Chapter X
TZ18-02 and TZ18-03: Investigations in the Tz'unun Acropolis
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During the 2018 field season, the Maya Research Program began excavations at Tz’unun. Over the next several years, research efforts will primarily focus on the western portion of the site, while a second phase of operations will investigate the acropolis occupying the eastern portion of the site. The large size of the acropolis indicates it was an important component of the local landscape, and any reconstruction of the site’s occupation history would be severely lacking without basic preliminary chronological data. As such, two test units were excavated in the acropolis in pursuit of this objective. A report of these activities is provided below.

Research Objective

The sole purpose of the 2018 excavations was to collect preliminary chronological data on the construction and occupation of the acropolis that could then be integrated with data from the western portion of Tz’unun.

Methods

The research objective was pursued through the excavation of two off-structure 1 x 1 m test pits (Figure 1), one within the main plaza (TZ18-02) and the other within a restricted-access courtyard (TZ18-03). Provenience and contextual data were recorded on standard Maya Research Program lot forms. Soil was screened through ¼“ mesh, and all artifacts were collected.

Figure 1. Tz'unun acropolis and locations of operations TZ18-02 and TZ18-03.
Excavation Nomenclature:
Format: Site Abbreviation/Year – Operation – Suboperation – Lot

TZ18-02-A: 1 x 1 m test unit (Figures 2 & 3) located on the north side of the main plaza of the acropolis, at the base of Structure 56. Depth of unit from surface to bedrock was 2.49 m.

TZ18-02-A-1: Lot consisted of the humic layer. Soil was a silty loam, with a color of 10YR 3/2 grayish brown. Terminated at a maximum depth of 29 cm due to soil change. Artifacts recovered: 5 (24 g.) sherds.

TZ18-02-A-2: Soil color changed from pervious lot to 10YR 5/1 gray, while remaining a silty loam. Pebbles and a small number of cobbles were present in the soil matrix. Lot terminated at maximum depth of 39 cm at soil change. In hindsight, this lot represents the transition between the humic layer and structure collapse. Artifacts recovered: 27 (408 g.) sherds.

TZ18-02-A-3: Soil color and texture consistent with previous lot with the exception of numerous large cobbles representing collapse from adjacent Structure 56. Lot terminated upon reaching Floor 1 at maximum depth of 58 cm. Artifacts recovered: 5 (30 g.) pieces of chert debitage and 68 (922 g.) sherds.

TZ18-02-A-4: Lot consisted of a plaster floor (Floor 1) and accompanying subfloor ballast. The subfloor ballast, which can be classified as wet fill or concrete, was comprised of small aggregate within a lime mortar matrix. Floor 1 had a maximum thickness of 5 cm and terminated at a maximum depth of 63 cm. The subfloor ballast had a maximum thickness of 20 cm and terminated at a maximum depth of 80 cm. Artifacts recovered: 1 (8 g.) piece of chert debitage and 13 (175 g.) sherds.

TZ18-02-A-5: Same color as previous lot, though matrix characteristics differed significantly. This lot can be characterized as concrete, consisting of a very fine gravel aggregate mixed with lime mortar, resulting in an extremely compact layer. Stratigraphic unit had a maximum thickness of 22 cm and terminated at a maximum depth of 104 cm. Artifacts recovered: 1 (6 g.) piece of chert debitage and 4 (22 g.) sherds.

TZ18-02-A-6: Lot initially appeared to be an inclusion, but further excavation revealed that it differed from both overlying and underlying layers. Stratigraphic unit consisted of a 2.5Y 2/1 black, silty loam soil that tapered in thickness from west (10 cm) to east (1 cm). Lot terminated at a maximum depth of 105 cm. No artifacts recovered.

Figure 2. TZ18-02-A South wall profile.
TZ18-02-A-7: Lot consisted of primary stratigraphic unit with an inclusion. The primary material consisted of a wet-laid and tamped sascab (10YR 8/1 white), resulting in a layer that was compact, yet crumbly when dry. This layer had a maximum thickness of 38 cm and terminated at a maximum depth of 142 cm. An inclusion identical to the previous lot (TZ18-02-A-7) extended east from the western wall where it had a thickness of 6 cm, and tapered off 60 cm from the western wall. All artifacts were recovered from the wet-laid sascab. Artifacts recovered: 7 (30 g.) sherds.

TZ18-02-A-8: Lot consisted of wet fill or concrete (10YR 7/1 light gray), comprised of small aggregate within a lime mortar matrix. Layer had a maximum thickness of 29 cm, and terminated upon reaching Floor 2 at a maximum depth of 168 cm. Artifacts recovered: 10 (80 g.) sherds.

TZ18-02-A-9: Lot consisted of a plaster floor (Floor 2) and subfloor ballast. The ballast was comprised of very fine gravel aggregate mixed with lime mortar. Floor 2, which bowed upwards at the center, had a maximum thickness of 10 cm, and terminated at a maximum depth of 178 cm. The subfloor ballast layer had a maximum thickness of 22 cm and terminated at a maximum depth of 200 cm. Artifacts recovered: 6 (30 g.) pieces of chert debitage and 9 (100 g.) sherds.

TZ18-02-A-10: Lot consisted of a 10 YR 2/1 black, clay loam paleosol. Paleosol had a maximum thickness of 26 cm and terminated at a maximum depth of 226 cm. Artifacts recovered: 12 (60 g.) pieces of chert debitage.

TZ18-02-A-11: Continuation of overlaying paleosol, though clay content increased and no artifacts were present. Layer had a maximum thickness of 32 cm, and terminated at a maximum depth of 257 cm upon reaching bedrock.

TZ18-02-A: Results
In terms of the research objective, eight of the stratigraphic units produced dateable ceramics, though the ceramic analysis is pending. Nonetheless, existing data allow for a tentative reconstruction of the main plaza’s construction sequence. Construction phases will be refined and assigned dates upon completion of the ceramic analysis. Initial occupation of the area predates the first construction phase. Support for this statement is provided by the recovery of chert debitage throughout the first paleosol layer, rather than just the transition with the overlaying construction phase. The presence of a paleosol also indicates that the original ground surface, rather than bedrock, served as the foundation for the main plaza’s first construction phase. This is likely attributable to the dense surface provided by the high clay content of the soil.

The first construction phase of the main plaza involved the deposition of an approximately 20 cm layer of lime concrete that was then capped with a 10 cm plaster floor (Floor 2). The second construction phase involved the deposition of an approximately 30 cm thick layer of lime concrete (A-8) directly on top of Floor 2. This concrete was quite dense and its surface was relatively level. It is possible that this surface functioned as a plaza floor, though no evidence of a plaster finish was encountered.

Lots A-5 through A-7 likely represent a third construction phase that raised the plaza level approximately 60 cm. A wet sascab mixture was deposited on the earlier concrete foundation, and then tamped, producing a compact yet friable layer. Towards the end of this process a clean (i.e., no artifacts) silty loam soil was deposited, perhaps to provide a surface for the overlying concrete to adhere. Both lenses of the silty loam soil are thickest along the western wall, and taper off toward the eastern wall. The lowest lens does not extend across the entire unit. The profiles of the soil lenses suggest they were deposited from the western side of the test unit. This sequence was capped with a 22 cm thick layer of lime concrete (Lot 5). As with Lot 8, this concrete layer was quite hard and could have served as a plaza floor, though no plaster finish was encountered.
The fourth and final construction phase involved the deposition of an approximately 20 cm thick layer of lime concrete (A-4) that functioned as ballast for the overlaying floor (Floor 1), which was 5 cm thick. Lots 1-3 represent post-abandonment collapse from Structure 56 and natural soil formation.

TZ18-03-A: 1 x 1 m test unit (Figures 4 & 5) located within the courtyard enclosed by Structures 45-47. Unit was placed on the east side of the courtyard at the base of Structure 46. Due to time constraints, this unit was not excavated to bedrock. A long vertical pole was placed within the interior northwest corner of the unit before backfilling, and the excavation will be revisited in the future. Depth of the unit from surface to the last excavated level was 87 cm.

TZ18-03-A-1: Lot consisted of the humic layer, which was a silty loam with a color of 10YR 2/2 very dark brown. Layer bowed slightly upwards in the center, and had a maximum thickness of 16 cm. The lot

Figure 3. Test Unit TZ18-02-A with select stratigraphic units highlighted.
terminated at a maximum depth of 31 cm upon reaching a soil change. Artifacts recovered: 6 (36 g.) sherds.

**TZ18-03-A-2:** Lot was comprised of collapse from Structure 47 within a silty loam matrix. The color was 10YR 4/2 dark grayish brown. As with the previous lot, the center of this layer was bowed slightly upwards. Layer had a maximum thickness of 22 cm, and terminated upon encountering Floor 1 at a maximum depth of 53 cm. Artifacts recovered: 1 obsidian distal prismatic blade fragment, 7 (56 g.) pieces of chert debitage and 96 (550 g.) sherds.

**TZ18-03-A-3:** Lot consisted of a plaster floor (Floor 1) and subfloor ballast. The color of Floor 1 was 10YR 5/2 grayish brown. It had a maximum thickness of 14 cm and reached a maximum depth of 65 cm. Between 30 – 50 cm from the north wall, the floor sloped down 5 cm before levelling off. Subfloor ballast was consisted of concrete comprised of small aggregate within a lime mortar matrix. The ballast layer had a maximum thickness of 17 cm, and reached a maximum depth of 80 cm. Artifacts recovered: 1 chert biface fragment, 9 (140 g.) pieces of chert debitage and 84 (575 g.) sherds.

**TZ18-03-A-4:** Lot consisted of a compact clay loam fill with small fractions of pebbles and cobbles. Fill color was 10YR 6/1 gray. Unit was excavated to a maximum depth of 102 cm (thickness = 21 cm). This lot was ongoing when the excavation was terminated due to time constraints. Artifacts recovered: 4 (26 g.) sherds.

**TZ18-03-A: Results**

As the excavation was not completed and the ceramic analysis is pending, little can be said about this test unit. At least one construction phase was encountered, consisting of a thick (15 cm) plaster floor and accompanying subfloor ballast composed of small aggregate in a lime mortar.

**2018 Acropolis Excavations: Conclusions**

The 2018 acropolis excavations were productive, with both units producing dateable ceramics throughout their stratigraphic sequences. Operation 02, the main plaza test unit, was particularly informative, as it demonstrated the presence of at least four construction phases represented by approximately 1.5 m of deposition. Stratigraphic units were distinct, and ceramic analysis will allow for the dating and refinement of the construction sequence. Two contrasts were noted between the test units. First, fill from the main plaza was largely clean, with the Lot 9 producing the highest sherd density at 38 sherd/m³. In contrast, the subfloor ballast from the enclosed courtyard produced a density of 600 sherd/m³. Floor thickness represented the second notable contrast, as Floor 1 from the interior courtyard was 15 cm thick, while the main plaza floors ranged from 5 – 10 cm in thickness. However, this comparison may be inaccurate due to the possibility that the lime concrete layers served as floors within the main plaza. Also of note is the absence of the dry, loose fill that is common at the nearby site of Xnoha.