey, Healy identified a “downtown” Epicenter (0.5 sq km) at the heart of the site, surrounded by a Core Zone (1 sq km) which, in turn, is surrounded by the Periphery Zone (an additional 8 sq km)” (Healy et al. 2007:17). They recorded 330 mounds within the periphery of the site. While Healy was aware of a number of caves in the area his research was centered on the excavation of the mounds recorded during the settlement survey, not on the investigation of caves (Paul Healy, personal communication, 2009). However, this does not provide a complete picture of occupation in the periphery of the site. The investigation of the cave sites must be considered if we want to correctly interpret the nature and extent of settlement in and around Pacbitun.

In the summer of 2009, the Pacbitun Preclassic Project initiated a program focused on investigating the cave sites located in the periphery of Pacbitun. All of them are located more than three kilometers from the Core Zone, but each of them is still situated within the eight kilometer Periphery Zone identified by Healy and colleagues (Healy et al. 2007). The primary objectives of the 2009 field season were to: 1) ascertain the types of activities that may have occurred within the caves; 2) enhance our knowledge of the role of caves at the regional level (i.e., the Belize Valley); and 3) determine whether there were temporal, social, and regional differences in the use of caves in the Maya Lowlands. These investigations will be compared with data from other caves in the area in an effort to determine whether there are any
inter-regional similarities or differences in cave artifact assemblages, art, architecture, and, ultimately, function. This regional approach to the study of caves will provide a more accurate picture of the temporal and spatial use of caves by the ancient Maya.

**Cave Descriptions**

In 2008, the author was approached by Mr. Alfonso Tzul of San Antonio Village. Mr. Tzul owns the land that Pacbitun and the caves are located on. At the time, he expressed concern over the looting of the caves on his property, some of which contained human remains and whole pottery vessels. Mr. Tzul encouraged the author to fully explore, map, and intensively investigate each of these caves. In the summer of 2009, preliminary investigations began at three caves: Actun Merech, Actun Petz, and Tzul’s Cave (Figures 1 and 2). The field work included detailed mapping (floor plans) of activity areas and chambers with cultural remains in order to examine the contextual distribution of particular artifacts, monuments, art, and human and animal remains. The caves and their contents were photographed and illustrations were made of all cave art, including carvings, paintings, and footprints. Artifactual materials and human and animal remains were also analyzed.

**Actun Merech**

Preliminary survey of Actun Merech (Lizard Cave) was made in June, 2009 by the author, accompanied and assisted by staff, students, and Tzul Family members. The cave is located about three kilometers to the southwest of Pacbitun. Actun Merech is a dry cave with nine identifiable rooms or chambers (Rooms A-I). The cave measures approximately 50 meters long and is L-shaped. The entrance to the cave is situated near the summit of a steep hill (west face), which is part of the foothill formation of the Mountain Pine Ridge, with the cave facing west toward Tutu Creek. It is located 370 meters above sea level (masl). At the base of the hill is a natural spring, which has been modified by the ancient Maya. There is clear evidence of a stone wall made of roughly-hewn slate blocks encircling the edge of the spring.

The mouth of the cave is relatively large, measuring approximately three meters in diameter (Figure 3). Upon walking into the entrance (Room A), which is similar looking to a large modern-day foyer, the next three rooms (Rooms B-D) become very restrictive, only large enough to accommodate one person to enter at a time (Figures 4 and 5). From Room D to Room E, one must descend steeply about two meters. In contrast to the Rooms B-D, Room E is relatively large and spacious, with a doomed ceiling with a height of about six meters. There appeared to be evidence of burning on the ceiling, but further inspection is needed to verify this statement. The room itself can accommodate a number of people at any one time. There are numerous horizontal formations along the walls of this room. These small ledges protrude out approximately 30 cm from the walls and extend...
down from the ceiling to the floor. Only a few Late Classic pottery sherds (mostly Cayo Unslipped rim sherds) were found on the ledges. Moving southwest in the cave, one passes through three more small, restrictive rooms (Rooms F-H). Room G is unique within the cave in that there are two small openings at either end of the room. In cross-section, these openings look like a pair of binoculars (see Figure 4), becoming slightly larger (and circular) as one descends deeper into each one. The opening on the north side has a vertical depth of about 15 meters. At the bottom of this hole, we encountered a few pottery sherds and animal bones. No human remains were found. The bottom of the south opening was never reached as we ran out of rope at 25 meters. We intend to return in the summer of 2010 to determine the depth of this opening, as well as to recover any cultural items that may have been thrown or placed into it.

Room I, at the back of the cave, represents another large and open chamber. Like Room G, there are a series of horizontal formations in this room. A few Late Classic rim sherds (from ollas) were encountered on one of these ledges. While no other pottery was encountered in this room, we were told by one of the residents of San Antonio Village that this back room once contained three intact Late Classic period vessels, including one red slipped cylindrical jar, one red slipped deep bowl, and one polychrome dish. They were removed sometime in the late 1960s.

**Actun Pech**

In 1995, Actun Pech (Tick Cave), formerly known as Actun Petz, was preliminarily surveyed by Paul Healy, Jim Conlon, and Rhan-Ju Song (Healy et al. 1996). It is the only cave that Healy and his colleagues investigated in the Periphery Zone (Figure 6). The cave was revisited in the summer of 2009 in order to determine whether any looting had occurred since the original survey was conducted nearly fifteen years ago. Given the revisit, only a brief overview of the cave is provided here (see Healy et al. 1996 for a full description). This overview is followed by recent observations made inside Actun Pech.

Actun Pech is a small, dry cave situated on top of a steep hill directly next to (or east of) the hill on which Actun Merech is located. This
The cave is at an elevation of 345 masl. It is about 25 meters long, oriented east-west, and is divided into four chambers (Rooms A-D) (Healy et al. 1996:139). Twenty-three whole and partial pottery vessels (including 16 ollas) were found throughout the cave, dating in age from the Late Preclassic (ca. 100 BC) to the Terminal Classic (ca. AD 900) (Healy et al. 1996:143-146). Human remains (four adults, one sub-adult, and one child) were found on the floor of Room D, the deepest and easternmost chamber of the cave. The bones were well-preserved and found largely in correct anatomical position (Healy et al. 1996:146). The human remains were located adjacent to a number of whole and broken pottery vessels (e.g., Alexanders Unslipped, Garbutt Creek Red, Mount Maloney Black, Roaring Creek Red, Zubin Red), dating to the Late-to-Terminal Classic periods.

During the revisit to Actun Pech in the summer of 2009, it was observed that a gate had been erected over the cave entrance (Figure 7). The gate was put up a few years ago when the Tzul Family had noticed that some looting had occurred at the cave site. The gate has been effective in deterring individuals from removing any further cultural material. Upon entering the cave, Rooms B-C appeared not to be affected by the looting. However, in Room D it was immediately observed that the human remains had been disturbed from their in situ position (Figure 8). No bones were missing, but they did seem to be more jumbled than previously observed. It also appeared that fewer pottery vessels were present in Room D. The list of
vessel types from the 1995 survey still needs to be compared to the 2009 assemblage, but from a preliminary examination no ceramic types dating to the Late Preclassic period were identified in this room.

Figure 7. View of gated entrance to Actun Pech, Cayo District, Belize.

Figure 8. View of human remains during the 2009 revisit to Actun Pech, Cayo District, Belize.

Tzul’s Cave

Tzul’s Cave is a long, narrow cave situated on top of a steep hill directly next to (or west of) the hill on which Actun Pech is located. It sits at an elevation of 259 masl. The cave is located about 70 meters from Tutu Creek and it measures approximately 35 meters in length and is shaped like the letter “V”. There are six rooms (Rooms A-F) in this cavern. The entrance to the cave is large enough to walk through (Figure 9), but abruptly descends vertically onto a small terrace. Room A, oriented north-south, is the longest and narrowest in the cave (Figures 10 and 11). No artifacts were found in this room.

Figure 9. View of entrance to Tzul’s Cave, Cayo District, Belize.

The smallest room in the cave, Room B, connects the entrance to Room A. It contained some sizable Late Classic rim sherds. Room C is relatively spacious compared to Rooms A and B. There are a number of sizable niches in this room, which contain rim sherds. Room C was sealed at the west end by a circular piece of slate about 50 cm in diameter (see Figure 10). This slate slab was placed to block entry from Room C into Room D. The actual diameter of the opening from Room C to Room D was much larger than the slate slab. As a consequence, a small wall, one meter high, was built beneath the orifice inside Room D. The construction of the wall narrowed the opening between the two rooms allowing the slate slab to be mortared in place. Similarly, a slate slab was also used to block entry from Room D into Room F;
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however, no wall construction was evident inside Room F. In Room D, there is a small alcove which contained a few complete serving dishes as well as broken olla sherds. To the north of Room D is Room E. At the back (north end) of the room is a cache of 13 complete pottery vessels, all dating to the Late Classic period. Given the restricted access to these vessels, no ceramic type names have yet to be assigned.

Summary and Conclusions

In sum, three caves were investigated during the 2009 field season at Pacbitun. Two of the three caves, Actun Merch and Tzul’s Cave, had never been investigated archaeologically. Actun Pech (formerly Actun Petz) was initially surveyed in 1996, but was revisited by the Pacbitun Preclassic Project in order to determine whether any looting had occurred since its original investigation in the mid-1990s. Each cave occupies its own hilltop location in the periphery of the site core. Generally speaking, they are small, dry, subterranean caves with multiple rooms or chambers. Numerous whole and broken pottery vessels were identified in each of the caves, dating primarily to the Late Classic period. Only Actun Pech contained human remains. The bone material was found on the surface of this cave. Architectural modifications were present only in Tzul’s Cave, whereby a wall was constructed to help seal Room D off from the other rooms in the cave. Slate slabs were then placed at each end of this room to block or prevent entry. In 2010, investigation will continue in each of these three caves. The goal will be to conduct in-depth ceramic analysis of the pottery. To date, only a cursory examination has been conducted in Actun Merch and Tzul’s Cave. While a ceramic study was completed on the pottery found in Actun Pech, a re-examination is needed because some looting has occurred over the past ten years. It is unclear which pots remain in the cave and which ones have been removed by looters. A re-examination of the skeletal remains found in Room D is also required.

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