

Results of the 2003 Valley of Peace Archaeology Project: Yalbac

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Chapter 1
The 2003 Season at Yalbac: The Ball Court and Acropolis

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Introduction

Although we had a short season (June 11-27) at Yalbac (Figure 1.1), our small crew largely accomplished our major goals, which consisted of cleaning and profiling the looter trenches at Str. 1A (acropolis), collecting chronological data from looters trenches, and continuing the ball court alley test unit that was begun in 2002 but interrupted by rainfall. We completed what we set out to do at the acropolis (see chapter 2), but still were unable to complete the ball court test unit (though we got much further than in 2002, see below). In addition, Andrew Kinkella continued surveying the area between Yalbac and the Cara Blanca pools, where he identified six additional pools (see chapter 3).

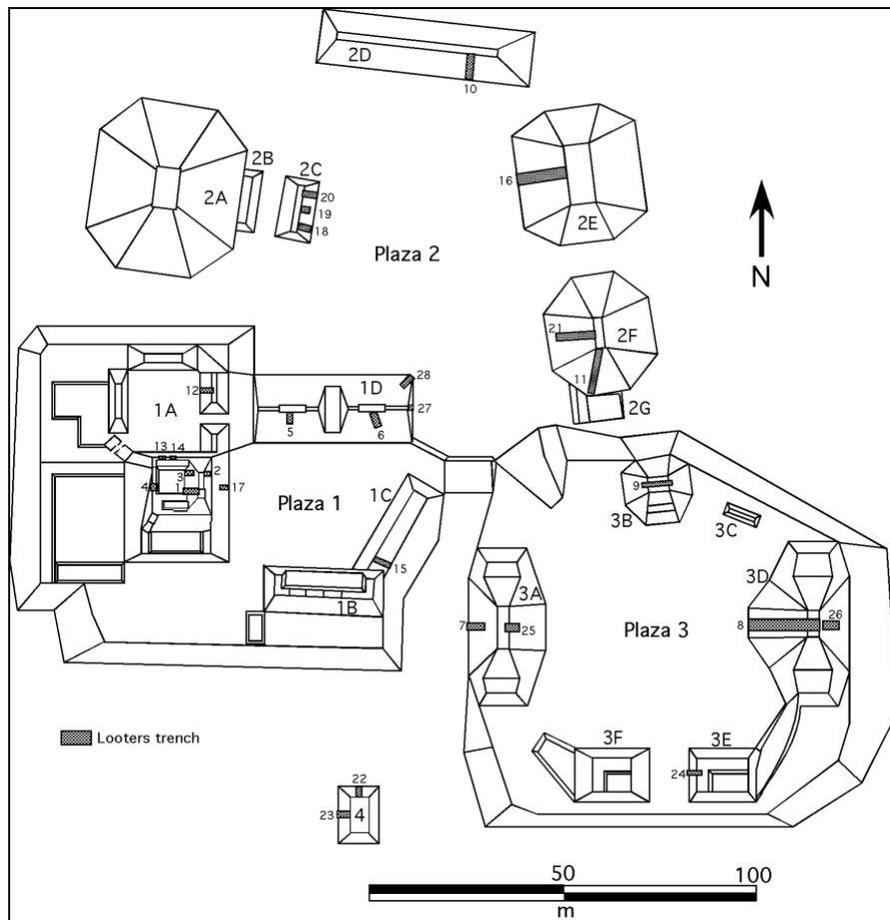


Figure 1.1 Yalbac

2003 Season (June 11-27)

Staff

The 2003 VOPA crew consisted of myself (PI); field director Andrew Kinkella (UC-Riverside), and NMSU graduate student John Hooper. The VOPA crew also included three field assistants from the Valley of Peace Village: Cleofo Choc, Zedekiah Scott, and Jose Ernesto Vasquez.

Funding and Expenses (US\$)

Funding for 2003 was provided by a private donation (\$4000), and personal funds (\$131.81), for a total of \$4131.81. The below amounts include project expenses only. Kinkella and Hooper paid their own expenses (airfare, tuition, food, transportation, etc.) except lodging. Of the total, \$507.40 was for airfare for PI; \$500 was paid to the Institute of Archaeology for administrative and consolidation fees; \$660 for labor costs; \$486.00 for vehicle rental; \$347.00 for fuel; \$426.26 for food for PI; \$400 for house rental in Cayo for crew; \$153.53 for conference hotel; and \$651.62 for supplies including film, film development, internet, phone cards, field equipment, copying, etc.

Previous Research

Preliminary survey results from the first field season (June 1-July 10, 1997) in the Valley of Peace area demonstrated a dispersed settlement pattern located away from rivers, and more dense settlement along rivers (Lucero 1997; Lucero et al. in press). The major goals of the 1998 field season (May 23-July 7) were four, three of which focused in the Cara Blanca area: 1) survey for pools, caves and nearby settlement (Lucero 1999); 2) test excavate a presumed ceremonial structure at the edge of a pool (Kinkella 2000); 3) explore a pool for offerings (Osterholtz 1999); and 4) map the river center of Saturday Creek (Lucero 1999). The major goal of the 1999 field season (May 11-July 1) consisted of collecting chronological data from the river center of Saturday Creek through a test pitting program. In addition, a brief return trip was made to Cara Blanca, Pool #1 to collect additional chronological data (Kinkella 2000). We also continued mapping Saturday Creek. Finally, we did a quick pace and compass map of the core area of Yalbac. In 2001, I received a National Science Foundation grant (BCS #0004410) to conduct extensive excavations at Saturday Creek (Jan.19-May 5) (Lucero 2002). We excavated two small residences, a structure from an elite compound, and a temple ball court. We also spent 15 days at Yalbac, where we collected enough points to generate a preliminary map of the core area of Yalbac. We also surveyed the area in the immediate vicinity of Yalbac to evaluate hinterland settlement (Graebner 2002). In 2002, we excavated two small residences, cleaned two looters trenches, continued mapping core features, conducted survey north of Yalbac to the Cara Blanca pools, recorded three more looters trenches (for a total of 28), and tied Yalbac in to the regional archaeology map (Graebner and Lucero 2003; Kinkella 2003; Lucero 2003; Lucero and Graebner 2003). In addition, another NMSU graduate student, Hollie Jo Fuhrmann, conducted a study of the effects of biomedicine on traditional midwifery in the Valley of Peace Village (Fuhrmann 2003).

2003 Results

The major center of Yalbac is located along Yalbac Creek in central Belize. We resolved the elevation discrepancies noted by William Poe in 2002. The elevation was 15.24 m less than we estimated in 2001. Table 1 lists the correct elevations of all traverse points. Also included is a description of materials noted when excavating postholes for the cement and rebar survey markers.

Table 1. Yalbac traverse point data

Traverse pt.	Location	Description	Corrected elevation m asl
YA	West side, Str. 1A-2a	White marl, ls cobbles, pebbles, gravel	79.71
YB	Center, Str. 1A-2b	Plaster floor, cobble pebble fill	81.55
YC	West side, Str. 1B	Cobble fill, ~plaster	79.25
YD*	Entrance, LT7, Str. 3A	Whitish loam soil with pebbles	72.63
YE	Entrance, Plaza 2	Whitish loam soil with pebbles	73.37
YF	Entrance, Plaza 3	Whitish loam soil with pebbles	73.37
YG*	Center, Plaza 3	Whitish loam soil with pebbles	75.80
YH	Center, Str. 3C	Whitish loam soil with pebbles	76.00
YI	Near southeast corner, Str.2F	Whitish loam soil with pebbles	71.67
YJ	Near west side, Str. 2E	Dark gray clay with ls flecks	68.33
YK	Near northeast corner, Str. 2D	Dark gray clay with more ls flecks	68.70
YL	North and center of Str. 2D	Whitish loam with ls flecks	69.32
YM	Near northwest corner, Str. 2D	White marl/plaster	69.45
YN	East of north center outside of Str. 2A	Dark gray clay with ls flecks	69.24
YO	Near northeast corner, Str. 2A	Whitish loam soil with lots of ls flecks, cobbles, pebbles	69.49
YP	Near southeast corner, Str. 2A	White loam soil with lots of ls flecks, cobbles, pebbles	69.76

*Poe survey marker

Evidence for further looting was also noted on the top of Str. 2A, which was not present as recent as June 2002. The looters luckily gave up quickly and did not do major damage; they only removed a few large boulders.

Acropolis Looters Trenches (Str. 1A)

Field assistants cleaned out enough of the looter's backdirt to expose construction phases. All trenches were tied into traverse YB using a Brunton or Suunto compass, sight level (and rod), and tape. We measured architectural features using magnetic north. Taking into account declination ($2^{\circ}51'$), exposed architecture aligns north-south. To prevent further damage, exposed architecture was covered in plastic and dirt once profiled and photographed. Due to the substantial architecture exposed in LT 1 and LT 2, we also built palapas. Table 2 lists the acropolis looters trenches cleaned and profiled. LT 4 actually consists of a cluster of four small holes; we focused our efforts on the largest one, where we recovered stucco fragments, some with traces of red paint (Figure 1.2). A more detailed discussion will be presented in chapter 2 by John Hooper.

We also excavated a 1 x 1 m unit test pit in the northwest corner of Plaza 1A-1 to locate the plaza surface, which we did 54 cm below surface at an elevation of 85.08 m asl (Figure 1.3). The floor was c. 4 cm thick, which we were able to determine since the floor had been badly damaged by large roots. While we did not excavate any portion of the floor, we did recover a carved antler (Figure 1.4). We covered the surface with plastic and backfilled it.

Table 2. Acropolis looters trenches

LT#	Str. No.	LT Dimensions (m)
1	1A-1a-II	4.70 x 3.50 x 2.40
2	1A-1a-I	4.30 x 1.50 x 1.50
3	1A-1a-I	2.70 x .75 x .77
4	1A-1c	1.50 x .50 x .40
12	1A-2b	3 x .70 x 2
13	1A-1b-II	1.70 x 1.20 x 1.50
14	1A-1b-II	3.2 x .90 x 1.8
17a	1A	2.20 x 1.2x 1.3
17b	1A	2.4 x 1.2 x 1



Figure 1.2 LT4 stucco fragments

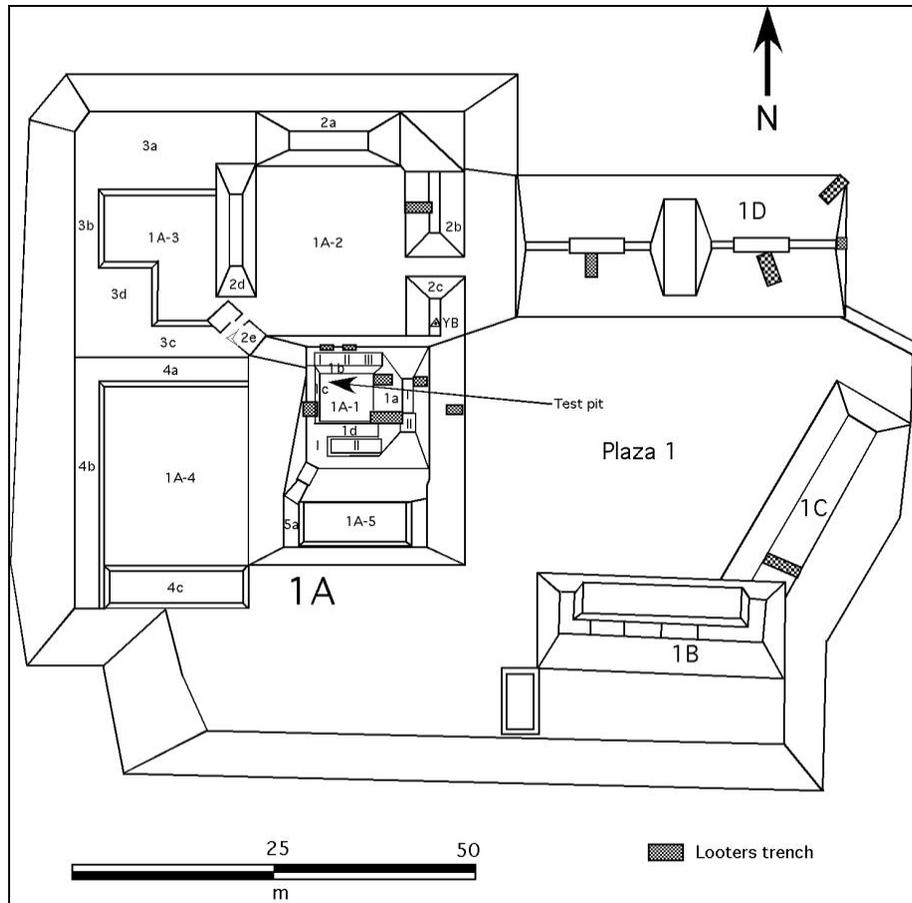


Figure 1.3 Acropolis



Figure 1.4 Carved antler from Plaza A1-1a floor

Ball court

Archaeological investigation in the ball court was initiated in 2002, but not completed due to time constraints and the onslaught of rain. A 1-meter wide east-west trench was placed through the middle of the ball court, stretching across the ballcourt alley 13 m from structure 2B to structure 2C. Our objective was to find the alley floor and perhaps a ball court marker. This trench was only excavated to a depth of 50 centimeters into stratum 102 (topsoil with more stone) when the rains began. We covered the exposed area with plastic and backfilled at the end of the 2002 season (Lucero 2003).

We continued excavations in the 2003 field season. We removed the backdirt and black plastic. We focused on a much smaller test unit than in 2002 (3 x 1 m) and did not expose any obvious architecture, which was not our goal. The unit is aligned with Strs. 2B and 2C, or 15° east of north. The 2002 screen rack, datum stake (with the string set at 8 cm above surface), and palapa frame were still present and in usable condition. The datum is located 15.24 m from YP at 12°.

We continued excavating stratum 102, a mostly clay loam (65%) with cobbles and pebbles (35%). We exposed a layer of compacted large boulders, stratum 103; for example, one boulder, which was faced on one side was 66 cm long and 34 cm wide. We think 103 and 102 represent collapse from the top of the west side of Str. 2C. The three looters trenches on the east side of the structure (LT 18, 19, and 20) revealed large boulder and cobble fill. Not surprisingly, we collected or noted a diverse range of artifact types (e.g., sherds, faunal remains, marine shell, flakes, cores, biface fragments, and a red granite ground round stone fragment). The first obvious cultural stratum is 104, a plaster floor, which extended from the west wall of the unit to about the middle of the unit where it appeared to lip over some cobbles. (Figure 1.5). From floor 104 we collected rims and a complete marine shell. On the other side of the unit (east side) we found floor 105, which went west underneath the cobbles; we recovered from floor 105 what might be human skull fragments. We also collected sherds and noted the presence of jutes. Under floor 104 was another floor, 106, which terminated at the cobble concentration, which we labeled 107. Mano and metate fragments were embedded in 107. From 106 and 107 we also recovered a chert blade fragment and sherds. Underneath 107 and floors 105 and 106 was a clay fill, 108. At first we thought it was a natural deposit, but soon realized otherwise when we began to find sherds and noted lots of charcoal flecks, as well as flakes, marine shell, and jutes. Near the bottom of the clay fill we found two layers of heavy burning, each about 1-2 cm thick. The upper burned layer was found only at the west and east edges of excavation, a fact that likely is related to where the Maya had cut a hole through another plaster floor 109 (below 108 and burned layers). We were unable to find the eastern edges of the disturbed floor, only the western edge, due to time constraints (not to mention rain). Throughout the entire unit we noted burnt stone in every stratum. Before closing shop, covering the surface with plastic and backfilling, we excavated 3 postholes in the center on the west side, center, and east side from 40 to 60 cm deep; the excavated material seemed to be cultural (limestone and charcoal flecks, and small sherds).

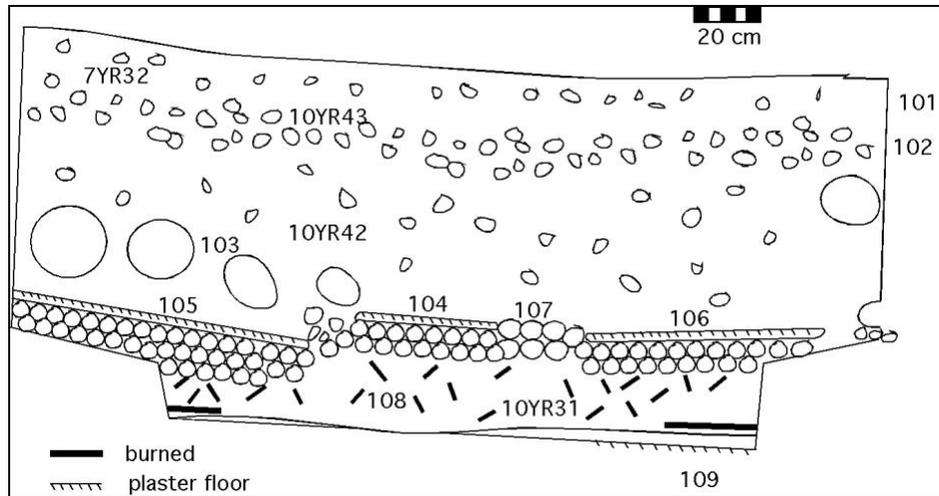


Figure 1.5 Ball court alley south wall profile

I think the Maya cut through floor 109 (which likely is a plaza floor upon which Str. 2C was added, as well as alley floors 104, 105, and 106), deposited something, perhaps a cache, filled it in with clay (108), burned something, added more clay, had another burning event, this time only near the ball court walls (i.e., the eastern and western edges of the unit only). They then added floors 105 and 106, which appears to have been separated by cobble [fill] 107. This fill might have been necessary since alley sloped towards the center. Floor 104 was added over floor 106 and fill 107 (not floor 105). It was separated from floor 105 by 107 (floor 104 lipped over 107, while floor 105 went under/abuted 107). Table 3 shows the few ceramic dates.

Table 3. Ball court ceramic dates

Stratum	Description	Time period
102	Topsoil/cobbles	Late Preclassic through Terminal Classic; Sierra Red (Barton Creek), Minanha Red (Hermitage), Mt. Maloney (late facet Spanish Lookout), Roaring Creek Red (late facet Spanish Lookout), Tutucan? Striated (Spanish Lookout)
103	Collapse	Late Classic; ash tempering; Belize Red (Spanish Lookout), and perhaps Mt. Pine Red (Tiger Run)
104	Floor/ballast	Tiger Run or later
105	Floor	~Tiger Run
108	Clay fill	Middle Preclassic-Late Preclassic; Jocote Orange-brown (early facet Jenny Creek); jar w/ filleting (likely late facet Jenny Creek); Polvero Black (Barton Creek); Trijinto ? Cream

Not surprisingly, topsoil and collapse strata have mixed deposits and dates. The upper floors (105 and 104) are early Late Classic in date (c. A.D. 600-700, Tiger Run), whereas the clay fill appears to be Late Preclassic in date. This latter date might indicate that the fill was part of the

original plaza before the Maya build Str. 2C; if this is the case, then the clay fill was also dug through by the Maya when they cut through floor 109. These questions will be addressed in 2004.

When compared with Plaza 2 test pit floors exposed in 2001 (Table 4), the most comparable floors based on elevation (from the plaza surface of c. 69.5 m asl), are floors 6, 7, and 10. Floors 6 and 7 are similar to Str. 2C and the alley floors, likely constructed at the same time. Either that or Str. 2C was built over plaza floor 6.

Table 4. Comparison of ballcourt and Plaza 2 test unit floors

Ball court	Elevation (m asl)	Date	Plaza 2 Test unit	Elevation (m asl)	Date
Floor 104	68.68	c. A.D 600-700 or later	Floor 6	68.81	c. A.D. 600-700 or later
Floor 105	68.61	c. A.D. 600-700	Floor 7	68.78	c. A.D. 600-700
Floor 106	68.64	NA			
Clay fill 108	68.58	c. 250 B.C.-A.D. 250	Floor 10	68.58	c. 100 B.C.-A.D. 250
Floor 109	68.31	NA			

Concluding Remarks

We are slowly revealing Yalbac. It clearly served as a major center in the eastern southern Maya lowlands. Future work will address royal, elite, and commoner histories, and our plans are to focus on hinterland houses (2004), continue at the ball court alley (2004), and then move on to temples, particularly cleaning up looters trenches (2005).

Acknowledgements

I would like to thank the Institute of Archaeology for their continued support. Long-term support by Robert Vitolo is also greatly appreciated. Special thanks to go Dr. Jaime Awe and Carolyn Audet for taking time from their busy schedule to evaluate ceramics from the 2002 and 2003 seasons. I appreciate Robert Cavness and his team at Yalbac Ranch and Cattle Corporation for their permission to work at Yalbac. I would like to thank Mrs. Choc of Valley of Peace Village for providing wonderful breakfast and lunch everyday, as well as the de Paz family for providing coffee every morning at the Yalbac guard house. And none of VOPA field efforts would have been possible without the friendship and support of our field assistants from the Valley of Peace Village—Mr. Scott, Cleofo, and Ernesto.

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Chapter 2 Yalbac's Royal Acropolis: Looter's Trench Operations

John M. D. Hooper

During the 2003 VOPA field season, the eight acropolis looter's trenches were cleaned out, photographed, and profiled in order to reveal the construction history of the acropolis. The acropolis, Structure 1A, is located on the western end of Plaza 1. It is the largest and tallest building at the site (see Figure 1.1). The acropolis has been interpreted as the royal palace of the rulers of Yalbac (Graebner 2002) (Figure 2.1). I conducted most of the profiling work with the assistance of Cleofo Choc. Zedekiah Scott and Jose Ernesto Vasquez assisted in the clearing and cleaning of the trenches. Dr. Lisa J. Lucero participated in the initial stages, particularly in clearing the trenches, mapping in points, preparing and photographing the profiles, and supervised the profile drawing.

Below, I present a brief description of Structure 1A. An overview of the methods used in the profiling of the trenches will then be presented. Each of the eight looter's trenches will then be discussed. The architectural terms used follow, as closely as possible, those found in *A Lexicon for Maya Architecture* (Loten and Pendergast 1984).

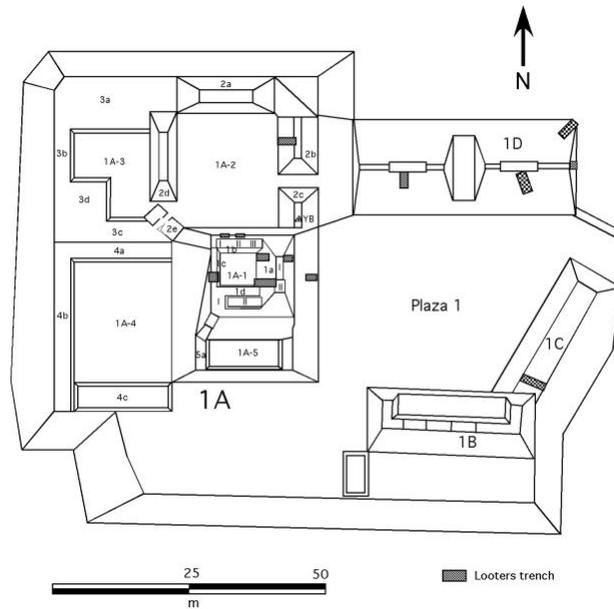


Figure 2.1 Yalbac royal acropolis, Structure 1A

The Acropolis: Structure 1A

The acropolis, is the largest structure at Yalbac in both height and volume. The acropolis substructure dominates the eastern side of Plaza 1 and the southeastern corner of the Yalbac site core. The base of the structure is approximately 45 x 55 m, and its highest point, Building 1A-1a, towers to more than 20 m (Graebner 2002). There appears to be 21 distinct buildings resting on the substructure, each facing one of five sunken courtyards (Lucero 2003). The highest courtyard, 1A-1, is flanked by the most restricted buildings at the site: 1A-1a-I, 1A-1a-II, 1A-1b, 1A-1c, and 1A-1d. Three courtyards on the next lower level can be ranked visually in order of exclusiveness: 1A-2, 1A-3, and 1A-4. The smallest courtyard, 1A-5, clings to the south slope of the substructure below courtyard 1A-1 and above a southeastern extension of Plaza 1 (Lucero 2003). Courtyard 1A-1 is built higher than the rest of the acropolis on a raised platform.

The eight looter's trenches (LTs) are located at various levels from the structure's base to summit (Graebner 2002:51-53). According to Graebner (2002:30, 32), "...the most revealing looter's trenches, LT 1 and LT 2, both located at the top of the acropolis, have exposed two rooms in LT 1, one with an intact corbel arch ceiling and red-plastered walls, and an additional room in LT 2 that contains a bench overlooking Plaza 1." Evidence for vaulted architecture and the bench lead Graebner to conclude that, "the primary royal residence of Yalbac is located on the extreme top of the acropolis, with the front of the structure facing the open area of Plaza 1 to the east, more than twenty meters below" (Graebner 2002:38). He bases this conclusion on the presence of the bench, corbel arch ceilings, and the existence of a multi-room structure, which together are taken to indicate that the buildings around courtyard 1A-1 are the royal palace of Yalbac.

Besides LT 1 and LT 2 in the uppermost courtyard of the acropolis, looter's trenches 3, 4, 12, 13, 14, and 17 also intrude into the acropolis (Graebner 2002:51-53). Of these, the majority appear to be excavated into the sides and bottom of the structure, with only one, LT 3, joining LT 1 and LT 2 in on the top of the acropolis.

Methods

The eight looter's trenches were cleared with shovels and trowels of as much as possible of the looter's backdirt. In LTs 3, 4, 12, 13, 14, and 17, we are confident that all of the backdirt was cleared and the original boundaries of each trench revealed. In LTs 1 and 2, it was not possible to judge where the looter's backfilling ended, and clearing was curtailed at an appropriate level for profiling walls in each room and the bench in LT 2. In LT 1, in particular, further clearing might reveal more of the lower walls of the rooms.

In order to establish the three-dimensional positions of each looter's trench, we used a Brunton Pocket Transit, a sight level, and tape to measure in nails we placed in architectural features or trees in or near each looter's trench. All measurements were taken from traverse point YB, a concrete-and-rebar marker placed by VOPA during the mapping of the site in 2001 (noted on Figure 2.1). Nails were also used, where possible, as the level for drawing profiles. When necessary, additional nails were placed in more appropriate locations for profiling lines, using the initial nails as points of reference.

Before the placement of string for profiling lines, slide and digital photographs were taken. Overview shots and profile shots were taken, as well as shots of details of interest, such as floors or the bench in LT 2. Each shot with the digital camera was matched with a color slide photograph taken from the same angle.

Profile lines were established by running level strings (using line levels) around the inside of each trench. The varying complexity of the trenches led to some profiling lines being easier to establish than others. Nails and chaining pins were used to anchor the strings in the corners of the trenches and rooms.

Once the photographs had been taken and the string for profiling positioned, the plans and profiles of the trenches were drawn to 1/20th scale. In most cases, a plan view and one profile view were drawn for each trench. Rather than drawing one particular profile of each trench (such as always drawing the south or west profile), it was decided to draw the most informative wall. In LT 1 and LT 2 numerous profiles were drawn because of the complexity of those trenches and the numerous details and features of interest present.

Table 2.1 Legend

Legend For All Profiles	
	= Humus Layer (10 YR 7/2 Clay Loam)
	= Collapse Debris
	= Roots
	= Plaster Floor or Bench (Horizontal Plaster Surface)
	= Lime Mortar (Usually 10 YR 7/2 with varying percentages of gravels and cobbles)
	= Unpainted Plastered Wall Surface (10 YR 8/4)
	= Eroded Plastered Wall Surface
	= Red Painted Plastered Wall Surface (10 R 4/4)
	= Rocks
	= Hole or Tunnel Entrance

All Profiles Reproduced Here At 1:40 Scale

Looter's Trenches

LT 1

This trench reveals more architectural data than any of the other acropolis LTs. The interiors of two rooms were exposed, along with a small portion of a third (Figure 2.2). One room (Room 1) was located on the south side of courtyard 1A-1, with its long axis running north-south, and its short axis running east-west (Figure 2.3). This room is probably best interpreted as part of Building 1A-1d, which runs along the southern edge of elevated courtyard 1A-1. The long (north-south) axis of this room is oriented to 273° east of magnetic north, and its east-west axis runs 3° east of magnetic north. The dimensions of the room are 2.18 x 1.70 m.

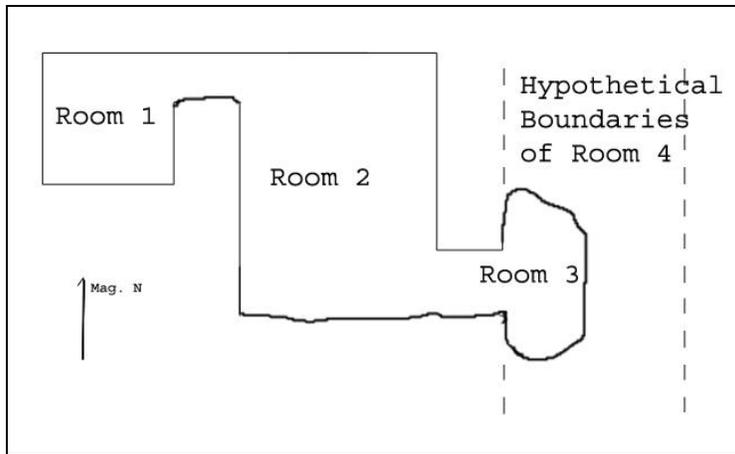


Figure 2.2 Schematic planview of LT 1 (not to scale)

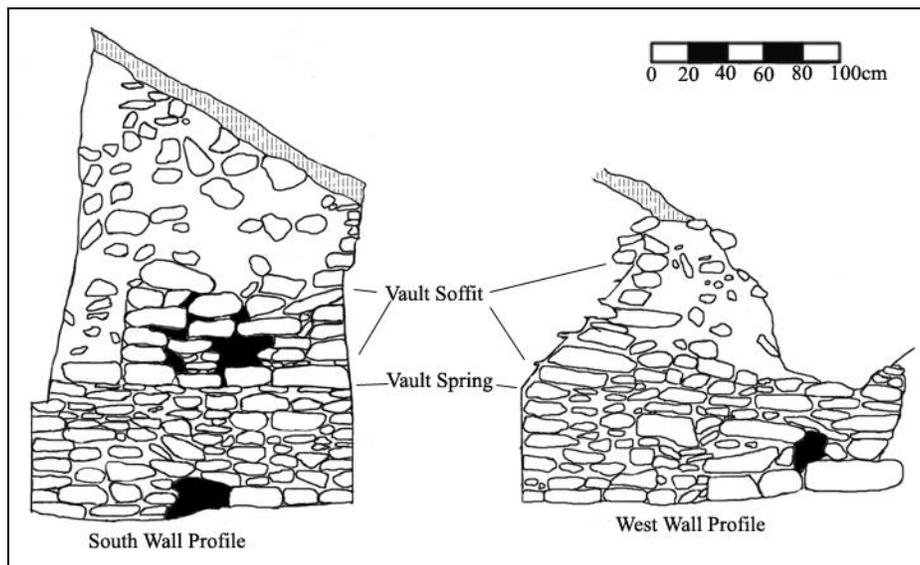


Figure 2.3 LT 1, Room 1: south and west profiles

A door runs through the eastern wall of this structure into another room (Room 2). The looters encountered the top of the doorway arch and expanded it by breaking away the southern doorjamb, forming a roughly oval tunnel into Room 2. Above this tunnel are the remains of a molding and masonry work. We think that this is the base of a masonry roof comb resting on the roof of the structure above Room 2 (Figure 2.4).



Figure 2.4 LT 1, tunnel from Room 1 to Room 2. The possible roofcomb is visible behind the tree trunk in the upper part of the photograph

Room 2 (Figures 2.5 through 2.8) is well preserved and features a complete corbel arch and capstone ceiling. The axis of this room runs east-west (3 x 1.82 m). Eroded plaster is visible on all walls, as well as the vault soffit. Along the upper walls, not far below the vault spring, is plaster with remnant red paint. The exact dimensions of this room are unknown; the current southern boundary of the looter's trench in Room 2 is comprised of a wall of hard-packed mortar with pebbles and cobble, evidently indicating that the entire room was intentionally filled in by the Maya. The looters removed the fill from the northern part of the room only. Evidently they decided to extend their excavation eastward and downward through a sealed doorway. The orientation of this room is the same as that for Room 1.

The sealed doorway through which the looters dug is clearly visible in the tunnel connecting LT 1, Room 2 and LT 1, Rooms 3 and 4 (Figure 2.9). The northern side of this tunnel (1.74 m in length) consists of neatly cut and dressed masonry, while the southern side is comprised of rough boulders (Figures 2.10 and 2.11). The northern wall, obviously a doorjamb, terminates abruptly at what is evidently another filled-in room (LT 1, Room 4). The southern wall of the tunnel runs into Room 4; at the boundary is a row of boulders with dressed sides facing Room 4. This doorway apparently was sealed while Room 4 remained in use.

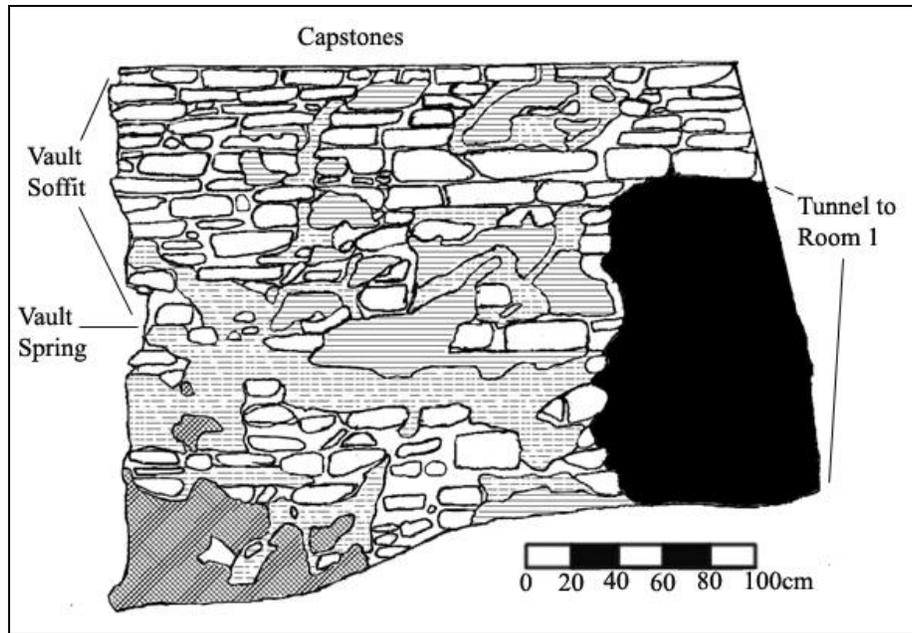


Figure 2.5 LT 1, Room 2: west profile



Figure 2.6 LT 1, Room 2: Dr. Lisa Lucero indicating red-painted plaster

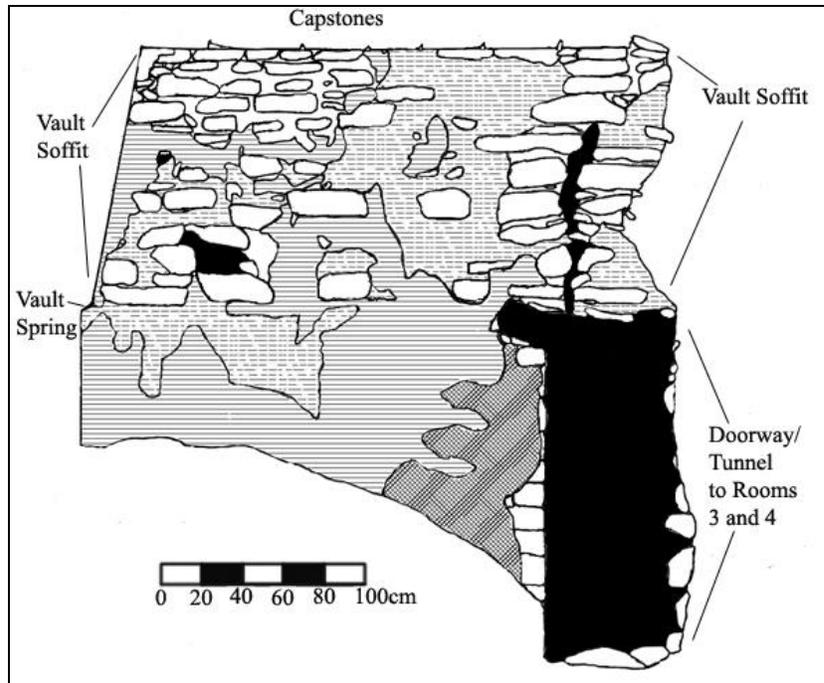


Figure 2.7 LT 1, Room 2: east profile



Figure 2.8 LT 1, Room 2: east wall showing red plaster

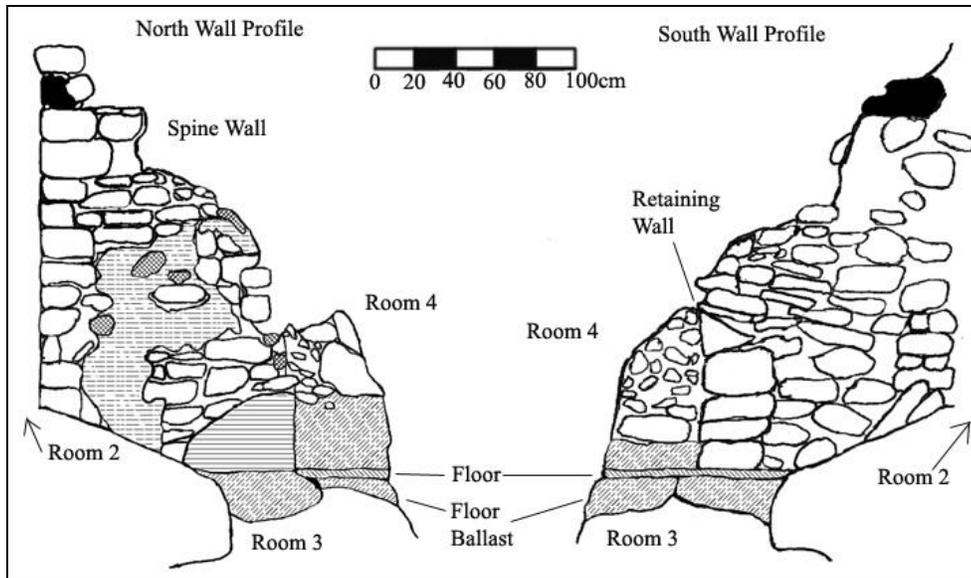


Figure 2.9 LT 1, tunnel from Room 2 to Rooms 3 and 4: north and south profiles



Figure 2.10 North tunnel wall



Figure 2.11 South retaining tunnel wall

Only a small portion of Room 4 was exposed by looters (this is visible in the extreme right of the north wall profile and the extreme left of the south wall profile, Figure 2.9). This is because the looters excavated down from Room 2 through the floor in the doorway and Room 4. They then continued to excavate down into the structural core. The visible part of Room 4 is simply mortar, cobble, and pebble fill. It is impossible to tell if the whole room was filled in with this material. An interesting possibility is that what we can see of Room 4 might be the core of a bench abutting the back wall of the room. This is a possibility because of the presence of a bench in this position in LT 2, which probably exposes part of another room in the same range of rooms, but at its north end. Room 4's dimensions and orientation are unknown, but may well prove similar to those of Room 2.

The looter's trench continues into what has been designated LT 1, Room 3. This is now recognized as simply a hole in the structural core cleared out by looters. In the clearing process, numerous large boulders appeared to have been removed. At the back of this looter's hole, the looters broke through a wall (Figures 2.12 and 2.13). This wall consists of cut and dressed masonry and

mortar, features smaller individual stones than are seen in Rooms 1, 2, the doorway, or Room 4. This wall may represent the exterior of the upper zone (outer facade of the roof, from vault-spring to capstone-level) of a buried structure. If so, it appears that this older building was buried intact in the structural core on which Courtyard 1A-1 was constructed. The portion of the wall visible in Room 3 is 2.88 m long and is oriented to 3° east of Magnetic North.

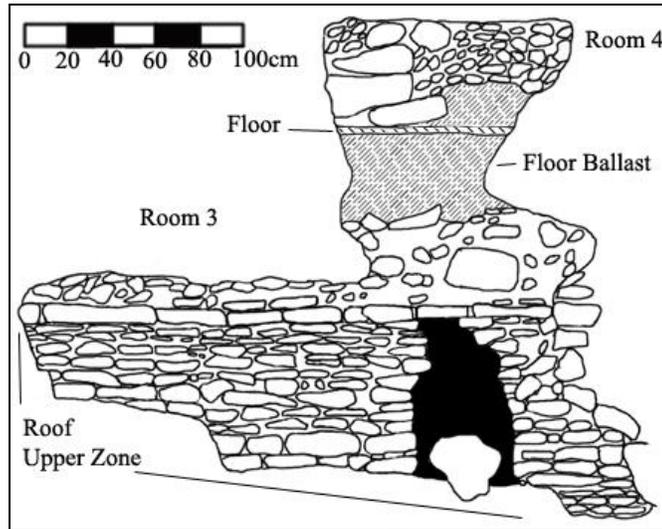


Figure 2.12 LT 1, Room 3: east profile



Figure 2.13 LT 1, Room 3: showing the wall at the back of the room

LT 1 reveals more architectural detail than any other trench investigated. The masonry stones of the walls of Rooms 1 and 2 are dressed only on the facing side; the other sides are uncut. This makes for a poor fit between stones. The builders compensated for this by laying the stones in thick mortar. In Room 1, for instance, there are areas where the mortar must originally have been as much as 0.08 m thick between rows of stones. In Rooms 1 and 2, the vault soffits are clearly marked by a row of large, flat stones of about even thickness. These are the first row of corbelled stones in each case. In Room 1, this line of corbelled stones sits on a row of very thin, flat stones, evidently intended to provide a level surface for the vault to rest on. As mentioned above, the wall in Room 3 is made of generally

smaller stones than were used in construction in Rooms 1 or 2. The masonry of this wall also appears finer, with less space between the stones and correspondingly less mortar. A row of flat stones at the top of the wall may well have anchored the structure's superior molding.

Unfortunately, no chronologically diagnostic artifacts of any kind were found in LT 1. Three sherds found in Rooms 2 and 3 could not be identified as to type.

LT 2

This trench is located on the east face of Building 1A-1a-II, near its northeast corner, overlooking Plaza 1. The trench partially exposes one room (Figure 2.14). At the opening, or eastern end of the trench, two doorjamb were exposed.



Figure 2.14 The room and bench exposed in LT 2

The room measures 2.02 m east-west x 1.80 m north-south, and is 2.74 m tall. Its north-south axis is oriented to 3° east of magnetic north. Its east-west axis is oriented to 273°. From the doorjamb, the looters continued their excavation all the way to the back wall (Figure 2.15), which they proceeded to break through and dig into. All they exposed in this tunnel was wall core; they did not reach any other room. They also turned their attention to the most interesting feature exposed in the trench, the plastered bench abutting the back wall of the room (Figure 2.16).

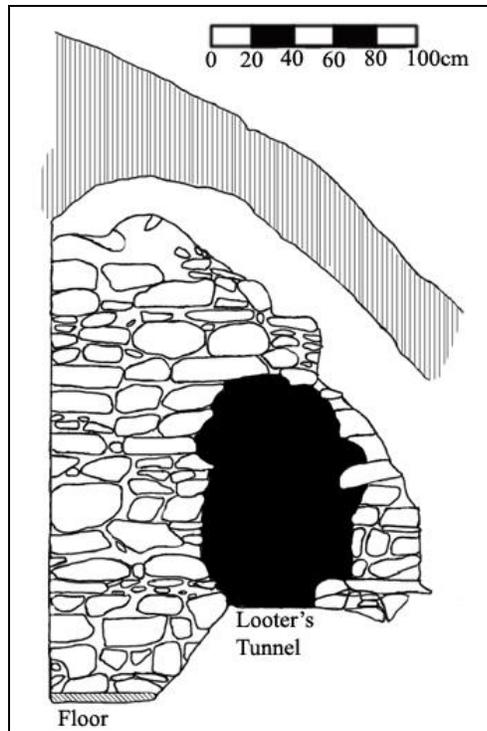


Figure 2.15 LT 2: west profile

The looters broke through the top of the bench and excavated through it, breaking through the floor of the room 0.70 m below the surface of the bench (Figure 2.17), and continuing for an unknown distance (probably not very far, given the size of the excavation area) beyond. The bench itself is 0.70 m high and 1.42 m deep. At its edge, the plaster is curved over to form a lip or molding.

Masonry in this room is similar in all respects to that in Rooms 1 and 2 of LT 1. No chronologically diagnostic artifacts were recovered.



Figure 2.16 Detail of the bench in LT 2

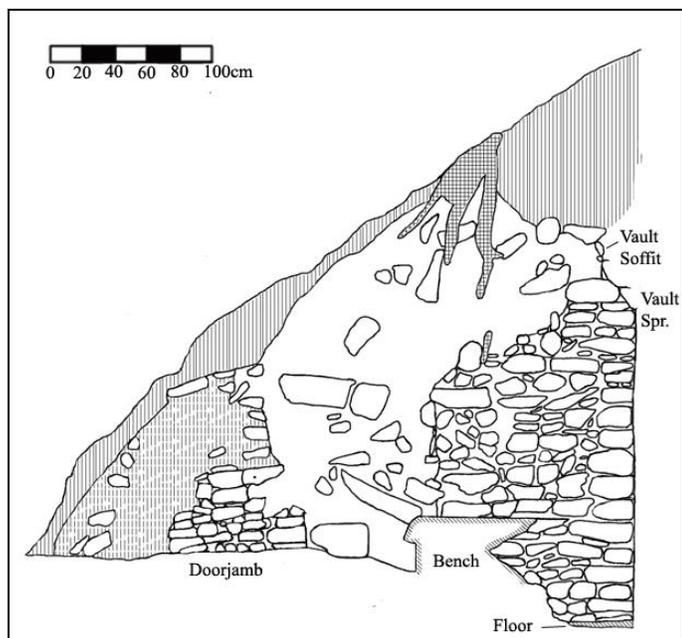


Figure 2.17 LT 2: south profile

LT 3

LT 3 is the last looter's trench penetrating the summit buildings of Courtyard 1A-1 (Figures 2.18, 2.19 and 2.20). It is excavated into the west (courtyard) face of Building 1A-1a-II, not quite opposite LT 2, LT 3 being slightly offset to the south. After clearing, LT 3 proved to be about 3.94 m long, 1.84 m wide, and 1.44 m deep. The only feature present in this trench is a masonry wall (Figure 2.18), broken through by looters. The wall is approximately 1.24 m from the back of the trench and measures 0.52 m high, it is oriented to 273° east of Magnetic North. The stones are placed with their dressed side facing west, and cemented into a mix of lime mortar, cobbles, and boulders. Most likely, these stones represent the original west-facing wall of Building 1A-1a-II, and the mortar fill behind them is the wall core. If so, then this looter's trench never penetrated into the building's interior. What masonry is visible seems very similar to that seen in LT 2 and in LT 1, Rooms 1 and 2. No chronologically diagnostic artifacts were found in LT 3.



Figure 2.18 Terrace wall in LT 3

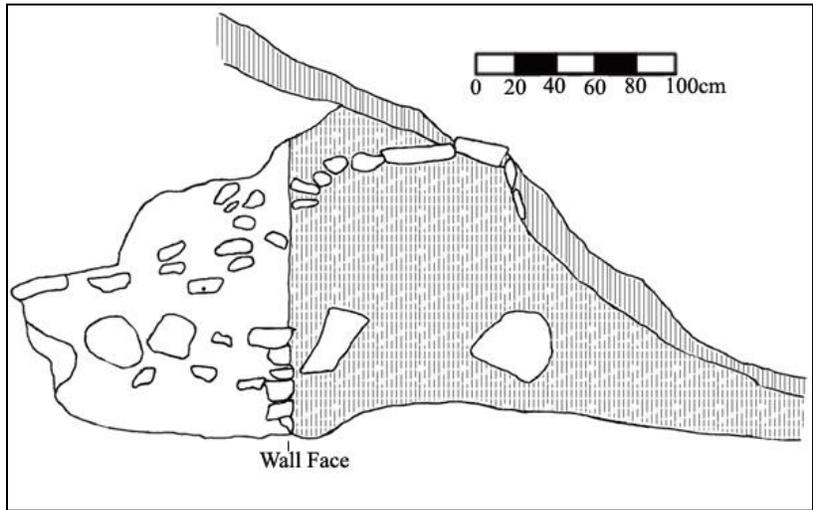


Figure 2.19 LT 3: south profile

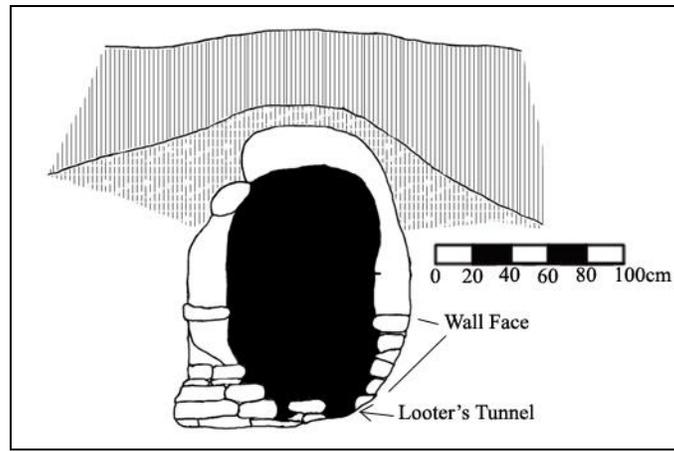


Figure 2.20 LT 3: east profile at the plane of the masonry wall

LT 4

This trench is located on the western side of the Courtyard 1A-1 platform above Courtyard 1A-4. There are several locations nearby where the looters may have begun excavations, but only this trench penetrates the structure (1.24 x 2.08 m, 1.46 m deep).

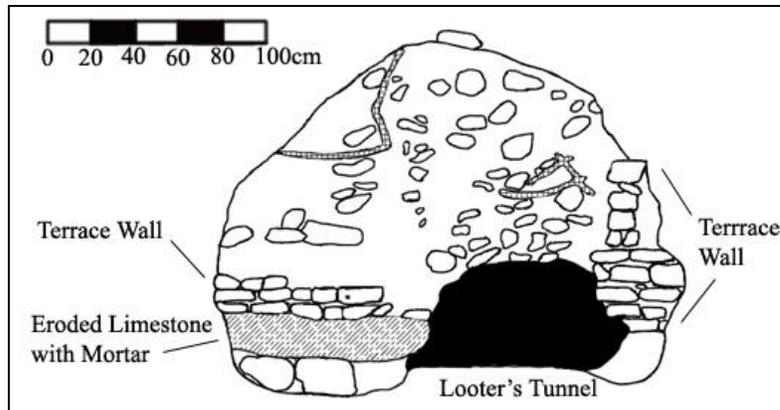


Figure 2.21 LT 4: east profile

The wall is exposed in this trench (Figures 2.21 and 2.22) is likely the facing of the upper-most terrace on the acropolis. It is in a very poor state of preservation, due to the looting, so it is impossible to tell its original height. It appears to be oriented to 3° east of magnetic north, which would be consistent with structural orientations elsewhere on the acropolis. The wall rests on a layer of lime mortar, which may include some large and eroded chalky limestone boulders. This layer might represent the surface of the next lower terrace.

In the center of the trench, the looters broke through the wall and dug back into the structure for an unknown distance. In this hole, Cleofa Choc found fragments of a sculpted plaster frieze. The pieces of plaster were found lying loose in the looter's backdirt. It is not clear what the frieze represents or exactly where on the structure it was located (see Figure 1.2). Perhaps the west front of the Courtyard 1A-1 platform was at one time covered in modeled plaster. If so, the remains of most of this frieze should still be present, as the looter's operations on the steeply sloping west front are quite limited.

Unfortunately, none of the artifacts recovered from this trench were chronologically diagnostic.

LT 13

This trench is located on the north side of the outer face of the platform supporting Courtyard 1A-1. The trench is 2.56 m long, 1.42 m wide, and 1.84 m deep at its deepest point near the south end. Two features are clearly distinguishable in the profile of the trench (Figures 2.22 and 2.23). The first is a facing wall, evidenced by dressed stones set in mortar about 0.40 m from the north end (mouth) of the trench. Altogether, three courses of stones rise about 0.22 m above the trench floor. In the plan of the trench, it is clear that the line of stones extends out about 0.46 m from the trench's east wall. The orientation of the wall could not be determined, since very little of it is exposed. The second important architectural feature is a plaster floor located at the back of the trench. As Figure 2.22 illustrates, this floor extends about 0.80 m from the south end of the trench. In the center of the trench, the floor is visible about 0.44 m from the south end of the trench, respectively. In the west wall, the floor extends 0.64 m from the south wall of the trench and is about 0.06-0.08 m thick. Underneath it in the southern end of the trench is a concentration of cobbles running from the base of the floor down about 0.48-0.55 m to the floor of the trench. This ballast or leveling surface, with the floor on top of it, may represent the surface and subsurface of a terrace. The remains of the facing wall near the north end of the trench may represent the retaining wall of the terrace. If this interpretation is correct, this is likely to be the uppermost terrace of the Courtyard 1A-1 platform. Again, no diagnostic artifacts were found.

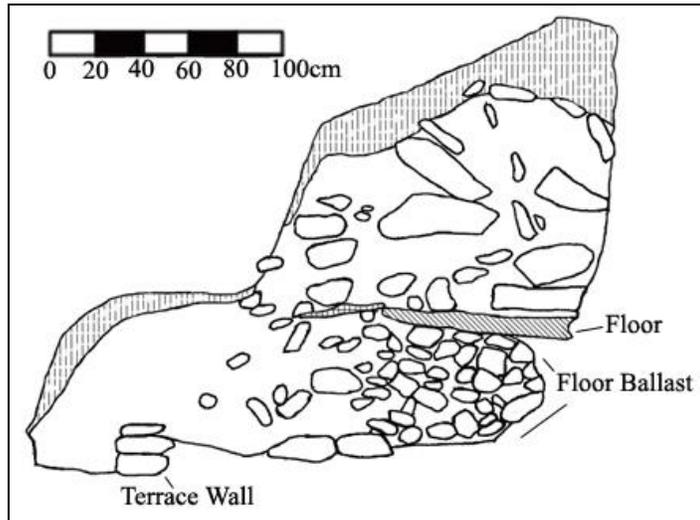


Figure 2.22 LT 13: east profile



Figure 2.23 LT 13: east wall

LT 14

This trench reveals a masonry retaining wall and a significant portion of the structural core (Figures 2.24 and 2.25). Like LT 13, the trench is located on the north slope of the Courtyard 1A-1 platform. Looter's Trench 14 is 1.14 m long, 1.34 m wide, and 1.32 m deep. The looters ran into a masonry retaining wall at the back of this trench. Breaking through it, they tunneled a further 2.63 m into the core of the Courtyard 1A-1 platform. At the back of this tunnel, they came upon a possible plaster floor about 0.10 m thick. About 0.22 m above this floor is a line of what appear to be capstones. The looters excavated along this line 2.09 m approximately southeast (122°) and 1.79 m approximately northwest (302°) of the centerline of their tunnel (Figure 2.26). The feature they followed is evidently a line of capstones a scant 0.20 m above a plaster floor. Its orientation (302° east of magnetic north) is different from the orientations observed elsewhere on walls, capstones, and other

architectural features of the acropolis. At present, the significance and possible function of this feature are unknown. Difficult working conditions at the back of the looter's tunnel may have led to misinterpretations or poor measurements (one has to crawl through a tunnel less than 0.50 m high).



Figure 2.24 LT 14: trench entrance, looking south

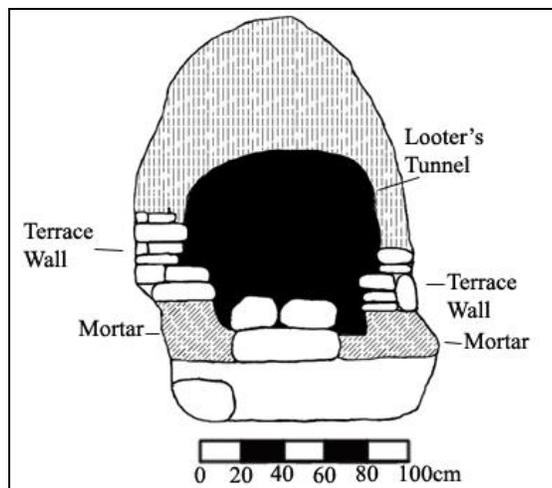


Figure 2.25 LT 14: south profile at plane of masonry wall

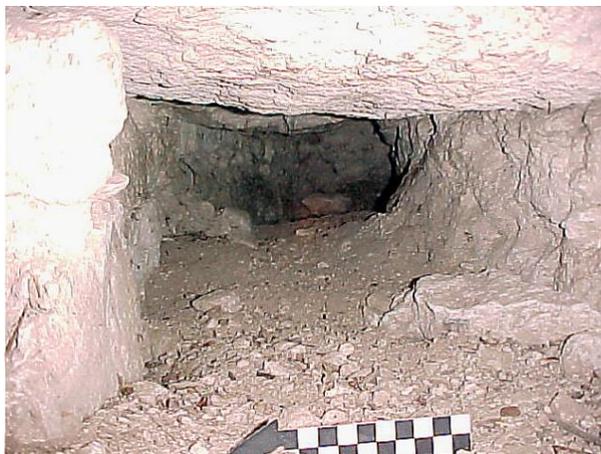


Figure 2.26 LT 14: exposure of a row of capstones at the back of the tunnel

The retaining wall visible in the profiles of LT 14 appears to be the facing of a structural terrace on the platform that supports Courtyard 1A-1. The remains of this wall are about 0.70 m from top to bottom. The wall seems to rest on a foundation of limestone mortar, which may turn out to be a badly damaged floor and floor ballast of the surface of the next lower terrace. One rim sherd was recovered from just below the juncture of the wall and the limestone mortar. Dr. Jaime Awe and Carolyn Audet tentatively dated the sherd, a possible Dolphin Head Red bowl, in the Early Facet of the Spanish Lookout Phase (c. A.D. 700-800) (Gifford et al. 1976:226).

LT 12

LT 12 is at a lower elevation than any of the previously described trenches. It is located in Building 1A-2b, on the east side of Courtyard 1A-2. It appears that the looters were attempting to trench the building along its primary axis. The trench is 3.20 m long, 0.88 m wide, and 2.10 m deep at its deepest point. The profiles of this trench (particularly the south profile) reveal two floors and the wall of the structure (Figures 2.27 and 2.28).



Figure 2.27 Plaster floors in LT 12

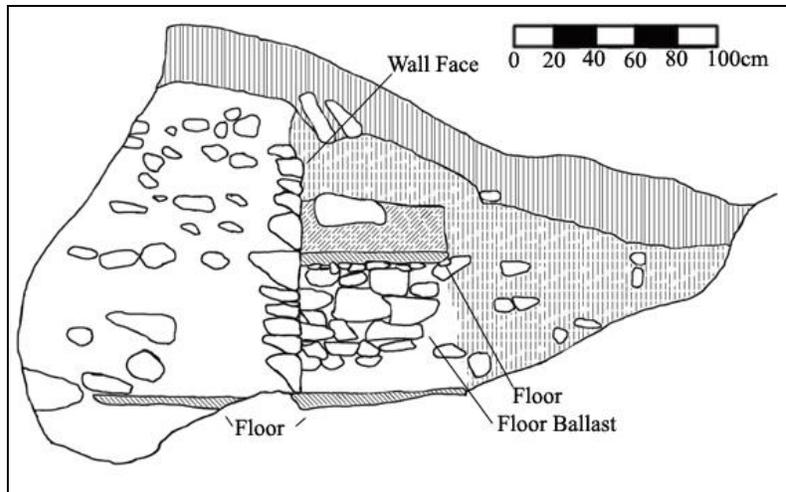


Figure 2.28 LT 12: south profile

The masonry face of Structure 1A-2b's outer wall is clearly visible as a vertical line of dressed stones, cemented into a mortar-and-boulder wall core. The base of this wall, in the deepest part of the trench, is placed on top of or is abutted by a 0.04-0.08 m thick plaster floor (it is impossible to tell which, as the contact is not exposed in the trench). Given that this floor runs under the probable wall core as well, it is likely that the structure was built on an extant plaster floor, possibly a surface of Courtyard 1A-2.

Above this floor on the outside of the structure (west of the wall in the profile, i.e., toward the shallow end of the trench), there is a 0.10-0.12 m accumulation of cobbles and boulders indistinguishable from the later collapse debris. It appears to provide the ballast base for another plaster floor, located about 0.62 m above the lower floor. The more recent floor is about 0.40-0.50 m thick and extends about 0.72 m out from the masonry wall. This construction event either consisted of the raising of the floor of Courtyard 1A-2 or a platform built around Structure 1A-2b. Unfortunately, the cobble-and-boulder ballast or leveling surface and the upper plaster floor are not visible more than about 0.72 m west of the masonry wall, so we cannot assess which possibility is more likely. Beyond that point, the trench's south wall reveals only undifferentiated collapse debris.

No diagnostic artifacts were recovered from the cultural layers of this trench. One white chert projectile point was recovered from the collapse debris (Figure 2.29).



Figure 2.29 Chert projectile point from LT 12

LT 17

LT 17 is located at the base of the acropolis on its eastern side (Figure 2.30). It appears that the looters placed this trench while looking for the centerline of Structure 1A's primary staircase from Plaza 1. As will be described below, there is no evidence that they necessarily found the staircase. The trench is 5.11 m long, 1.52 m wide, and 1.88 m deep, with the sloping fairly steeply upward, especially toward the back (west) wall of the trench.

LT 17 exposes a number of large boulders with diameters in excess of 0.30 m. The largest boulder measures about 0.40 x 0.21 m. There is a boulder retaining wall about 3.50 m from the mouth (east end) of the trench. This wall is composed of several very large, uncut boulders bound in mortar. The retaining wall rises about 0.66 m from the base of the trench. Above the retaining wall, in the higher rear part of the trench, is a sloping jumble of loose boulders. Above these is a layer of pebbles and cobbles bound together with mortar. In this layer we several numerous sherds that appeared to be from two vessels; one was identified by Dr. Jaime Awe and Carolyn Audet as a Dolphin Head Red dish. As mentioned above, Gifford et al. (1976:26) identifies Dolphin Head Red as a member type of the Early Facet of the Spanish Lookout Phase (c. A.D. 700-800). The other vessel may have been a Roaring Creek Red dish, but the identification is very tentative due to poor preservation. Roaring Creek Red belongs to the Late Facet of the Spanish Lookout Phase (c. A.D. 800-900; Gifford et al. 1976:226). Another layer of mortar-bound cobbles is visible in the south profile of LT 17 above the level of the retaining wall. We also recovered a speleothem in the backdirt (Figure 2.31), and it might comprise part of an offering.

Two facing stones were found in the trench. One is in situ, the other was broken, with the butt of the stone still in its original location. These two stones were located near the top of the trench about 2.03 m west from the mouth of the trench, about 1.30 m east of the top of the boulder retaining wall, at the same elevation as the uppermost boulder. This may have been part of the original face of the lowest terrace on this part of the acropolis (Figure 2.32).

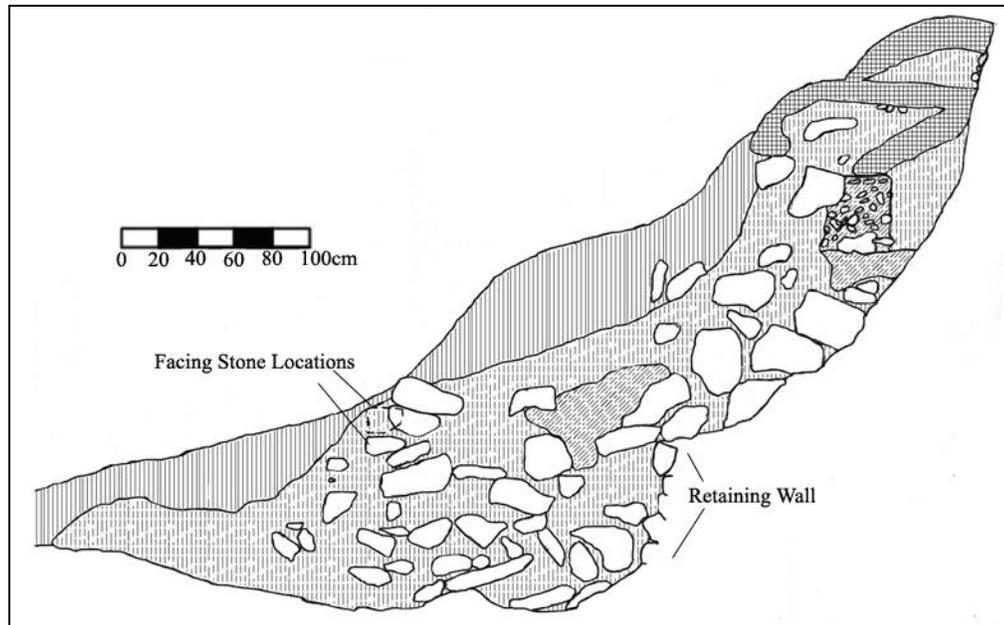


Figure 2.30 LT 17: south profile



Figure 2.31 Speleothem from LT 17



Figure 2.32 LT 17: Cleofo Choc holds a broken facing stone to indicate original location of terrace wall

It is easy to see why the looters dug in this location. They were clearly looking for the centerline of the main eastern stairway leading up to Structures 1A-1a-I and -II. It is not clear why there is no staircase at this location. Perhaps the ancient Maya built dual staircases, and LT 17 happens to fall between them. It seems unlikely that there was no staircase on this face, since the structures above are

clearly intended to overlook Plaza 1, and were probably intended for public viewing (the bench in LT 2 tends to support this idea).

Discussion

Table 2.2 provides the approximate coordinates (relative to traverse point YB) and elevations for the eight looter's trenches. As mentioned, traverse point YB is located on top of Structure 1A-2c (see Figure 2.1).

Table 2.2 Looter's Trench Coordinates

Elevation (masl)	X-coordinate (YB +/-m)*	Y-coordinate (YB +/-m)**
Station YB	81.55	0
LT		
1	86.96	-10.48
2	84.42	-4.39
3	86.71	-9.75
4	82.97	-6.92
13	84.96	-21.21
14	83.64	-14.69
17	76.49	+4.58
12	80.18	+0.64

* A "+" indicates the point is east of YB, "-" indicates it is west.

** A "+" indicates the point is north of YB, "-" indicates it is south.

The eight looter's trenches investigated yield significant information about the final construction phases of the acropolis and its summit structures. LTs 1, 2, and 3 all intrude into a single summit structure, 1A-1a-I/II, which is probably one of the most important buildings on the acropolis. Based on the analysis of the data recovered from the three trenches, the building appears to have run the whole length on the east side of the Courtyard 1A-1 platform. It appears to have been a range-type structure with two parallel rows of rooms. The front row of rooms, over-looking Plaza 1, is represented by the room in LT 2 and Room 4 in LT 1. The back row of rooms is represented by Room 2, LT 1. A small part of the west face of the building is exposed in LT 3. Room 1 in LT 1 is connected by a doorway to Room 2, but its long axis is perpendicular to that of the other rooms, probably indicating that the structure was U- or L- shaped. LT 1, Room 2 was intentionally filled in by the Maya while Room 4 remained in use, as indicated by the retaining wall blocking the connecting doorway between the two rooms. Possibly this was done in order to support the weight of a roof comb built above Room 2. It is possible that the room exposed in LT 2 had also been intentionally filled. It is impossible to tell whether or not Room 4 in LT 1 was ever filled in. All of the walls of this building were built similarly of dressed stones placed in rough rows and bound with a lot of mortar. The whole of the room interiors was then plastered about 0.01 to 0.03 m thick. At least some of this interior plaster was painted red.

If the more finely built wall seen in Room 3 of LT 1 indeed proves to be the exterior of the upper zone of an earlier structure, we may be able to make a case for the whole of the Courtyard 1A-1 platform having been built up in a single operation, burying the earlier summit buildings entirely.

Elsewhere on the acropolis, LTs 4, 13, and 14 provide some information on the construction of the Courtyard 1A-1 platform. Each of these LTs appears to reveal part of the terraced side of the platform. The remains of a stucco frieze discovered in the backdirt of LT 4 may also present potential for future research. More of the frieze may yet be preserved on the relatively undisturbed west face of the Courtyard 1A-1 platform.

LT 12, in Building 1A-2b, may reveal enough information to provide for a hypothetical reconstruction of the building. It certainly shows changes in the level of the floor of Courtyard 1A-2, probably indicating at least a minor reconstruction of the building.

LT 17, at the base of the acropolis at the level of Plaza 1 reveals that the eastern acropolis staircase is not where it might be expected to be. The meaning of this is unknown and unlikely to be revealed except by further work.

The ceramics recovered from LT 14 and LT 17 suggest that the construction of the final phase of the acropolis postdates the Early Facet of the Spanish Lookout Phase (c. A. D. 700-800). It may even date to the same phase's Late Facet (c. A. D. 800-900). This would be consistent with patterns commonly seen at Maya sites, in which much monumental construction dates to the Late and Terminal Classic.

Concluding Remarks

The looter's trench operations on the Yalbac acropolis have enabled a greater understanding of the construction history of the acropolis. Unfortunately, little information was recovered about early phases in acropolis construction. The wall found in LT 1, Room 3 and the mysterious feature found at the back of the LT 14 tunnel will likely prove to be the oldest architecture seen. LT 12 exposes at least two floors, which may indicate two phases of construction for Courtyard 1A-2. The rest of the trenches expose only the last phase of acropolis construction.

In general, VOPA 2003 goals were fulfilled in the acropolis operations. We have learned a great deal about this important structure, the seat of royal power at Yalbac. Most importantly, we recovered important data from looter's trenches. This is a good example of how the destruction caused by looters can at least be used to some good by archaeologists.

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Chapter 3

Walkin' in the Rain: The 2003 Settlement Survey at Yalbac and Beyond

Andrew Kinkella

This report is a summary of the archaeological survey portion of the 2003 Valley of Peace archaeology project. We have spent the last few years solidifying our maps of the Yalbac site core (Lucero 2002), and are now expanding our map out from the core towards the hinterlands. Of high importance to the settlement survey is the question of how the site of Yalbac is related with the string of 22 natural pools that are located some four kilometers to the north. The beginnings of the settlement survey this year are modest, but the small amount of work done here will be built on in later years as the core of my dissertation research.

The 2003 Survey

The settlement survey lasted only three days, from June 24th until June 26th of 2003. Just two people, myself and Cleofo Choc, participated in the survey. We used a Garmin Venture GPS to record our survey track as well as mounds, pools, and mound groups as we came upon them. Maps were made of the larger mound groups using rudimentary pace and compass techniques. The first day of the survey followed a trail from Yalbac to Pool 7, the second day began at Pool 7 and continued east along the string of pools until they ended at the confluence of Yalbac Creek, and the third day was spent walking back to the Yalbac site core along Yalbac Creek (Figure 3.1). No formal transect was used; all data was collected en route.

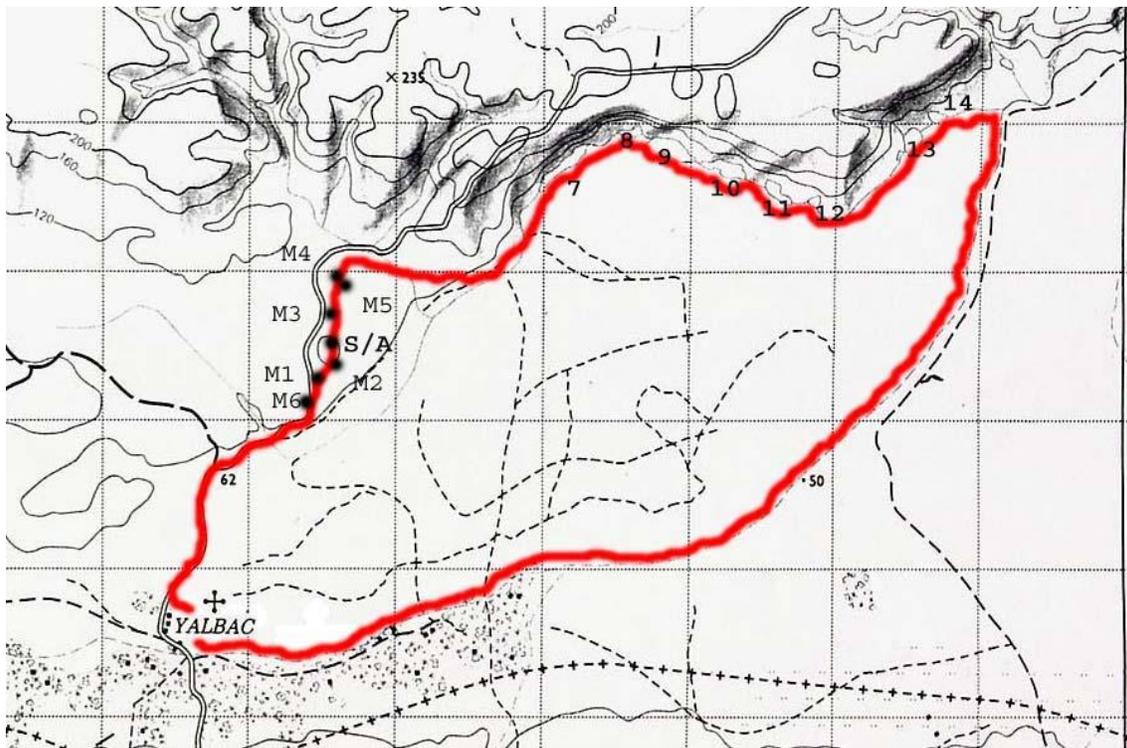


Figure 3.1 2003 survey trail with pools and mound groups numbered.

The first day was spent recording new mounds and re-locating some of the outlying settlement of the Yalbac site core that we had noted in 2002. The most important site re-located was a sizeable mound group referred to as the Sean/Andrew site (S/A) (Site 94.5E24.5N-1; Lucero 2003) (Figure 3.2). The S/A site is composed of at least ten structures, the tallest one being over 4 meters in height. This mound group seems to be a satellite group of Yalbac, possibly an elite group or very minor center. The layout of the buildings is quite open, with good accessibility between most buildings. A notable exception to this open plan is the building to the extreme west that is blocked from view by another larger structure, and may be a ballcourt. It is important to note that while the structures of this group are relatively open to one another, the entire group is restricted from the rest of the general area because it lies on a sizeable platform. It would be relatively easy to restrict access to the plaza to anyone from the outside by blocking the small passageways between the pyramids. This characteristic would be useful if the S/A group was indeed an elite compound; the elites could easily keep the commoners out. The layout of the S/A site also reflects the importance that the ancient Maya placed on the east; the largest pyramid in the group is built on the eastern side.

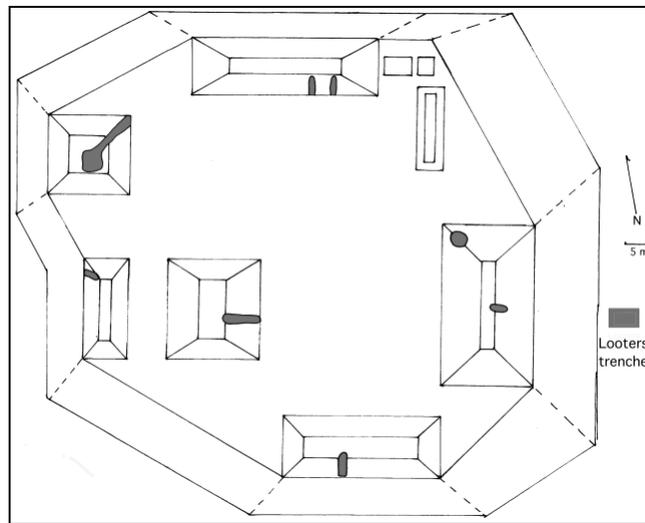


Figure 3.2 Site 94.5E24.5N-1 (S/A)

Aside from site S/A, we also recorded six other sites with either small mound groups or solitary mounds (M1-M6 in Figure 3.1). All of the mound groups were clustered around the S/A site area, approximately half way between Yalbac and Pool 7. The area in which they were located is a hilly area, and it appears the Maya took advantage of the undulating landscape by placing settlement on the highest points in order to keep structures dry during the rainy season. Below is a brief description of M1 through M6:

- M1: Solitary mound between the road and the S/A site.
1.5 m tall, 8 x 8 m at the base.
- M2: Solitary mound very near S/A site on the south side.
Approx. 1.5 m tall, 8 x 8 m at the base.
- M3: Same as M2, but on the north side of the S/A site.
- M4: Two small mounds (under 2 m) oriented North-South.
- M5: Small, dispersed group of at least seven small mounds
(under 2 m tall), located on a small finger ridge.
- M6: Group of three medium-sized mounds immediately

adjacent to each other, forming three quarters of a plazuela group. The largest mound is approximately three meters tall, and 15 x 9m at the base. The largest mound is located on top of a small, sheer cliff that has a crack in it running underneath the mound. It has been looted with a large trench in the southeast corner of the mound (see below).

The Pools

The second day was spent surveying and numbering the pools (pools 7-14) and their associated settlement. Pools one (Cara Blanca) through six were explored in 1998-1999, and lie several kilometers to the east of the current survey area (see Kinkella 1999a, 1999b; Lucero 1999a, 1999b). Two new pools with settlement were found this year (pools seven and nine). I swam in pool seven to check depth, and it was quite shallow for most of its area (c. 2 m or less deep). The water was also very warm (approximately 90 degrees) and the visibility was terrible (one meter). This is very different from the water at pool one, which had a solid six meters of visibility and was markedly cooler (approximately 75 degrees). Pool nine was very similar to Pool one (cool and deep) and thus has a much better possibility of yielding underwater archaeological material as the artifacts have a chance of being visible. I assume that the two new pool sites will date the same as Cara Blanca (Late Classic). The settlement at Pool 7 was much more substantial than at Pool 9, consisting of eight low range structures that formed two intersecting plazas on the south side of the pool. Pool 9 had three low mounds on the south side that were easy to miss. Some of the other pools had notable characteristics: Pool 9 has a sheer white faced cliff on the northwest side, Pools 10 and 11 are in an area with many crevices (bad for farming but good for caves), Pool 12 was very clear, and Pool 14 had many water lilies on the surface.

The pools are not the only area where we suspect ritual use in relation to water and the underworld. One of the new small mound groups discovered between Yalbac and Pool 7 (M6) has a mound in it that is three meters tall and perched at the top of a 6 meter tall sheer cliff. The cliff had a crack in the center, which goes underneath the front of the mound and is easily big enough for a person to go into. The crack is about 1.5 meters wide and 5-6 meters deep. This natural fissure into the earth may have had ritual significance as the structure immediately above it may attest to. Much of the area explored this year was full of limestone with fissures and cracks in it, especially in the northeastern project area. With numerous fissures, many with water, it seems to be an ideal place to look for caves in the future, and associated water and other rituals (Bassie-Sweet 1996).

Yalbac Creek

The final day of the survey was spent heading back to Yalbac via the western side of Yalbac creek. I had initially assumed that the area immediately around Yalbac Creek would have a sizable percentage of settlement along it because of the easy access to water. I was 100% wrong; we did not see a single structure along the roughly six kilometer stretch that we walked on the way back to the site core. This could be explained in several ways. First, the creek has undoubtedly changed course over the millennia as it deals with times of flood and drought. The sites that were once on the creek may be located elsewhere. Second, the creek may have buried any low mounds in many meters of silt over the years as it has flooded its banks (I saw a drastic example of this in 2002). Lastly, there may be no observable settlement in this area because the Maya never put any there to begin with. The soil in the area may be of low quality for farming, so the ancient Maya may have located further upstream or downstream where better quality soils lie (Fedick 1996). This area may have also been restricted for use by those in power, forcing commoners to locate elsewhere.

Concluding Remarks

Although the limited scope of the settlement survey makes statistically viable conclusions impossible at this time, several tantalizing facets of the findings can be explored. Radiating northward from the site core, the settlement continues as would be expected; it is most dense near the core and thins out the further one gets from the site. Settlement becomes non-existent after approximately two kilometers from the core, but the pool area witnesses a sudden increase of structures in their immediate vicinity. The settlement seems clustered around larger mound groups, such as the S/A site.

For future archaeological work in the area, I am planning to obtain a ceramics sample from the mounds to see if they are temporally consistent with each other. A diving expedition will also be mounted to study the possible contents of the new pools, as well as their underwater structure. Even though no ritual objects have yet been found within the pool at Cara Blanca, the similarities to Dzibilchaltun and Chichen Itza indicate that a more extensive underwater study in the area could uncover ritual material (Andrews and Corletta 1995). The largest component of future projects will be an increased settlement survey. Further study will increase our understanding of the relationship between the pools and the surrounding communities, as well as explore the possibilities of the pools as pilgrimage destinations of ritual importance.

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