In 2007, we began investigating the Plaza B area at La Milpa, where previous research had been limited to mapping, looters’ trench profiling, and test pitting. Previous researchers had tentatively concluded that the architecture in Plaza B was built entirely in the Late Classic and that many of the structures, including Structure 21 (the fifth largest pyramid at the site), may not have been completed at the time the site was abandoned in the Terminal Classic. Our three seasons of investigations, however, have discovered that there is a significant Late Preclassic architectural component at Plaza B and that construction activity continued well into the Terminal Classic period (ca. AD 890–1030), two discoveries that will ultimately require a reexamination of La Milpa’s trajectory as a major center. Additionally, our research has demonstrated that the Late Classic version of the plaza was not only completed, but that it was a coherent architectural plan, which incorporated a program of ritual features, including caches and monuments. Our data show that engineering ritual elements to serve as integrating features was an important part of Late/Terminal Classic site planning at La Milpa.

Introduction

The Programme for Belize Archaeological Project (PfBAP), which has operated in northwestern Belize since 1992, recently began investigating La Milpa (Houk and Valdez 2009). Discovered by Sir J. Eric Thompson in 1938, the site was not intensively studied until the 1990s by first the Río Bravo Archaeological Project (Guderjan 1991) and subsequently the La Milpa Archaeological Project (LaMAP) between 1992 and 2002 (Hammond and Tourtellot 2004). Our work, known as the La Milpa Core Project (LMCP), is an element of the more recent PfBAP investigations and has thus far been focused on Plaza B and Courtyard D in a portion of the site that was not intensively studied by previous projects (see Guderjan 1991:17; Hammond et al. 2000:42; Hammond and Tourtellot 2004; Scarborough et al. 1995; Tourtellot 1993).

In this paper, we present previous conclusions regarding the construction history of the site and how they relate to models of the social and political trajectory of La Milpa. We also discuss the LMCP research objectives, summarize our findings, and delve into their implications for understanding the history of La Milpa. Finally, we provide evidence for what we call ritually engineered deposits, which served to symbolically integrate architectural space in the context of the site’s dynamic evolution.

Previous Perspectives on the History of La Milpa

La Milpa is the third largest Maya site in Belize and is located within a large forested conservation tract in the northwestern part of the country. The monumental architecture at the site is oriented north-south and roughly divided into northern and southern areas. The Great Plaza and associated structures form the northern area, while Plazas B and C, several courtyards, and the Southern Acropolis comprise the southern area of La Milpa. The two areas are connected by a sacbe (Hammond and Tourtellot 2004:292).

Hammond and Tourtellot (2004:289) conclude that La Milpa rose to its greatest height shortly before being abandoned ca. A.D. 830. The visible surface architecture in the Great Plaza dates to the Late/Terminal Classic, although looters’ trenches and test pitting, as well as more recent work by Maria Martínez (2009), reveal Late Preclassic and Early Classic antecedents at the northern end of the site. Hammond et al. (1998:833) concluded that the southern plazas, in contrast, were “of Late/Terminal Classic date with little antecedent occupation.” Most notably, Hammond and Tourtellot (2004:292) reported that (1) Plaza B’s surface was a natural slope lacking floor construction; (2) Structure 21, the fifth largest and only unlooted pyramid at the site, was never completed; (3) a quarry containing stockpiles of limestone rubble blocks northwest of Plaza B
indicates interrupted construction activity in the area toward Plaza A; and (4) the sacbe linking the northern and southern architectural groups may not have been finished.

In general, the results of previous work suggested a nucleated Late Preclassic site with some subsequent Early Classic construction centered on the Great Plaza area (see Hammond and Tourtellot 2004; Tourtellot et al. 2003). It was further argued that late in the site’s history, during the reign of Ukay ca. A.D. 780, La Milpa underwent a massive construction boom that saw the remodeling of structures at the northern end, the construction of the southern plazas, and the creation and expansion of the acropolis. All of this activity ended rather suddenly in the ninth century when the site was abandoned, apparently with significant construction left unfinished (Hammond and Tourtellot 2004).

**New Research among the Southern Plazas**

When we began our research in 2007, we sought to answer some very basic questions concerning the unfinished nature of the plaza, its period of construction, and the occupation/use of surrounding buildings. Moreover, we continue to pursue larger questions concerning royal precinct planning among the ancient Maya, including political, ritual, and practical engineering concerns. Because we were operating under the assumption that the southern plazas were a Late Classic architectural endeavor, free of antecedent construction, we proposed to investigate Plaza B from a site-planning perspective. While many factors influenced the final plan of a Maya settlement, particularly those of ceremonial centers, it is apparent in many cases that symbolic meaning was purposefully embedded within the cultural landscape (Ashmore and Sabloff 2003). The results of our work around Plaza B significantly alter our perception of the historical trajectory of La Milpa, while offering insight into the nature of ancient Maya urban planning.

**Plaza B Description**

Plaza B is the second largest plaza at La Milpa, measuring 73 m north to south and 100 m east to west. The northern, western, and southern margins of the plaza are defined by range buildings, while Structure 21 dominates the eastern portion of the plaza (Figure 1). Plaza B’s easternmost margin, however, may be defined by Group 100, a small courtyard complex attached to a low platform. A low wall connects the northern range structure with Group 100, effectively defining the northeastern corner of Plaza B. Two previously unreported monuments are also found within the plaza. Altar B-1 is situated roughly equidistant between Structures 21 and 22, while Stela 21 is located in front of Structure 21.

**Results of Plaza and Structural Investigations**

In the following section we summarize the results of three seasons of research investigating the questions outlined above. Excavations to date (see Figure 1) have largely targeted questions of chronology and construction history to build on the preliminary interpretations put forth by LaMAP researchers (e.g., Hammond and Tourtellot 2004; Tourtellot et al. 2003). In particular, we were interested in determining the degree to which the plaza and adjacent courtyards were “finished” and if the surrounding structures had been in use prior to abandonment.

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**Figure 1.** Shaded relief map of Plaza B showing the location of excavations
Structure 22

Structure 22 is a range building defining the western edge of Plaza B at La Milpa. It measures approximately 60 m in length, 12 m in width, and 5 m in height, and its southern end joins Structure 23 to define the southwestern corner of Plaza B (see Figure 1). Excavations on the summit exposed two doorways facing Plaza B: one centrally located doorway and a second located about 4.5 m to the south. When coupled with undulating surface morphology, the spacing of these two doorways suggests there may be a series of five to seven primary rooms and/or entryways across the entire length of the structure. Cut stones consistent with vaulted roof stones were also identified in collapse debris, suggesting the building was corbel vaulted.

Several internal features were also partially exposed during excavations (Figure 2). Suboperations along the summit area revealed a row of rooms measuring 2–2.5 m wide with a single bench situated just inside the doorways and extending along the back wall of the structure. One interior wall was also identified in excavations, extending from the doorjamb of the southernmost entryway, partially creating separate rooms. The bench passes through the narrow passage along the rear wall, connecting the two rooms. At least one remodeling phase is evidenced in the southern room. It appears that the entryway floor surface was elevated to the level of the bench, leaving a slight plaster lip across the final surface. The interior wall does not penetrate beneath this modification, suggesting it was constructed either as part of the same renovation or some time later. In either case, Structure 22 had been completed and subsequently underwent at least one renovation during its period of use.

Structure 23

The construction sequence at Structure 23 — what is known so far, at least — is slightly more complicated. Combined with Structure 20, this tandem range building defines the southern margin of Plaza B and measures 45 m long, 14 m wide, and 5 to 7 m high (see Figure 1). Excavations revealed part of a wall buried beneath the Late Classic floor of Structure 23, clearly demonstrating evidence of an earlier construction phase. Furthermore, excavations on the summit of the structure suggest that the rooms were at least partially filled intentionally and that the new summit of the mound was perhaps occupied for a brief period of time. The southern half of the structure is covered in large cobble/small boulder fill, which appears to be an abandoned expansion project. Thus, it appears that Structure 23 has at least two completed construction phases, an incomplete expansion, and a possible short-term occupation on top of the building that may have taken place after the expansion project was abandoned.

Structure 24

Structure 24, the largest range building in Plaza B, defines the northern margin of the plaza and measures 76 m in length, 15 m in width, and about 5 m in height (see Figure 1). Surface morphology and visible stone alignments indicate that this building was a tandem range structure with a 21-m wide central stair and a spine wall extending the length of the building. Each of these observations was corroborated by excavation. Our investigation on the summit area determined the spine wall to be 1.5 m thick, with a central passageway connecting southern and northern rooms. The northern, central room contained a bench, and the exposed floor surfaces indicate several
replastering events, further suggesting a degree of completion and remodeling.

**Structure 21**

Structure 21, La Milpa’s fifth largest building and largest unlooted structure, is an oddity at the site. Hammond and Tourtellot (2004:292) note that the building “lacks a front stair, masonry facing, and a superstructure, and...appears to have been abandoned unfinished.” This 18 m-high mound measures approximately 52 m long by 30 m wide at the base, while its flat summit measures about 10 by 25 m.

Our primary interest in Structure 21 was to determine if it was truly a Late Classic “unfinished building” or if it contained some older constructions within it. The results of our excavations partially support the arguments put forth by Hammond and Tourtellot (2004). The visible form of Structure 21 does not appear to have been a finished construction—its final phase is essentially a pile of dry-laid fill without any surviving external cladding or prepared surface on the summit. However, beneath the construction fill of the final phase, we encountered a buried building, only 65 cm below the summit surface of Structure 21 (Figure 3). Excavations uncovered the edge of the summit of this buried structure and followed 15 steps down the western face of the building. Another suboperation demonstrated that Structure 21 Sub had a superstructure on its summit, but the building was destroyed in preparation for the unfinished expansion of the platform. An excavation unit on the eastern margin of the summit also exposed a well-preserved terrace face. Given the size of Structure 21 Sub—approximately 17 m high and apparently not much smaller than the final mound - it is plausible that one or more earlier buildings are contained within Structure 21 Sub.

**Chronology of Plaza B Structures**

Dr. Lauren Sullivan examined ceramics recovered from Structures 21 through 24 excavations. While not plentiful, all ceramics from summit excavations are associated with Tepeu 2-3, circa A.D. 700–850, though all but Structure 21 sherds come from building collapse. Two radiocarbon dates from charred material associated with caches, discussed below, also fall within this general time frame. Thus, the latest phase occupation appears to be associated with the Late/Terminal Classic, but each building shows clear evidence of use and remodeling prior to abandonment.

**Courtyard D and Structure 27**

Courtyard D is attached to the southern side of Plaza B and measures approximately 25 m north-south by 30 m east-west. Our investigations over the past three seasons in Courtyard D have focused on Structure 27, a small range building on the western side of the courtyard (see Figure 1). In 2007, we initially exposed part of the Late/Terminal Classic stairs to Structure 27 and discovered an extremely well-preserved floor beneath the Late/Terminal Classic construction fill. An expansion of our excavations in 2008 revealed the base of a buried platform. Its morphology along with the quality and thickness of plaster indicates Late Preclassic construction.
In 2009, excavations targeted this buried structure and determined that Structure 27, rather than being a two-component building, had undergone at least six construction phases, with the oldest being the floor initially exposed in 2007 and the youngest being the Late/Terminal Classic range building. At some point in the construction sequence, a portion of the Late Preclassic platform—presumably an inset staircase—was filled in and remodeled on several occasions with battered surfaces (Figure 4). During one of the final episodes of modification to the structure, the builders truncated the top of the Late Preclassic building, which comprised a series of well-preserved tiers. A radiocarbon sample collected in 2009 from below a plaster floor dates this modification to the Terminal Classic period (1070 ± 40 BP; Beta-262890; organic sediment; δ¹³C = -24.9‰; cal AD 890–1030 [p=0.95]) and extends the construction history of the site approximately a century past previous estimates (e.g., Hammond and Tourtellot 2004). While the size or nature of the Late Preclassic building remain unknown, it is clear that the construction history of this particular building was much more complex than previously suspected.

Beneath the altar, Cache B-1 consisted of five primary artifact clusters, several broken ceramic vessels, and a range of other materials placed within the plaza construction fill. Included among the artifact clusters was a dense concentration of nearly 5,000 pieces of chert debitage.

Cache B-2 was situated 40 cm beneath the plaza floor at the base of the stairs of Structure 22. As was the case with the sub-altar cache, Cache B-2 was placed within the small cobbled subfloor fill. The northern portion of the cache consisted of a wide variety of artifacts loosely clustered in a marly matrix of sediment and small cobbles (Figure 5). Materials recovered include obsidian blades, marine shells and fragments, a non-human long bone fragment, coral, one obsidian eccentric biface, one chert eccentric biface, two Spondylus shell pendant fragments, shell beads, jade beads, and fragments of small speleothems. The southern portion comprised two ceramic jars with lids and a smaller number of loose artifacts.

Most notably, ceramic jar-and-lid pairs link these discrete caches. Cache B-1 contained one pair, while two pairs were recovered from Cache B-2. Each jar-and-lid pair consisted of undecorated jars capped by lids incised with a woven mat design (see Figure 5). In the case of Cache B-2, one jar contained an obsidian biface, one un-worked greenstone fragment, shell fragments, and coral. The other jar contained speleothem fragments, un-worked greenstone fragments, and numerous shells and fragments.

Both cache deposits apparently date to the Late-to-Terminal Classic period, based on both absolute and relative dating measures. One charcoal sample recovered from Cache B-1 returned a 2-sigma age range of cal AD 780 to 1000 (1160±40 BP; Beta-251676; charred material; δ¹³C = -26.6 ‰). A charcoal sample from Cache B-2 produced a 2-sigma age range of cal AD 690 to 900 (1240±40 BP; Beta-251675; charred material; δ¹³C = -27.1 ‰). These dates support Lauren Sullivan’s ceramic analysis, which identified primarily Tepeu 2–3 sherds from the fill surrounding the caches and a likely Tepeu 2-3 date for the cache vessels themselves.

Ritual Engineering at Plaza B

The final aspect of this paper focuses on evidence for ritual engineering, an element of site planning, during the Late/Terminal Classic period at Plaza B. Difficulty arises when trying to assess the deliberate aspects of site planning when the archaeological record leaves us synchronic expressions of what are perhaps multiple planning agendas across time. Despite the complex construction history evidenced at Plaza B, it is possible to detect planned elements of La Milpa’s urban design during the Late/Terminal Classic remodeling or expansion of the plaza. At Plaza B, the Maya used ritually engineered deposits to integrate and link otherwise discrete architectural features (Houk et al. 2009). Our evidence for ritual engineering centers on a pair of caches: Cache B-1 was found beneath the altar in the center of the plaza, while Cache B-2 was found at the base of Structure 22 along the centerline of the structure’s stairs (see Figure 1).
Figure 4. Photograph of Structure 27 excavations, facing southwest, showing the Late Preclassic floor and platform and later constructions. Note the two sequential battered surfaces in the center of the photograph, possibly filling an inset stair on the Late Preclassic platform.

Figure 5. Artifacts from Caches B-1 and B-2: (A) Cache B-1, Lot B1-K-6; vessel diameter is 20.05 cm; (B) Cache B-2, Lot B2-A-6; vessel diameter is 12.91 cm; (C) Cache B-2, Lot B2-A-7; vessel diameter is 12.61 cm; (D) obsidian eccentric from Cache B-2; (E) chert eccentric from Cache B-2; (F) obsidian biface from Cache B-2. Photographs of mat design vessel lids are not to scale. Illustrations by Jenni Gutzeit.
We suggest that the jar-and-lid vessels link the two otherwise discrete deposits contextually and temporally. In other words, we do not believe they were deposited simply to commemorate the immediate monuments with which they were associated—that is, altar B-1 and Structure 22—but rather served to uniquely integrate various elements of the royal precinct into a ritually engineered environment. By employing the term ritual engineering, we are explicitly drawing attention to the interconnectedness of the built environment around La Milpa, and the intentional manipulation of symbolic meaning embedded in architectural space.

Conclusions
To summarize, earlier work pointed to Late Preclassic and Early Classic developments concentrated around the Great Plaza of La Milpa, with a pronounced expansion of the built environment during the Late Classic, including the rapid construction and partial completion of the southern plazas. Previous researchers have linked this construction boom to rapid population growth at the site itself and in the surrounding countryside. Our research over the past three seasons points to a much more complicated, dynamic, and lengthy history of urban construction at La Milpa than previously conceptualized. Our work on Structure 27 demonstrates significant constructions in the area as early as the Late Preclassic with a long tradition of building expansion and remodeling extending well into the Terminal Classic period to (ca. AD 890–1030). Structures 21 and 23 show that the tradition of renovation was ongoing right up to the time when the site was abandoned during the Terminal Classic. Rather than a punctuated population and construction spurt, it now appears that La Milpa went through a more gradual and longer period of architectural growth. However, this growth during the Late Classic shows careful planning, as evidenced by the ritually engineered cache deposits that integrated otherwise discrete architectural features.

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