EXPANDING SUB-PLAZA EXPLORATIONS OF MIDDLE PRECLASSIC ARCHITECTURE AT THE SITE OF PACBITUN, BELIZE

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Since the mid-1990s, large-scale excavations have focused on documenting the Middle Preclassic period at the ancient Maya center of Pacbitun. Our investigations at Pacbitun have continued to reveal supporting evidence of earlier development of social complexity than was previously conceived. Pacbitun’s Middle Preclassic saga begins in the 9th century BC with the construction of upscaled structures in Plaza B. By the late Middle Preclassic (600-300 BC), these initial platforms were replaced by smaller rectangular architecture. Through this transition, both forms of architecture are thought to function as workshops where an intensified and increasingly standardized production of shell beads had developed from the previous facet. Occurring simultaneously to Pacbitun’s successful economic enterprise, the construction of a large plastered platform built in the adjacent elevated plaza, Plaza A, reveals the development of public ritual at the site. The recent discovery of this late Middle Preclassic platform, El Quemado, has added the final sociopolitical element to support Pacbitun’s early advancement in the Middle Preclassic period. Our investigations during the 2017 field season aimed to gather more information on the installation and progression of the social, economic, and political institutions as we attempted to better understand the relationship between each of them.

Introduction

The Preclassic period for the Ancient Maya is thought to have brought about an era of drastic social development. During the Early Preclassic (1800-1000 BC), groups of people began to establish residences in the interior of the Southern Maya Lowlands. Sustained agricultural settlements of the Middle Preclassic (1000-400 BC) period would eventually lead to population growth and the emergence of observable societies increasing in complexity. At the ancient Maya site of Pacbitun, Belize, the mechanisms of advancing complexity in the Middle Preclassic are present in the form of utilitarian and ceremonial architecture, and the evolution of a budding economic enterprise.

Nearly three decades of investigations have worked to unearth a modest Middle Preclassic community which lay hidden beneath the central plazas of Pacbitun’s site core. The initial discovery of this early community in the 1990s found several rudimentary platforms buried beneath Plaza B. Modifications to these structures amid the Middle Preclassic suggest that Pacbitun underwent a significant architectural and orientational transformation—one which helps to divide this period into an early and late facet. Found amongst these structures, a myriad of shell fragments and flintic tools associated with shell bead production is indicative of an organized economic establishment at Pacbitun.

Although our initial perception believed this early community to be simple in terms of social complexity, it would be forever altered after the more recent discovery of El Quemado (Q), a large ceremonial platform found buried beneath the northern end of Plaza A. Excavations dating back to 2013 have systematically unearthed the massive platform in an effort to reveal the structure’s configuration and architectural design. With a better understanding of Q, we believe the structure has the potential to not only supplement what we know about the socioeconomic affairs of Pacbitun, but also introduce a previously unknown ceremonial dimension that may hint at the advent of sociopolitical organization at the site during the Middle Preclassic period. However, before we can fully comprehend these larger social concepts, there are impending enquiries concerning both plazas, and the Middle Preclassic architecture that needs to be resolved.

Regarding Plaza B, considerable evidence has been discerned about the production aspect of this early community space; yet, very little information has been found to determine the residential status of the sub-plaza structures. Were these platforms solely used for manufacturing shell beads, or did they also
function as domestic space? In Plaza A, the inimitable nature of El Quemado is justification enough to continue our intensive explorations to enhance what we know about Pacbitun’s Middle Preclassic period. Our thorough investigation of Q has enabled us to study details such as construction methods, and materials used, providing insight into the origins of this platform. Moreover, analyzing the desecration and burial of Q, and the construction of Plaza A, has also contributed information concerning the termination and abandonment of the platform. Unfortunately, this damage has also hindered our efforts to understand the architectural dimensions and plaza configuration and may have destroyed crucial evidence concerning the structure’s purpose. With little to no evidence indicating the ceremonial function or political meaning, the structure’s plaza position and orientation may prove to be vital clues to understanding its presence at Pacbitun.

Thus, in seeking answers for the uncertainties in Plaza A and Plaza B, the excavations of the 2017 field season set out to expand our investigations from these previously explored areas associated with Pacbitun’s Middle Preclassic community. In Plaza B, excavations were expanded to the west of the late Mai phase (600-300 BC) platform, Sub-Structure B-2, to further expose its contemporaneous neighbor, Sub-Structure B-3. Our preliminary analysis of the artifacts recovered from the 2017 excavation of B-3 suggest this platform was also involved in shell bead production and did not exhibit any evidence of a residential component. Beneath Sub-Structure B-3, our investigations would also unearth more of the early Mai phase (900-600 BC) platforms, Sub-Structures B-1 and B-4, as well as a third platform (Sub-Structure B-16), belonging to the same phase. All three platforms have offered new information concerning the layout and function of these early structures. In Plaza A, explorations were directed towards the unexplored areas on the west and north sides of the building. At the culmination of our fifth and final year of excavating El Quemado, we were finally able to ascertain the platform’s dimensions and confirm the structure’s south-facing theme after locating the northwest corner and northern facade of the structure. The discovery of another feature on the northside of the structure has also added to what we know about the architectural design of Q.

The Site of Pacbitun

Pacbitun is a medium sized site located on the southern limits of the Belize River Valley. Situated between the foothills of the Maya Mountains and the lowland tropical forest, Pacbitun straddles two ecozones creating a unique contrasting environment that would have offered a multitude of diverse resources. Situated around the site’s five main plazas (Plaza A-E), 41 masonry structures are densely constructed within the 145,000 square meter limits of the site core (Healy 1990:250; Figure 1). Plaza A and Plaza B have been identified as the location of Pacbitun’s original settlement dating as far back as 900 BC. These two plazas continued to flourish as the communal hub until the site’s presumed abandonment in AD 900. Several causeways lead from Pacbitun’s site core out into a periphery that is laden with house mounds and minor centers found amongst countless agricultural terraces (Healy et al. 2007; Weber and Powis 2010). Karstic landmarks such as sinkholes, rockshelters, bedrock outcrops, and caves are found throughout the region, but are most prevalent in the southern and eastern areas of the periphery zone (Spenard 2014; Spenard et al. 2013).

The Middle Preclassic Settlement in Plaza B

Extensive investigations in and around Pacbitun’s site core have been ongoing, sporadically, since the 1980s. Early excavations, conducted by Paul Healy of Trent University, primarily studied the monumental buildings in the core that were initially constructed during Pacbitun’s Puc phase (300-100 BC) and modified up until the site’s fall in the Tzib phase (AD 800-900) (Healy 1990; Healy et al. 2004). Though Healy (1990:256) ceramically identified a Mai phase (900-300 BC) occupation at the site, the potential scale and significance of this early inhabitation would not be recognized until the mid-1990s when multiple sub-plaza platforms were discovered beneath a thick midden deposit that forms the surface of Plaza B (Hohmann 2002).
Aside from radiocarbon dates and ceramic analysis, two distinct construction patterns, and a shift in orientation, have helped to divide Pacbitun’s Mai phase into early (900-600 BC) and late (600-300 BC) facets. Associated with the early Mai phase (600-300 BC), Sub-Structure B-1 (B-1) and Sub-Structure B-4 (B-4) were found just above bedrock and are simple constructions composed of a shallow, two-course high foundation made of roughly-shaped limestone blocks and filled with tamped marl. A meter-wide alleyway containing the same tamped marl surface also appears to separate the B-1 and B-4 platforms. Interestingly, the orientation of these two platforms, running in a northeast to southwest direction, is unlike any other found at Pacbitun. Once both early structures are abandoned however, their late Mai

Figure 1. Map of Pacbitun’s core zone. (Healy et al. 2007:19).

Figure 2. Sub-Structures B-2 and B-3 construction directly on top of earlier Sub-Structures B-1 and B-4.

phase (600-300 BC) replacements, Sub-Structure B-2 (B-2) and Sub-Structure B-3 (B-3), were constructed directly overtop and oriented slightly west of north – a pattern that
would persist throughout the site’s existence (Figure 2). Aside from the contrasting orientation, the later platforms are larger and well-constructed when compared with their predecessors. B-2, initially explored in the 1990s and revisited after the inception of PRAP in 2008, measures 8.3 m (east-west) by 5.5 m (north-south).

Despite the physical discrepancies between B-2 and the two early Maya phase structures, each platform appears to share one significant commonality. Associated with each structure, dozens of chert microdrills and burin spalls were found amongst thousands of marine shell artifacts representing all stages of shell bead production (Hohmann 2002; Powis 2009:11; Powis 2010). Over 3000 shell beads and 1500 pieces of shell detritus were recovered during excavation of B-2 in the 1990s. Another 2000 shell beads and 1500 shell detritus were also recovered from the 2009 excavations (Powis 2009:11; Powis 2010:14). The majority of shell found during these previous field seasons were determined to be a non-local marine shell which would have required extensive trade connections to obtain from the coast (Hohmann 2002; Powis 2009; Powis 2010).

The 2017 Excavations in Plaza B

Excavations in Plaza B had two main objectives. Our first goal was to expand outward from the previously excavated shell bead workshop, B-2, to expose the neighboring platform, B-3. In doing so, the artifacts associated with B-3 could be analyzed and compared with those found in B-2, helping to determine if the structure’s function was associated with shell bead production or if it was used for another purpose (i.e., residential). Directly beneath B-2 and B-3, excavations would also further expose the early Middle Preclassic constructions, B-1 and B-4.

At the beginning of the season we removed a large portion of backfill from the previous excavations of B-2 in Plaza B. Once this was done, the eastern wall of B-3 (running parallel to the west wall of B-2) and its southern wall, could be uncovered in a similar manner as the previous 2008 and 2009 investigations. To reach the depth of the platforms, we would need to excavate through a Middle Preclassic midde known to extend across Plaza B into the neighboring courtyards to the south and Plaza - to the north. The midden covering B-2 measure about one meter in thickness but began to rapidly thin out towards B-3, approximately or meter to the west, measuring around 20-30 cm in thickness. This is a drastic change in a very short space suggesting that the midden may continue to taper down to the west in Plaza B.

Once the level of B-3 had been reached, excavations continued to the west along the southern wall to expose the platform southwestern corner thought to be located in 2008. Excavations would also move north along the eastern wall of B-3 in search of the structure’s northeastern corner. Units were placed under the impression that the northeastern corner of B-3 would align with the northwestern corner of B-2, a common pattern in Plaza (Hohmann 2002: 186; Powis 2009: 10). The assumption would initially lead us to believe that B-3 would be much smaller in size compared to B-2. However, after excavations extended approximately 5.6 m to the north, B-3 did not turn to the west but would continue to the north for another 3 m, bringing the total length of the western wall to 8.6 m (north-south). Thus, B-2 and B-3 both measure about 5 m by 8 m. However, the length of B-3 runs north-south, so at a rotational difference of 90 degrees from B-2, B-3 measures 4.7 m east to west and 8.6 m north to south. Whereas, B-2 measures 8.25 m east to west and 5.5 m north to south (Hohmann et al. 1999:20).

Similar to B-2, the interior floor of B-3 was made of a tamped marl surface. Unlike the plaster surfaces of Plaza A, the marl floors of Plaza B were more susceptible to embedde artifacts (Powis 2010: 15). The floor of B-3, measured around 20-30 cm in thickness and contained a variety of artifacts including ceramics, shell beads, chert drills, greenstone, and obsidian. Specifically, 192 shell beads, 65 shell detritus, and 19 chert drills were recovered from B-3. The floor also contained a high density of jute.

Interestingly, the limestone walls of B-2 rests directly upon the walls of the early Middle Preclassic platforms, Sub-Structure B-1 and B- Unlike the late Mai (600-300 BC) platform
these walls run northeast to southwest beneath B-2, B-3, and their shared alleyway. This is not where the differences stop however. Excavations would reveal that B-1 and B-4 do not have corners but are actually ovoidal or apsidal in shape (Figure 3). Each platform is crudely constructed and unique when compared to other similarly shaped structures, such as those found at Cuello in northern Belize, constructed at about the same time (Hammond et al. 1991). The floors of B-1 and B-4 are also tamped marl and contain a variety of the same artifacts as B-3; however, the early floors are much thinner, measuring around 5 cm thick. Both early platforms appeared to be constructed just above a modified and leveled bedrock surface.

The rounded western ends of B-1 and B-4 begin to turn beneath the southeastern portion of B-3. As our excavations continued to expand to the west, another platform was discovered running beneath the western portion of B-3. Designated as Sub-Structure B-16, the third early Middle Preclassic platform also appears to be ovate or apsidal in shape (Figure 4). However, the length of B-16 runs north-south as opposed to the northeast to southwest orientation of the other early Middle Preclassic structures. Aside from the orientation, B-16 shares all the same characteristics as B-1 and B-4 including the floor thickness and artifact assemblage. Recovered from the early Middle Preclassic structures were 487 shell beads, 1280 pieces of shell detritus, and 16 chert drills.

Excavations into Plaza B have illustrated that, between the construction of the early and late Middle Preclassic platforms, the production of shell beads appears to be a constant theme. In the early Mai phase (900-600 BC) orientation seems to vary, while in the late Mai phase the architecture appears to be consistently oriented north-south. The later buildings were also better constructed compared to those of the previous era. Both early and late platforms in Plaza B were, however, separated by one-meter alleyways (Figure 5). Moreover, there does not seem to be any apparent change in artifacts from one period to the next, nor from one platform to another. However, the shell beads recovered from B-2 demonstrate a refinement in production, with the beads becoming smaller.
and more standardized (Hohmann 2002:201). It should be noted that while these refined beads were found in B-3, there were fewer in number compared to those recovered in B-2 (Figure 6). Jute was equally abundant in both the early and late Middle Preclassic structures. Over 85,000 complete or mostly complete jute were recovered during the 2017 field season.

**Plaza A and the Middle Preclassic Platform, El Quemado**

In 2013, the monumental platform El Quemado (otherwise known as Q), was discovered beneath Plaza A while investigating an anomaly previously detected by GPR (ground penetrating radar) (Figure 7) (Skaggs et al. 2014). Sitting meters beneath construction fill, Q’s discovery sparked several successive years of excavations to expose as much of the building as possible (Davis et al. 2015; Micheletti et al. 2016; Micheletti et al. 2017; Skaggs et al. 2014). Radiocarbon dating frames the platforms existence within the late Mai phase (600-300 BC) with its construction commencing around 550 BC and its burial occurring around the onset of the fourth century BC. The name “El Quemado, meaning “the burned one,” was given due to the structure’s heavily burned plaster surface as a result of either long-term burning practices or one single termination event before its burial. The latter is further supported by additional destruction in the form of defaced stairs, armatures, and possibly even masks as well as the removal of plaster from the corners and sides of the building.

The first three years of excavation focused on the structure’s south face which uncovered a central staircase flanked by a pair of upper and lower armatures protruding from the sixth step and third step respectively. With the southern side of the structure fully exposed in 2015, based on the attributes of the stairs, we were able to hypothesize that Q was either a radial pyramid or a south-facing structure. If Q was radial, the north, east, and west sides would be roughly identical to the layout of the southern stairs. On the other hand, if Q was a south-facing structure, the southern stairs would be unique from all other sides. However, because the Maya predominantly constructed symmetrically, as a south-facing structure, the east and west ends would be similar to one another. Thus, to determine Q’s architectural configuration, the east and west ends of the platform were the most logical areas to excavate in 2016.

Excavations near the east end of Q were by far the most extensive and would almost completely expose this side of the structure by
the end of the 2016 field season (Figure 8). As the excavation progressed, it was clear that the east side was not constructed in the same manner as the southern stairs, meaning that Q was not a radial pyramid. Though much of the summit appeared to be dismantled, the structural integrity was still present to show that Q’s east side is a steeply inclined wall standing approximately 2 m tall that was mainly composed of large cut limestone blocks. All plaster had been removed from the upper half of the structure in antiquity revealing what remained of the stone-robbed wall that once formed the eastern summit. The lower half, however, was still heavily plastered over. One distinct rectangular feature, simply referred to as an appendage due to its functional ambiguity, protrudes out from the wall about 1 m to the east and is positioned about 4.5 m from the southeastern corner of Q. The appendage, measuring 2 m in length (north-south) at its base, had also been partially destroyed making it difficult to determine the feature’s true height. Due to time constraints, efforts to expose the west end of Q were only able to unearth the upper half of the southwestern corner which had also been stripped of its plaster facade.

Though it would seem, through a process of elimination, that Q could definitively be categorized as a south-facing structure, excavations were not able to locate the appendage feature on the west side to confirm this hypothesis. Furthermore, excavations had yet to locate the north corners or north face of Q to allow us to determine the north-south dimensions of the structure. Thus, the 2017 excavations were set to continue to explore on the west and north sides of Q. Our extensive investigation of the west end would not only search for a better-preserved wall and appendage feature but would also attempt to finally locate a northern corner. Although the northern excavations on the centerline of Q appeared to be fruitless in 2016, a cut stone alignment found in a unit beneath Structure 3, the northern structure in Plaza A, would justify revisiting this location as well.

The 2017 Excavations in Plaza A

After removing backfill from the 2016 excavations of the western wall of El Quemado, the 2017 units were set to follow the cut stones of the wall from the summit down in search of a preserved plaster plaza floor. Similar to the eastern wall, the plaster had been removed from the upper half of the western wall but remained intact near the base. As anticipated, soon after we had located the lower plaster facade of the wall, a western appendage mirroring the eastside appendage was encountered. Located approximately 4.4 m from the southwest corner of Q, the western appendage was much better preserved than its eastern counterpart. Though the top had been destroyed, much of the plaster surface still coated the sides of the appendage. Continuing to follow the well-preserved lower facade down to the base of the structure, the plaster surface would eventually lip away from the building horizontally and continue seamlessly as the structure’s plaza floor.
Moving north, though much of the western wall had been left intact, the upper half of the structure near the northwest corner appeared to have been stone-robbed in antiquity. As excavations continued to the north, approximately 3.6 m north of the westside appendage, the northwestern corner was finally located. Thus, from the northwest corner to the southwest corner, the main platform of Q measures roughly 10.5 m (Figure 9).

Noteworthy, excavations near the southwestern corner at the base of Q discovered an east-west alignment of nicely cut stones (Figure 10). Running beneath Q, the three-course-high cut stone alignment was clearly below the level of the platform’s plaster plaza floor suggesting that this structure predates the construction of Q. Interestingly, excavations in Plaza A in 2014 found the corner of a similar sub-plaza construction in front of Structure 5 at about the same depth (Micheletti 2016). Though the function of these structures is not yet known, their construction and elaboration greatly exceed the platforms of Plaza B.

Shifting to our explorations of Q’s north side, after removing backfill from our previous excavations beneath Structure 3 on the centerline of the platform, our investigations of an east-west cut stone alignment was determined to be one of the many task units thought to support the massive amounts of fill brought in to bury Q and build up Plaza A. However, while exploring on the south side of the task unit, a third appendage protruding from the northern facade of Q was discovered. Because excavations had initially exposed the east side of the appendage, we were able to easily locate and uncover a small section of what little remained of the plaster surface at the base of the north side of Q to the east of the appendage (Figure 11). Excavations of the northside appendage proved to be difficult as the preservation was extremely poor. Although time impeded our attempt to further explore this feature, as the season drew to a close, we were able to determine that the appendage was much longer than those on the east and west sides of Q, approximated to be nearly 3 m in length.

Finally, with all four sides of Q located, we have determined the full length and width of Pacbitun’s Middle Preclassic platform. Measuring east to west, from appendage to

Figure 10. A south facing photo of a cut stone alignment thought to predate the construction of El Quemado.

Figure 11. A southwest facing photo of the northside appendage of Q expose in 2017.

appendage, Q is 31.5 m long stretching across Plaza A from the northeastern corner of Structure 2 to the base of Structure 4. North to south, from the northside appendage found beneath the base of Structure 3 to the foot of the southern staircase nearly extending to the center line of Structure 2, Q measures 20.4 m wide. The western and northern excavations of Q were also able to solidify Q’s configuration as a south-facing structure.

Conclusion
The 2017 excavations in Plaza A and Plaza B have both confirmed and altered our interpretations of these areas, helping to unravel more of the Middle Preclassic story of the Maya at Pacbitun. Sometime after the initial settlement of the site, at least three crudely constructed early Mai phase (900-600 BC) apsidal platforms set at two different orientations were used as work space for the production of shell bead accessories. The onset of the late Mai
phase (600-300 BC) appears to issue in a new ideology expressed in the construction of several rectangular platforms oriented with the cardinal directions. Whatever the cause, it clearly had no influence over shell bead production. In fact, the industry seems to intensify and become standardized as evinced in the late Mai platforms, B-2 and B-3. Although the later constructions are slightly improved, this space continues to be a nonresidential area designated for craft production. Where then, were these specialized craftsmen living and what was their social position at Pacbitun? It is difficult to answer one of these questions without knowledge of the other. Can we even safely assume that the economic organization at Pacbitun had created sedentary divisions? Though it is still difficult to answer this question with certainty, the argument supporting a social dynamic at the site has become more conceivable after the discovery of the monumental platform, El Quemado.

Due to the abundance of cultural materials associated with the platforms in Plaza B, our current understanding of the Middle Preclassic activities in this plaza greatly exceeds what we know about the happenings of the large ceremonial platform in Plaza A. However, we do know that Q’s construction, a project unlike any other previously undertaken at Pacbitun, coincides or closely follows the late Mai phase (600-300 BC) architectural shift in Plaza B indicating that the site was far more socially advanced than the crude production platforms had let on. The monumental platform, now known to measure 31.5 m (east-west) by 20.4 m (north-south), would have needed a large, organized labor force derived from the surrounding local community. With Q representing the first of its kind at Pacbitun, the project would have also needed skilled personnel for specialized tasks, and planners to generate and engineer an architectural design. Furthermore, something can also be said about the platform’s south-facing configuration. Q, built by and for the community, lacks any form of superstructure suggesting that the platform’s activities were meant to be visible to a public audience. Might Q have functioned as a south-facing stage for ritual/ceremonial performance? If so, with the recent architectural shift in orientation emphasizing the cardinal directions, could its northern position, as viewed by the audience, and/or the northern backdrop signify a cosmological or mythological significance? Regardless of its precise function, the ceremonial nature of Q adds to the list of attributes that have helped to categorize Q as monumental architecture. Thus, Pacbitun’s late Middle Preclassic community, equipped with an organized economy, community, and ceremonial center, appears to demonstrate the emergence of political organization as well.

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