

**KA'KABISH ARCHAEOLOGICAL RESEARCH PROJECT (KARP)**  
**REPORT ON THE 2015 ARCHAEOLOGICAL FIELD SEASON**

Submitted to

**The Institute of Archaeology, NICH**  
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*As archaeological work would not be possible without the co-operation of the local people who have as much invested in our work as we do, if not more, we would also like to thank the following individuals: Ben and Margaretha Dyck of the Blue Creek Community for helping with the project logistics both during and between the field seasons; Srs. Blanco, Che, and Magana for allowing access to their land; the ladies of Las Orquideas for keeping us well fed; and all the members of the various communities, Indian Church, Indian Creek, and Shipyard, that provided us with information and assistance in myriad ways.*



# CHAPTER 1

## OVERVIEW OF THE 2015 FIELD SEASON

*by*

***Kerry L. Sagebiel***

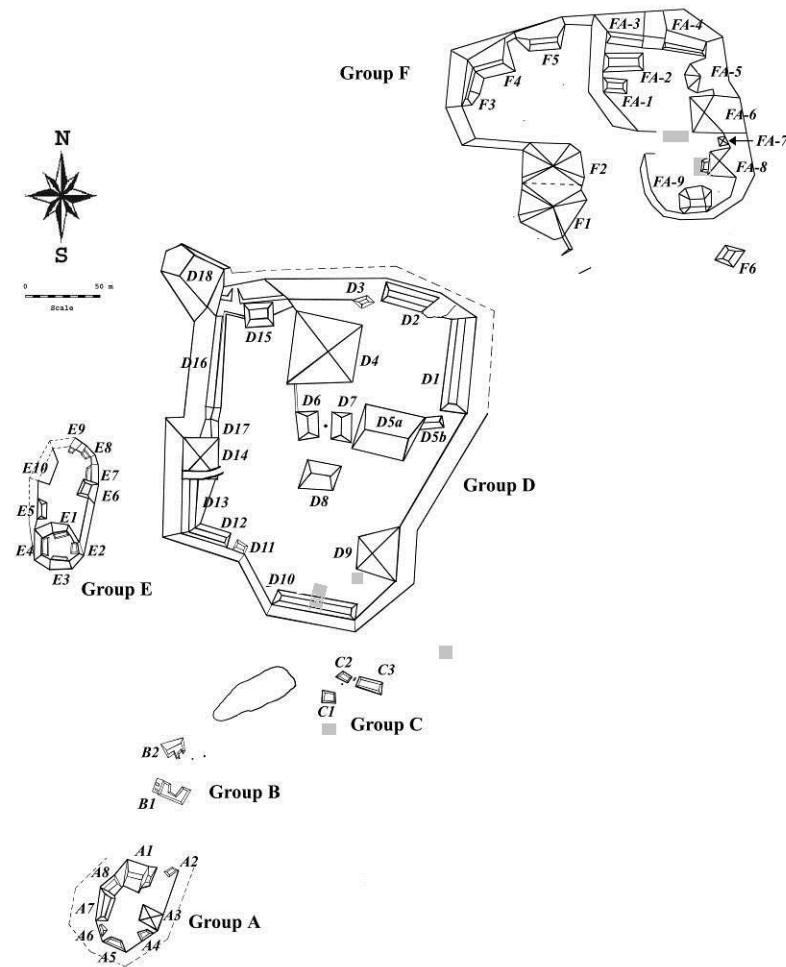
During the 2015 Ka'Kabish Archaeological Research Project (KARP), excavations continued in site center in both Group D and Group F (Figure 1). In addition, survey and excavation along the Ka'Kabish to Lamanai transect in the inter-site settlement zone re-commenced after a two year hiatus. The Group F excavations included Operation 5 in the Group F Acropolis and Operation 16, which involved extensive clearing of looters' back dirt and excavation in front of Structure (Str.) FA-8. Group D excavations included Operation 3 off the south side of Str. D-9 as well as the Operation 15 excavations into and in front of Str. D-10. In Group C, Operation 14 excavations into Chultun C-2, begun in 2014, were completed; and Operation 17 excavations in Chultun C-3 began. Finally, survey and surface collection continued along the Ka'Kabish to Lamanai transect and four mounds were excavated in the settlement zone.

### GROUP F ACROPOLIS

Excavations resumed in Operation 5 in the Group F Acropolis in order to find the extent of a low-walled platform first uncovered in 2011. Eleven shallow units were opened in order to trace the extent of the platform. They revealed a low-walled plastered platform that extends at least 15 m in front of Str. FA-6. Although relatively few sherds were found in these units, those that were discovered suggest the structure was used, and, possibly, constructed in the Postclassic. Claude Belanger has suggested that the platform was built from stones stripped from Str. FA-6 in the Postclassic, but this has yet to be confirmed. Future excavations will be needed to confirm the extent, use, and dating of this very large platform. Two additional units penetrated into the Group F Acropolis platform itself and revealed that construction in the area began in the Late Formative (possible platform in Unit 2) with additional construction in the Early Classic (floor in Unit 2) and, possibly, again in the Terminal Classic/Early Postclassic (plaza fill).

Str. FA-8 was extensively looted; however, Claude Belanger noted an area where it appeared the looters' had tried to cover their excavations, perhaps in order to resume them at a later date. It was decided to clear the looters' back dirt and trenches in order to assess the damage to Str. FA-8 and to salvage what architectural and artefactual data remained. The looters cut into three tombs, at least two of which (Tombs 1 and 2) likely date to the Early Classic based on the copious remains of reconstructible

Early Classic vessels in the looters' back dirt. Tombs 1 and 2 were cleared out by the looters, but the ceiling of Tomb 3 was too precarious to examine in 2015, so it is uncertain whether that tomb was also cleared by the looters. The front of the FA-8 structure has some odd architectural features, including a "keyhole-shaped" round structure that is appended to the main structure and is, so far, unique in the Maya lowlands. An altar or capstone was also found incorporated into the building. Although most of the construction appears to date to the Early Classic, Terminal Classic vessels found near the exterior walls of the structure indicate continued use, at least up to that period.



**Figure 1.** Map of Ka'Kabish with approximate locations of 2015 excavations in gray.



## GROUP D

Operation 3 was a unit placed into the Group D Platform at the base of the south side of Str. D-9 in order to search for midden deposits associated with Str. D-9 and nearby Str. D-10 and to enhance our knowledge of the chronology of the Group D platform. The upper levels of the unit were characterized by a dense primary or secondary midden consisting of a high number of large sherds, lithics, obsidian, and faunal remains. The ceramics from these levels date to the Terminal Classic/Early Postclassic. No upper floor was discovered that would support the idea that these levels are the fill of the latest floor of the Group D Platform, so it is likely that they represent midden from Terminal Classic/Early Postclassic occupation in the area. No definitive Late Classic or Early Classic levels were identified. Below the midden fill, a platform with sloping walls of mortared, unfinished stone blocks was discovered in one half of the unit. This platform had a very thick plaster floor on top of it and was encased by large boulders against its exterior wall. The sherds from the platform floor and the boulders stacked against its exterior date to the Late Middle Formative and suggest that the platform dates to the Formative period, but excavations into the platform would be necessary to confirm that.

Operation 15 consisted of excavations on and at the base of Str. D-10. Unit 1 was placed into the Group D plaza platform along the center axis of Str. D-10 in order to determine the chronology of the plaza in relation to Str. D-10. The unit encountered a number of floors and fills. The earliest dates to the Late Formative, although the unit did not hit bedrock before the end of the season. There is also evidence of Early Classic and Terminal Classic/Early Postclassic construction of the plaza platform. As has been the case across Ka'Kabish, there is no evidence of early Late Classic construction.

A number of units were opened on the top of Str. D-10 on its central axis and were cleared down to the latest floor. These horizontal excavations uncovered a room with a north-facing doorway. In the center of the room is a low, narrow wall that may be the remains of a bench or a late dividing wall. All of the sherds from above the latest Str. D-10 floor date to the Terminal Classic/Early Postclassic. The walls of this room are fairly short and narrow and no vault stones were found in the fill, so it is likely this structure supported a perishable roof and upper walls. Two units were excavated into the latest floor of the building and a series of floors were encountered. The upper of these floors may date to the Late Classic. The lower floors date to the Early Classic. At the base of Unit 8, a well-made, north-sloping, cut-stone wall of an earlier building was encountered and excavations were terminated there at the end of the season.

## **CHULTUNS C-2 AND C-3**

The excavations begun in Chultun C-2 in 2014 by Toni Ann Gonzalez were completed in 2015 by Gywnne Carlos. In 2014 Chultun C-2 was found to contain burials with three whole vessels dating to the Early/Middle Postclassic. In 2015 excavations were reopened and the remainder of the human remains were recovered. No new artifacts of significance were found.

Excavations in Chultun C-3 began in 2015 and uncovered the remains of at least four individuals, one of whom was likely buried in a seated position. Numerous and varied objects were placed with these individuals. The objects include a whole vessel, one partially reconstructible vessel, 35.5 clay beads, a cluster of complete obsidian blades that may be part of a bloodletting kit, a pair of copper tweezers, four projectile points, several ground celts, four balls of red pigment, four shell pendants, one copper ring, and two bone ear spools. At least one individual had filed teeth. The objects in this chultun date to the Late Postclassic. This chultun was not completely excavated before the end of the season but will be completed in 2016.

## **THE KA'KABISH TO LAMANAI TRANSECT**

After a year's hiatus, the Ka'Kabish to Lamanai transect survey resumed under Alec McLellan. His ongoing survey for his Masters and now, Ph.D., research has included surface collection of diagnostic artifacts as well as targeted test excavations. This valuable research into hinterland occupation between the two sites has resulted in maps and data that can be used to track changes in land use and population over time. His most recent research has resulted in maps that indicate that the rural areas were lightly populated in the Middle Formative, began to expand in the Late Formative and Early Classic, only to stagnate in the Late Classic. The Terminal Classic/Early Postclassic period witnessed substantial growth and reached an apex of population. After that time, population slowly dwindled into the Colonial period.

### ***Acknowledgements***

*We would like to thank Drs. J. Awe and J. Morris, for their continued support of the project and acknowledge the valuable assistance rendered to us by the staff of the Institute of Archaeology, NICH, and the owners of the site. We would like to acknowledge the generous support of the National Geographic Society Committee for Research and Exploration who helped fund our 2014 investigations into the Group F Acropolis. Earlier work was supported by a research grant from the Social Science and Humanities Research Council of Canada.*

## CHAPTER 2

### CONTINUING EXCAVATIONS IN THE GROUP F ACROPOLIS

*by*

***Cara Grace Tremain***

The 2015 field season at KaʿKabish saw excavations resume in the Group F Acropolis (Operation 5), which were initiated in 2011 (Haines 2012) and continued in 2014 (Sinclair 2015). In 2011 a low-walled platform was uncovered running east-west across Unit 1 (Figure 1). Forest fires in the area caused excavations to cease, and they were not resumed again until 2014. Six subsequent units (3, 4, 5, 6, 7, and 9) (Figure 2) were opened to trace the direction of this walled platform, and it was discovered that the platform continued to run east-west for more than 10 meters. Some units were offset from the previous ones because of tree roots and because of the angle of the platform. Two additional units (2 and 8) were opened in the acropolis during the 2014 season to gain information about construction chronology (see Figure 2) and were reopened in 2015.

Apart from Units 5 and 7, which were 1 m x 2 m and 1.5 m x 2 m respectively, all units in the acropolis measured 2 m x 2 m (the 2014 report incorrectly records Unit 7 as a 2 m x 2 m unit). All units were orientated 20° east of true north (aligning with grid north), but Unit 8 was orientated to 0° so it appears at a slightly different angle in Figure 2. Of the nine units that were opened over the two field seasons, three (Units 2, 8, and 9) were unfinished and were the focus of excavations in 2015.

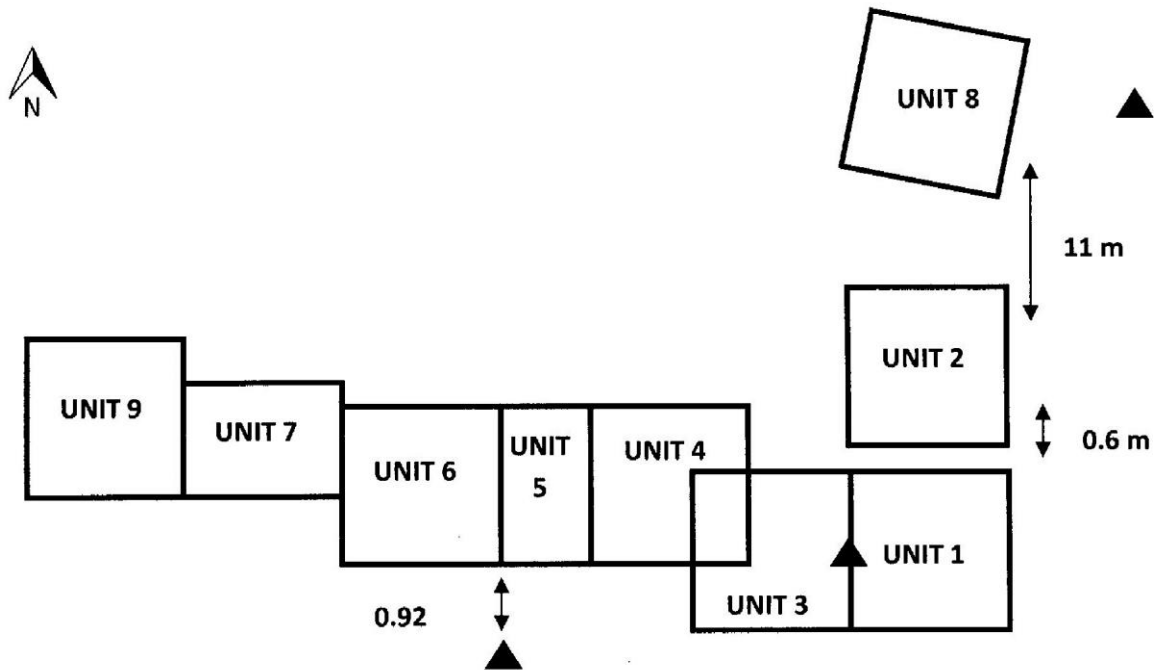
Six students and two workmen were assigned to the three acropolis units in 2015, and were supervised by the author. The goal of excavations in 2015 was to expose bedrock in Units 2 and 8, and ascertain the location of the platform in Unit 9. Backfill was removed from the units on May 18<sup>th</sup> and 19<sup>th</sup>, with assistance from all crew members of the project, and excavations commenced on May 19<sup>th</sup>.

Datum 2014-F2 (see Figure 2), which had been established in 2014, was used as the datum for Units 2 and 9. This datum was 44°, 4.5 m from Unit 2 and 270°, 4.15 m from Unit 9. The elevation of this datum was measured from the string around the datum nail and was calculated as minus 10.6 cm, because it was 10.6 cm lower than Datum 2014-F1. Consequently, elevation formulas calculated by students in Units 2 and 9 began with -0.106 m. Datum 2014-F3 (see Figure 2), also established in 2014, was used as the datum for Unit 8. This datum is located 14.5 m from 2014-F1 at an orientation of 4°. The elevation of this datum was incorrectly calculated at 0 masl in 2014. In 2015 we determined that the correct elevation was 0.135 m higher than 2014-F1. A GPS reading of Datum 2014-F2 was taken by Alec McLellan on Wednesday May 20<sup>th</sup> 2015, but it should be noted that he had difficulty finding satellite signals in the

acropolis and would like to take further readings in the future to confirm this reading. The reading he managed to take was: 1970762.20 m North; 317801.82 m East; 110.11 m msl; +/- 5.9 m 5 SAT.



*Figure 1. View looking east of Units 1–6 at the end of the 2014 field season, showing the east-west orientation of the walled platform.*



*Figure 2. Map of excavation units in the acropolis area at the beginning of the 2015 field season. The datum ( ▲ ) between Units 1 and 3 is Datum 2014-F1, the datum between Units 5 and 6 is 2014-F2; and the datum closest to Unit 8 is 2014-F3.*

## UNIT 2

Excavations began with the opening of a new level (15) on May 19<sup>th</sup>, but work proceeded slowly because of heavy rains and the inability to drain the water from the unit effectively. Consequently, it took much longer to reach bedrock than initially planned. As excavation progressed, it appeared that the northern section of the unit was a different construction than the southern section. This construction was visible in the north, south, and east walls and it is, therefore, possible that it ended prior to the west wall. Future units could be placed to the northwest or southwest to catch the face of this construction. The matrix of the different levels included plaster, soil, and pebbles with a possible plaster floor (Level 16) and platform (Level 18). Bedrock was finally uncovered on June 7<sup>th</sup> in Level 19, at which point excavations ceased and the unit was closed.

## UNIT 8

Excavations began with the continuation of Level 4, which was unfinished in 2014, on May 19<sup>th</sup>. During excavation, it became clear that there were noticeable differences between the eastern and western

sections of the unit. As excavation progressed a vibrant yellow-coloured plaster emerged in the western section of the unit (Figure 3). This plaster soon emerged across the entire unit, and there were no clear signs of a change in matrix. It appeared to match the very thick plaster level previously uncovered in Unit 2 Level 2 in 2014. The decision was taken to close the unit because it was unlikely to show any appreciable differences in construction from Unit 2. Excavations ceased on May 28<sup>th</sup> at Level 7 and all four walls of the unit were mapped in order to record the thick layer of plaster (Figure 4).



***Figures 3 and 4. Initial exposure of the plaster in the western section of Unit 8 (left) soon turned into a very thick plaster layer that occurred across the entire unit (right).***

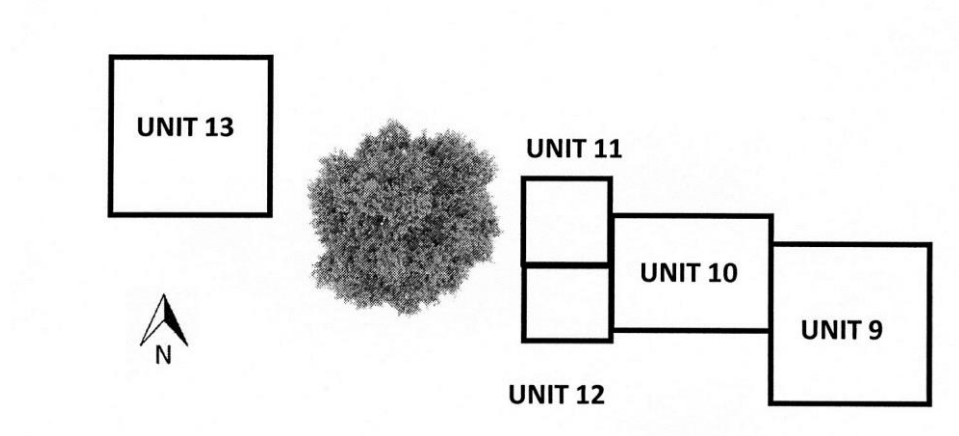
## UNIT 9

Excavations began with the continuation of Level 2, which was unfinished in 2014, on May 19<sup>th</sup>. The plaster surface was relocated (Figure 5), and excavations continued to the north of this surface. The purpose of this unit was to ascertain the location of the walled platform that had been exposed in Units 1–7. Helen Haines hypothesized that the platform may change direction in Unit 9, either to the north or south, and, therefore, the location of the subsequent unit (10) depended on the direction of the platform. The excavation of Level 2 followed the description and measurements of Level 2 from the 2014 excavations, in the aim of achieving consistency across all units that exposed the walled platform. Excavations ceased in the unit on May 22<sup>nd</sup> and a new unit (10) was set up to the west of Unit 9 (Figure 6).





*Figure 5. Helen Haines standing in the north section of Unit 9 in 2014. The plaster surface is clearly visible in the southern section.*

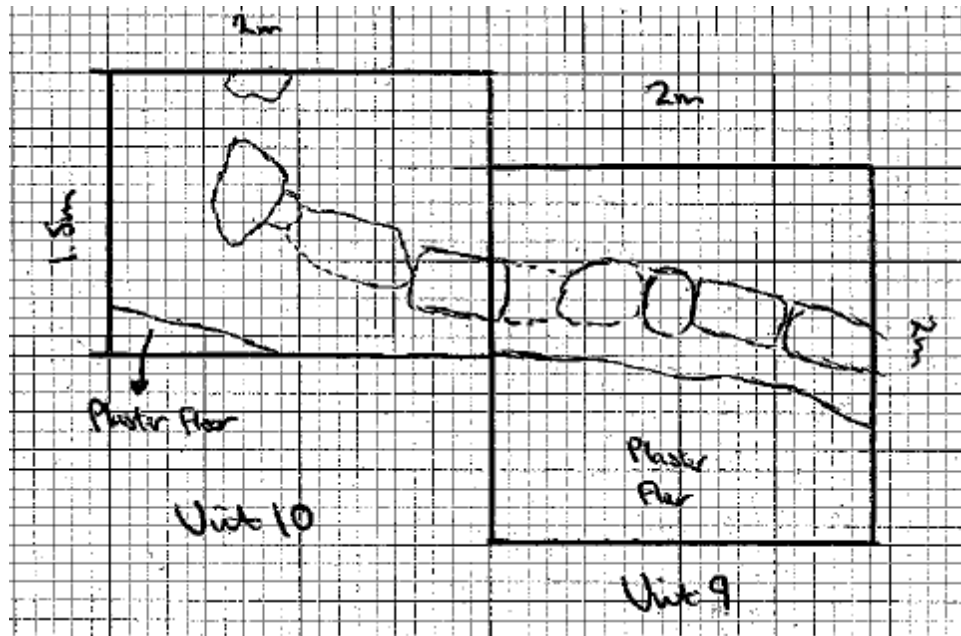


*Figure 6. Map of walled platform excavation units in the acropolis in 2015.*

## UNIT 10

This unit was opened on May 22<sup>nd</sup> 2015. This was a 2 m x 1.5 m unit set up to the west of Unit 9 (see Figure 6) to continue tracing the direction of the walled platform. It was offset from the previous unit

and placed 1 m north of the southern wall of Unit 9. The unit demonstrated that the walled platform continued to run in an east-west direction, and remnants of the plaster surface discovered in Unit 9 were uncovered in the southwest corner of the unit (Figure 7). Excavations ceased in the unit on May 28<sup>th</sup>.



*Figure 7. Sketch from author's 2015 field notebook of the walled platform running through Units 9 and 10 (looking north). The plaster surfaces are indicated in the southern half of Unit 9 and the southwest corner of Unit 10.*

## UNIT 11

This unit was opened on May 28<sup>th</sup> as a 1 m x 1 m unit to the west of Unit 10 (see Figure 6). It was placed 1 m north of the southern wall of Unit 10. A potential platform stone was uncovered but it was extremely deteriorated. The decision was thus made to try and trace the plaster surface uncovered in Units 9 and 10, so the unit was extended south by opening a new unit (12). Excavation in Unit 11 ceased on June 1<sup>st</sup>.

## UNIT 12

This unit was opened on June 1<sup>st</sup> 2015 as a southern extension of Unit 11 (see Figure 6), in order to trace the plaster surface found in Units 9 and 10. Due to calculation errors, the unit measured 1 m east-west and 0.75 m north-south. Nevertheless, further exposure of the plaster surface was achieved (Figure



8), which appeared to show no change in direction of the walled platform (because no wall stones were found in this section of the unit). Consequently, a subsequent unit (13) was opened after excavation ceased in Unit 12 on June 2<sup>nd</sup>.



*Figure 8. Plaster surface in Unit 12. The black dashed line roughly divides Units 11 and 12.*

## UNIT 13

This 2 m x 2 m unit was opened on June 3<sup>rd</sup> 2015. It was placed on the same east-west axis along which the walled platform in Units 1–12 ran, but because of a large tree, it could not be placed adjacent to Units 11 and 12 (see Figure 6). Remnants of the walled platform were uncovered in the southern section of the unit, demonstrating that the wall continued in the same east-west direction from Unit 1 to Unit 13. Therefore, this unit did not reveal a change in direction of the walled platform (as hoped), and demonstrated that the platform ran in an east-west direction across the acropolis for more than 15 meters.

## CONCLUSION

The 2015 excavations in the Group F Acropolis have increased our knowledge of the construction in this area of the site—namely that it appears to be consistent across the area that includes Units 2 and 8. The large amount of plaster material indicates a high amount of labour, time, and materials invested into construction in this area. The extremely long-walled platform mirrors the labour and material costs invested in this area of the site. Materials from this platform suggest a Postclassic construction date. Claude Belanger (personal communication, 2015) suggested that the inhabitants of Ka’Kabish may have stripped the facing stone blocks from Str. FA-6 to use for the construction of the platform wall. Further excavations are needed in the acropolis to determine the dimensions of the platform wall.

## *Acknowledgements*

*Thank you to all the students that participated in the 2015 field school and worked very hard to ensure successful excavations in the acropolis area. Thanks also to our local workers for helping our students and sharing your knowledge (and local Belizean treats!) with them. As always, our Indian Church friends took very good care of us during our stay—you always make Belize feel like home.*

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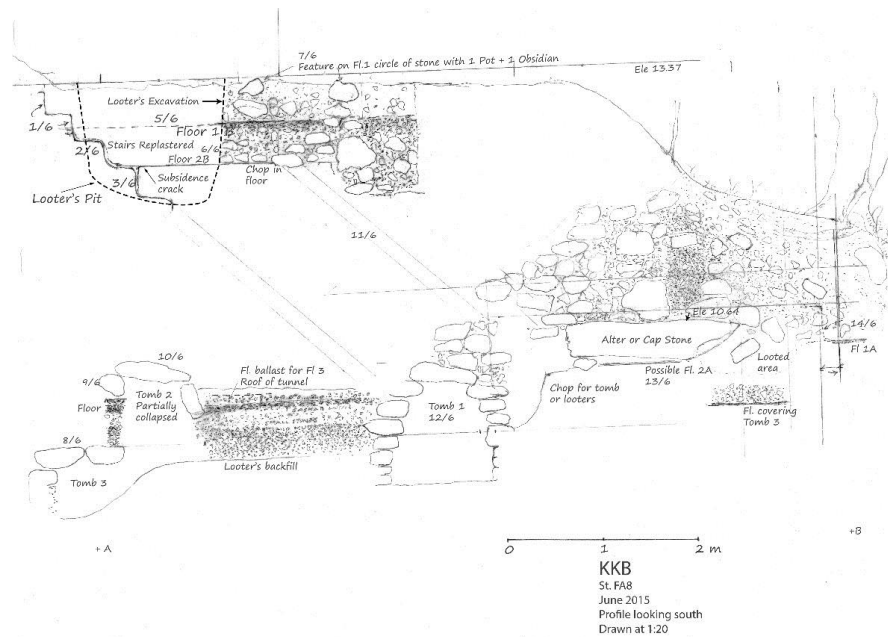
## CHAPTER 3

### ROUND PEG IN A SQUARE HOLE: INVESTIGATIONS AT STRUCTURE FA-8

by

***Helen R. Haines, Claude Belanger, and Kerry L. Sagebiel***

Located in Group F at Ka'Kabish (see Chapter 1, Figure 1), Structure FA-8 was one of the original 27 structures identified by the Maya Research Program (MRP) in 1995 (Guderjan 1996: 119, Figure 35). In 2015, while surveying the site for disturbances, Claude Belanger noticed “odd fill” in a hole excavated into the front of Str. FA-8. Upon removal of the fill, it became clear that looters had penetrated deep into the building and had attempted to disguise their activities. The trench exposed the surface of large altar or capstone before encountering three burials (Figure 1). It is unclear if the third burial (Tomb 3) was actually looted, as the capstones were cracked and falling, posing a severe danger; and a second excavation pit was discovered in the upper surface immediately above Tombs 2 and 3. This latter excavation raised the suspicion that the looters had not been able to clear the inner burial and prompted the 2015 investigations, which were designated Operation 16.



***Figure 1. Profile of Str. FA-8 looking south***

## INVESTIGATIONS

Investigations at Str. FA-8 were directed by Claude Belanger and carried out almost exclusively by a team of workmen from Indian Church Village. The work focused on three areas, all on the frontal addition. These areas were as follows: 1) the looters' trench and tombs (Unit 1); 2) the top of the addition (Unit 2); and 3) the north façade (Unit 3). Material collected from the area of general disturbance and looters' back dirt from the front of the structure (Lot KKB 873) revealed a wide range of ceramic types dating from the Early Middle Formative to the Terminal Classic/Early Postclassic period (Table 1). These also included 19 discrete vessels (Table 2) all dated to the Early Classic and most probably from the looted tombs.

### *Looters' Trench and Tombs (Unit 1)*

Work was undertaken to clear the looters' trench of back dirt; this area was designated Unit 1. The purpose of this endeavour was three-fold; 1) to discover potentially missed objects; 2) to be able to accurately map the features and trench damage; and, 3) to attempt to gain access to Tomb 3. The work was successful in only the first two of these goals; we were unsuccessful in gaining safe access to clear Tomb 3.

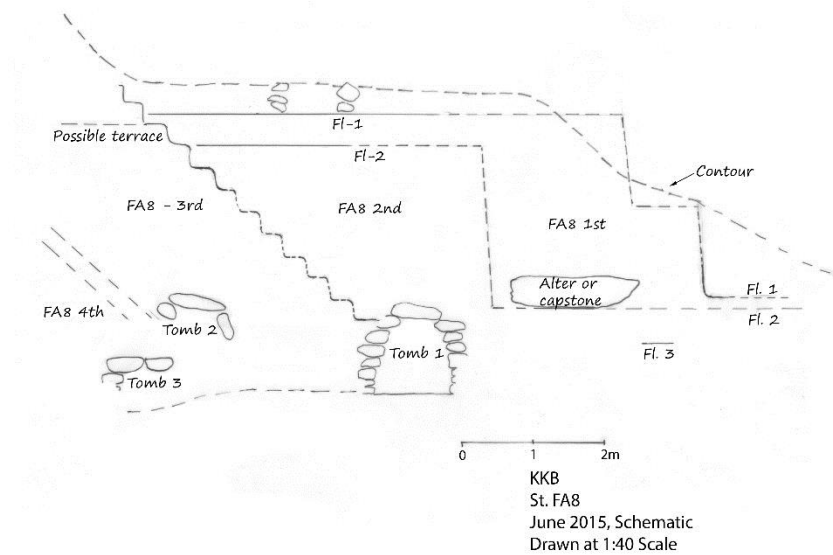
In clearing the backfill from the front of the structure and from within Tomb 1 and the looters' trench between Tomb 1 and Tomb 2, several interesting features and artefacts were recovered. A particularly notable artefact was a large, Early Classic plate that had been broken into several large pieces. The number of pieces found, evidence of fresh breaks, and general reconstructible nature of the vessel suggests that it may have been found nearly intact and the looters attempted to refit the pieces before abandoning it as unsalvageable.

The first interesting feature was the presence of a large circular altar stone or capstone. The stone was cracked and the northwest quarter of it was removed. The missing pieces were found in the back dirt in front of the building, and it is surmised the looters attempted to remove the stone before realising the futility of that course of action and opted to proceed along its surface. Once past the altar stone, the trench angles downward, where it intersects and penetrates the west wall of the first burial chamber (Tomb FA-8/1), before continuing through the east wall of the tomb to pass through the second burial chamber (Tomb FA-8/2) and stopping at the third chamber (Tomb FA-8/3).

### **Tomb FA-8/1**

This relatively small chamber, 3.13 m long, by 0.96 m high, and ranging from 1.16 to 1.27 m in height, was scarcely larger than an individual and would therefore best fit Welsh's definition of a crypt (1988) or a "small tomb" by Loten and Pendergast's terminology (1984). The chamber was constructed

with rounded corners and a crude corbelled vault. Although vaulting is normally associated with formal tombs, it has been noted in other small crypt-sized burial chambers at Ka'Kabish and Blue Creek (Guderjan 2007), suggesting that these features can best be described as a “corbel-vaulted crypt”. The chamber appears to have been constructed so that it penetrated the front staircase of Structure FA-8-3<sup>rd</sup> and was subsequently buried, likely part of the same construction episode by FA-8-2<sup>nd</sup> (Figure 2).



**Figure 2. Schematic drawing of architectural sequence for Str. FA-8**

When encountered, the chamber was filled partway with soil, likely back dirt from the next segment of the tunnel. The area was cleared to its original surface to determine dimensions and to look for any remaining artefacts. In the southern half of the chamber, there were large sections of two broken plates arranged in a lip-to-lip configuration (KKB 873 Vessels 2 and 3; Table 2). Inside these plate fragments was small collection of human bone fragments. It is speculated that both the plate pieces and the human remains came from either Tomb FA-8/2 or Tomb FA-8/3 and were left behind by the looters as they were of no value. The only other object of note was a piece of dense stucco that had been incorporated into the cobble stone wall of the chamber (Figure 3).



*Figure 3. Stucco reused as construction material for Tomb FA-8/1*

### **Tomb FA-8/2**

The second burial chamber encountered by the looters was a more standardised “crypt” form (i.e., flat stone sides and roof), similar to the constructions reported at Altun Ha (Pendergast 1990). It appears to have been constructed either abutting or intruding into the staircase of Structure FA-8-4<sup>th</sup>. It was covered by Structure FA-8-3<sup>rd</sup>. The tomb was partially collapsed, although it is unclear if this is the result of the looters’ activity or a natural event.

### **Tomb FA-8/3**

What could be seen of the third tomb indicated that it was similar in construction to Tomb FA-8/2. It is unclear if this tomb was actually cleared by the looters as the area was extremely low and the roof slabs were cracked and precariously angled (Figure 4).



***Figure 4. Interior of Tomb FA-8/3 showing cracking ceiling***

#### **Tunnel between Tomb FA-8/1 and FA-8/2**

The fill between the burial chambers consisted of alternating layers of dark black and soft brown soil. These deposits were likely a combination of the dirt from the tombs and the surrounding construction matrix. From this fill we recovered two jade beads, an obsidian disk, and two odd triangular beads of hard stone or shell. The first bead was a small, flattened, spherical bead, apple green in colour and measuring 14.3 mm x 21.7–19.7 mm. The second bead also was spherical, but was slightly smaller, measuring 10.8 mm x 9.8–11.7 mm and was a pale green colour. The obsidian disk was particularly interesting. It is roughly circular and measuring 15.7–16.1 mm x 3.2 mm thick with angled edges. The overall size and configuration of the piece suggests that it was used as an inlay, possibly as part of a large wooden or lapidary mask.

#### **Surface of Structure FA-8-1<sup>st</sup> (Unit 2)**

The surface area of the addition was found to have been disturbed by looters who placed a large pit at the juncture of the original pyramid substructure and the frontal modifications. Initial excavations were laid so as to clear the pit of debris and identify any associated floors that might have been penetrated by the intrusion. From within this area, an irregular jade bead was recovered (KKB 875-1). The bead was burned and exhibited crazing and cracks associated with extreme heat exposure, quite likely from a forest fire. The unit was then extended north and east to determine how the frontal modification joined the main structure.

The initial excavations revealed that the looters had penetrated two floors and exposed three steps of the FA-8-3<sup>rd</sup> structure. The looters had apparently stopped excavations when they encountered the third step, which formed an extremely dense and impenetrable barrier. After clearing the pit, the unit was extended eastward to form a roughly 2 m wide unit east-west in order to examine the nature of the penetrated floors.

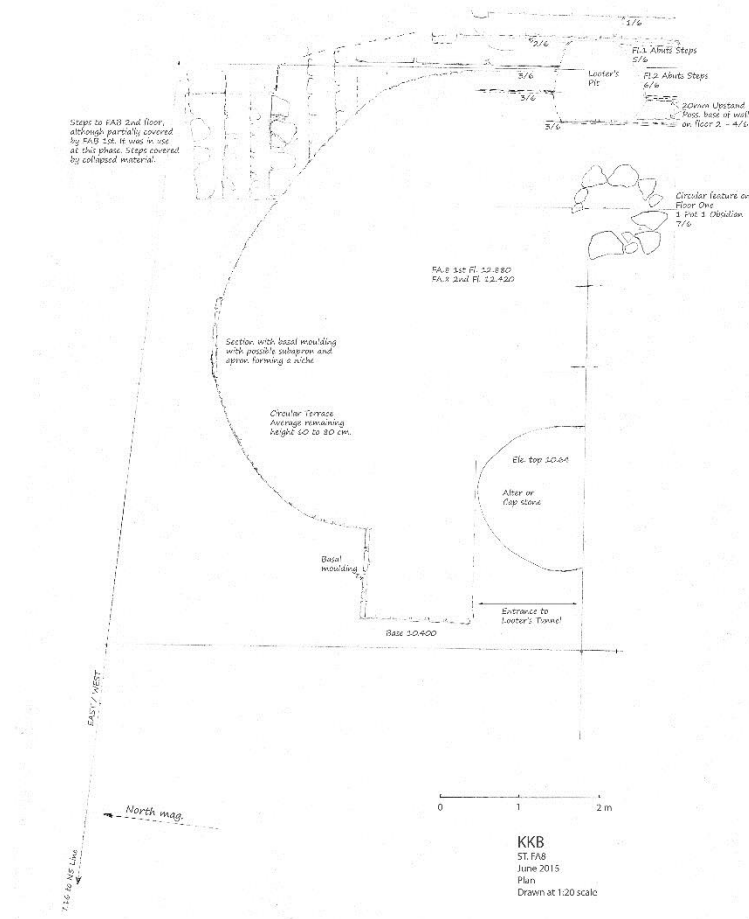
A circular stone feature was found on the surface of Floor 1 (Figure 1). This feature contained fragments of a vessel (possibly a lidded god pot) and a single obsidian blade. Floor 2 was found to have started at the top of a stair tread where a subsidence crack was apparent. In the area roughly below the feature on Floor 1, the floor appeared to have been damaged for reasons that are currently unclear. Excavations down into the core of this area were halted at this point, although clearing continued northward to connect with Unit 3. The results of this work will be discussed as part of the next section.

#### **North Façade of Structure FA-8-1<sup>st</sup> (Unit 3)**

As part of the initial clearing of the mouth of the looters' trench, the front of the structure was also cleared. Upon discovering an identifiable plaza surface, the clearing operation was expanded northwards to expose more of the façade with the aim of delineating the dimensions of the structure. This work revealed that contrary to initial assumptions, as indicated on both the original MRP map and the later KARP map, the platform extension was not square but rounded (Figure 5). The form most clearly aligns with "keyhole-shaped" round structures identified at Lamanai (Pendergast 1986:11, Figure 3) and elsewhere in the Maya area (Aimers et al. 2000; Awe 1992:131, 140; Glass 1965:52; Hendon 1999, 2000).

What makes FA-8-1<sup>st</sup> unique is that in other examples of keyhole-shaped round buildings the structures are manifested as discrete platforms and not appended onto another structure. Moreover, the square portion of other keyhole-shaped round structure forms front steps that lead to the platform, whereas in the case of FA-8-1<sup>st</sup> the stairs are actually on the side, at the northeast (and probably southeast) junction of the front platform and earlier pyramidal substructure. A section of the north façade was decorated with a basal moulding and a possible sub-apron and apron. The combination of these elements formed a niche-like construction.





**Figure 5. Plan map of Str. FA-8 front platform**

## DISCUSSION

Contrary to expectations, the front platform addition to Str. FA-8 was far from a typical stairway extension or platform modification. The keyhole-shaped nature of the platform and its attachment to a larger, and earlier, pyramid substructure appears to be previously undocumented in the literature of Maya architecture. It should be noted that the platform is not exactly round, and measures approximately 8 m in diameter north-south by 6 m east-west with an extra 1 m on the west side for the base of the “keyhole”. In its final form the platform is estimated to have been 2.5 m in height.

Based on the material recovered, it is speculated that Tombs FA-8/2 and FA-8/3 likely date to the Early Classic period, although it is possible that Tomb FA-8/3 may date to the Late Formative period. The date for the construction of Tomb FA-8/1 is unclear, although ceramic material collected from between Floors 1 and 2 on the top of the platform include a mix of Late Formative and Early Classic sherds. Material recovered from the collapse in the northwest corner included Late Classic/Terminal Classic

Achote Black and Cubeta Incised ceramics. The Achote Black was a partial vessel. However, material from the plaza level at the northwest corner yielded a mix of Late Formative Sierra Red, Early Classic Balanza Black, and Late Classic/Terminal Classic Achote Black, Cubeta Incised, and Terminal Classic/Early Postclassic orange-slipped sherds.

This ceramic evidence suggests that the final construction episode may have been in the Early Classic period, but the building also was used or visited in the Late Classic/Terminal Classic and possibly into the Early Postclassic. This pattern of construction and use follows similar patterns noted elsewhere at Ka'Kabish; an occupation up to the end of the Early Classic period followed by a hiatus through the early Late Classic period and resumption of activities in the Late Classic/Terminal Classic period (Haines and Sagebiel 2015, n.d.; Lockett-Harris 2015; Sagebiel and Haines 2015; Tremain 2015).

## **SUMMARY**

Excavations at Str. FA-8 have yielded a highly unique and puzzling architectural design. Although round structures have been well documented in Mesoamerica and were used from the Formative period to the Postclassic (Aimers et al. 2000; Hendon 1999, 2000; Pendergast 1986; Pollock 1936), the configuration at Ka'Kabish (round platform appended as a frontal addition to a pyramid substructure) appears to be previously undocumented. As with elsewhere at Ka'Kabish, use of the building appears to have languished in the early part of the Late Classic period, with activity, but not construction, resuming towards the end of the Classic period. However, it should be noted that these dates come largely from disturbed contexts and looters' debris. Further investigations of Str. FA-8 are warranted to fully ascertain the construction chronology as well as to expound upon the architectural configuration of the frontal platform and pyramidal substructure.

LOT #	DATE	TYPE/VARIETY
873	Early Middle Formative Period	Consejo Red
873		Joventud Red
873	Late Formative	Sierra Red
873		Society Hall Red
873	Late Formative/ Early Classic	Puletan Red-and-unslipped
873	Early Classic	Aguila Group
873		Balanza Black
873		Boleto Black-on-orange
873		Dos Arroyos Orange-polychrome
873		San Blas Red-on-orange
873		Yaloche Cream-polychrome
873	Late Classic	Lamanai polychrome
873	Late Classic/ Terminal Classic	Lemonal Cream
873	Terminal Classic	Cubeta Incised
873		Daylight Orange: Darknight
873		Dumbcane Striated
873		Torro Gouged-incised
873	Terminal Classic/ Early Postclassic	Lamanai orange
873		Red Neck Mother

*Table 1. Ceramic types from general looters' back dirt*

LOT #	COMMENTS	TYPE/VARIETY	DATE	VESSEL PART	VESSEL FORM
873	Vessel #1, flanged plate, very large	Aguila Orange	Early Classic	Whole vessel	Plate
873	Vessel #2, flanged plate, large	Aguila Orange	Early Classic	Partial vessel	Plate
873	Vessel #3, thick, tall cylinder	Aguila Orange	Early Classic	Whole vessel	Crater
873	Vessel #4, interior break plate	Aguila Orange	Early Classic	Partial vessel	Plate
873	Vessel #5, small ridged plate	Aguila Orange	Early Classic	Partial vessel	Plate
873	Vessel #6, deep cache-like bowl	San Blas Red-on-orange	Early Classic	Partial vessel	Bowl
873	Vessel #7, deep, cache-like bowl	San Blas Red-on-orange	Early Classic	Partial vessel	Bowl
873	Vessel #8, reddish orange	Aguila Orange	Early Classic	Partial vessel	Bowl
873	Vessel #9, flanged plate	Dos Arroyos Orange-polychrome	Early Classic	Partial vessel	Bowl
873	Vessel #10, flanged plate	Early Classic cream	Early Classic	Partial vessel	Plate
873	Vessel #11	Aguila Group	Early Classic	Rim	Plate
873	Vessel #12, tripod cylinder	Balanza Black	Early Classic	Partial vessel	Vase
873	Vessel #13, tripod cylinder	Balanza Black	Early Classic	Partial vessel	Vase
873	Vessel #14, tripod cylinder	Balanza Black	Early Classic	Partial vessel	Vase
873	Vessel #15	Balanza Black	Early Classic	Partial vessel	Vase
873	Vessel #16, large cream pitcher with spout	Balanza Black	Early Classic	Partial vessel	Pitcher
873	Vessel #17, small plate with a ring base	Balanza Group	Early Classic	Partial vessel	Plate
873	Vessel #18, shallow, plate-like lid	Balanza Black	Early Classic	Partial vessel	Lid
873	Vessel #19, small round bowl	Early Classic red	Early Classic	Partial vessel	Bowl

*Table 2. Identifiable discrete vessels from looters' back dirt*

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## CHAPTER 4

### EXCAVATIONS INTO THE GROUP D PLATFORM (OPERATION 3)

*by*

***Kerry L. Sagebiel***

Operation 3 Unit 1 was a 2 x 2 m unit placed in the southeast corner of the Group D platform, 16 m northeast of Str. D-10 and at the base of the south side of Str. D-9. The purpose of the unit was to find midden associated with the two buildings and to get further chronological information about the south end of the Group D platform. Excavations were carried out with hand trowels and rock hammers and all matrix was sifted through ¼-inch mesh screen. All artifacts were bagged and tagged by material class. All faunal bone, obsidian, and ground stone was collected. Diagnostic lithics and ceramic sherds were collected along with any that were the size of U.S. quarter or larger.

#### **Unit 1, Level 1**

Level 1 consisted of humus and rock fall from Str. D-9. Rock fall was particularly evident in the northern part of the unit closest to Str. D-9. Artifacts consisted of small sherds, a few lithics and pieces of obsidian, and freshwater shell. The ceramics date to the Terminal Classic/Early Postclassic, including a possible censer fragment.

#### **Unit 1, Level 2**

Level 2 continued through light brown soil and rock fall from Str. D-9. This matrix consisted of a high number of large sherds as well as lithics, obsidian, faunal bone, and freshwater shell. A notable find was a small possible *Olivella* species bead cut and incised around the narrow end and with three drilled holes for suspension. Notable sherds include a Terminal Classic red gouged-incised body sherd and a possible chili grinder. In general, the sherds date to the Terminal Classic/Early Postclassic.

#### **Unit 1, Level 3**

Level 3 consisted of a layer of rock, again, possibly continued rock fall from Str. D-9. The rocks were more common on the north side of the unit closer to Str. D-9. Similar to Level 2, the matrix contained a high number of large sherds, as well as lithics, obsidian, faunal bone, and freshwater shell. A possible alignment of stones began to appear in the northeast corner of the unit. The alignment included

the broken half of a large spherical piece of ground limestone that, unfortunately, was tossed into the back dirt before being properly examined (Figure 1). Notable sherds include several figurine fragments and miniature vessel fragments. Sherds from this level also date to the Terminal Classic/Early Postclassic and are quite similar to those found in Level 2.



*Figure 1. Unit 1, Level 3 looking east and showing possible rock alignment and spherical stone.*

## **Unit 1, Level 4**

Level 4 was similar to Levels 2 and 3, consisting of some rock and a very large number of sherds as well as lithics, obsidian, and faunal bone. The possible alignment in the northeast part of the trench did not continue into Level 4. Level 4 was closed at an arbitrary point in order to preserve any chronological differences in the undifferentiated matrix. Ceramics continued to date to the Terminal Classic/Early Postclassic with seeming continuity between Levels 2, 3, and 4, including more Terminal Classic red gouged-incised sherds and possible censer fragments.

## **Unit 1, Level 5**

Level 5 continued to be very much like the previous levels. Although several large rocks had to be removed, most of the matrix continued to contain a high number of large sherds, lithics, obsidian, and faunal bone. The presence of miniatures and censer fragments similar to those in previous levels suggests continuity with those levels. The majority of the ceramics in this level are also Terminal Classic/Early



Postclassic. Level 5 was closed at an arbitrary point in order to preserve any chronological differences in the undifferentiated matrix.

## **Unit 1, Level 6**

In Level 6, the density of artifacts declined, although sherds, lithics, obsidian, and faunal bone were recovered. The ceramics from the level also date to the Terminal Classic/Early Postclassic. Level 6 was terminated when the soil became lighter in color and a plaster floor appeared in the northwest corner of the unit.

## **Unit 1, Level 7**

In Level 7, a rock wall began to appear near the center of the unit delimiting the plaster floor. The number of artifacts in this level was significantly less than the previous levels; however, sherds, lithics, obsidian, and faunal bone were collected. A fairly large number of freshwater *Pomacea* shells were also recovered. Although a few possible Classic period sherds were discovered, the ceramics date to the Late Middle Formative period with a fair number of Early Middle Formative sherds mixed in.

## **Unit 1, Level 8**

Level 8 continued uncovering the wall in the center of the unit and began going through the plaster floor. The density of artifacts was similar to that of Level 7, including sherds, lithics, and faunal bone as well as a number of *Pomacea* shells. The ceramics from this level date to the Late Middle Formative.

## **Unit 1, Level 9**

Level 9 continued defining the wall of what appeared to be a platform. The artifacts included sherds, lithics, faunal bone, and *Pomacea* shells. A notable find was a marine shell pendant. The ceramics date to the Late Middle Formative.

## **Unit 1, Level 10**

Level 10 was confined to the east side of the unit and consisted of removing large rocks that were on the outside of the platform wall. This level revealed that the wall slopes downward to the east and that it is constructed of limestone rocks of various sizes that are apparently mortared together with plaster (Figure 2). The wall of the platform is curved suggesting that this was a round platform. The number of

artifacts found decreased steadily through this nearly 1 m deep level. Artifacts recovered included sherds, lithics, and faunal bone. The sherds dated to the Late Middle Formative. Level 10 was terminated at the end of the field season before it reached bedrock.



*Figure 2. Unit 1, Level 10 looking west showing Formative period platform*

## Discussion and Conclusions

Levels 1 through 6 are likely all part of the same event given the similarity in the matrix and artifacts, particularly shared ceramic types and forms. These levels may represent secondary midden fill used to build the latest incarnation of the Group D platform during the Terminal Classic/Early Postclassic. However, no final platform floor was discovered, so it is possible that this is a primary midden that was covered by wall fall from Str. D-9 after the abandonment of Ka'Kabish. Level 7 likely represents the mixing of the top of the buried platform with the remainder of the later midden/fill event as it contains mostly Late Middle Formative ceramics with a few Classic period sherds. Levels 8 and 9 represent the floor of the platform and ceramics date to the Late Middle Formative. Notably, obsidian was only found in the Terminal Classic/Early Postclassic levels and *Pomacea* shells were only found in the Late Middle Formative levels. Level 10 consisted of mostly large rocks, possibly serving as fill, outside of the platform. The ceramics in Level 10 also date to the Late Middle Formative. It should be noted that,

although Levels 7 through 10 date to the Late Middle Formative, they all contained a fairly high number of Early Middle Formative sherds suggesting that the initial construction of the platform could be in the Early Middle Formative or that there was significant Early Middle Formative occupation nearby. Excavation of the platform itself and excavating the levels below Level 10 down to bedrock would be necessary to answer these questions.

## CHAPTER 5

### INITIAL EXCAVATIONS OF STRUCTURE D-10 AT KA'KABISH

*by*

***John W. Baker***

The purpose of the 2015 field season excavations in Operation 15 was to examine the Str. D-10 range building found at the southern-most extent of the Group D platform. Range structures are long, narrow platforms that have a row of multiple, single-story rooms on top of them forming a superstructure (Webster 1978:376). These range structures are ubiquitous across other Maya sites, including nearby La Milpa, Lamanai, and Blue Creek (Guderjan 2004; Tourtellot et al. 1993). The goals of the 2015 excavations were to examine the chronology of the construction of Str. D-10, identify the function of the building, and place Str. D-10 in the larger socio-political context of the site and region.

The 2015 field season excavations were the first performed on the building. Unit 1 (called the plaza unit in this report) was established at the base of the north face of Str. D-10 at its center in order to establish a chronology of the platform on which Str. D-10 was built. Units 2–6 and 10 (called the horizontal excavations) were established to uncover the layout of the room or rooms in Str. D-10. Units 7, 8, and 9 (called the vertical units) were established on top of Str. D-10 in order to establish a chronology for the construction phases of the building.

Unit 1 uncovered three likely plaster floors. Units 2–6 and 10 uncovered the north wall of the building, what is likely the south wall of the building, and a central doorway facing north. The excavations also uncovered the plaster floor that is likely the final floor of that part of Str. D-10. Unit 7 uncovered evidence of what may be several repair events of the plaster floor. Unit 8 uncovered similar repairs in addition to what is likely the north face of a previous phase of the Str. D-10 building. Descriptions of these units and their findings are discussed below.

#### THE PLAZA UNIT

Operation 15, Unit 1 was established in the plaza at base of Str. D-10 on its north side. It was a 2 x 2 m unit running parallel to Str. D-10. It was placed at the center of the building as measured from the estimated corners of the structure. The purpose of this unit was to establish the chronology of the platform in relation to Str. D-10. It was intended for the excavations to proceed to bedrock. However, excavation of this unit began in May of 2015 and ended in June of that year without reaching bedrock. It is intended that this unit will be reopened in a subsequent field season.

## **Methods**

A 2 x 2 m area was cleared for this unit by measuring the halfway point between the two sides of Str. D-10 then measuring a meter to each side of that center point along the face of the building. This became the south wall of the unit.

Excavations were carried out using hand trowels, hand picks, and rock hammers to remove the fill. The stratigraphy of the unit was separated based on cultural levels and events (based on changes in the matrix representing different construction periods), with the exception of the natural humus layer.

Screening was performed using a ¼-inch mesh screen. A full collection strategy was used for all artifact types. This was done to increase the sample size in order to collect more data for interpreting Terminal Classic to Postclassic occupation. After closing Level 4 of Unit 1, the collection strategy was changed to full collection of fauna, lithics, and obsidian, but restricted to only diagnostic sherds and sherds larger than a U.S. quarter. This change occurred because excavations had progressed past the Terminal Classic phase of occupation and the full collection strategy was no longer required.

Elevations were taken using a theodolite or an optical level when the theodolite was not available. No plan maps were made because no subsequent features were uncovered. The south and east walls were profiled at the end of excavations.

## **Operation 15, Unit 1**

Sherds, faunal bone, lithics, and some obsidian artifacts were recovered from this unit. Three possible plaster floors were found in Unit 1, the first of which was found at the base of Level 3. This particular floor was highly eroded but was visible in the profile of the unit. Roots growing from a tree to the south and west of the unit likely contributed to the poor preservation. The plaster floors were also better preserved in the south end of the unit, if only marginally so. This may be due to more building fall and soil between the floors and the elements. The second floor was found in Level 5 and the third floor was found in Level 8. Excavations were closed in Level 9 at the end of the season before hitting bedrock.

## **THE HORIZONTAL EXCAVATIONS**

The horizontal excavations were made up of Units 2–6 and 10. These units were placed at the top of Str. D-10 and oriented parallel to the structure. The purpose of these units was to clear the inside of the rooms in order to provide a plan of them. The dimensions of these units varied as needed. The horizontal excavations began in May and ended in June, due to limited time, the top of Str. D-10 was not excavated in its entirety. These horizontal excavations are expected to be reopened in following field seasons.

## **Methods**

The units were laid out using measuring tapes and line levels. Unit 2 was placed at the back of Str. D-10 directly south of Unit 1, in the center of the building. The rest of the horizontal excavation units were placed in relation to Unit 2, depending on what was found in it and the purpose of the new unit.

Excavations were carried out with hand trowels, hand picks, and rock hammers. The stratigraphy of the unit was separated into levels based on cultural events and changes in the matrix. As before, a ¼-inch mesh screen was used to screen the excavated fill, with the exception of Unit 10, which will be detailed below. A full collection strategy was used for all artifacts because of the need to find material to date the building and Terminal Classic and Postclassic occupations. The fill of Unit 10 was not screened; instead, all artifacts visually identified during the excavation process were collected. This was done to speed up the excavation in order to find the south wall of the building prior to the end of the field season.

Elevations of the horizontal excavation units were taken using strings and plumb bobs, the theodolite, and the dumpy, depending on which was available at the time that elevations were taken. Plan maps were made for Unit 2, Unit 3, and for the general layout of the horizontal excavations. Profile maps were made of the walls in Unit 5, Unit 6, and Unit 10. These will be detailed further below.

## **Operation 15, Unit 2**

Unit 2 was laid out as a 2 x 2 m unit with the purpose of uncovering the south wall of the building. For the most part, the horizontal excavation units were divided into two levels: Level 1 was the humus level and Level 2 was the light coloured matrix that was mixed with rock fall that continued down to the plaster floor that was found in varying states of preservation across all units. The exception to this was Unit 2 because an east-west oriented rock alignment was uncovered in the north end of the unit. The level was changed in order to provide context for any artifacts that may have been left on the floor at abandonment.

The rock alignment enters the east wall of Unit 2 1.10 m north of the south wall and is roughly 0.35 m wide. The alignment is roughly 0.25 m in height above the plaster floor. This alignment continues to near the west wall but ends approximately 0.70 m from the west wall. The rock alignment is poorly constructed. This alignment could be evidence of a possible bench in this room. In the east wall of Unit 2, large cut stones can be seen in the profile close to the ground. At this point, the southern extent of these stones could not be determined.

### **Operation 15, Unit 3**

Unit 3 was placed north of Unit 2 and was intended to find the north wall of Str. D-10. The unit was 2 m east-west and 1.5 m north-south. At the bottom of Level 2 the same plaster floor was encountered as in Unit 2. In the northeast corner, the edge of a door way was uncovered along with a small portion of the wall (Figure 1). This wall is made from cut stones. Unfortunately, due to heavy rains, a few stones from this wall collapsed before it could be profiled. After clearing around the wall, the top of the wall was left unexcavated. This unit was extended 0.20 m north in order to uncover the outside face of the north wall.



***Figure 1. Unit 3: eastern door jamb, southwest corner.***

### **Operation 15, Unit 4**

The purpose of this unit was to find the western edge of the doorway first discovered in Unit 3. This unit was approximately 2 m north-south, approximately 1 m east-west, and was placed west of the west wall of Unit 3. In the west end of the unit, the western edge of the door way was uncovered (Figure 2). When it was uncovered, all fill that remained on top of the wall was left unexcavated. This side of the door way was more poorly preserved due to the presence of a few large roots (~5 cm in size) that came from a tree growing on the building to the south of Unit 4. The door way is 2.20 m wide and 0.90 m deep. No profile map of this unit was made.





*Figure 2. Unit 4, west door jamb.*

#### **Operation 15, Unit 5**

The purpose of this unit was to follow the inside of the north wall of Str. D-10 along the eastern part of the door. This unit was roughly 1.5 m north-south and 2 m east-west. The Str. D-10 wall was in excellent condition and continued into the east wall of the unit. The condition of this wall may have been much greater than west of the doorway because this section does not have trees growing on top of it.

#### **Operation 15, Unit 6**

The purpose of this unit was to continue excavations west along the north wall of Str. D-10 in order to expose the interior rooms. This unit was laid out 1.5 m north-south and 2 m east-west and placed to the west of Unit 3 in a manner that allowed the wall of the structure to be followed just inside the north edge of the unit. The portion of the wall of Str. D-10 that was found in this unit was not as well preserved as the wall found in Unit 5. The plaster floor in this unit was also much less well preserved than the floor in the other horizontal excavation units. The condition of the structure in this unit is likely due to the tree growing just to the east of the unit. A few large roots (~5 cm) were found throughout the unit.

#### **Operation 15, Unit 10**

The purpose of this unit was to uncover the south wall of Str. D-10, as such, it was placed immediately south of Unit 5. This unit was 2 m east-west. Excavations in the unit were done north-south



until the south wall was uncovered. It is possible that there was a facing of plaster on this wall, but it was degraded to the point that it was indistinguishable from the surrounding matrix.

## **THE VERTICAL UNITS**

Operation 15 Units 7, 8, and 9 were placed on top of Str. D-10 in order to better establish the chronology of the construction phases of the structure. A second purpose of these units was to uncover any caches. Each of these units was 1 x 1 m in dimension and was placed in a line north-south with one meter of spacing between them. These excavations began in June and ended in June due to the end of the field season.

### **Methods**

The units were laid out using measuring tapes and line levels as 1 x 1 m units. These were placed in a line north-south with one meter of spacing between them. The units were oriented parallel to the orientation of Str. D-10. Unit 7 was placed in the southwest corner of Unit 2 into the plaster floor. Unit 8 was also placed into the floor in the southwest corner of Unit 3. Unit 9 was placed immediately north of Unit 3 along its northern border. This unit was placed with the intention of finding the north staircase as well as to establish chronology. Unit 9 began at the humus layer as Level 1. The numbering of the levels found in Unit 7 and Unit 8 continued where the units above them ended (i.e., Level 4 and Level 3 respectively). Unit 9 was excavated to the close of Level 1 when it was decided that excavations at the edge of the building could lead to a hazard for the excavators in Unit 1.

Hand trowels, hand picks, and rock hammers were used in the excavation of these units. The stratigraphy of the units was separated into levels based on cultural events and changes in the matrix. Screening was performed using a ¼-inch screen. A full collection strategy was used for all artifacts in order to better provide an accurate date for the construction phases of the building. Elevations were taken using the dumpy level.

### **Operation 15, Unit 7**

Several plaster floors were discovered in close relation to each other in this unit. This makes them most likely to be resurfacing or repairs to previous incarnations of the floor. Level 4 began as an excavation through the floor that was uncovered throughout the horizontal excavations. This level went down through the plaster floor and aggregate until a second plaster floor was uncovered. Level 5 continued through that plaster floor and another level of aggregate until a third plaster floor was uncovered. This level is likely Late Classic based on the presence of a Saxche Orange-polychrome sherd.

Level 6 removed the plaster floor and the aggregate underneath until a level of dark matrix was reached. Level 7 was closed when another possible plaster floor had been reached. This was the final level of the unit in this field season.

### **Operation 15, Unit 8**

The excavation of Level 3 began with cleaning the floor and aggregate underneath. Level 3 was closed at another plaster floor. This floor is likely the same one as uncovered in Unit 7, Level 4. A discrete extension was excavated to the west of the unit to better examine a series of large, cut stones that were found in the wall of this unit. This extension continued approximately 20 cm west. The stones are likely part of a wall for a construction pen. Level 4 was the excavation of the floor through a level of aggregate. This is likely the same floor as uncovered in Unit 7, Level 5. Level 5 consisted of a plaster floor and aggregate beneath it. Excavation of Level 6 dug through the plaster floor and aggregate. Of note was the north face of an earlier building found protruding from the south wall. This new wall sloped down to the north and seemed to have leveled off where it entered the north wall. The bottom of this wall was not uncovered. There is currently no visible decoration on the face of this wall. Due to the depth of Unit 8, it currently provides the best chronology of building phases.

## **DISCUSSION**

The width of the walls uncovered in the horizontal excavations is too narrow to have supported the heavy weight of a vaulted room. This leads to the conclusion that this incarnation of the building was made with a palapa-style roof. This is supported by the fact that no vaulting stones have been identified in the excavation so far. Unfortunately, when it comes to identifying the function of Str. D-10, little evidence is provided by the artifacts uncovered. The placement of the building along with other range structures in the plaza suggests that one of the functions of this building was as a barrier to mark the boundary of Group D plaza. The central room appears to be surprisingly narrow in this final phase of the building, only about 1.5 m wide. This would not have been the best place for groups to gather. However, from the excavations of Unit 2 and Unit 10, it looks like there is a possibility of both a front and a rear doorway in Str. D-10. Should future excavations show there are two doors, it would support the interpretation of this range structure as a crowd control feature or as a transition zone from outside of the plaza into the plaza or vice versa.

Another possibility that cannot be overlooked is the association of Str. D-10 with the chultuns. The southern direction has been shown to be associated with death, and the chultuns excavated at Ka'Kabish have had burials recovered from them. This rear doorway on top of Str. D-10 would lead from

the plaza directly to the chultuns. Therefore, the final incarnation of the building may be associated with death. Guderjan et al. (2003) noted that a range structure without associated chultuns is likely not residential. This association with the chultuns along with the narrow rooms may suggest a residential use, at least in part.

The 2015 excavations of Str. D-10 provide evidence that, not only was there occupation at Ka'Kabish during the Terminal Classic, but that there was still construction of public architecture. Further evidence of the function of the building could be obtained by continuing to excavate the superstructure of the building in future seasons.

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## CHAPTER 6

### EXCAVATIONS OF CHULTUNS C-2 AND C-3

*by*

***Gwynne Carlos***

This chapter concerns the excavation of chultuns at the site of Ka'Kabish, Belize during the 2015 field season. Chultuns are subterranean chambers excavated by the ancient Maya into the limestone bedrock, serving a variety of functions (Dahlin and Litzinger 1986). A number of chultuns have been found at the site of Ka'Kabish. To date, four chultuns have been excavated, with three of the four yielding multiple burials and significant artefacts. Investigations of the chultuns at Ka'Kabish provide insight into what these spaces were used for, both at Ka'Kabish and in the broader Maya context. In 2015, excavations in Chultun C-2, which had begun in the 2014, were completed and excavations in Chultun C-3 commenced.

#### **DESCRIPTION OF CHULTUN C-2 (OPERATION 14)**

Chultun C-2 was initially opened during the 2014 field season by Toni Ann Gonzalez, the author, and our workman, Saul Ramirez (Gonzalez 2015), but we were unable to completely excavate it before the season ended. Therefore, the author completed it during the 2015 field season. Chultun C-2 is located within the southern portion of Ka'Kabish in Group C. Group C is located south of Group D, which is the main plaza of the site. A small structure is located near the chultun in an area of dense jungle foliage and trees. The 2015 season began with the reopening of Level 9 and extended to bedrock. To excavate C-2, we attempted to adhere as closely to the same methods as the 2014 field season. Rock picks, trowels, and brushes were used in excavation with all material sifted through a 1/8-inch screen.

#### **Operation 14, Chultun C-2, Level 9**

This level was the closing level of the 2014 field season. The level appeared to have been disturbed during the offseason by some sort of animal and some ceiling fall had occurred in the southeastern corner of the chultun as well. The disturbed area was mapped and then the loose soil and remains of the tarp that had been placed over the excavations in 2014 were removed. A few ceramic sherds and bone were recovered from this level.

### **Operation 14, Chultun C-2, Level 10**

The discovery of bone in the southeastern corner of the chultun necessitated a level change. This area had a lot of ceiling fall, so many of the bones were crushed and very poorly preserved. The bones from this area consisted of a mandible, teeth, long bones, and other bone fragments. The small size of the remains suggests they may be faunal bone rather than human remains. The soil matrix of this area was dark, clay-like soil that made excavation difficult. More remains found in the north-central portion of the chultun necessitated another level change.

### **Operation 14, Chultun C-2, Level 11**

The bone cluster that necessitated the level change was labelled Bone Cluster 43, continuing the numbering system from the 2014 season. The cluster consisted of multiple ribs, vertebrae, a scapula, and an articulated humerus/ulna joint. Other unidentified bone fragments were recovered as well. The bone area was mapped as well as the individual, identifiable bones. The complete removal of the bone in this area resulted in bedrock being found. The soil matrix was a dark brown to black colour and of clay-like consistency. Taking the whole chultun down to bedrock was the closing of Level 11.

### **Operation 14, Chultun C-2, Level 12**

Level 12 consisted of excavation of the entrance platform of Chultun C-2. This area had initially been left because it enabled us to get in and out of the chultun with relative ease. The opening of the chultun measures 72 cm north-south and 70 cm east-west at the top of the opening at ground level. At the base, the opening is 80 cm north-south and 83 cm east-west. The depth of the opening was 125.5 cm from the lip to the base of the opening. From the base of the opening to the bottom of the main portion of the chultun was 92 cm. Once the final measurements had been taken and the opening had been dug to bedrock, excavations in Chultun C-2 were complete.

### **Observations and Conclusions**

Based on the recovered evidence from the 2014 field season, as well as the remains from the 2015 field season, it is proposed that Chultun C-2 was a burial locale where individuals and artefacts were intentionally placed. From the 2014 field season, two intact ceramic vessels were recovered as well as one fragmented ceramic vessel (see Gonzalez 2015). These vessels were found directly on top of some of the human remains that were recovered later in the excavations. These vessels were dated to the Early/Middle Postclassic. The quantity of identifiable human bone found within Chultun C-2 suggests a minimum number of five individuals; however, the poor quality of the preservation makes the determination of the number of individuals interred difficult. The intentional placement of individuals within chultuns is not an

isolated occurrence at Ka'Kabish, as Chultun C-1 from the 2013 field season yielded human burials as well.

## **DESCRIPTION OF CHULTUN C-3 (OPERATION 17)**

Operation 17 was the excavation of Chultun C-3, located north of Group C and south of Group D, the main plaza of Ka'Kabish. C-3 was chosen both for its accessible location as well as its proximity to a previously excavated chultun. During the 2013 field season, Toni Ann Gonzales excavated Chultun C-1, which yielded copper bells, copper rings, ceramics, and human remains. Chultun C-3, like C-1, is located in an area with dense foliage and trees. Standing at the opening of C-1, Chultun C-3 is approximately 7.2 m northeast at 210°. Chultun C-3 is located closer to Group D and the range structures D-9 and D-10. There is a path that passes directly by the opening of Chultun C-3, which was used to reach Chultun C-2 during the 2014 field season. The chultun was not covered, resulting in it being filled with leaves, twigs, and roots. The opening of Chultun C-3 is 68 cm north-south, and 65 cm east-west at ground level (Figure 1). Removal of the forest debris took place in order to clean up and more properly assess the initial measurements of the chultun. The opening at the base measures 87 cm north-south and 103 cm east-west. The depth in the north, east, and west portion of the chultun was 104 cm deep from the lip of the opening, while the southern corner was higher at a depth of 86 cm. A large number of rocks were found in the opening of the chultun preventing entrance. The soil within the opening was a medium brown colour and very loose.

### **Methods**

Initially, it was undetermined if there was a datum nail already placed within the area from the excavations of Chultun C-1, so the beginning of excavations were done without this point. The plan for the chultun was to excavate it in its entirety. Levels were divided based on change in the soil matrix or if anything notable was encountered during the excavation. Excavation equipment consisted of trowels, rock picks, and brushes. All excavated materials were sifted through a 1/8-inch screen. Any and all recovered materials were bagged according to level and material type. Any artefact recovered *in situ* was carefully mapped and then collected according to material type.



*Figure 1. Entrance into Chultun C-3*

#### **Operation 17, Chultun C-3, Surface Level**

To measure the elevation and area of the chultun, the rocks at the opening first had to be removed so that the interior of the chultun could be accessed. Measuring the elevation had to be done in two steps due to the L-shaped nature of the space. To measure the chultun, an elevation nail was placed at the lowest portion of the entrance of the chultun. This point was 80 cm from the lip of the chultun. A midpoint was placed at the point where the elevation nail could measure to, before dropping down 50 cm to reach the back wall of the chultun, where another point was placed. The distance from the elevation nail to midpoint was 144 cm, while the midpoint to the back wall was a distance of 158 cm. To measure the body of the chultun, a median line was placed and then measurements were taken every 10 cm to the northeastern wall and to the southwestern wall. Height and depth were recorded at these 10 cm intervals as well.

The surface level inside of the chultun consisted of forest debris, some sherds, some likely faunal bone, and rock. Three large rocks were removed in order to continue the excavations. The three large rocks were mapped in case they proved to be significant in placement and were labelled Rock 1, 2, and 3. Three lithics were recovered from the entrance on top of a fourth, large rock (Rock 4). They were a lanceolate-shaped point, a small arrow head, and a pigment-grinding celt. Rock 4 had to be removed with the help of two other workmen from the site. The rock itself was 13 cm thick, which resulted in the opening of the chultun being lowered by 13 cm. It is possible that Rock 4 was the capstone that had fallen into the entrance of the chultun. The removal of this rock signified the closing of the surface level.

### **Operation 17, Chultun C-3, Level 1**

With the removal of the large rock from the entrance of the chultun, the elevation point was moved down to enable measurement across the chultun without it having to be broken up into two segments. The new elevation point was 122 cm below the lip of the chultun opening. The chultun measured a total length of 285 cm along the north-south axis. The soil matrix was the same medium brown soil as the surface level but was more-tightly packed.

Four obsidian blades were found in the northeastern corner of the chultun on top of what appeared to be human remains. Due to some miscommunication, a 40 cm area was dug down in an attempt to uncover the human remains. These human remains signified a change in level and the northeastern corner became Level 2.

### **Operation 17, Chultun C-3, Level 2**

Level 2 consisted of an area in the northeastern corner of the chultun measuring 90 cm north-south by 95 cm east-west. The area was labelled Bone Cluster 1 and appeared to be a complete human burial, which was labelled Burial 1. A relatively intact femoral head was recovered, as well as a variety of other bones. The femoral head was the most intact element compared to the extreme fragmentation of the rest of the skeleton. Based on the positioning of the femoral head and the associated bones, it is believed that the individual was in a seated position with their knees pulled up to the chest. Because the proximal head of the femur was positioned down, the distal end of the bone would have been upward, indicating a seated position. A large number of human teeth were recovered from this area as well. It is unclear if the number of teeth indicates a single individual or if there may be a second individual. Two incisors were filed with three vertical lines leaving four lobes (Figure 2). The fragmentation of the skeleton is due to poor preservation, as well as rocks found on top of the body, which likely crushed it. However, it is unknown if the rocks were ceiling fall or if they were intentionally placed. The obsidian blade cluster in Level 1 was found directly on top of the human remains (Figure 3). There is the possibility that the obsidian blades were part of a bloodletting kit.

Within Bone Cluster 1 a large lanceolate-shaped point, grinding celts, four pigments balls, and a ceramic bead were found. The pigment balls were initially thought to have been beads, but upon closer investigation were found to be red pigment. We included these artefacts within Level 1 because they were associated with the individual buried there.





*Figure 2. Filed incisors from Burial 1*



*Figure 3. Obsidian blades from Level 2*

Numerous rocks had to be mapped and removed within Level 2 as it was extended into the rest of the chultun. Because of the amount of bone within Level 2, the plan was to even out the level and all bone clusters found would be considered part of Level 2. However, based on the amount of bone, as well as its location somewhat south of Bone Cluster 1, it was determined that there was a second individual (Burial 2). Burial 2 was in the southeastern portion of the chultun. Associated with this burial were three obsidian blades and four shell pendants. The shell pendants were rectangular in shape with two perforations at the top. The thickness of the shell may indicate a marine origin. The soil around Burial 2 was stained a reddish brown indicating that it may have been sprinkled with pigment/ochre.

Burial 3 was found on the central axis of the chultun. A copper ring was found in association with this burial. Circular bone pieces, either spindle whorls or ear spools, were found in association with this burial as well. To the west of this burial, a mostly intact ceramic vessel was found. The small, three-footed vessel was dubbed the “Baby Vulture Pot” because of its small size and the two modeled vulture heads attached to each side of the vessel. More obsidian was found within this burial as well.

A possible fourth individual was recovered, although it is also possible that this area of bone was part of Burial 3; it was labelled Burial 4. Burial 4 was in the southwestern portion of the chultun, closer to the entrance. Associated with this burial were three obsidian blades, a bead, and a lithic point. A large ceramic rim fragment was found as well, though no other large ceramic sherds were recovered. The most notable artefact found in association with this burial was a pair of copper tweezers (Figure 4). Originally thought to have been an earring, the copper tweezers were triangular in shape and were recovered in two pieces. Upon bagging, one of the pieces broke into multiple small pieces. This burial was the end of Level 2, as the whole area of the chultun had been lowered to the same elevation.



***Figure 4. Copper tweezers from Burial 4***

At the end of Level 2, the chultun was 280 cm north-south with a depth of 67 cm on the west, 64 cm in the center, and 62 cm in the east. At its widest, the chultun was 224 cm east-west. The chultun was not fully excavated; therefore, it is the goal of the 2016 field season to complete the excavation of Chultun C-3.

## **OBSERVATIONS AND CONCLUSIONS**

Preliminary examination of the excavation data of Chultun C-3 has determined that this subterranean area was used as a burial place for a number of individuals. The number of individuals interred is unclear, but it is speculated to consist of a minimum of four individuals. The ceiling fall, as well as poor preservation of the remains, makes determining the number of individuals, as well as the position of the individual skeletons, difficult. We know that at least one individual (Burial 1) was placed in a seated position with knees to the chest, based on the orientation of the intact femoral head. The positioning of the other burials is unclear. Again due to poor preservation, it is unclear whether these were primary burials, secondary burials, or a mix of the two.

The associated artefacts found within Chultun C-3 are all believed to have been mortuary goods associated with the burials. The number of obsidian blades, beads, pigment balls, ceramics, and copper artefacts suggest intentional placement within the chultun. Through analysis of the mapped artefacts, most of these items were placed directly on top of or next to the individual burials. The ceramic vessel recovered (the Baby Vulture Pot) and the copper tweezers suggest that Chultun C-3 dates to the Late Postclassic. There are plans to source both the obsidian blades and the copper tweezers using trace element analyses.

It appears that the inclusion of human remains in Chultun C-3 was its final function. It is unknown whether the multiple individuals were placed within the chultun at the same time or placed within the space over decades. If successive burial was the case, it is possible that this chultun was intentionally built as a mortuary space. Given Chultun C-3's proximity to Chultun C-1 and the inclusion of copper artefacts with both sets of burials, it is likely that two are related. Continued excavations in 2016 should help determine the extent of the burials in Chultun C-3 and any other uses prior to its final use as a burial place.

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## CHAPTER 7

### SURVEY AND EXCAVATION ALONG THE KA'KABISH TO LAMANAI TRANSECT

*by*

***Alec McLellan***

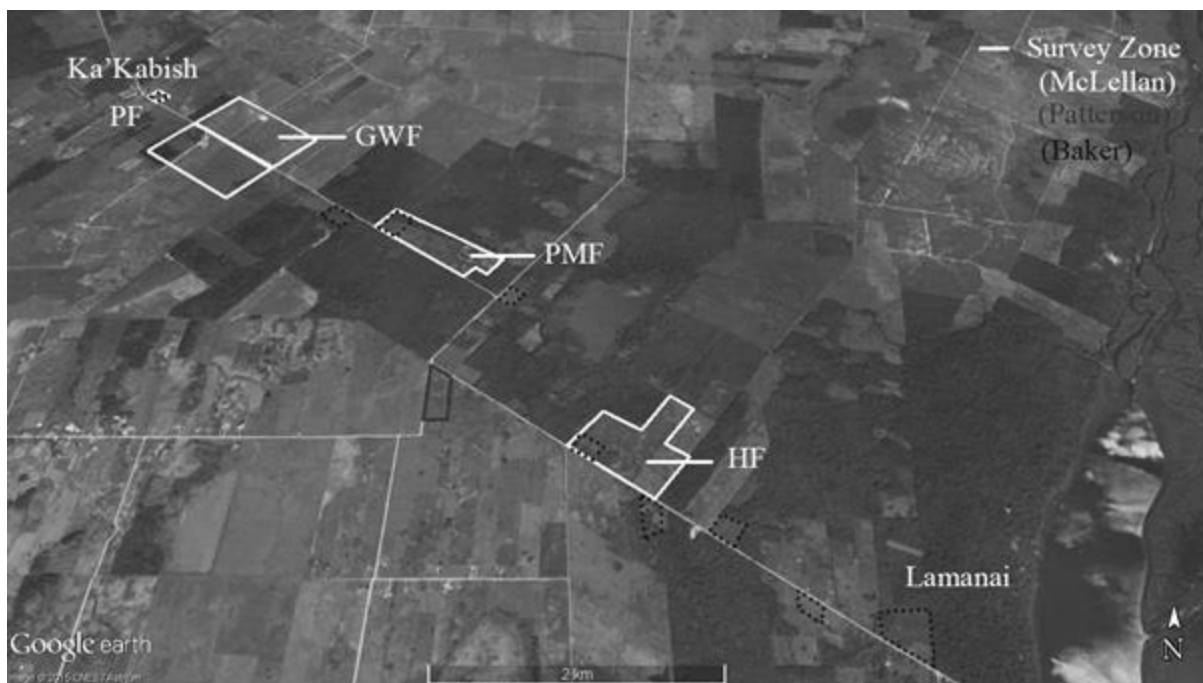
At Lamanai and Ka'Kabish, two pre-Columbian centres in northwestern Belize, archaeologists have concentrated their research on the environment, architecture, and long-term occupation of the civic and ceremonial centres (e.g. Graham 1987, 2004; Haines 2013; Howie 2012; Metcalfe et al. 2009; Pendergast 1981, 1985, 1986; Rushton et al. 2013). The sites' rural or hinterland populations, however, which were presumably critical to the support of the centres, have not been studied. These populations are key to an understanding of the sites' long histories and especially to our understanding of how Lamanai and Ka'Kabish survived the Maya collapse (A.D. 600–900), flourished during the transition to the Postclassic period (AD 900–1500), and continued to be a focus of settlement in the Spanish colonial period. Only two small-scale studies have shown interest in the domestic occupation of the larger region (Baker 1994; Patterson 2007), and they have been restricted by funding and time, leaving a massive gap in an otherwise robust and important comparative dataset. My research focuses on the nature of the settlement in the hinterlands between Ka'Kabish and Lamanai and also seeks to shed much-needed light on the processes that promoted the unique continuity of occupation in this region.

#### RESEARCH QUESTIONS

- 1) What is the character of the settled landscape between Ka'Kabish and Lamanai (number of structures, patterns and distribution of settlement, modifications to the natural environment)?
- 2) How does the chronology of the inter-site settlement zone compare with the chronology within the core of these major centres?
- 3) How does the distribution and density of occupation in the inter-site settlement zone change over time, and how does this compare to occupation of the centres?
- 4) To what extent is there consistency or variation in surface material culture in the region within and between these two major centres?

## METHODS

Archaeologists have surveyed several areas of occupation between Ka'Kabish and Lamanai, collecting information on the location, distribution, and organization of pre-Columbian Maya structures (Baker 1994; McLellan 2010, 2011; McLellan and Haines 2013; Patterson 2007). Archaeologists specifically and opportunistically chose to survey certain sections between Ka'Kabish and Lamanai. Ideally, these areas were slash-and-burned, cleared, and ploughed beforehand. Mennonite populations are vigorously expanding their landholdings in the inter-site settlement zone. To exploit the value of their holdings they often clear the tropical forest, plough a thin layer of top soil, and plant corn. While this is potentially detrimental to local plant and animal populations, these practices are ideal for revealing pre-Columbian structures and land-use practices. Also, it is important for archaeologists to immediately survey these fields, as repeated seasons of intensification threaten to destroy, or obscure, domestic structures and landscape modifications. Likewise, after several seasons the productive potential on the field starts to fail, and afterward, it is used for cattle grazing. These modifications also make it difficult to identify archaeological materials. Figure 1 shows the locations of the inter-site survey for the KARP as well as the location of earlier projects (Baker 1994; Patterson 2007). The fields surveyed by Baker (1994) are shown in hyphenated lines because the original GPS coordinates are incomplete. Some of these fields need to be revisited to verify their locations.



**Figure 1: Areas of Survey between Ka'Kabish and Lamanai, including KARP, Patterson (2007) and Baker (1994)**

At Lamanai, the survey was conducted by the author and two additional archaeologists, who systematically walked in 5 meter intervals, using pin-flags to visually identify and assess the distribution of artifacts across the landscape. Figure 2 shows the conditions of the field that was surveyed.



*Figure 2: East-facing view of HF*

A handheld GPS (Trimble Nomad) was used to record the position of concentrations of material culture. In most cases, these concentrations were located on easily identifiable “mounds,” or remnants of limestone platforms commonly used by Maya populations to raise their residences off the surface of the ground. We collected 100% of the artifacts on the surface of these structures, using the edges of the debris field to demarcate the extent of the collection. Sometimes, we pin-flagged and collected a concentration of materials that were unaccompanied by a platform structure, which was referred to as an artifact scatter. This method was used to identify pre-Columbian structures that were built directly on the surface of the ground. However, based on observations in the field, it seems that these concentrations are mostly indicative of damaged or destroyed buildings. In some cases, Mennonites are known to use heavy

equipment to bulldoze archaeological features, as ploughing is particularly difficult in densely occupied pre-Columbian settlements. In these fields, ceramic sherds and lithic materials are distributed across the landscape, making it difficult to identify individual structures.

## THE INTER-SITE SETTLEMENT ZONE

In total, 87 structures were identified in the inter-site settlement zone 2.5 km northwest of Lamanai. Figure 3 shows the size, orientation, distribution, and organization of these structures. The field is roughly 0.55 km<sup>2</sup> in size. Most of the structures date to the Terminal Classic/Early Postclassic period. Notably, there is a drop-off in density of structures in the northwestern section of this field. This drop-off, similar to other areas of settlement in the Lamanai-Ka'Kabish corridor, is correlated with decreased elevation. Of particular interest are the relatively small, lower-lying structures in this area. Webster (2000:82–83) has argued that these smaller, low-lying structures were used as “field huts” by farmers at Copan for various agricultural purposes, such as storage. These huts were found farther away from other domestic residences and lacked archaeological indicators of domestic activities. However, although these structures may have served a similar purpose at Lamanai, many of the platforms at Lamanai are arranged in plazuela groups and accompanied by domestic artifacts, such as manos and metates.

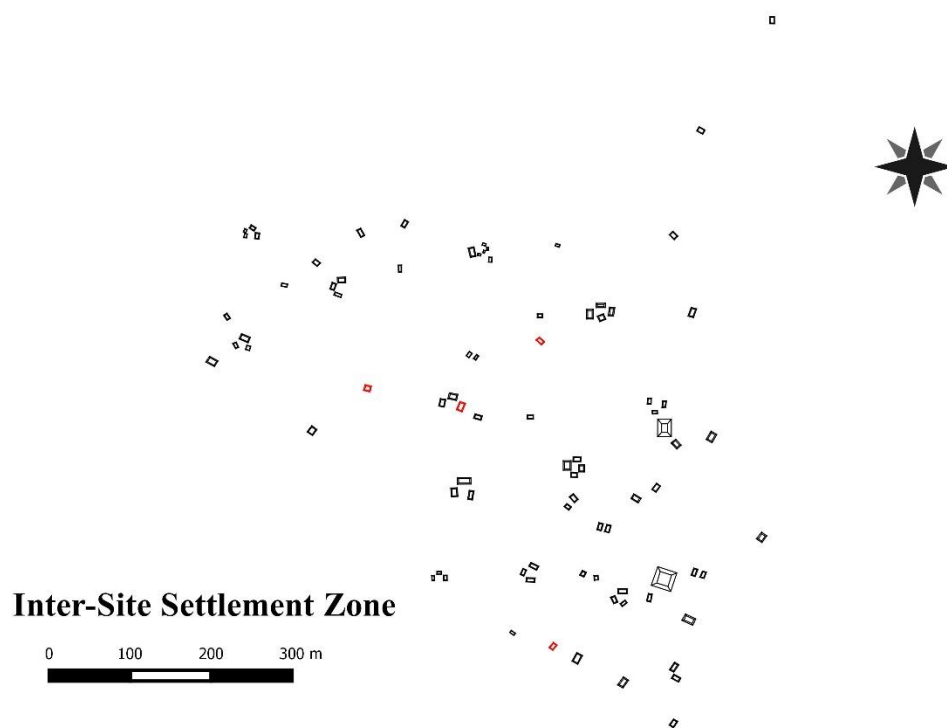


*Figure 3: Inter-site settlement identified 2.5 km northwest of Lamanai*



## Excavations

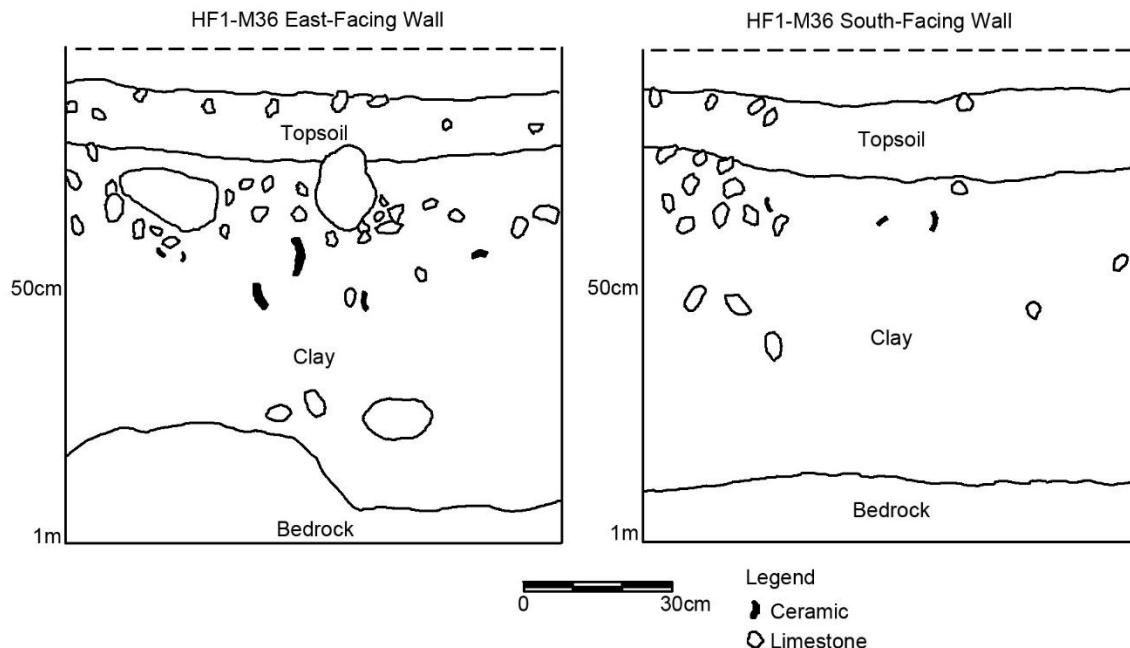
We conducted excavations in four locations in the settlement zone (Figure 4). These structures are referred to as HF1-18, HF1-27, HF1-M36, and HF1-52. They represent 5% of the sample. A random stratified sample was used in the Lamanai survey zone. Each structure was placed into a category, with three distinct groups chosen based on their length, width, and height. This sampling technique was chosen to limit the chance that excavations only represented a particular segment of the population, as archaeologists sometimes argue that the labour invested in structures is representative of socioeconomic class (Arnold and Ford 1980). At each structure, we excavated 1 x 1 m units into the primary axis of the platform. These excavations were dug as far as the bedrock, roughly 1 m to 1.5 m in depth. Most of the excavations encountered construction fill, followed by a layer of black and dark grey clays, ending on sandy-textured limestone bedrock with nodules of dense limestone as found in excavations in the civic and ceremonial centre of Lamanai (Howie 2012). At one of the structures, excavations revealed a plaster floor.



*Figure 4: Location of excavations in the fields 2.5 km from Lamanai*

One of the structures that was excavated was representative of lower-lying, minimally mounded platforms, raised less than 1 m off the surface. At this structure, HF1-M36, we only encountered the

corner of the platform, as it was difficult to identify the center of the debris field (Figure 5). Several cut stones are in the mid-to-left section of the profile. Many sherds were found in the black and dark grey clay level but were mostly too eroded to recover. The only type that was identified was Dumbcane Striated, which dates to the Terminal Classic/Early Postclassic period. At each of these excavations, we expected to identify earlier periods of occupation. However, in every case, these periods were represented by the ceramics found on the surface.



***Figure 5: Excavation of a structure northwest of Lamanai (HF)***

### **The Ceramic Assemblage**

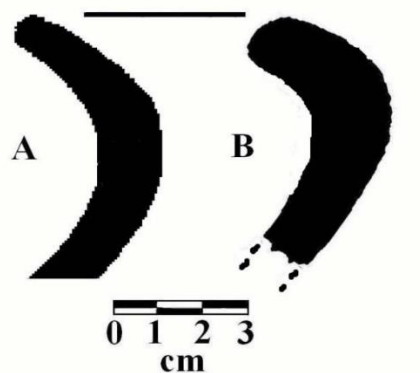
In the 2015 season, we collected 4,032 sherds from the fields northwest of Lamanai (HF). Another 2,749 sherds were collected from the surface of artifact scatters and structures, while excavations uncovered another 1,283 sherds. Sagebiel and Haines conducted the analysis of the artifacts and also reanalyzed artifacts collected during previous seasons. Some of the types were redefined based on their character and composition. For example, Blue Creek Striated, which is similar to several wares in the greater Maya region, is referred to as Dumbcane Striated, which is also dated to the Terminal Classic period.

Some of the earliest pottery types belong to the Late Formative and Early Classic periods. The most commonly identified type is Sierra Red, which dates to the Late Formative period (Gifford 1976). Another common type is Aguila Orange, a type that postdates Aguacate Orange of the Protoclassic

(Adams 1971:142), a period from the Late Formative to the Early Classic that witnessed changes in ceramic styles (Brady et al. 1998). Aguila Orange is attributed to the Early Classic period.

For the Late Classic/Terminal Classic, the most abundant type is referred to as Cambio Unslipped (Rice 2006). This type was found at several structures in the settlement zone immediately southwest of Lamanai.

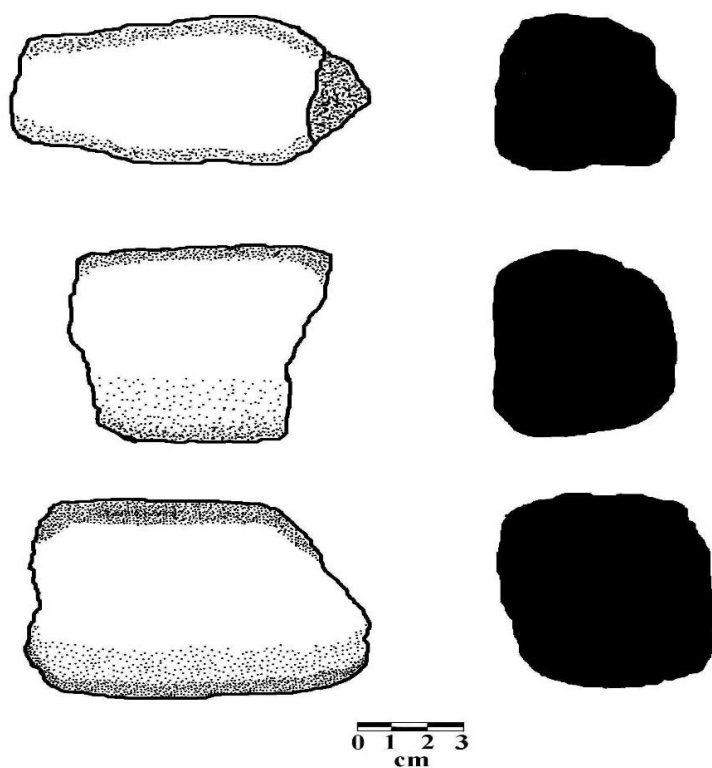
Most of the ceramic assemblage from the inter-site zone is dated to the Terminal Classic and Postclassic periods. The most common type is Dumbcane Striated. Another common type is Red Neck Mother Striated (Chase 1982), which dates from the Terminal to Early Postclassic periods. It is one of two types in the Chambel ceramic group (Chase 1982:75). This type was identified at the Maya site of Nohmul in northern Belize. Chase (1982:75) described it as comprised of large, wide-necked jars, or *ollas*, with outflaring necks. Figure 6 shows a comparison of the rim profiles found at Ka'Kabish and Nohmul (Chase 1982:67).



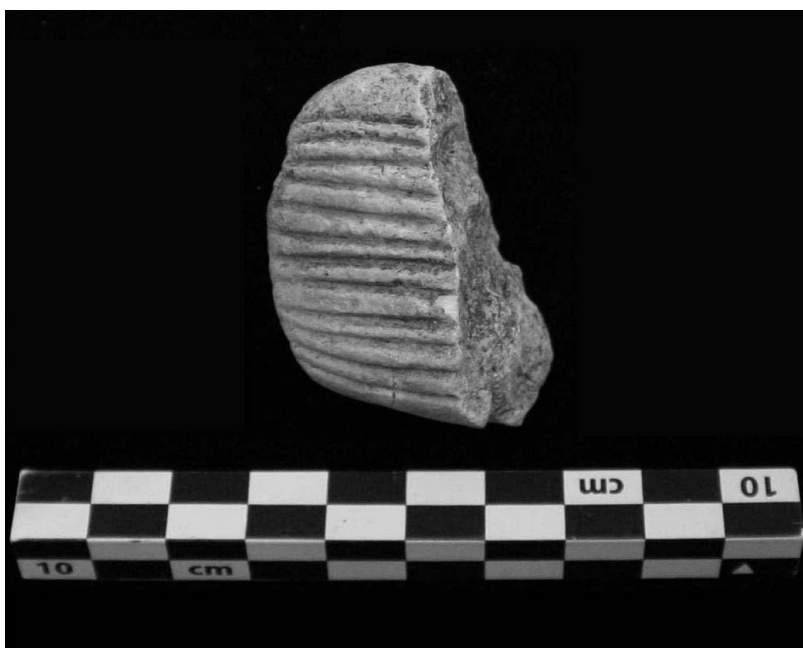
***Figure 6: Comparison of Red Neck Striated profiles at A) Nohmul and B) Ka'Kabish***

### **Lithic Assemblage**

The lithic assemblage in the inter-site settlement zone is mostly comprised of domestic forms of ground and chipped stone tools. The most common types of artifacts are manos and metates, which are used to process grains and seeds. Figure 7 shows an example of some of the manos found in the settlement zone southeast of Ka'Kabish (GFW). We also discovered various types of metates made from limestone, basalt, and granite. Finally, in the inter-site settlement zone at Ka'Kabish and Lamanai, we discovered several examples of “bark beaters,” which were used to prepare cloth paper (Figure 8).



*Figure 7: A) Mano, Rectangular Variety (Willey et al. 1965:458) B) Mano, Rectangular, Thick Variety (Willey et al. 1965:461) C) Mano, Rectangular, Thick Variety (Willey et al. 1965:461)*



*Figure 8: Rectangular B Variety bark beater fragment (Willey et al. 1965:471)*

Several types of chipped stone tools were found in the inter-site settlement zone. For example, Figure 9 shows a bifacial tool with a tapered stem.



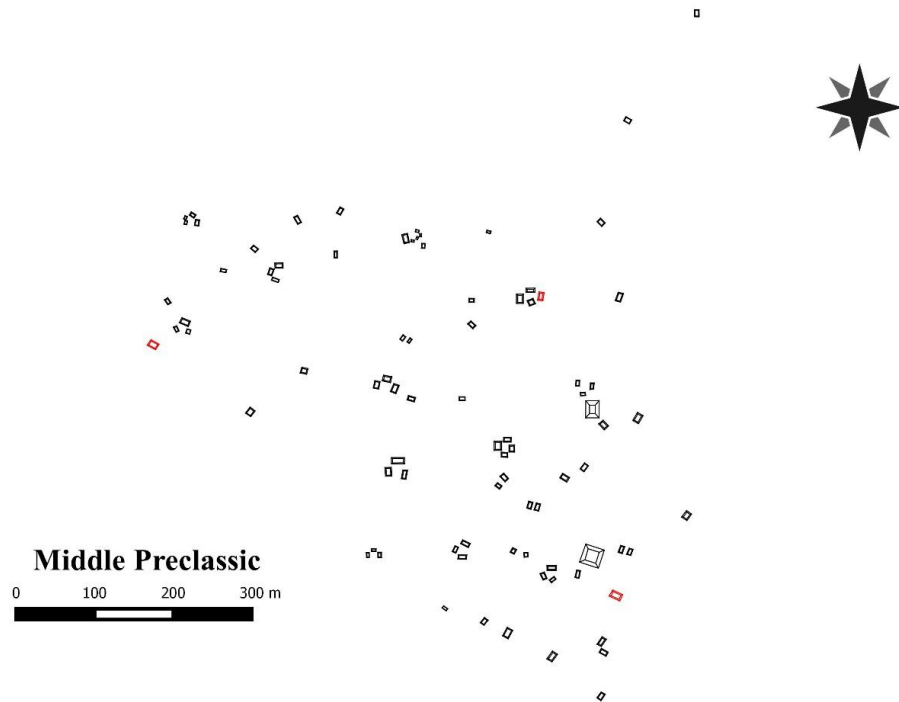
**Figure 9: Tapered Stem, Long Blade Variety (Willey et al. 1965:421)**

In comparison to the inter-site settlement northwest of Lamanai, the lithic assemblage at Ka'Kabish is comprised of a wider variety of types and materials. Most of the chipped stone tools northwest of Lamanai (HF) are standard bifacial choppers. In particular, we identified chipped stone tools manufactured from chalcedony materials southeast of Ka'Kabish, whereas, northwest of Lamanai we only identified chert. While these observations are preliminary in nature, it seems that the settlement at Ka'Kabish may have been more involved in the procurement and manufacture of stone tools.

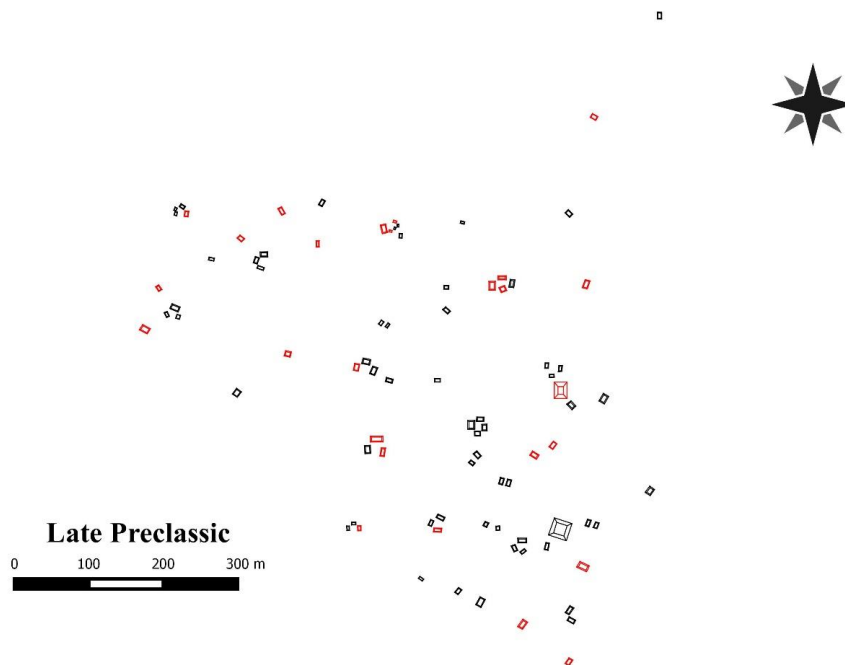
## **DISCUSSION**

By combining the spatial and temporal data from the inter-site settlement zone northwest of Lamanai, several trends, or cultural dynamics, can be assessed (Figures 10–17). The area of settlement northwest of Lamanai was founded as early as the Middle Formative and experienced periods of expansion from the Late Formative to Early Classic. By the Late Classic, the settlement demonstrates a period of stagnation with little to no growth in the number of occupied structures. By the Terminal to Early Postclassic periods, almost every structure in the settlement zone has evidence of occupation, seemingly demonstrating an apex of population in the settlement zone. Following these periods, the

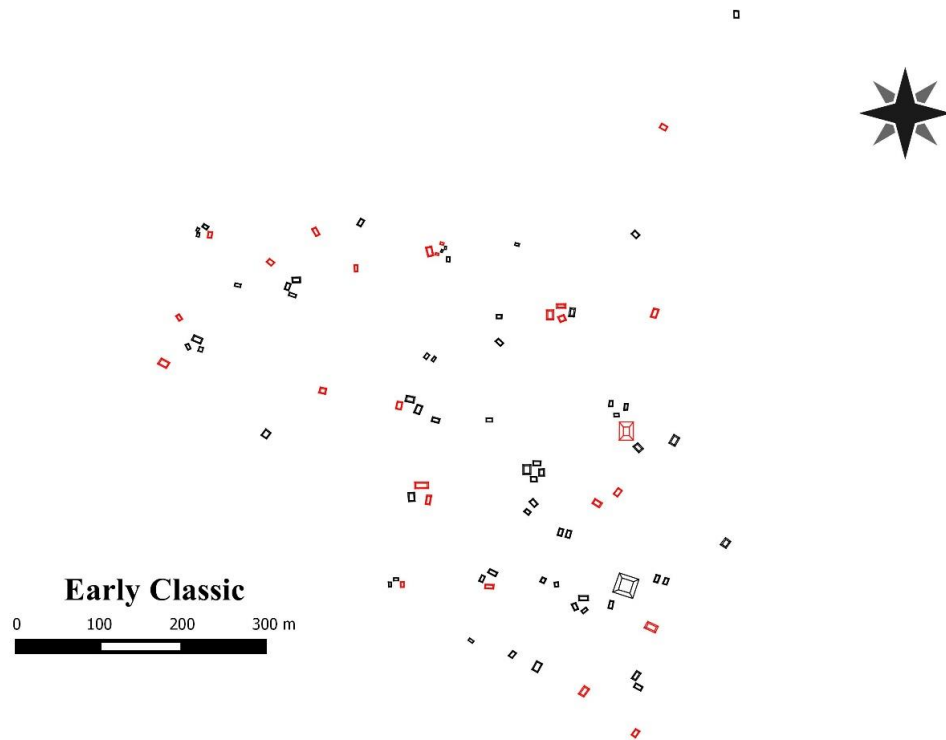
settlement underwent a steady period of decline, culminating in an almost complete abandonment of the site by the Spanish Colonial period.



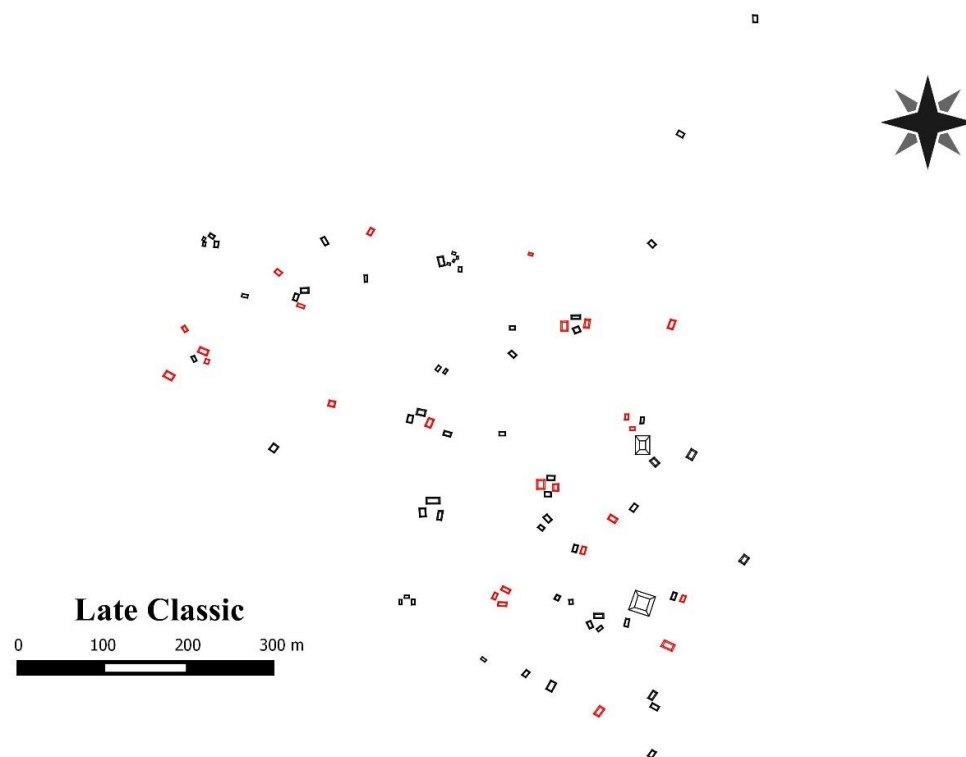
*Figure 10: Middle Formative occupation in the inter-site settlement zone (in red)*



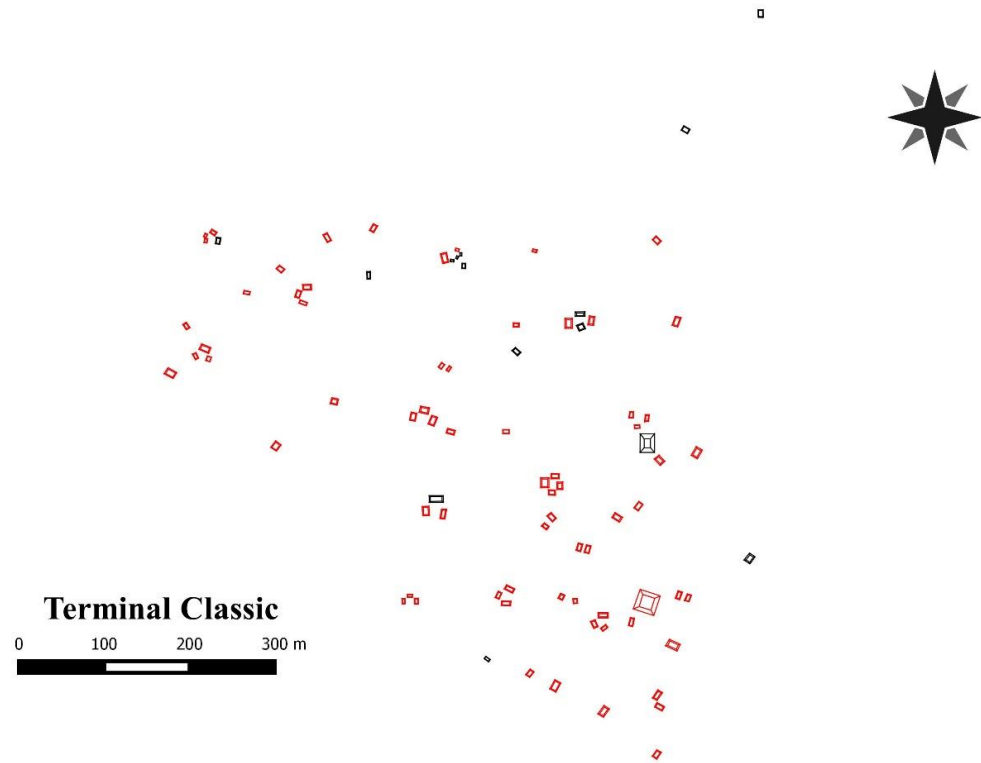
*Figure 11: Late Formative occupation in the inter-site settlement zone (in red)*



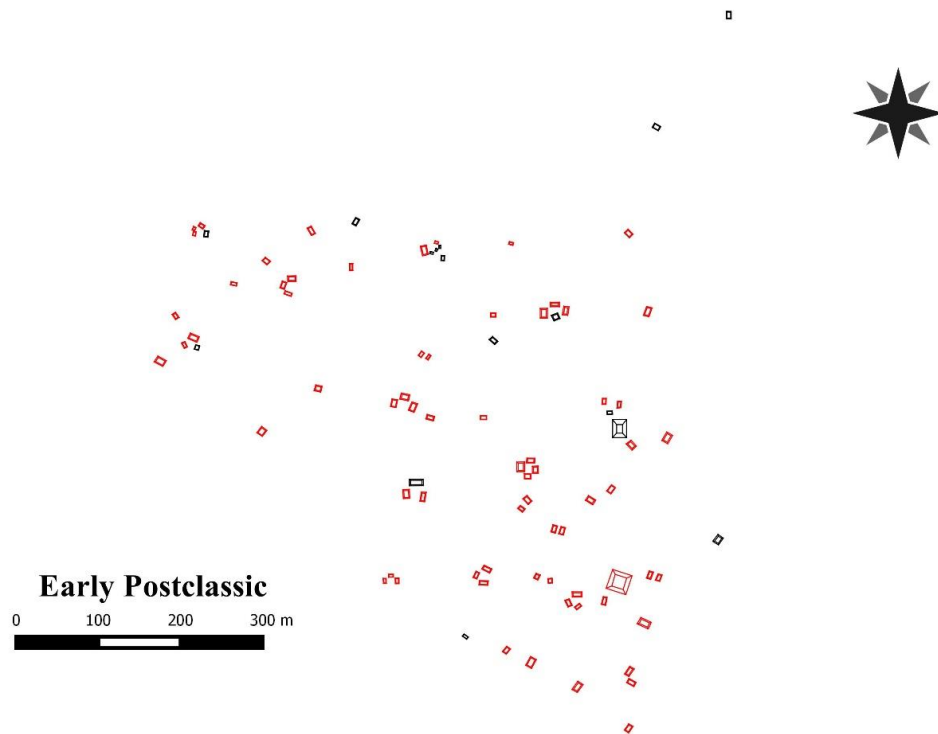
*Figure 12: Early Classic occupation in the inter-site settlement zone (in red)*



*Figure 12: Late Classic occupation in the inter-site settlement zone (in red)*

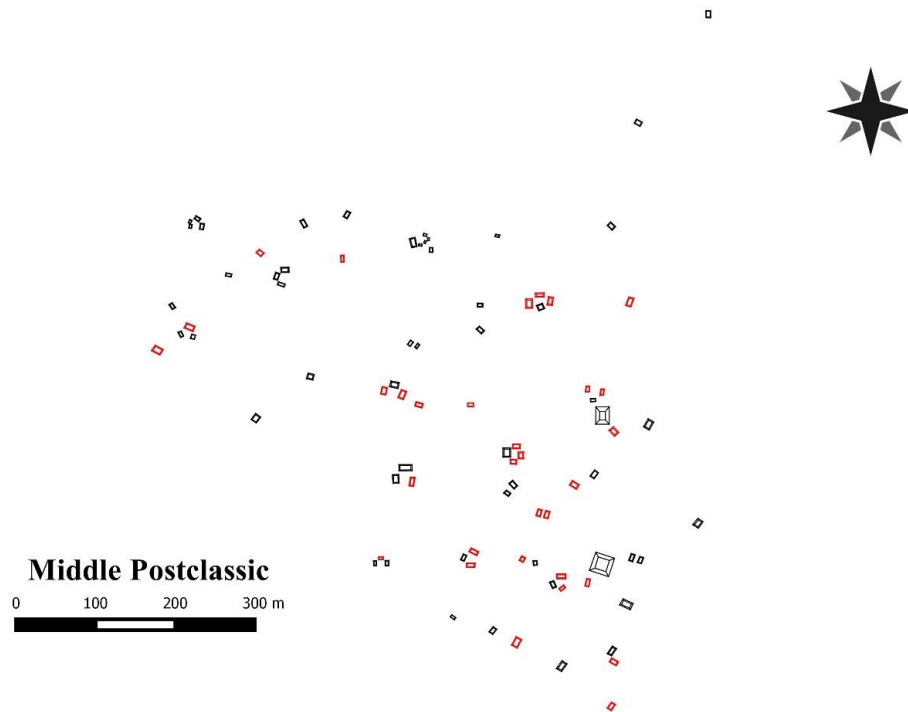


*Figure 13: Terminal Classic occupation in the inter-site settlement zone (in red)*

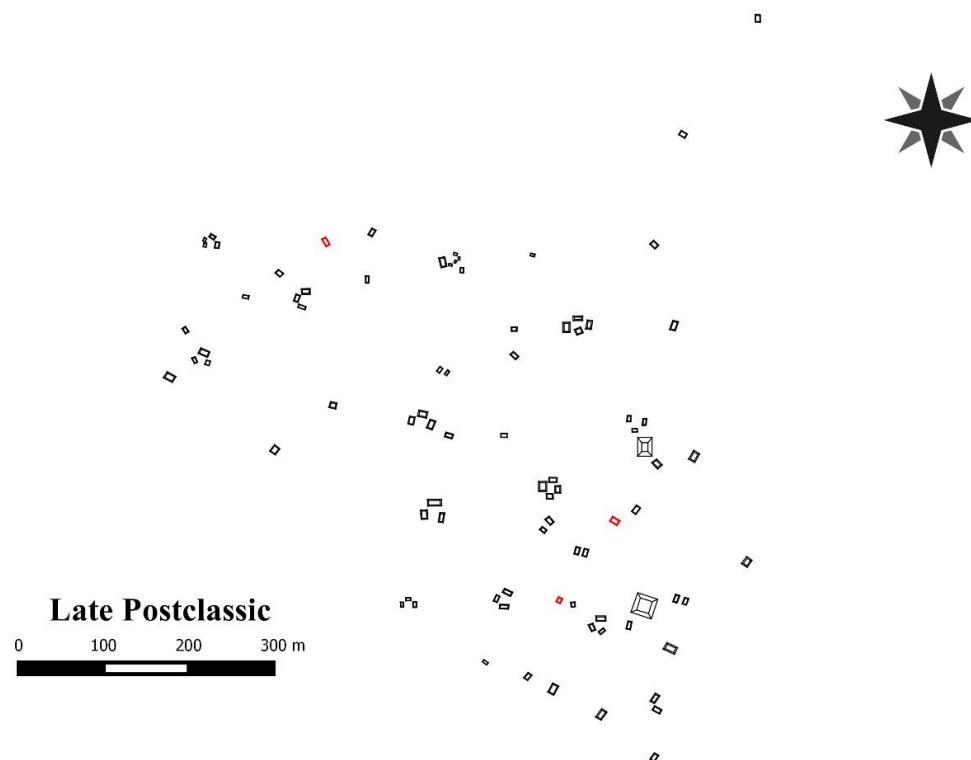


*Figure 14: Early Postclassic occupation in the inter-site settlement zone (in red)*

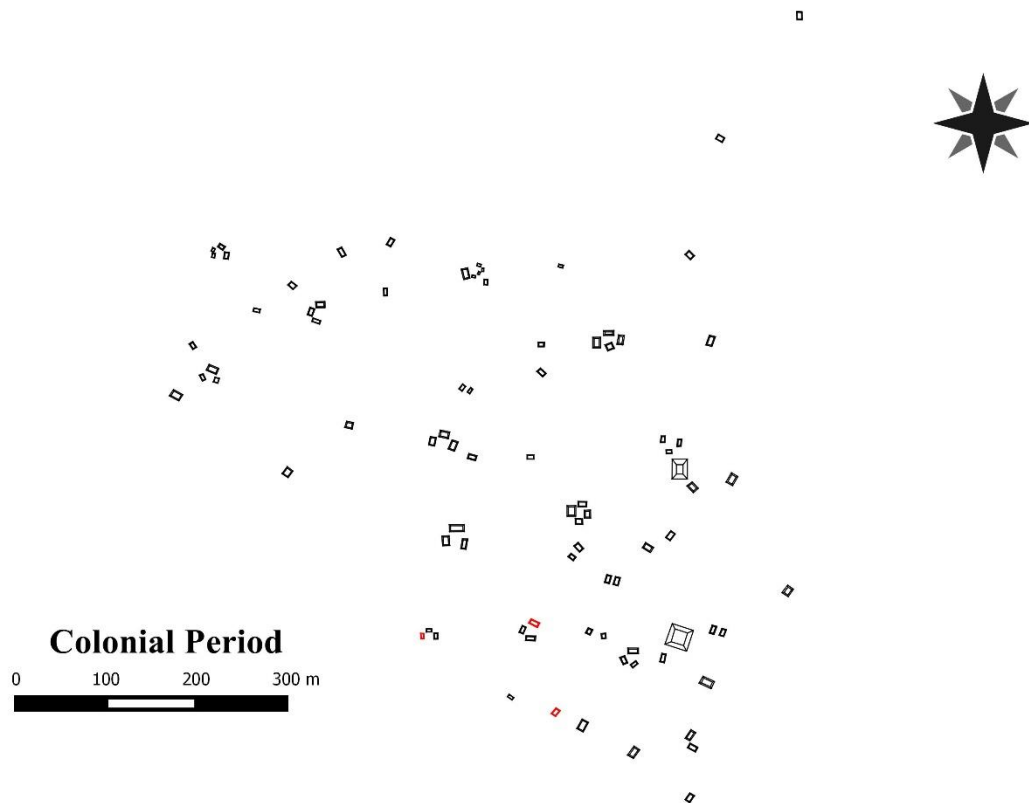




*Figure 15: Middle Postclassic occupation in the inter-site settlement zone (in red)*



*Figure 16: Late Postclassic occupation in the inter-site settlement zone (red highlights)*



*Figure 17: Colonial Period occupation in the inter-site settlement zone (red highlights)*

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## CHAPTER 8

### ANALYSIS OF CERAMICS FROM THE KARP 2015 FIELD SEASON

*by*

***Kerry L. Sagebiel***

During the 2015 Ka’Kabish Archaeological Project (KARP), ceramic sherds were recovered from excavations in site center as well as from survey and excavation along the Ka’Kabish to Lamanai transect. In Group F, the excavations included Operation 5 in the Group F Acropolis and Operation 16, which included extensive clearing of looters’ back dirt and excavation in front of Str. FA-8. In Group D, the excavations included Operation 3 into the Group D platform off the south side of Structure D-9 as well as the Operation 15 excavations into and in front of Str. D-10. In Group C, Operation 14 excavations into Chultun C-2 were completed, having begun in 2014, and Operation 17 excavations in Chultun C-3 began. Survey and excavation in the settlement zone also re-commenced after a two-year hiatus.

#### METHODS

Sherds equal to or greater than the size of a United States quarter (ca. 2.5 cm), as well as smaller sherds with diagnostic features (e.g., decoration, appendages), have been collected from all excavated contexts at Ka’Kabish. Some special contexts, particularly the chultuns (B-2, C-1, C-2, and C-3) and the “smash and trash” deposit (Operation 8 in the Group D South Plaza), have had 100% of sherds collected. Once in the laboratory, bags of sherds were logged into the log books with their provenience information and checked that they had correct labels and tags. The sherds were washed with plain water (soaking was avoided) and soft toothbrushes, unless fugitive paint or other decoration was present, in which case, they were left alone or gently dry brushed. They were dried on ¼-inch mesh screen along with their associated bags and tags. Once dry, they were re-bagged with new bags and tags as necessary. The sherds were also labeled (for full discussion of laboratory procedures see Gomer and McCollum 2012). The sherds were then ready to be analyzed.

Analysis followed the type/variety/mode method of analysis (Gifford 1976; Sagebiel 2005; Smith et al. 1960). An initial analysis separated the sherds into proposed types and varieties and was used to help date the lots. In 2015, these analyses were conducted by the author with the assistance of Trent University students Michelle Arancibia, John Baker, and Kaitlyn McMullen. A second, more-intensive analysis of diagnostic sherds (e.g., rims, bases, handles, painted body sherds) has emphasized attribute

analysis, particularly of form and visual paste characteristics. The latter data are still being processed and analyzed by the author.

The renamed ceramic complexes and associated dates were presented at the Belize Anthropological and Archaeological Symposium in 2014 (Sagebiel and Haines 2014) and are presented in the table below (Table 1). These complexes should be considered working complexes, as they will undoubtedly be revised as further analysis is completed.

COMPLEX	TIME PERIOD	DATES
Mormoops	early Middle Formative	800–600 B.C.
Noctilio	late Middle Formative	600–400 B.C.
Rhogeesa	Late/Terminal Formative	400 B.C.–A.D. 300
Desmodus	Early Classic	A.D. 300–600
Trachops	Late Classic	A.D. 600–750/800
Vampyressa	Terminal Classic	A.D. 750/800–900/1000
Artibeus	Early/Middle Postclassic	A.D. 900/1000–1350/1400
Centurio	Late Postclassic	A.D. 1350/1400–1500
Molossus	Terminal Postclassic/Colonial	A.D. 1500–1700

*Table 1. Ka’Kabish Ceramic Complexes*

## **CERAMICS FROM GROUP F**

### **Operation 5, Unit 2**

Unit 2 was opened in 2014 and reopened in 2015 starting with Level 15, which dates to the Early Classic, including ceramic types Aguila Orange and Pita Incised (Smith and Gifford 1966). Levels 16 through 19 are Late Formative and include common types such as Sierra Red, Laguna Verde Incised, Flor Cream, Polvero Black, Lechugal Incised (Smith and Gifford 1966), and Puletan Red-and-unslipped (Pring 1977).

### **Operation 5, Unit 8**

Unit 8 had also been opened in 2014 and was reopened at Level 4 in 2015. Very few sherds came out of Levels 4 through 7 and none could be dated with any certainty.

### **Operation 5, Unit 9**

Unit 9 was also originally opened in 2014 and was reopened at Level 2 in 2015. Only six eroded body sherds were recovered from the unit before it was closed.

### **Operation 5, Unit 10**

Unit 10 Level 1 consisted almost entirely of eroded sherds with only one sherd dated to the Postclassic. Level 2 also contained almost entirely eroded sherds with only two dating to the Postclassic. Two probable censer fragments were also recovered from Level 2 but could not be dated with any certainty.

### **Operation 5, Unit 11**

Unit 11 Level 1 consisted entirely of eroded sherds and could not be dated. Level 2 also contained eroded sherds except for one Late Formative Sierra Red sherd.

### **Operation 5, Unit 12**

Unit 12 Levels 1 and 2 contained only eroded sherds that could not be dated.

### **Operation 5, Unit 13**

Unit 13 Level 1 consisted primarily of eroded sherds, although two eroded likely Early Classic flanges were recovered. Level 2 also contained mostly eroded sherds along with one eroded Postclassic jar rim.

### **Summary**

Overall, the ceramics from the surface and near surface contexts of the low-walled structure in the Group F Acropolis suggest use in the Postclassic. In order to get a firm date on its construction, excavations would need to be placed into the structure itself. The continuation of Unit 2 confirms construction began as early as the Late Formative (possible platform in Unit 2) with additional construction in the Early Classic (floor in Unit 2) and, possibly, again in the Terminal Classic/Early Postclassic (plaza fill).



## **Ceramics from Str. FA-8**

Excavations at Str. FA-8 were primarily clearing excavations of looters' back dirt and looters' trenches. For a full discussion of the likely tomb-related ceramics, their contexts, and a listing of the 19 reconstructible vessels see Chapter 3 in this volume. It should be noted that the 19 reconstructible vessels were all from looters' back dirt and all date to the Early Classic. The vessels included seven of the Aguila Orange Group, seven of the Balanza Black Group, two San Blas Red-on-orange type, and one of each of the following types: Early Classic cream, Early Classic red, and Dos Arroyos Orange-polychrome. The prevalence of monochrome and dichrome slips (18 vessels) versus the single polychrome vessel suggests that the looters preferentially removed polychrome vessels from the looted tombs and any caches associated with Str. FA-8. Throughout the looters' back dirt, 28 additional rims (many quite large) from San Blas Red-on-orange vessels were found. These rims are mostly from deep bowls with flared walls, direct rims, and flat bases, which is a common shape for cache vessels and suggests that either a number of caches were also removed by the looters or that these types of vessels were used in some quantity in the tombs.

On Floor 1 of Str. FA-8 a number of sherds from a possible god pot were found. The vessel appears to have been unslipped with a round bowl shape, a direct rim, and round lip. A ring base sherd and a modeled "ear" likely belong to this vessel based on similarities of paste. (A second "ear" from the looters' back dirt may also come from this vessel.) There are also sherds of the same paste that are likely part of a lid with a flanged rim. The vessel was found with other Early Classic sherds and may be Early Classic, although that is uncertain.

Two partial Terminal Classic vessels were found tucked near the exterior corner of Str. FA-8 under the collapse and suggest use at that time. The vessels included a Cubeta Incised bowl (Vessel 1) and an Achote Black vase (Vessel 2). The Cubeta Incised bowl is similar to a vase as it has vertical sides. The design is a double row of oval-in-oval shapes with the top row of ovals horizontally oriented and the bottom row oriented vertically. The two rows are incised between two horizontal lines. The Achote Black vase is notable for having a slightly rounded base giving it a slight basal angle.

## **CERAMICS FROM GROUP D**

### **Operation 3, Unit 1**

Operation 3 was an excavation unit (Unit 1) placed into the south part of the Group D platform off the south side of Structure D-9 in order to search for midden and to obtain stratigraphic and temporal information. The excavation consisted of 10 lots of plaza fill and midden above a platform structure. Excavations terminated at the platform and did not include the platform itself. A total of 9,332 sherds were covered from Unit 1. Levels 1–6 contained ceramics of the Vampyressa (Terminal Classic) and

Artibeus (Early/Middle Postclassic) complexes with a very minor admixture of earlier sherds. Level 1 contained a sherd from a possible censer that could not be further typed, but is likely Terminal Classic or Postclassic. Level 2 contained a very thick sherd with very deep punctations that is similar to Late Postclassic chili grinders reported at Altun Ha (Pendergast 1990:250, Figure 111b). Levels 2–6 consisted of well-preserved sherds of types that are similar to Terclerp (Terminal Classic) and Buk (Early Postclassic) period types at Lamanai (Graham 1987 and personal observation) as well as types established in the Central Peten, Northern Belize, and Quintana Roo, such as Achote Black, Cubeta Incised, Tinaja Red, Kaway Impressed (Smith and Gifford 1966), Red Neck Mother (Chase 1982), orange-slipped chalices (Graham 1987), Dumbcane Striated (Fry 1987), Daylight Orange, Daylight Orange: Darknight Variety, Rubber Camp Brown, Roaring Creek Red (Willey et al. 1965), and Lemonal Cream (Sagebiel 2005).

There is a rather abrupt chronological shift in Levels 7–10. Level 7 consists of Noctilio Complex (Late Middle Formative) sherds along with a large amount of Mormoops Complex (Early Middle Formative) sherds, including part of a possible pronged censer lid. However, Level 7 also includes several possible Early Classic sherds. Levels 8–10 contain a mix of Noctilio and Mormoops sherds without any later admixture. Noctilio Complex sherds include Joventud Red, Guitara Incised, Chunhinta Black, Pital Cream, and Desvario Chamfered. Mormoops Complex sherds include Consejo Red, Backlanding Incised, Barquedier Grooved-incised, and Quamina Cream (Smith and Gifford 1966; Kosakowsky 1987). The presence of these sherds in association with the unexcavated platform suggests that the unexcavated platform dates to the Formative period.

### **Operation 15, Unit 1**

Unit 1 was excavated into the Group D platform in front of Structure D-10, in line with its central axis, in order to obtain stratigraphic and temporal information. The unit consisted of nine lots of floors and fill. A total of 2,808 sherds were recovered. Levels 1–3 consisted of highly eroded sherds dating to the Vampyressa (Terminal Classic) and Artibeus (Early/Middle Postclassic) complexes with very little earlier admixture. Types identified included Tinaja Red and Dumbcane Striated. Level 4 consisted of Early Classic sherds, including Aguila Orange flanged plates, Early Classic red, and Lucha Incised, along with a large amount of Formative sherd admixture. Levels 5–9 consisted of Late Formative sherds, including Sierra Red, Laguna Verde Incised, Laguna Verde Incised: Grooved-incised Variety, Polvero Black, Lechugal Incised, Flor Cream, and Puletan Red-and-unslipped. These levels also included a large amount of late and early Middle Formative sherds as admixture.

### **Operation 15, Units 2 through 10**

Units 2 through 10 were excavated into the top of Str. D-10 in order to gain chronological information and data on its construction. Level 1 in every unit was either too eroded to be dated (Unit 6) or dated to the Terminal Classic/Early Postclassic or Vampyressa and Artibeus complexes. Units 2, 3, 4, 5, 9, and 10 were only excavated to the latest architecture or floor present (only one to three levels) and all of these upper levels dated to the Terminal Classic/Early Postclassic. Ceramic types included Cambio Unslipped, Encanto Striated (Smith and Gifford 1966), orange-slipped chalices, Tinaja Red, Red Neck Mother, Lemon Cream, and Achote Black. Notable sherds include a possible comal fragment in Unit 2, Level 2.

Units 7 and 8 were excavated into Str. D-10 in order to obtain chronological information about its construction. Unit 7 was a sub-unit placed into Unit 2 and so began at Level 4. Level 4 only recovered 12 undiagnostic sherds. Levels 5 through 7 uncovered a series of plaster floors. Level 5 likely dates to the Late Classic, whereas, Levels 6 and 7 date to the Early Classic. Unit 8 was placed as a sub-unit of Unit 3 and began at Level 3, which was Terminal Classic/Early Postclassic. At the base of Level 3, a floor was encountered. All levels below that floor date to the Early Classic (Levels 4–10). These included common Peten types such as Aguila Orange, Balanza Black, Early Classic red, Early Classic cream, and Triunfo Striated (Smith and Gifford 1966). Levels 9 and 10 contained a fair amount of Late and Terminal Formative admixture.

### **Ceramics from Chultun C-2 (Operation 14)**

Excavations at Chultun C-2 began in 2014 (Gonzalez 2015) and were reopened in 2015 at Level 9. The 2014 excavations had uncovered a Postclassic (probably Early/Middle Postclassic or Artibeus Complex) burial containing three whole vessels in Level 4 (Sagebiel 2015). The sherds in Levels 1 through 6 were all dated to the Terminal Classic/Early Postclassic. Level 7 had been tentatively dated to the Early Classic, although most sherds were eroded, and Level 8 dated to the Late Classic/Terminal Classic. Level 9, opened in 2015, contained mostly eroded sherds with the latest identified being Early Classic. Levels 10, 11, and 12 contain a large number of Late Formative sherds, although two possible Aguila Orange sherds were recovered in Level 11. Overall, the ceramics in Chultun C-2 are mixed throughout all levels with a relatively high quantity of Formative and Early Classic sherds even in the upper levels. However, it does appear that there is some stratification with the earliest deposits—Levels 10, 11, and 12—containing mostly Late Formative sherds followed by Levels 7, 8, and 9, which contain mostly eroded sherds dating to the Classic period and, finally, Levels 1–6 all date to the Terminal Classic/Early Postclassic with Level 4 containing a likely Early/Middle Postclassic burial. The

stratification of the sherds poses the possibility that the chultun was used mostly for trash dumping as early as the Late Formative period, however, erosion into the chultun over time cannot be ruled out.

### **Ceramics from Chultun C-3 (Operation 17)**

Excavations in Chultun C-3 were initiated in 2015 but were only completed through Level 3. All three levels contained sherds that date to the Late Postclassic or Centurio Complex. Level 1 contained sherds of a heavily eroded red-slipped-and-incised tripod jar, possibly belonging to the Payil Group (Figure 1). The jar has an outcurved neck and direct rim with a slightly bolstered round lip. The globular body has a “bag bottom” and the feet are conical and hollow with two round vent holes on opposite sides with the vent on the exterior placed higher than the vent on the interior. The feet are 4.85 cm tall on the tall/exterior side and 2.5 cm tall on the short/interior side. The feet are 2.45 cm in diameter and the vent holes are 0.7 cm in diameter. The rim diameter is 16 cm, the walls are 0.4 cm thick, the rim is 0.6 cm thick, and the neck is 4.0 cm tall. There are shallow incised rectilinear designs on the neck just below the rim. This vessel has the same paste as the clay beads found in the burial, which suggests that both may have been made specifically for placement in the burial. The paste is 2.5YR 5/6 Red with a high inclusion density of 45%. The medium to coarse inclusions are crystalline calcite, calcite, and distinctive large spherical iron nodules.



*Figure 1. Probable Payil Group incised tripod jar.*

Level 2 was also Late Postclassic and contained sherds from the red incised jar described above. Level 3 contained a number of ceramic objects that were not vessels. There were two ceramic objects that

are probably spindle whorls. Both are probably unslipped and were modeled rather than made from sherds as is often the case. One has a diameter of 2.15 cm, a width of 0.85 cm, and the perforation has a diameter of 0.75 cm. The second one has a diameter of 2.55 m, a width of 1.0 cm, and the perforation has a diameter of 0.8 cm. There were also 35.5 unslipped, somewhat crudely made, clay beads made of the same clay as the red incised jar found in Levels 1 and 2 (Figure 2). One of these beads has an iron nodule that appears to have been placed decoratively in the center of the bead. The beads average 1.5 cm in diameter with the perforations having an average diameter of 0.4 cm. The rim of a possible torch (Pendergast 1990:138, 64e-h; 1990:302, Figure 140g) was also found, although it also resembles the rims of Late Postclassic Rita Red jars at Santa Rita Corozal (Chase and Chase 1988:28, Figure 11d). The exterior is slipped red and may be Payil Red. The interior is unslipped and there is no evidence of burning. It is recurved forming an angle between the rim and the body or handle of the torch. The rim is direct with a pointed lip. The diameter is 17 cm, the neck or rim is 4.9 cm tall, the walls are 0.6 cm thick, and the rim is 0.5 cm thick. The paste is 2.5YR 7/8 Light Red, contains 30% fine inclusions of crystalline calcite, sherds, and iron.



*Figure 2. Ceramic beads; note iron nodule in lower bead.*

The whole vessel found in the burial in Level 2 is a red-slipped-and-incised tripod jar with modeled appliques (Figure 3). It likely also belongs to the Payil Group and is similar to a much larger

Nucil Modeled jar at Santa Rita Corozal (Chase and Chase 1988:22, Figure 8h). This miniature jar has an outflared neck, a direct rim, and a square lip. This jar can be classified as a miniature as it has a rim diameter of 4.55 cm, a neck height of 1.65 cm, a wall thickness of 0.4 cm, and a rim thickness of 0.45 cm. The vessel height is 7.3 cm with solid conical tripod feet that are 1.05 cm tall. The vessel has a globular body with a maximum diameter of 6.0 cm. There are incised horizontal lines around the center of the body and just below the rim. There are two modeled-and-incised appliques on opposite sides of the vessel between the base of the neck and the widest part of the vessel. These appliques represent birds, possibly vultures, with incised eyes and beaks. The intact applique is 1.6 cm high and 1.15 cm wide.



*Figure 3. Probable Payil Group miniature tripod jar with appliques*

Chultun C-3 has not been completely excavated, but it is likely that the burials found in it date to the Late Postclassic. The two jars appear to be Late Postclassic in form. The modeled spindle whorls and the torch also suggest a Postclassic date. The remarkable similarity between the paste of the fairly crudely made beads and the red-incised jar suggest that both may have been made at the same time for inclusion in the burial.

## **Ceramics from the Ka'Kabish to Lamanai Survey Transect**

### **Ceramics from Surface Collections**

For an in-depth discussion of the survey ceramics collected in 2015, see Chapter 7 in this volume. It will be noted here that most of the ceramics from the surface collections are Terminal Classic (Vampyressa Complex), Early and Middle Postclassic (Artibeus and Centurio Complexes), and Late Postclassic and Colonial period (Molossus Complex) in date. Early Classic and Late Formative sherds are present in some quantity, but Middle Formative sherds are extremely rare.

### **Ceramics from the Survey Transect Excavations**

#### **HF1 Mound 18 (HF1-18)**

The majority of the ceramics from Level 1 date to the Terminal Classic/Early Postclassic (Tinjá Red, Red Neck Mother, and orange slipped sherds) with some Early Classic and Formative admixture. Level 2 has sherds dating to the Late/Terminal Classic (Achote Black, red slips, and polychromes).

#### **HF1 Mound 27 (HF1-27)**

Levels 1 through 4 all dated to the Terminal Classic/Early Postclassic with a large number of conjoining sherds between Levels 1 and 2. Level 2 contained a burial with at least three vessels and one partial vessel. Vessel 1 is a Daylight Orange: Darknight Variety chalice with outflared walls and a horizontally everted rim with a round lip. The exterior wall has a round medial ridge and the interior has a basal groove. The rim diameter is 50.0 cm, the wall thickness is 0.65 cm, and the rim thickness is 0.85 cm. The interior has a blotchy resist design in reddish orange (10R 4/8 Red) and black (10YR 3/1 Very Dark Gray). The exterior is also slipped reddish orange. The paste is 10YR 6/4 Light Yellowish Brown with a moderate amount (35%) of fine to medium calcite inclusions. Vessel 2 is an orange slipped chalice that is similar to Terclerp and Buk phase chalices found at Lamanai. It also has outflared walls with a horizontally everted rim and round lip. The exterior wall has a round medial ridge. The rim diameter is 35.0 cm, the wall thickness is 0.4 cm, and the rim thickness is 0.8 cm. The slip is a reddish orange (2.5YR 4/8 Red) on both sides of the vessel. The paste is 10YR 7/4 Very Pale Brown with a moderate amount (25%) of fine to medium calcite inclusions and unidentified dark particles. Vessel 3 is an eroded pedestal base and was not further analyzed. Vessel 4 is an Achote Black vase with vertical walls, direct rim, pointed lip, and flat base. The diameter is 15.0 cm and the wall and rim thickness are 0.6 cm. The interior and exterior are slipped a glossy black (10YR 2/1 Black) with some red mottling on the exterior near the base. The paste is 10YR 4/1 Dark Gray with a large amount (50%) of very fine to fine calcite inclusions.

### **HF1 Mound 36 (HF1-36)**

Mound 36 had only one level excavated. The sherds in Level 1 were highly eroded. The few that could be dated were Terminal Classic/Early Postclassic.

### **HF1 Mound 52 (HF1-52)**

Mound 52 Level 1 contained sherds that were highly eroded, but those that could be dated were Terminal Classic/Early Postclassic. Level 2 was better preserved and the sherds in it also dated to the Terminal Classic/Early Postclassic, including three vessels. Vessel 1 is a Red Neck Mother jar with a globular body and outcurved neck. The rim is direct with a round lip. The rim diameter is 25.0 cm, the walls are 0.7 cm thick, and the rim is 0.8 cm thick. The neck is 2.5 cm high. The interior rim and neck and exterior rim and neck to the shoulder are slipped red (10R 4/6 Red). The interior is then unslipped and the exterior is also unslipped below the shoulder with horizontal striations on the neck and vertical striations on the body. The paste is 2.5YR 5/6 Red with a moderate amount (35%) of medium to coarse crystalline calcite inclusions. Vessel 2 is an Achote Black vase that was too fragmented to be fully analyzed. Vessel 3 may in fact represent as many as three polychrome plates based on paste differences. However, the plates were so eroded that they could not be further analyzed, although three mend holes were noted.

## **Discussion**

The 2015 excavations and surface collections have added some information that allows a modicum of revision to the ceramic chronology. The earliest ceramics are early Middle Formative based on comparisons with other sites, as yet, none have been found in an unmixed context. All have come as admixture (often substantial) in later contexts. The late Middle Formative is better represented from “pure” contexts, meaning contexts with a mix of early Middle Formative sherds and nothing later. Late Middle Formative ceramics are somewhat difficult to differentiate from Late Formative sherds as the slips are similar. Formal differences are generally what allows separation of the two. Early Classic ceramics are fairly prevalent and easy to recognize, as they generally conform to well-recognized Peten types. There has been a dearth of ceramics that can be dated stylistically to the early Late Classic (Tepeu 1 and 2). There may be some contexts that are purely Terminal Classic based on stylistic comparisons, but most of the latest contexts have ceramics that are a mixture of Terminal Classic and Early Postclassic styles, which is typical of Northern Belize. Middle Postclassic sherds have not been identified with any certainty, but few Late Postclassic and Colonial ceramics have. More excavations as well as use of radiocarbon and other dating techniques should help clarify these time periods in the future.



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