

The Caves Branch Archaeological Survey Project:

A Report of the 2009 Field Season



EDITED BY
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Belize Archaeological Research and Education Foundation
Occasional Report #1, Oxford, MS

2010

Cover: Anthropomorphic appliqué sherd from large Vaca Falls Red: Vaca Falls Variety jar recovered from Operation 4, Unit 3, Group D, Deep Valley, Belize (Scale 1:1). The iconography resembles that of vessels primarily reported from caves contexts, including Chechem Ha and Actun Tunichil Muknal. Photograph by C. Andres (2009).

Layout and formatting: C. Andres and G. Wrobel.

Fonts: Times New Roman and Georgia.

Version 1.0 (March 2010).



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INTRODUCTION TO THE CAVES BRANCH ARCHAEOLOGICAL SURVEY PROJECT

The first season of the Caves Branch Archaeological Survey (CBAS) project was an intense and productive one. As an outgrowth of work initiated in the area by the Belize Valley Archaeological Reconnaissance (BVAR) project in the 1990s, the CBAS project's goal is to produce a broad reconstruction of pre-Hispanic cultural patterns in and around the Caves Branch River Valley. With this overarching objective in mind, we began to develop an occupational chronology for the area's surface sites, continued building a timeline of use of the region's cave sites, and explored relationships between sites of different types and sizes. Initiation of these activities in 2009 represents part of a longer-term effort to amass comparative data sets that will illuminate connections between ancient communities in the Caves Branch, Roaring Creek, and Sibun River drainages. It is our hope that these efforts will ultimately allow for broad, supra-site level reconstructions of pre-Hispanic Maya community patterns in this part of the southern lowlands.

In an effort to achieve such a regional perspective, the project pursued a variety of inter-related activities between May and July of 2009. These included work in caves and rockshelters; excavations at the minor civic-ceremonial center of Deep Valley; survey activities at several outlying architectural groups; and reconnaissance intended to document previously unrecorded sites in and around the valley. Work in subterranean contexts took the form of mortuary investigations at Overlook Rockshelter and at Franz Harder Cave (a.k.a. Je'reftheel or "Skeleton Cave" in Plautdietsch) (Figure 1.1). This research was directed by project co-Director and bioarchaeologist Dr. Gabriel D. Wrobel (Wrobel and Lynch; Wrobel and Ebling, this volume). Shawn G. Morton, a Ph.D. candidate at the University of Alberta at Calgary, supervised mapping and spatial analysis of ritual deposits at Actun Lubul Ha ("Waterfall Cave") as part of his on-going dissertation research (Morton, this volume). Morton also completed an initial assessment of caves, rockshelters, and sinkholes (Morton, this volume) in the area surrounding a very large and previously unreported surface site that was documented by members of the CBAS project in 2009.

Surface site investigations were focused in the monumental precinct at Deep Valley and were overseen by project co-Director Dr. Christopher R. Andres (Andres and Shelton, this volume). These excavations consisted of efforts to salvage architectural data from looters' trenches and to build on Jillian M. Jordan's (2008) preliminary chronological assessment of the site center's developmental history. In 2009, project laboratory director and ceramic analyst Becky Shelton initiated a long-term effort to develop a ceramic type collection for the Caves Branch River Valley with material recovered from both cave and surface sites (discussed in papers by Andres and Shelton; Wrobel and Lynch; and Morton, this volume). Cameron Howell of the University of Mississippi contributed to our developing understanding of the valley's settlement structure through his mapping efforts in two of Deep Valley's peripheral architecture groups (Howell and Andres, this volume). Finally, Wrobel, Andres, and Morton investigated the rumored

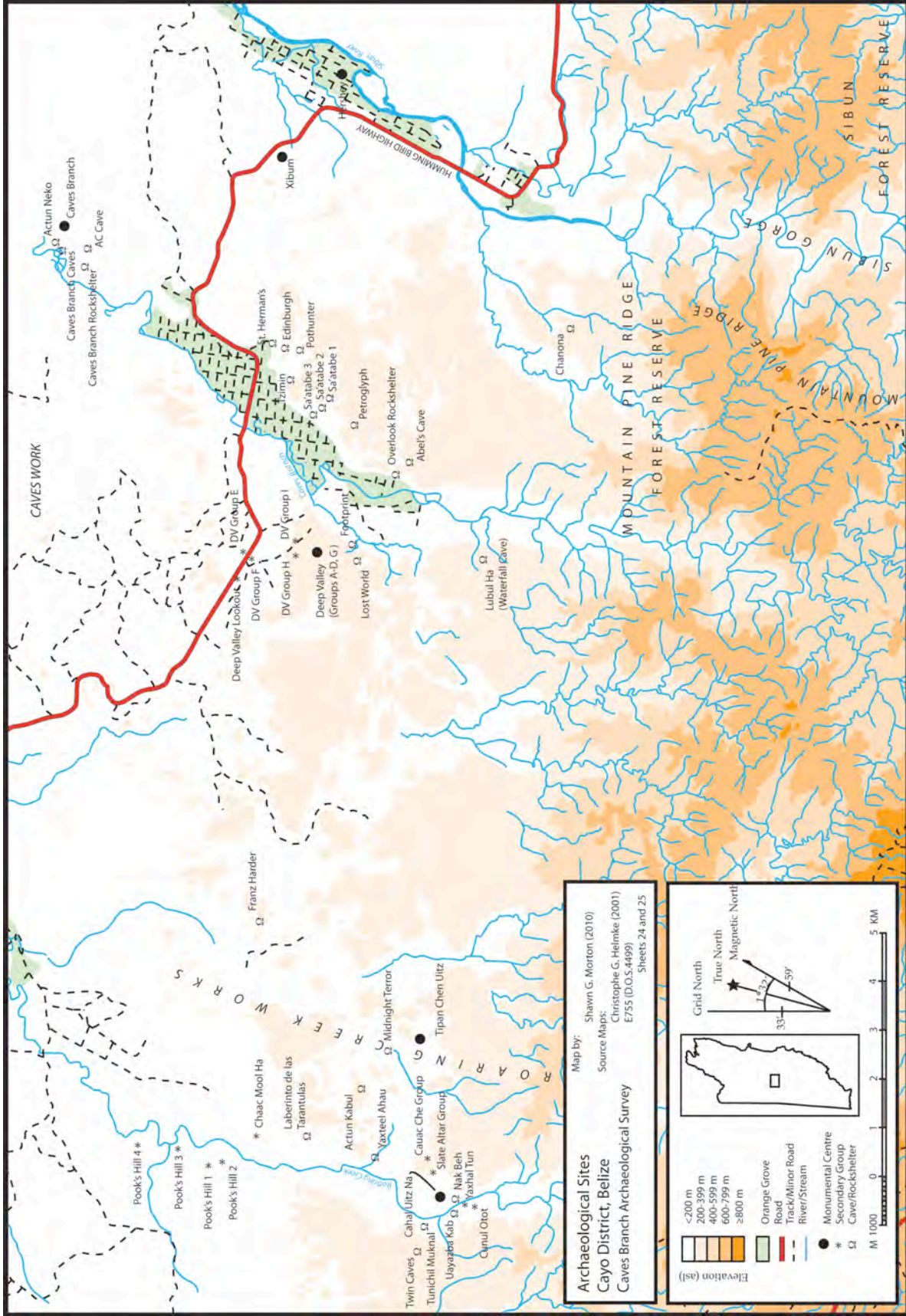


Figure 1.1. Map of central Belize showing the Caves Branch River Valley, surrounding drainages, and sites discussed in the text (adapted by Shawn G. Morton from maps by Christophe G.B. Helmke.)

existence of a large undocumented archaeological site in the region (Andres and Shelton, this volume). This reconnaissance greatly exceeded our expectations, and an impressive, previously unreported center, for which we have proposed the name of Tipan Chen Uitz (“Fortress Mountain Well” in Yukatek Maya), was documented and reported to the Institute of Archaeology. As discussed in several papers included in this volume, this center lies in the so-called Roaring Creek Works - the area between the Caves Branch and Roaring Creek drainages. While little is currently known of this site, our visits suggest that it has potential to provide significant insight into relationships between high and lower order centers in central Belize, and promises to broadly inform understandings of political, economic, and ritual developments leading up to the Classic-to-Postclassic transition (A.D. 750-1000). From this perspective, documentation of Tipan represents an important step towards a more sophisticated regional understanding of pre-Hispanic cultural patterns in this part of the southern Maya Lowlands.

The success of the 2009 field season was a direct result of the efforts and collaboration of many, and we are grateful to each of these individuals and institutions. First and foremost, we wish to thank Dr. Jaime Awe, Commissioner of Archaeology, and the other members of the staff at the Institute of Archaeology (IoA) and the National Institute of Culture and History (NICH) for their encouragement, support, and for granting us permission to conduct the research reported on in this volume. In particular, we wish to thank John Morris, Sherilyne Jones, George E. Thompson, Melissa Badillo, and Joyce Tun. We are grateful to the IoA for granting us permission to initiate investigations at Tipan Chen Uitz, including Shawn G. Morton’s speleological reconnaissance of the area, and we owe a special thank you to Hector Hernandez of the IoA for assisting us in our efforts to produce a preliminary pace and compass map of Tipan.

Work in the Caves Branch River valley was conducted with support from the University of Mississippi (UM) Office of Research and Sponsored Programs, the UM Dept. of Sociology and Anthropology, the Indiana University-Purdue University Fort Wayne (IPFW) Dept. of Anthropology, IPFW’s Office of Research and External Support, and the University of Alberta at Calgary’s Dept. of Anthropology. Much of the data reported in this volume was collected by participants in the 2009 CBAS fieldschool and we very much appreciate their enthusiasm and hard work. We also wish to thank Dr. Christophe Helmke for helping us select the name of Tipan Chen Uitz and to David Hale for kindly granting us access to the land upon which the research sites lie. Our initial visit to Tipan and to many of the other important sites in the area would not have been possible without the expertise and assistance of Neko Medrano, Hugo Claro, Pablo Garcia, Ebel Medrano, and Elmer Garcia of Armenia. Our work at Franz Harder Cave owes much to the interest and support of the residents of Springfield. Ian Anderson and the staff at the Caves Branch Adventure Lodge were exceedingly gracious hosts during our visits, and as in years past, we greatly appreciate their hospitality and assistance. Finally, we would also like to extend our thanks to Rafael Guerra, Myka Schwanke, Jenna James, Jill Jordan, Cameron Griffith, Julie Hogarth, Alex and Bruce Minkin, Nandina Rodriguez, Gabriel Baron, and Gonzo Pleitez for their significant and varied contributions.

Christopher R. Andres and Gabriel D. Wrobel

SURFACE SITE INVESTIGATIONS IN AND AROUND THE CAVES BRANCH RIVER VALLEY IN 2009

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INTRODUCTION

In 2009, the surface site component of Caves Branch Archaeological Survey (CBAS) pursued a variety of inter-related objectives, including chronological assessment of Deep Valley, a minor ceremonial center and the largest known site in the Caves Branch River Valley; mapping of several of Deep Valley's outlying groups; and reconnaissance intended to document previously unrecorded sites in the surrounding area. Our work not only sought to establish occupational chronologies, but to create a framework for ultimately identifying relationships between sites of different sizes and types.

I. OVERVIEW OF DEEP VALLEY'S KNOWN EXTENT

The site of Deep Valley has a complex history of archaeological investigation and naming. The first two groups to be recognized (currently designated Groups E and F) were initially reported by Clinton Davis (1980) in the early 1980s (Figure 1.1). These are located on natural elevations immediately adjacent to the Hummingbird Highway and were originally connected by a 7 m wide causeway or *sache* that was severed by the modern road. Group E lies on the north side of the Hummingbird Highway and consists of a sizable plaza surrounded by four pyramidal structures and six range structures. Due to the preliminary nature of Davis' (1980) pace and compass map, Group E was cleared and remapped by Cameron Howell of the University of Mississippi in 2009 (Howell and Andres, this volume). Howell's work not only documented several buildings not included on the earlier map, but showed the group to be larger than originally suggested (Figure 2.1).

Clearing of Group E also identified five previously unreported limestone monuments (five stelae and one probable altar) (Figures 2.1 and 2.2). While these monuments are eroded and do not appear to have surviving images or texts, such a concentration of stelae at a relatively modest site is impressive. When considered together with other probable evidence of the group's late construction (see below), the monuments may have functioned to give the impression of a degree of time depth the site did not in fact possess.

Group F lies on the south side of the Hummingbird Highway - approximately 70 m south of Group E - and consists of a plaza measuring approximately 20 m x 30 m that is surrounded by five low rectangular mounds and two pyramidal structures. Due to time constraints, Group F still awaits remapping (planned for the 2010 field season). While no excavations were conducted in either group in 2009, preliminary examination of looters' trenches revealed large amounts of dry-laid boulder core consistent with rapid, single phase construction. Based on this evidence and patterns documented in other groups at Deep Valley (see below), we suspect Groups E and F were established in the Late Classic. The virtual absence of artifacts from surface contexts and in the looters' trenches suggests that these groups were only briefly occupied.

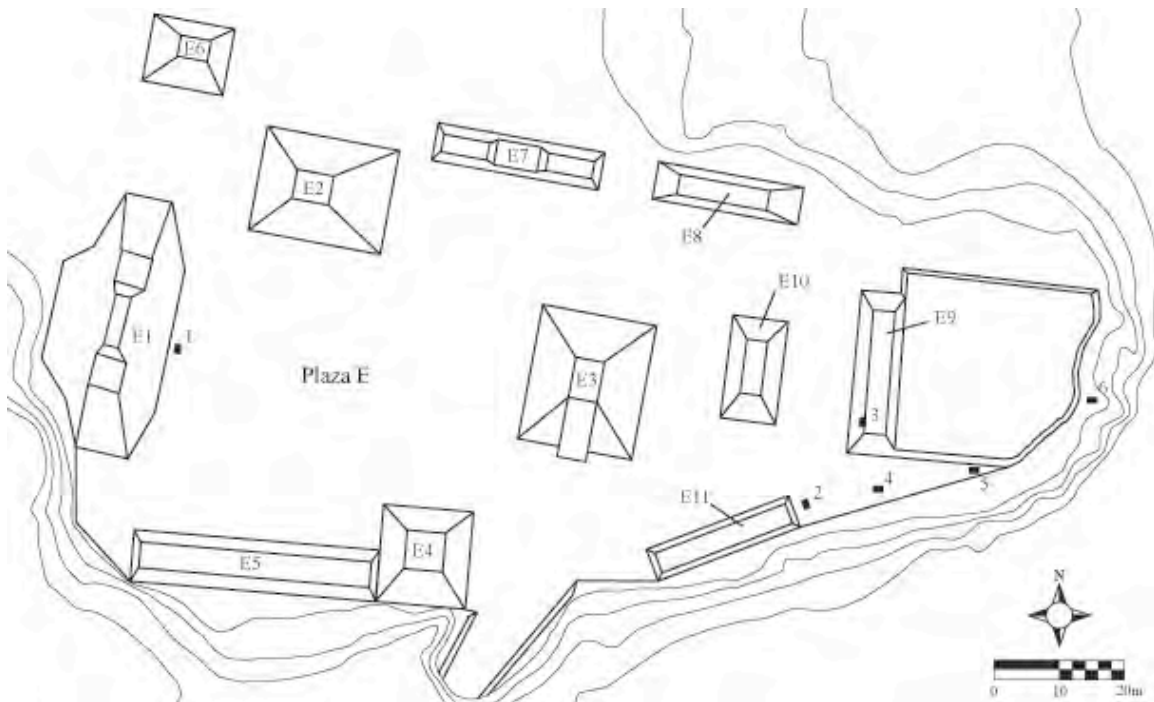


Figure 2.1. Map of Deep Valley Group E (mapping by Cameron Howell).

The Deep Valley Site Core (Groups A-D, and G)

Prior to 2009, the most recent investigations at Deep Valley were carried out by Jillian M. Jordan (2008) under the auspices of the Belize Valley Archaeological Reconnaissance (BVAR) project. Jordan's work focused on mapping and preliminary test excavations in a concentration of monumental constructions located south of Groups E and F. In 2009, we returned to this location to build upon her findings. In so doing, we primarily focused on assessing issues of architectural preservation and resolving lingering questions concerning the site's construction chronology.

Deep Valley's site core is an architectural node consisting of five groups (Groups A-D, and G). This hill-top concentration of structures, which is located approximately 1.25 km



Figure 2.2. Photograph of Stela 3, Group E, Deep Valley (photograph by Christopher R. Andres).

south of the Hummingbird Highway, has been referred to as Baateelek (or “Battle Star” in Yukatek Maya) (Jordan 2008), and consists of at least 31 structures arranged around five plazas (Figure 2.3). Four of these groups (Groups A-D) were mapped by Jordan in 2006 and 2007. The fifth, Group G, was identified nearby by Christopher R. Andres and cleared and mapped by Cameron Howell in 2009 (see Howell and Andres, this volume).

Based on the number of structures, their scale, and the range of building types represented (pyramidal structures, range structures, a ballcourt, and an elevated palace group), Groups A-D and G appear to have constituted the community’s epicenter (Jordan 2008; Wrobel et al. 2009). The architecture forming these five groups is not only consistent with that of a “minor” ceremonial center (e.g., Bullard 1960; Hammond 1975), but suggests that Deep Valley was the primary focus of political, ritual, and administrative activities in the Caves Branch River Valley.

Deep Valley Groups H-J

The three known remaining groups at Deep Valley have yet to be mapped. Groups H and I lie between Groups A-D and G and the Hummingbird Highway (Figure 1.1). These were identified by Bruce Minkin and Cameron Griffith in 2008 and are both reported to be residential. Group J (also known as Deep Valley Lookout) consists of a large, apparent elite residential group located just south of the highway and about 1.75 km northwest of the site core. This group is located on a promontory and draws its name from the commanding view it provides over the surrounding landscape. Mapping activities are planned for Groups H, I, and J in 2010.

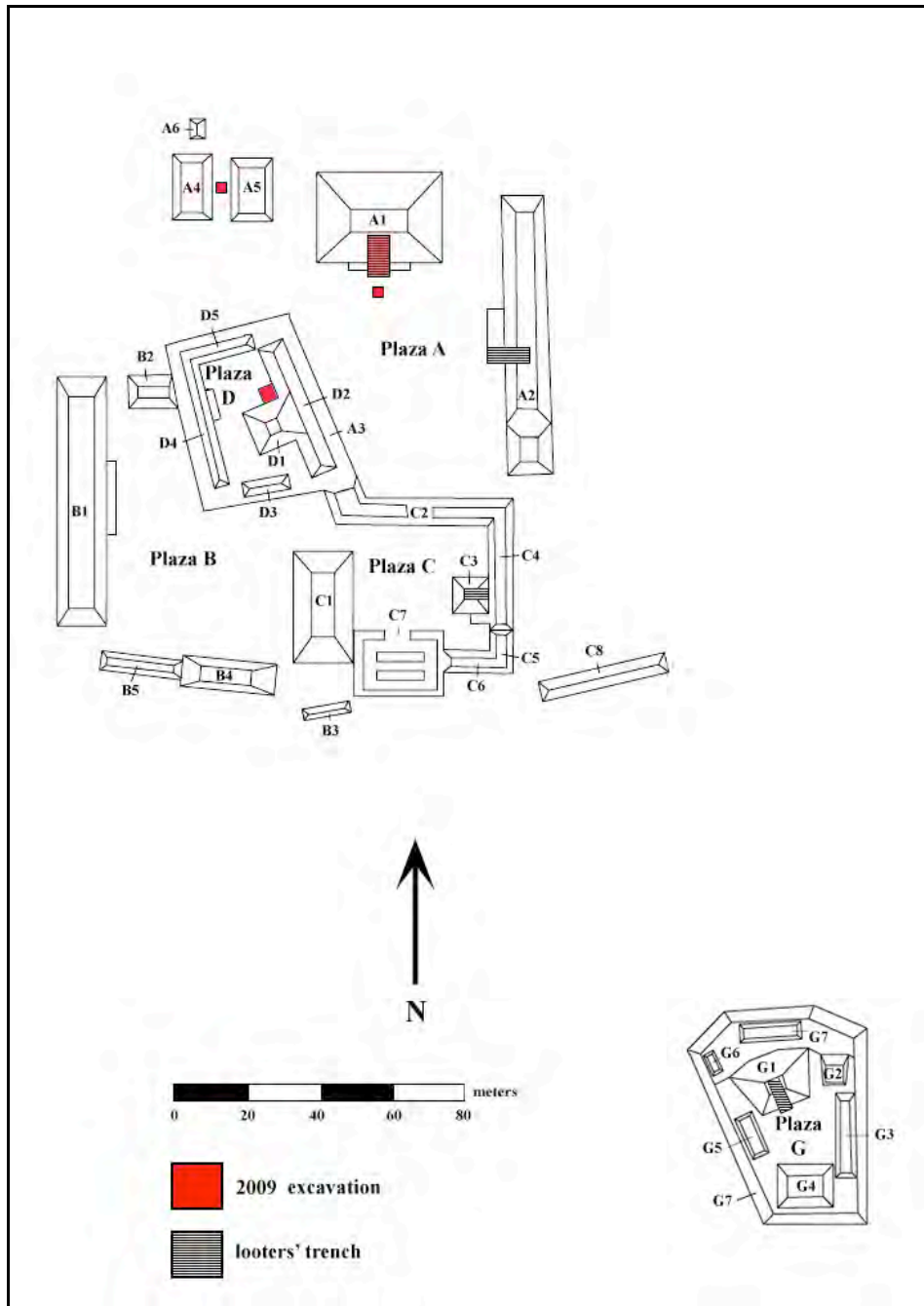


Figure 2.3. Map of Deep Valley Groups A-D and G showing locations of the 2009 excavations (mapping by Jillian M. Jordan and Cameron Howell).

II: EXCAVATIONS CONDUCTED AT DEEP VALLEY IN 2009

The excavations carried out in the Deep Valley site core in 2009 were limited in scale but produced significant new data. Our efforts were concentrated in three areas: (1) at the northern end of Plaza A in the vicinity of Structure A-1, (2) in the alley of the Group A ballcourt, and (3) in Group D, a presumed elite residential context (see Figure 2.3).

Group A

Operation 1, Unit 1 (Lot 76)

The Group A excavations included clearing and mapping a large axial looters' trench located in Structure A-1, the community's primary civic-ceremonial structure. In an apparent effort to locate a tomb, the looters' had cut an irregular trench into the building's south face (Figure 2.4). At the outset of the field season, this trench extended from plaza level to Structure A-1's summit and no architectural details could be discerned.



Figure 2.4. View (to north) of looters' trench in Structure A-1 at Deep Valley as it appeared at the beginning of the 2009 field season (photograph by Christopher R. Andres).

Due to the building's dry-laid boulder core construction, Structure A-1 had continued to deteriorate subsequent to the actual looting event and the trench's walls had slumped. When we initiated investigation of the building in early June, this loose rubble was partly overgrown with secondary vegetation. However, the greatest challenge posed by the looting was that the material that had been removed from the trench had been thrown up in a pair of massive piles on the plaza surface, obscuring Structure A-1's lower southern façade. Since it was impossible to evaluate the architecture with this debris in place, a substantial amount of time and energy was spent clearing this displaced boulder core. An effort was also made to clean up the eastern wall of the looters' trench so that the profile could be documented.

Clearing at the building's base revealed that the latest phase of the structure had incorporated an outset axial stair. This had been almost completely destroyed by the

looters and only very modest, undisturbed portions of its outermost edges were present beyond the east and west sides of the trench (Figure 2.5).



Figure 2.5. Surviving portion of Structure A-1's outset axial stairway on west side of looters' trench (photograph by Christopher R. Andres).

Clearing revealed remains of multiple bisected construction phases. These consisted of several sets of low terraces or high stairs that underlay the outset stairway. While not completely cleared across the full width of the trench due to time constraints, these architectural units were visible running into its eastern profile (Figure 2.6). These units led up to a shallow terrace, surmounted by a step, which in turn terminated at the base of an approximately 1.5 m high facing (Construction Unit 4) (Figures 2.7 and 2.8). This facing consisted of a finished masonry surface which ran coterminous with the trench profile, extended back into the building, and gave no indication of having been cut through by the looters. Our understanding of this feature remains incomplete because we did not follow it into the profile to prevent further destabilizing the structure. However, several interpretations are possible.

(1) The first is that Construction Unit 4 represents the setback for a large centerline niche or an inset axial stairway. If this is indeed the case, the stair (or back of the niche) was completely removed by the looters, as only dry-laid boulder core was encountered west of the feature.



Figure 2.6. Photograph of masonry units running into the eastern profile of Operation 1, Unit 1, Structure A-1, Deep Valley (photograph by Christopher R. Andres).



Figure 2.7. Photograph of Construction Unit 4 (stairblock or terrace remnant) in east profile of Operation 1, Unit 1, Structure A-1, Deep Valley (photograph by Christopher R. Andres).

(2) A second possibility is that the finished face of Construction Unit 4 represents the west side of a centrally-placed stairblock. If this is true, it would suggest that the looters' trench actually lies west of the building's centerline. This is certainly possible since Structure A-1's deteriorated state makes its architectural landmarks difficult to discern on the surface and the looters may have placed their excavation off axis.

(3) A final possibility is that Construction Unit 4 is an element (such as the interior wall) of a demolished tomb. This scenario may be supported by the fact that several large slate slabs were present in the looters' backdirt (see Jordan 2008), although no additional evidence of a tomb in the form of in situ architectural remains or artifacts was encountered in 2009.

An excavation that extended into the eastern profile of the trench and followed Construction Unit 4's southern face would most likely resolve this uncertainty.

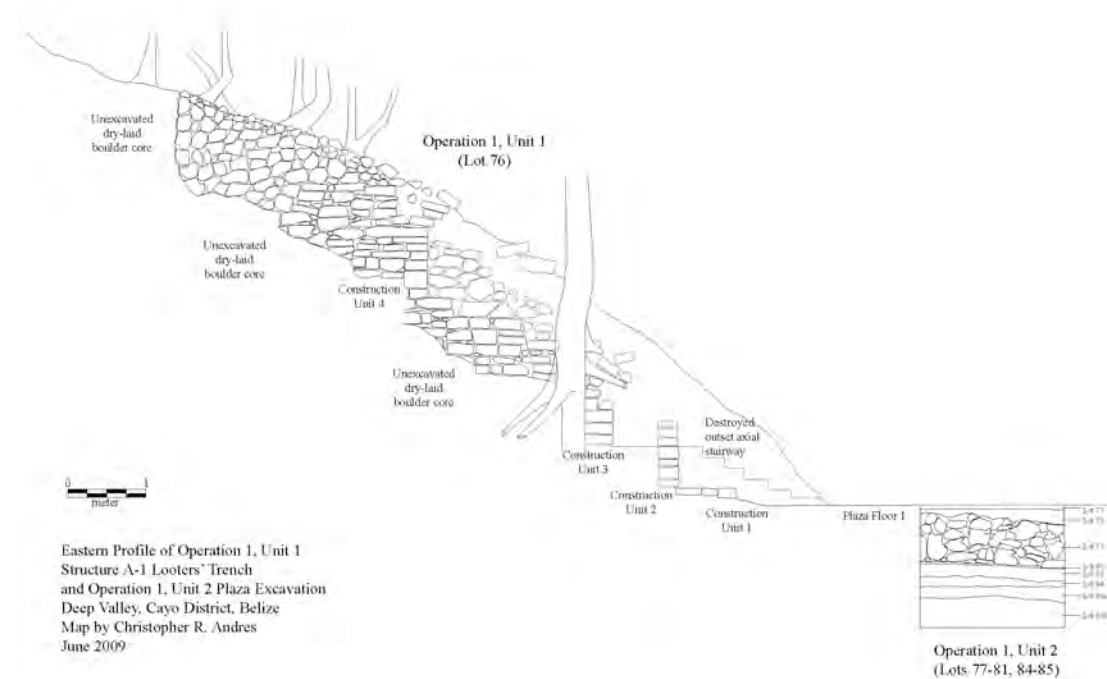


Figure 2.8. Drawing of the east profile of Operation 1, Unit 1 looters' trench in Structure A-1, Deep Valley, Belize (drawing by Christopher R. Andres).

Chronology of Structure A-1

Very few artifacts were present in Operation 1, Unit 1 (Lot 76). Of those that were recovered, the majority were non-diagnostic *mano*, *metate*, and hammerstone fragments. A modest number of ceramics was also recovered during clearing of the looters' trench and trimming of its east profile for mapping. Generally speaking, these ceramics were eroded, with rounded edges, but their slips were less eroded than in other contexts in the site core (e.g., Operation 1, Unit 2, discussed below). Such preservation is consistent with discarded sherds being swept from plaza floors and included in architectural fill. Identifiable types included Roaring Creek Red, Vaca Falls Red, Tu-Tu Camp, and Dolphin Head (Table 2.1) (Gifford 1976). An unusual rim sherd from a stone vessel was also recovered (Figure 2.9). The presence of these Spanish Lookout Phase materials in Structure A-1's dry-laid boulder core in combination with evidence from a nearby test pit in Plaza A (see below), suggest that Structure A-1 was constructed during the Late Classic period (A.D. 600-800). Following documentation of Operation 1, Unit 1's east profile, the looters' trench was backfilled to prevent further damage to the structure.



Figure 2.9. Rim sherd from an alabaster or travertine vessel recovered from Operation 1, Unit 1, Deep Valley (photograph by Rebecca Shelton).

Table 2.1. Diagnostic ceramics from Operation 1, Units 1 and 2, Deep Valley.

	Early Facet			Late Facet	
Location	Dolphin Head	Belize Red	Garbutt Creek	Vaca Falls Red	Roaring Creek Red
Op. 1, U1, Lot 76	1	1	1	2	3
Op. 1, U2, Lot 78	-	1	-	-	-
Op. 1, U2, Lot 79	-	-	1	-	1
Op. 1, U2, Lot 80	-	-	-	1	-
Op. 1, U2, Lot 81	1	-	1	-	2

Operation 1, Unit 2 (Lots 77-80)

Operation 1, Unit 2 consisted of a two meter by two meter centerline test pit placed in the plaza just south of Structure A-1 (see Figures 2.3 and 2.8). This excavation, which was established to investigate the plaza's construction, showed that it had been built up to a height of approximately 1.50 meters prior to construction of Structure A-1. As illustrated in Figures 2.8 and 2.10, the plaza is composed of dry-laid chert cobbles and boulders (ranging from 10-80 cm in diameter) that were apparently deposited during a single construction event. Traces of only a single plaza floor were identified above this core¹. Noteworthy small finds present in this unit included a stone foot from a *metate* and a cylindrical ceramic object – probably an arm (or leg) from an effigy figure or an element of a frying pan censer. Diagnostic ceramics from within the remains of the eroded plaster floor (Lot 78) included a base from an ash tempered Belize Red Group vessel. Roaring Creek Red, Garbutt Creek Red, Dolphin Head Red, and Cayo Unslipped ceramics were recovered from Lot 81 just above a buried A-horizon (Lot 84) (Table 2.1). The presence of these materials (particularly late facet Roaring Creek Red) at the lowest levels of Plaza A suggests that the plaza's construction was initiated in the later part of the Late Classic period (A.D. 700-800). However, occurrence of some earlier facet types, including Dolphin Head Red, suggests that local settlement was probably established during the first part of the Late Classic period (A.D. 600-700).



Figure 2.10. Photograph of north profile of Operation 1, Unit 2, Deep Valley, Belize (photograph by Christopher R. Andres).

¹ While this plaza floor was completely eroded and no intact portions of its surface were encountered, its former presence was indicated by a concentration of limestone pebbles (ballast) just below the humus.

Operation 6, Unit 1 (Lots 70-73)

The final excavation carried out in Group A consisted of a two meter by two meter test pit placed in the center of the ballcourt (between Structures A-4 and A-5). This excavation was intended to assess preservation of the alley-way, to recover ceramics useful in dating the ballcourt's construction, and to determine if the structure had incorporated a centrally placed marker.

Sediments in the ballcourt consisted of sticky, nearly impenetrable clays that apparently represented wash from Plaza A. Angular limestone fragments embedded in this matrix are thought to be tumble from adjacent Structures A-4 and A-5. While many sherds and several obsidian blade fragments were recovered, the sherds were uniformly small, extremely eroded, and appeared to have been washed into the ballcourt alley from higher parts of the site. These materials were embedded in a web of Cohune roots. Excavation at this location was terminated at a depth of approximately 50 cm below ground surface since no intact deposits were encountered. Operation 6, Unit 1 produced no ceramics useful in dating the ballcourt's construction and no ballcourt marker was present.

Group D

Operation 4, Unit 3 (Lots 74-75)

The investigations carried out in Group D at Deep Valley sampled a refuse deposit initially identified in one of Jordan's 2007 excavations (see Figure 2.3) (Jordan 2008). Our goal here was to expand Deep Valley's limited ceramic assemblage in order to gain a better sense for the site's occupational chronology. Operation 4, Unit 3 consisted of a 2 m x 2 m excavation placed at the base of a large tree. While this area had been disturbed by the tree's root system, and no intact architecture was encountered, a variety of lithic, ceramic, shell, obsidian, groundstone, and bone artifacts recovered near the junction of Structures of D-1 and D-2 are consistent with the group's presumed elite residential function (Figures 2.11-2.13). This material is thought to have originally been deposited on the plaza surface at the time of the group's abandonment.

Many of the ceramics from Operation 4, Unit 3 belong to the Spanish Lookout Phase and date to the Late-to-Terminal period (A.D. 600-900). Upper levels of the deposit primarily produced fragments of Roaring Creek Red (Table 2.2). However, recovery of several Roaring Creek Red flared wall dishes with high pedestal bases (Figure 2.12) and two fragments of Paxcaman Red vessels suggest that the deposit spans the Spanish Lookout and New Town phases. Two vessels with anthropomorphic decoration are particularly noteworthy. The first of these (Figure 2.11a), consisted of a sherd from a very large Vaca Falls Red:Vaca Falls Variety appliqué jar embellished with a figure with outstretched arms and legs. This jar, which is a variation on a vessel pictured in Gifford (1976:237, Figure 145e), closely resembles examples known from cave contexts at Chechem Ha and Actun Tunichil Muknal (Moyes 2006:245). Although eroded, the second anthropomorphic vessel (Figure 2.11b) also appears to be a Vaca Falls Red:Vaca Falls Variety vessel similar to another illustrated in Gifford (1976: 237, Figure 145d).

While the ceramic data set from Deep Valley is still very modest, research carried out at Barton Ramie, Xunantunich, and in the Sibun River Valley has provided a framework for general temporal assessment of these materials. As illustrated in Tables 2.1 and 2.2, the Deep Valley assemblage is dominated by Roaring Creek Red and includes examples of Dolphin Head Red, Vaca Falls Red, British Honduras Ash Ware, and Garbutt Creek. LeCount (1996:166), assigns Dolphin Head to the Late Classic II phase (A.D. 700-800) at Xunantunich and places Vaca Falls Red and Garbutt Creek in the subsequent Terminal Classic period (A.D. 800-900). While very little Roaring Creek Red was recovered at Xunantunich, Harrison-Buck (2006) has interpreted Roaring Creek Red as a strong marker of the Terminal Classic, which she dates to between A.D. 780 and A.D. 890 in the Sibun Valley.

When these suggested dates are considered together with the presence of a minimal number of New Town sherds in the deposit from Group D at Deep Valley, it seems likely that the assemblage was deposited between A.D. 800 and A.D. 1000. This midden is significant because it contains the latest materials recovered at Deep Valley to date.² The fact that many of the sherds were eroded suggests that they were exposed to the elements and may date to the time of the group's (if not the community's) abandonment.

Table 2.2. Diagnostic ceramics from Operation 4, Unit 3 (Lots 74 and 75), Deep Valley, Belize.

	Early Facet			Late Facet		New Town
Location	Uaxactun Unslipped	Yalbac	Garbutt Creek	Vaca Falls Red	Roaring Creek Red	Paxcaman Red
Op. 4, U3, Lot 74	-	-	-	1	5	1
Op. 4, U3, Lot 75	4	1	1	2	4	1

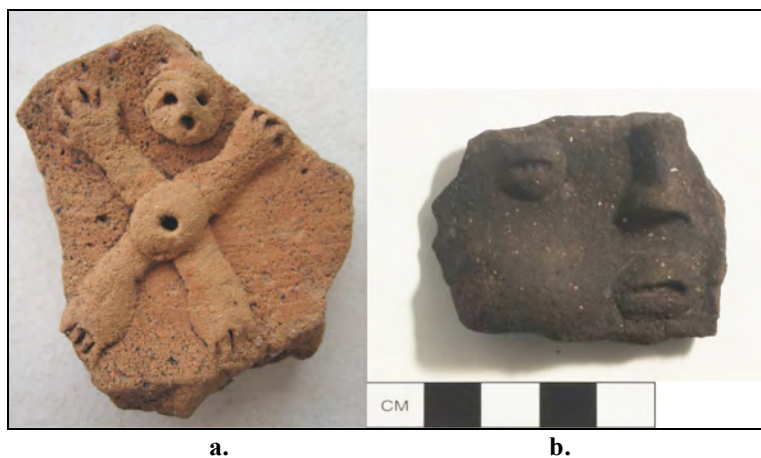


Figure 2.11. a. Vaca Falls Red:Vaca Falls Variety appliqué jar fragment (Lot 75); b. Vaca Falls Red:Vaca Falls Variety bowl or dish fragment Op. 4, Unit 3, Lot 74, Deep Valley (photographs by Rebecca Shelton).

² A review of ceramics excavated from this same deposit by Jill Jordan in 2007 revealed that several poorly preserved New Town sherds were also present in the sample that she recovered.



Figure 2.12. Roaring Creek Red high pedestal base flared wall dish, Operation 4, Unit 3, Deep Valley (photograph by Rebecca Shelton).



Figure 2.13. Selection of artifacts recovered from Operation 4, Unit 3 (Lots 74 and 75), Group D, Deep Valley, Belize. Clockwise from top left: Parrot fish maxillae and mandible, possible burnishing stones, limestone ear plug, hammerstone, and obsidian prismatic blade (photographs by Christopher R. Andres).

III: REGIONAL RECONNAISSANCE

In 2009, we were taken to a major new Maya center in the “Roaring Creek Works” – a little explored zone of karstic, haystack hills between the Caves Branch and Roaring Creek river valleys. Following two visits to this location, we have proposed the name of

Tipan Chen Uitz (meaning “Fortress Mountain Well” in Yukatek Maya) for the site due to its elevated, defensible location and the presence of a large and distinctive masonry feature – a probable cistern - in the site center (Figure 2.14).

Although we lacked the time and resources necessary to document the site’s full extent, a preliminary pace and compass map was completed and reconnaissance suggests that it may be one of the largest previously unreported centers documented in Belize in recent years (Figure 2.15) (Andres et al. n.d.). When considered in combination with locations such as Deep Valley, Tipan Chen Uitz has significant potential to contribute to supra-site level reconstructions of pre-Hispanic Maya community patterns in this part of the southern lowlands. We believe that Tipan Chen Uitz is a particularly important research location because it (1) represents a level of sociopolitical complexity that is currently unrepresented in our study; (2) is a favorable setting to conduct a systematic, regional cave survey focused on a major surface site; and (3) offers an excellent opportunity to continue testing competing models of ancient Maya political organization. At present, there is little basis for assessing Tipan Chen Uitz’s age and length of occupation. However, with permission from the Belize Institute of Archaeology we hope to begin investigating the center’s chronology in the summer of 2010 and considering how Tipan’s access to multiple river valleys and undoubted relationships with multiple smaller communities contributed to its position on the political and economic landscape.



Figure 2.14. Photograph of masonry cistern at Tipan Chen Uitz, Cayo District, Belize (photograph by Christopher R. Andres).

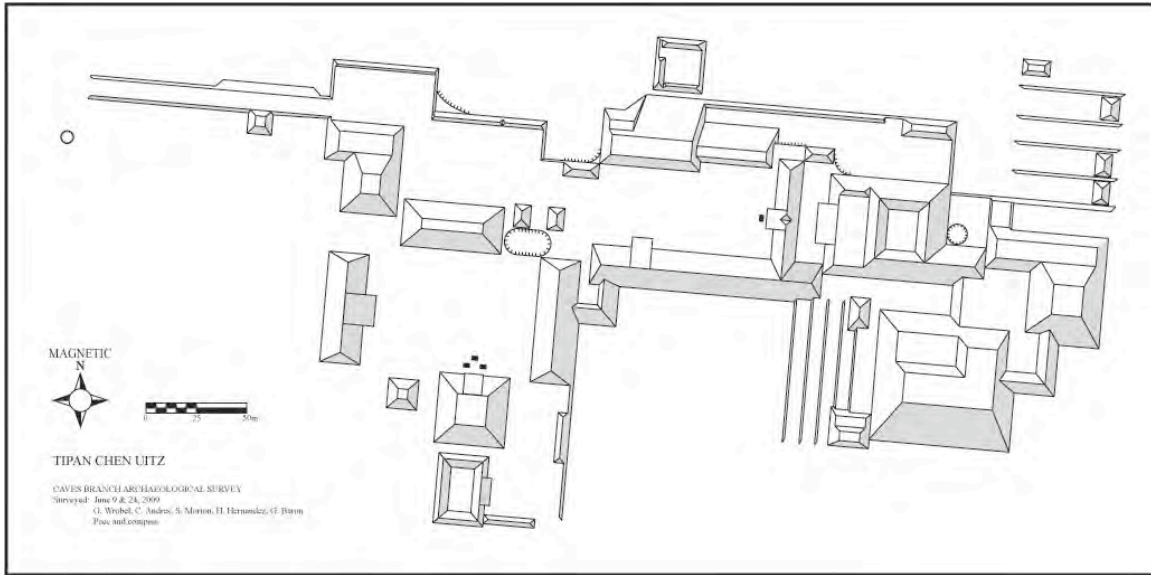


Figure 2.15. Preliminary pace and compass map of the site center at Tipan Chen Uitz, Cayo District, Belize (mapping by Shawn G. Morton, Christopher R. Andres, and Gabriel D. Wrobel. Map by Shawn G. Morton).

SUMMARY AND CONCLUSIONS

Ultimately, the data from Deep Valley suggest that material markers of political complexity first become apparent in the Caves Branch River Valley during the Late Classic period (A.D. 600-800). Prior to this, evidence for local settlement is indirect, and takes the form of activities represented in caves. Caves in the Caves Branch River Valley have been shown to contain an abundance of material culture dating to the Late Preclassic and Early Classic periods (Wrobel et al. 2009). While early use of the region's caves could point to non-local pilgrimage activities, it most likely reflects nearby residential populations whose settlements have yet to be archaeologically identified. These differing patterns of dates at cave and surface sites are important, for they highlight a rather dramatic increase in population densities in the Caves Branch River Valley during the Late Classic period. Such a shift potentially supports the argument that the region served as a demographic “pressure release valve” that experienced a major wave of migration due to crowding and resource depletion in Petén and the Belize River Valley. The appearance of new communities late in the pre-Hispanic sequence also has important implications for discussions of ancient Maya political organization. Following observations made in other parts of Belize (e.g., Dunham 1994; Dunham et al. 1989; Ianonne 2005; LeCount et al. 2002), these developments may signal a period of political decentralization during which new centers may have been established in former “frontier” or “buffer” zones. Although it is too soon to make definitive statements, our preliminary findings are so far consistent with research carried out at other locations positing increasing political balkanization in the later part of the Classic period. Based on the layout of Deep Valley and ceramics recovered from surrounding cave, rockshelter, and settlement contexts, it is possible that

Belize Valley communities may have been the source of these intrusive populations. In future seasons, we not only hope to evaluate this possibility, but to explore the extent to which Tipan Chen Uitz may conform to this hypothesized pattern of late community foundation and the influence this large, newly reported community may have exerted over smaller neighboring centers, including Deep Valley.

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EXCAVATIONS OF FEATURE 7, AND SALVAGE RECOVERY OF SKELETAL REMAINS FROM JE'REFTHEEL

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INTRODUCTION

Je'reftheel (JRH), which means 'Skeleton Cave' in Plautdietsch, is a small dry cave located in the Mennonite village of Springfield in the karstic hills known as the Roaring Creek Works (Figure 1.1). This region forms much of the western border of the Caves Branch River Valley and separates it from the neighboring Roaring Creek River Valley. The cave is also known as Franz Harder Cave after the man who first reported its discovery to the Belize Institute of Archaeology. The cave's single known entrance is a low narrow fissure (4.5 m wide and 0.6 m high) located within a rock outcrop, which lies on the edge of a field approximately 100 m from the main road connecting the Springfield community to the Hummingbird Highway. The cave forms a single basic passage, which occasionally widens into small chambers (Figure 3.1).

HISTORY OF INVESTIGATIONS

Prior to the 2009 fieldseason, investigations of JRH had been conducted by Christophe Helmke and Jaime Awe of the Belize Valley Archaeological Reconnaissance (BVAR) project, who mapped the cave and identified 12 distinct archaeological features. Their investigations also involved an initial description of the contexts, and the removal of artifacts and skeletal remains that were at risk of looting and destruction. Sherry Gibb's preliminary *in situ* analysis of the skeletal remains estimated an MNI of 18 individuals, which were distributed among 7 of the 12 features (Helmke 2009:443). Artifacts found within the cave were primarily in the form of complete vessels, in some cases whole and in others purposefully smashed. All ceramic types found in JRH were classified as the Late Classic (A.D. 550-950) Spanish Lookout Complex (Helmke 2009:465). Other artifacts included a number of perforated Olive (*Oliva* sp.) and Dwarf Olive (*Olivella* sp.) shells, which are consistent with shell tinklers of the type commonly depicted on belts. Feature 4 included a complete, finely knapped chert lanceolate biface. Other artifacts include charcoal and ash, jute shells, and individual potsherds that did not seem to be associated with whole vessels.

Je'reftheel is a particularly interesting site because it appears to be completely unlooted, thus providing a rare opportunity to obtain a relatively accurate picture of the original distribution and placement of artifacts and human bones within a ceremonial cave

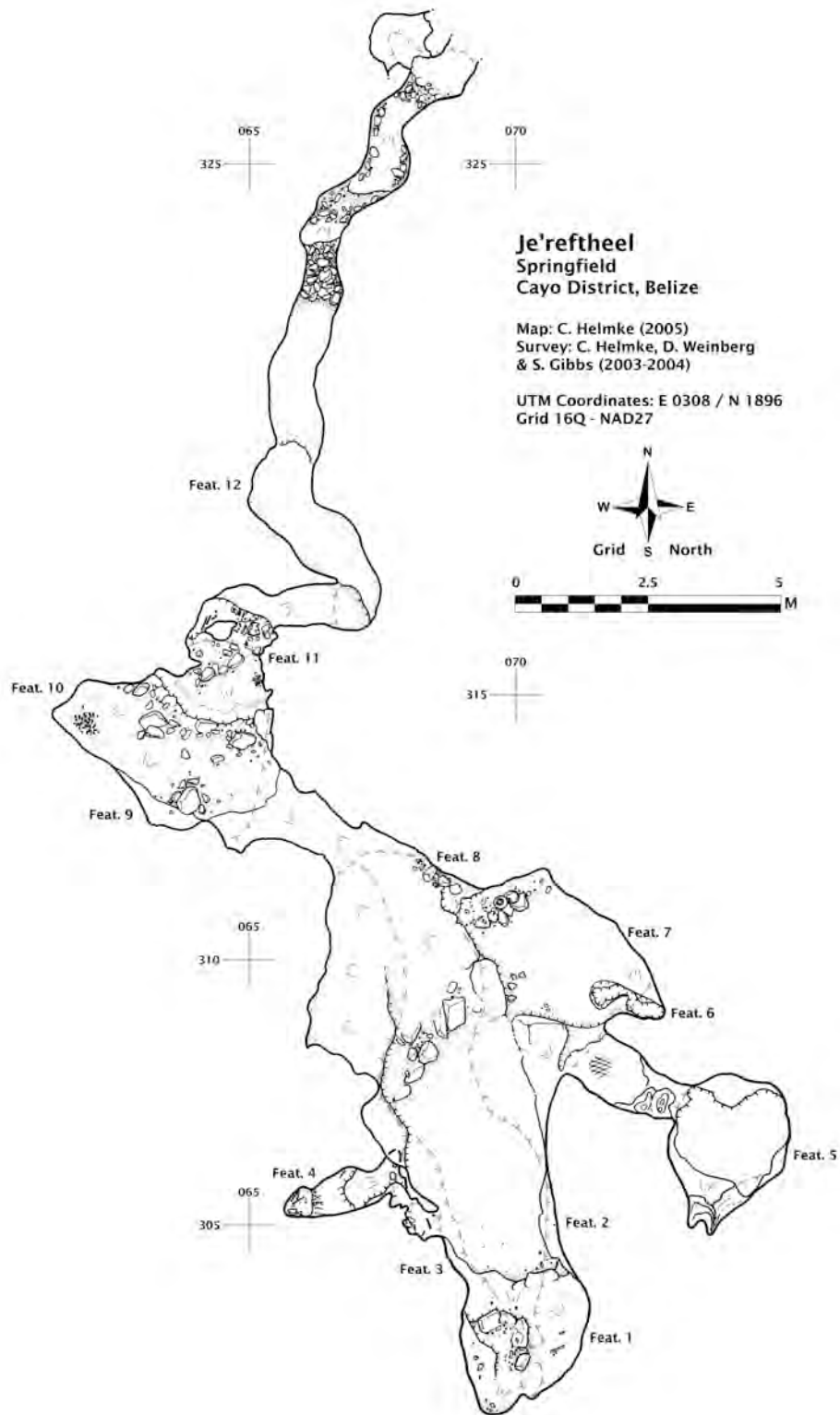


Figure 3.1. Map of Je'reftheel (map by Christophe G.B. Helmke 2005.)

location. There does appear to have been some movement of artifacts as a result of water activity, but this is minimal. Helmke (2009) conducted a spatial analysis, which showed that in general the level of activity (as measured by the amounts of artifacts and human remains) increases substantially towards the deeper portions of the cave. This pattern is in contrast to many other cave sites in the surrounding region, most of which show substantial activity around the entrances. Helmke's analysis also points out that Je'reftheel appears unusual in a number of other ways as well. For instance, he points out that in addition to the lack of a public staging ground in the constricted entrance, the narrow passages and small chambers would have limited ceremonial activity within the cave to very small groups of people or single individuals. And finally, the unusually consistent integration of human skeletal remains in cultural features implies a very specific mortuary usage for the cave. The temporally and typologically homogeneous ceramic assemblage may also indicate a somewhat limited range of ceremonial activities in Je'reftheel when compared to larger, more complicated caves containing a greater diversity of artifact assemblages.

THE 2009 EXCAVATIONS

The work planned in Je'reftheel during the 2009 fieldseason was designed to expand on Helmke's (2009) analysis of activity patterns in the cave by focusing specifically on the mortuary contexts. The primary goal was to create detailed maps of the bones in an effort to note their distribution within the features. Specifically, we hoped to clarify remaining questions about mortuary activities conducted in the cave by determining whether there was any evidence for 1) primary deposition of bodies in the form of *in situ* articulations of elements, and 2) purposeful secondary manipulation of bones such as bundling, stacking, or sweeping aside of the bones. A later lab analysis will supplement these investigations by inventorying fragmentary remains not identified *in situ*, and thus further characterizing the distribution of elements within the features. Furthermore, visual inspection of the bones will seek to detect signs of perimortem trauma, which may indicate sacrifice.

The 2009 excavations focused primarily on Feature 7, which was the area most jeopardized by foot traffic (Figure 3.2). The entire feature was covered in a layer of dense, light gray clay (Level 1), which appears to have washed in over time. Basic quadrants were established in Feature 7 prior to excavation in an effort to better maintain horizontal provenance. All plot-mapping and photo-mapping made note of the location of these lines so that sequential maps could be accurately layered and superimposed upon one another. Removal of Level 1, which was no more than 3 cm deep, revealed a single layer of bone lying on a surface of very dark clay (Level 2). The Level 2 surface was not completely horizontal, and sloped downward slightly towards the south. As a result, Level 1 had filled in the depression and was deepest in this area. Because many of the bones were still articulated, it can be assumed that Level 2 was the original ground surface on which bodies were deposited. The dark color may be the result of the heavy organic residue left by the decomposing bodies. No bones or artifacts were found within



Figure 3.2. Excavations of Feature 7, Je'reftheel (photograph by Gabriel D. Wrobel).

Level 2. Beneath Level 2, which was approximately 6 cm thick, there was a distinct and sudden transition to a layer of white clay (Level 3). On this surface in the northernmost corner of the area lay the remains of a partial and poorly preserved globular vessel, possibly a small olla (Figure 3.3). The vessel was missing the base, and the top half, including the rim, was crushed flat. The ceramic was heavily burned, though no ash was evident in the vicinity, and the fragments were soft. When we tried to pick them up, the vessel fragments disintegrated and for this reason they were left in place. Level 3 sat directly on the underlying flowstone. The clays of Levels 2 and 3 were distinctly different in color and texture, and thus it is entirely possible that this surface was constructed for its use as a platform for the disposal of the dead.

The bones collected from the surface during the 2007 season were not in articulation, and thus were secondarily deposited in the space or they represent primary burials that were later displaced either through human action or by water. While collecting the surface scatter of bones in 2007, articulated bones were noted within the clay, at which point the work was halted until we had time to excavate the feature properly by carefully documenting the position of each bone. During the 2009 season, the complete removal of Level 1 exposed the bones, which were in varying states of preservation. These taphonomic differences seemed to result primarily from erosion caused by drip water in some areas. After the rains began in late June, drip activity increased dramatically, eroding a series of tiny vertical holes through the exposed clay. This action could easily account for the noted discrepancies in preservation of bone in adjacent areas.



Figure 3.3. Fragments of top half of a poorly preserved globular vessel beneath Level 2, in Feature 7, Je'reffheel, Belize (photograph by Gabriel D. Wrobel).

After exposing the bones beneath Level 1, they were plotted on a plan view map, and then were carefully photographed. These photos were then stitched together using Adobe Photoshop to create a single image (Figure 3.4). Thus, a final accurate map can be created using this photomap and the original plan view. When possible, all bones were exposed during excavation to show their placement and relationship to one another. These bones were individually labeled before removal so they could be identified on the original maps. However, the stickiness of the clay and the poor preservation of many of the bones made excavation difficult in some cases. In these areas, excavation focused on defining clusters of bone fragments, which were block-lifted out to avoid further damage to the bone. These small blocks of clay were transported back to the lab and were soaked to aid in removing the clay from the bone without further breakage. In these cases, no articulations could be noted *in situ*. However, the inventory and analysis will focus on identifying anatomically related elements, which may be used to imply the presence of articulations if found in close proximity to one another within features. The lab inventory project is planned for the 2010 season, so the current discussion will focus only on elements identified *in situ* during excavations. During the excavation of Feature 7, five partially articulated bodies were identified.

Individual 1 was first visible on the surface as a complete skull (with face and mandible) embedded in the flowstone in the south corner of Feature 7 next to the sink containing



Figure 3.4. Composite plan view photograph of Feature 7, Je'reftheel, Belize (photograph by Alex Minkin).

Feature 6 (Figure 3.5). The clay of Levels 1 and 2 abutted the stone and removal of the clay exposed articulated cervical and thoracic vertebrae, as well as ribs, all of which were anatomically aligned with the cranium. The body appears to have been placed prone with the head facing east and pointing southeast towards the entrance to Chamber 3, which contains Feature 5. Displaced leg bones and a partially articulated foot that may have belonged to Individual 1 were found in the area where the lower body would have been.



Figure 3.5. Skull of Individual 1 from Feature 7, embedded in flowstone (photograph by Gabriel D Wrobel).

Individual 2 comprised a partially flexed left arm and a tightly flexed right arm, as well as several ribs. These were also found in the southern portion of Feature 7, and the missing lower body of this individual appears to have been disturbed by the interment of Individual 1. Individual 2 had been placed on the right side, heading north.

Individual 3 consisted of part of an articulated torso, including ribs, clavicle, scapula, pelvis, and a mandible fragment with 2 teeth. The body was placed on the left side heading north, roughly parallel to Individual 1. Because of the close proximity, it appears that Individual 3 intruded upon Individual 2, causing displacement of the upper axial region of the torso and possibly the cranium as well.

Individual 4 is represented by an articulated foot and distal leg bones, which were found in the center of Feature 7. The leg would have been oriented in an east-west axis, with the feet to the west. No further information regarding body position could be ascertained.

Individual 5 is represented by arm bones (left radius, ulna, and humerus), which were found on the surface by the cave wall at the eastern edge of the deposit. This area slopes slightly, explaining why the bones were not in exact anatomical position. However, they were roughly aligned in the north-south axis, all with proximal ends pointing north. The extremely poor preservation of the other bones in this area did not allow further identification of associated elements, though some dental remains were found just north of the humerus, in the area where the head would have been.

Finally, several other possible articulations were noted, though poor preservation prevented a definite determination of whether they represented *in situ* individuals. First, there was a cluster of very poorly preserved neonate bones found east of the leg of Individual 4 in the space that would have been the knee. If this was an interment, its placement may help explain lack of the rest of Individual 4's legs. No articulations were noted, but the remains included both cranial and postcranial elements. Adjacent to the cluster of neonate bones were the very fragmentary remains of a pelvis and a proximal femur, which may represent the articulated hip of an adult. Again, no definite determination of body position was noted. Two separate clusters consisting of a few foot bones were found along the northwestern and southeastern edges of the feature as well, though these do not obviously relate to any of the other articulated individuals.

Some of the missing elements of these individuals from Feature 7 may have been among those removed as surface scatter in 2007. In addition, though, it seems quite likely that many of the bones were washed or swept into the sinkhole to become part of Feature 6. As noted, given the estimated placement and orientations of the individuals based on the articulated *in situ* bones, they are not consistently aligned with one another and many would have overlapped if they were interred simultaneously. Instead, the bones form a single layer, and there is no evidence of any stacked articulated elements, suggesting that bones of earlier interments were moved to make way for newer ones. This specific mortuary behavior, while not previously noted in caves, is commonly reported in tomb contexts (Awe et al. 2005:41; Chase 1994; Healy et al. 1998; Weiss-Krejci 2004).

In addition to Feature 7, bones within Features 3, 4, and 11 were also removed. Features 3 and 4 lie directly beneath a shaft in the cave ceiling in which numerous bats roost. As a result, these deposits were covered in guano. A picture of Feature 3 taken in 2003 (in Helmke 2009: Fig. 7.6) shows excellent preservation and there is no evidence of guano at that time (Figure 3.6). As a result of the guano, the bones had begun to deteriorate rapidly, which prompted us to remove them before they were further destroyed. The area around Feature 3 was a slightly sloping surface leading down to a very small passage containing Feature 4. Features 3 and 4 appear to be the same deposit, since there is no distinct break within the bone scatter. Helmke's (2009:444) initial assessment suggested that the bones were "clearly gathered into a discrete cluster secondarily," possibly as a bundle burial. Because of the guano we were not able to conduct careful excavations, and instead the bones were simply removed after photos had been taken. However, the bone pile seems to have been partially displaced since Helmke's initial photograph was taken. Unfortunately, much of the deposit was permanently cemented in place with flowstone, and these elements were left in place. The bones that were collected and taken back to the lab were carefully cleaned with water containing very small amounts of bleach to remove the guano. Many of these elements were cemented together with flowstone, though following washing and drying, most of the limestone deposits would often fall away, which will aid in analysis. Several incomplete individuals are represented in the bone assemblage from Features 3 and 4. A detailed lab analysis of these remains is planned for 2010.



Figure 3.6. Comparison of Feature 3 in 2003 (top) (picture courtesy of Christophe G.B. Helmke) and prior to removal in 2009 (bottom) (photograph by Gabriel D. Wrobel).

Feature 11 is defined as a “widely scattered cluster of human remains and the fragmented remains of two ollas” (Helmke 2009: 456), which was situated on a small flat surface on which the majority of the two ollas was found. This area was connected to a narrow solution tunnel leading down into an increasingly constricted crevice. Helmke (2009: 456) reported bones lying along the northeastern wall of Chamber 1, as well as within the adjoining solution tunnel. The bones along the wall were not located, suggesting that they were previously collected, perhaps to protect them from foot traffic coming through the area, or had been subsequently displaced. We collected the scattered remains from the solution tunnel, which seem to have been pushed or washed down from the main chamber area. All appeared to have been recently displaced, and thus they were collected as a general commingled context. Again, we await further lab inventory and analysis, but a preliminary visual inspection of the remains show an MNI of at least 2 adult individuals based on cranial fragments. The general size and robusticity of the cranial features suggest that both individuals are adult males. Further excavation in this area is needed to recover the remains of the two vessels, as well as to search for additional skeletal elements.

DISCUSSION AND CONCLUSIONS

Helmke’s (2009:464) original analysis of Je’reftheel suggested that it was a relatively unique cave. One aspect of this distinctiveness relates to the fact that no segments of the cave were previously looted, which is a rarity. With the exception of some disturbances by water activity and some light foot traffic, we can assume that the artifacts and bones were found in generally the same place in which Maya groups using the caves left them. Admittedly, with the lack of any sort of evidence for a distinctive termination ritual, the deposits should be thought of as an interim step within a continuous (though interrupted) ritual process in which bones were moved from their original interment locations. One important part of the challenge of working in Je’reftheel, as in any cave, is distinguishing the various stages of these activities. Luckily, Helmke’s (2009) analysis also seems to suggest that Je’reftheel had an unusually specific function related to a very specialized and limited ritual. This interpretation is based on the lack of diversity in ceramic types and the assemblages within the relatively pristine activity areas, which appear to be generally homogeneous, temporally discrete, and primarily limited to the deeper segments of the cave.

The 2009 excavations of Feature 7 demonstrated two previously unknown aspects of the mortuary ritual in Je’reftheel. First, clearly many of the bodies were deposited as primary interments. The articulated elements making this case were found buried in a layer of clay, which had washed in and covered some of the bones. The elements visible on the surface during previous seasons were scattered as a result of water activity, and also perhaps as a result of human manipulation. Second, a visual analysis of the location of the articulated elements shows clearly that in the places where two bodies would have overlapped had they been interred simultaneously, only one was present. This shows a form of stratigraphy, in which earlier bodies were swept aside to make room for later interments. At this point, one must speculate as to where the displaced bones were

moved. In the case of Feature 7, a rather obvious location is in the solution funnel next to it, which contains the bones and pottery defined by Helmke (2009:449) as Feature 6. Many of these elements were cemented in place with flowstone, demonstrating the large amount water activity in this area and raising the possibility that the assemblage was unintentional and instead due to water. However, many of the other features in Je'reftheel were very obviously moved from their original locations, based on their lack of articulation. In addition, many of these smaller assemblages consist of only a few elements placed on ledges.

In addition to the lab analysis and inventory planned for 2010, future work within Je'reftheel will focus on the well-preserved remains of Feature 5 within Chamber 3. A visual inspection of the feature shows a total of 7 skulls, which is currently the estimated minimum number of individuals. No *in situ* articulations are obvious on the surface, but beneath the surface bones is a layer of light clay similar to Level 1 of Feature 7, and there appear to be bones within this matrix. Excavations will reveal the depth of the deposit and will expose any remaining articulations. A lack of articulations would suggest that Feature 5 represents a different type of deposit, perhaps relating to a different stage within the Je'reftheel mortuary process.

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EXCAVATIONS OF THE OVERLOOK ROCKSHELTER

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INTRODUCTION

The Overlook Rockshelter (OVR) is a small overhang located on a sheer limestone cliff face hidden by vegetation high above the Caves Branch Valley (Fig 1.1). It was first reported after a brief reconnaissance in the summer of 2008 by members of the Belize Valley Archaeological Reconnaissance project and guides from Ian Anderson's Caves Branch Adventure Company and Jungle Lodge. The ground surface is uneven with only two discrete areas containing scattered artifacts and human bone. The rest of the surface is rock and does not contain soil or any traces of human activity. The rockshelter is oriented roughly north to south, facing the east with a spectacular view of the river valley floor. By late afternoon the sun clears the overhanging roof and the entire rockshelter is exposed to direct sunlight. The wall of the OVR curves slightly outward toward the northernmost end of the shelter (Figure 4.1). A short climb up the limestone wall of the elevated northern corner of the OVR reveals another small rockshelter with no artifacts visible on the surface.



Figure 4.1. Elmer "Neko" Medrano at the Overlook Rockshelter. View towards the north (photograph by Gabriel D. Wrobel).

SITE DESCRIPTION

One of the two activity areas appeared to be artificially created by the construction of a crude retaining wall. At least some tampering with the site was obvious. In the area with the retaining wall, there was a narrow trench initially hypothesized to be a small looter's trench along the western cave wall. In both areas, bones and sherds had been stacked (probably recently) on some of the loose stones on the surface (Figure 4.2). A visual analysis of the bones, which were left *in situ* until the 2009 season, showed that they all came from the same individual -- an adult female. Most skeletal elements were found stacked in the retaining wall area, and appeared to comprise only the left arm and axial skeleton, suggesting the presence of a partially disturbed primary burial associated with the disturbance. Most of the artifacts visible on the surface were ceramic sherds, though also jute shells and several river cobbles were noted.



Figure 4.2. Area A, showing recently piled bones and artifacts to the left, and the area of disturbance to the right (photograph by Gabriel D. Wrobel).

Much of the recent work in the area by the Belize Valley Archaeological Reconnaissance project has focused on rockshelters (Awe et al. 1998), including a regional rockshelter survey (Hardy 2009; Wrobel et al. 2009) and excavations of the Caves Branch Rockshelter (Wrobel et al. 2007). The OVR was targeted for excavation in 2009 since it possessed a relatively unique combination of attributes not found at other sites. In particular, the presence of mortuary activity at such a small and isolated site was intriguing. Rockshelter burials have been noted at other nearby sites, such as Caves Branch Rockshelter (Glassman and Bonor 2005; Wrobel et al. 2007), Actun Nak Beh (Halperin 2005), and Uayazba Kab (Gibbs 2000), but these sites possess generally larger activity areas with an associated dark zone cave. Furthermore, unlike the OVR, these

other examples are easily accessible and seem to be directly associated with nearby settlement. Because of the small size of the two activity areas and the fact that this site is not actively used for tourism, we decided to excavate the cultural features completely, collecting all artifacts. While a few of the artifacts from both areas no doubt were washed over the edge to the steep drop-off below, we feel reasonably confident in stating that the vast majority of the artifacts remained within the rockshelter and thus were collected. There are no previous attempts to collect and study a complete artifact assemblage from a rockshelter, and for this reason this study represents a unique and invaluable source of data with which to interpret the ritual activities performed at such a site.

EXCAVATIONS

After a detailed topographic map was created using the projects total station (Figure 4.3), excavation units were set up in the only two areas with noticeable cultural material. The boundaries of both were lined by large stones and thus were relatively easy to determine. The matrix at OVR matched the matrix found in other rockshelters in the surrounding area--loose, dark and composed mainly of limestone breakdown from the cliff walls (Hardy 2009). The surface contained recent breakdown of the rockshelter ceiling in the form of several large rocks, which were removed prior to excavation. All visible scattered or stacked artifacts and bones were collected as a single surface context. Based on prior experience with rockshelters, we did not anticipate finding clear stratigraphy, so arbitrary 20 cm levels were used.

Area A

Area A is located in the southernmost portion of the rockshelter and was naturally defined by rock collapse (north and south), the natural cave wall (west), and a crude retaining wall (east). It measured 136 cm deep (E-W) by 250 cm across (N-S) at its largest. Excavations within Area A, as expected, did not reveal any clear stratigraphy. The soil matrix was relatively uniform in color and artifact density throughout. Artifacts found in the Area A excavations included numerous pottery sherds, 117 fresh water *Jute* shells, a few pieces of obsidian, a small drilled slate disk, and a carved marine shell bead. More human bone was found within the matrix as well, especially within the loose soil of the trench. None of the bones were in articulation and it was clear that the entire individual's skeleton was not represented. Further excavation around the trench revealed a crack in the underlying stone, which led to a hollow cavity in which soil seemed to be eroding. Thus, the supposed "looter's trench" was most likely the result of natural geologic activity. The local guides informed us that the exposed bones and sherds within the loose soil were subsequently picked up and then stacked by recent visitors to the site, including hunters and the local guides. It should be noted that the small size of the crack is not sufficient to explain the absence of the majority of the skeleton. Sterile soil was reached at a maximum depth of approximately 60 cm within most of the unit.

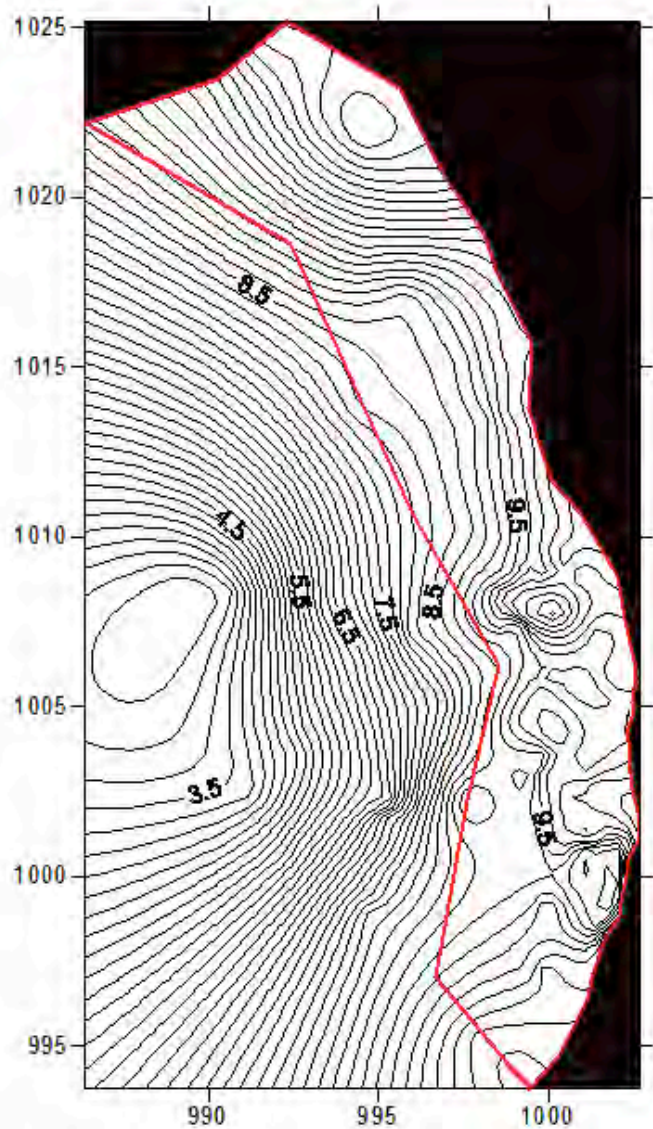


Figure 4.3. Topographic map of the Overlook Rockshelter (by Cameron Howell).

A small flat area of ground that runs from the base of the eastern stone wall boundary of Area A to the edge of the rockshelter itself also contained a few artifacts, including small ceramic sherds a few faunal remains. These remains were collected as “Area C.” The shallow soil was very dense and it is very likely that the cultural remains spilled over from Area A.

Area B

Area B was the other main focus of excavation efforts and was separated from Area A by a loose pile of collapsed rock. This area, similarly defined on all sides by a rock collapse

that naturally surrounded a sunken bed of loose matrix, also contained piled ceramic sherds and several river cobbles. The only human remains recovered in this area were several fragments of an *os coxae* found on the surface, and thus it is likely that all of the bones were originally deposited in Area A. Again, no discernable stratigraphy was found. In general, artifacts were similar to those found in Area A, with several obsidian blades (one notched), a fish net weight, one polychrome sherd (the only one in the entire ceramic assemblage), and 450 *Jute* shells. Some of the soil and artifacts from Area B were washing out between the large boulders defining the eastern edge of the context. These artifacts, which included some of the largest sherds from the assemblage, were collected as “Area D,” though these clearly originate from Area B. Sterile soil was reached at approximately 60 cm.

Catalogue and Preliminary Analysis

A preliminary inventory of the artifacts was performed as part of the initial lab processing and cataloguing procedure, and a more detailed analysis is planned for the 2010 fieldseason. The inventory of the skeletal remains shows that all bones likely come from a single individual, but that the majority of the skeleton is missing. In particular, no pieces of the cranium or legs were located, and it thus appears that this was a secondary burial, which may have particular implications for the type of mortuary ritual performed at OVR.

The preliminary ceramic analysis shows two striking patterns implying some specific depositional behaviors, which also can be used to inform reconstructions of ritual use of the rockshelter. The first pattern was that among the relatively small number of ceramics (less than 1700 sherds) there were a wide range of types, with numerous diagnostic sherds attributed to the Late Preclassic through the Late Classic periods (Gifford 1976). Diagnostics from the Late Preclassic were limited, with two Sierra Red rim sherds and possibly one Sapote Striated: Unspecified (red rim) variety. Early Classic sherds included ring bases of unspecified types and one Actuncan Orange Polychrome: Actuncan Variety. In addition, a number of decorated body sherds appear to be of the Cocay Appliqué type, which has been attributed to the Protoclassic and Early Classic periods. Several Dolphin Head Red: Dolphin Variety rim sherds in the early facet Spanish Lookout phase were also present. The second pattern was that there were very few refits between sherds, and no partial or complete vessels represented in the rockshelter’s assemblage. It instead appears that the ceramics deposited at OVR were left as individual sherds instead of whole vessels. In addition, only 35 of the 1700 sherds were rim sherds, showing a non-random selection of deposited fragments.

Other artifacts found within the rockshelter assemblage include 8 obsidian prismatic blade fragments, a ceramic net weight, a small slate disk with a drill hole, several pieces of unmodified slate, river cobbles (one of which shows modification), a shell bead, and *Jute* shells, most of which were spire-lopped (Figure 4.4). The types of artifacts in this assemblage, as well as the wide variety of ceramic types, are very similar to those

reported for other rockshelters in the valley, including Caves Branch Rockshelter and Deep Valley Rockshelters 1 and 2 (Hardy 2009).



a.



b.

c.

Figure 4.4. Photograph of (a) slate fragment and net weight, (b) drilled slate fragment, and (c) shell bead from Lots 4 and 5, Overlook Rockshelter, Belize (photographs by Alex Minkin).

DISCUSSION

As mentioned above, the rockshelter was excavated completely, and thus the analyses of the artifacts and bone are unique in that they are based on a nearly complete assemblage (assuming that only a small percentage of the assemblage washed out over the edge of the steep cliff face). The importance of this approach lies in being able to rule out the possibility that missing elements from the skeleton or from ceramic vessels are buried elsewhere at the site.

The single partial, secondary burial found at OVR is unusual, but does have some correlates, which may help to explain its significance. For instance, the three burials documented at Actun Nak Beh were also secondary partial burials. Halperin (2005)

suggests that they may have been the remains of elites who were incorporated into a specific type of cave ritual intended to legitimize the authority and power of elites. Unlike OVR, however, the rockshelter entrance of Actun Nak Beh could have served as a space for public ritual, since there is a large flat area surrounding the area, it is directly connected to the monumental center of Cahal Uitz Na, and there is a small and restrictive darkzone that could have been used for private ceremonies. Furthermore, the OVR artifact assemblage consisted primarily of dense deposits of individual ceramic sherds, while Actun Nak Beh had very few sherds. So, while the form of the burials (i.e., secondary and partial) is identical to that of OVR, the contexts at the two sites are quite different, especially in regards to the relative isolation and difficult access of the OVR, likely suggesting that the rituals performed at the two sites were distinctive.

Prufer and Dunham's (2009) recent report on a solitary, walled burial from Actun Bats'ub in southern Belize also shows some basic correlates with OVR. Based on the mortuary treatment, which includes its isolated location and manipulation of skeletal elements (likely postmortem³), Prufer and Dunham argue that the artifacts within Actun Bats'ub reflect a single specialized ritual specific to the individual. In this case, the individualized treatment was theorized to be based on the importance of his/her social role as a shaman. While the solitary nature of the OVR burial may also be argued to imply individualized treatment, the case for the Bats'ub burial is based on many contextual aspects that are not evident in the OVR interment: it is a disturbed *primary* burial, it contains elaborate grave goods, and it is sealed within a darkzone environment. In other words, the Bats'ub burial clearly parallels the reverential mortuary behavior characteristic of tombs, while the bones of the OVR burial are treated in a way indistinguishable from the rest of the artifact assemblage within the general matrix. Furthermore, unlike at OVR the diagnostic artifacts and radiocarbon dates from the cave are all temporally homogenous, supporting the argument that this assemblage represents a single ritual event.

The nature of artifact assemblage at the OVR may instead offer the best analogy for explaining the presence of the scattered bones of a partial skeleton. As noted above, few of the sherds could be fitted to another, suggesting that almost all came from different vessels. Furthermore, the presence of diagnostic forms from a span of nearly 1000 years is certainly curious, since it implies repeated and continuous use. While this pattern has been documented at a number of sites like the larger rockshelters and caves in the region, it is surprising to find such consistent devotion to such a small, hard-to-reach, and generally unimpressive site as the OVR. It may be, however, that the single cave was not the focus of the ritual. Garza et al (2002:22), Kenward (2005), Peterson (2006:120), and

³ The cranium and mandible of the Bats'ub individual were found by the pelvis, and a partial vessel with a single jade bead had been substituted for the head. Because the rest of the body was found articulated *in situ* and covered by a layer of limestone, possibly a floor, they suggested that the burial was a single event, with the head removed at the time of interment (Prufer and Dunham 2009:313). Poor preservation precluded checking for cut marks on the head and neck. However, they also noted that many of the teeth were found scattered around the neck area (p. 298), which seems inconsistent with the removal of a still flesh-covered head. Instead, this would be expected in cases where the skull was removed after decomposition. The loose teeth would have fallen out, especially if the individual had periodontal disease, which is relatively common within Classic period Maya populations.

Prufer (2002:639) have argued that sites were sometimes seen as connected parts within a ritual landscape and formed a series of way points along a ritual circuit. At each of these points (i.e., sites), individuals would leave a small offering. Thus, the lack of an entire vessel may suggest that its individual pieces were dispersed across the landscape instead of deposited together. Indeed, the paucity of rim sherds and the absence of larger sherds to partial vessels, as well as the rather mundane nature of the non-ceramic offerings, may reflect the small and marginal nature of the site compared to others on the circuit. If this scenario is the case, the incomplete skeleton may represent an analogous situation in which the parts of the individual were also similarly dispersed.

CONCLUSIONS

The OVR was excavated completely, resulting in the collection of a complete artifact assemblage. A partial secondary burial representing an adult female had been placed within the rockshelter and appeared to have been scattered within the matrix. The artifact assemblage was generally typical of those from other rockshelters excavated in the area. Diagnostic ceramics showed a variety of forms similar to those reported in other cave contexts, and also showed a range of dates spanning the Late Preclassic through Late Classic periods, which were mixed throughout all levels of the matrix. The lack of fits between the sherds showed that no whole vessels had been placed in the rockshelter, suggesting that the assemblage was created over a long period of time through the repeated deposition of single sherds, and occasionally other small, common, and inexpensive (though perhaps symbolically meaningful) objects, such as river cobbles, small used obsidian blade fragments, and *jute* shells. The documentation of the complete artifact assemblage at OVR has important implications for the interpretation of other cave contexts. Most cave sites contain ubiquitous single sherds in isolation or within clusters, which are often hypothesized to be the remnants of complete smashed vessels whose fragments were subsequently moved by water or human activity. Instead, sites like these may represent part of a ritual circuit composed of many such sites, in which an individual leaves small offerings at each. Similarly, this pattern may explain the incompleteness of the skeleton, which, like the vessels, could have been spread across the landscape.

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**INVESTIGATIONS IN ACTUN LUBUL HA
CAVES BRANCH RIVER VALLEY, CAYO DISTRICT, BELIZE**

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INTRODUCTION

This report presents preliminary observations made in two upper chambers of Actun Lubul Ha (LBH, aka “Waterfall Cave”), a large river cave in the Caves Branch River Valley containing significant archaeological deposits. The cave is registered with the Belizean Institute of Archaeology and has been the subject of sporadic academic research since the late 1970s as well as serving as a popular and well-trafficked tourist attraction. This report presents a general description of objectives driving the current research, the location of the site, and the general methods used in its investigation. This is followed by a preliminary description of artifact deposits contained therein. As Lubul Ha has been visited frequently, this report also serves as an updated evaluation of the state of both the cave and archaeological materials present.

PURPOSE AND OBJECTIVES

Investigations were conducted during the 2009 field season (June 1-30) of the Caves Branch Archaeological Survey (CBAS) project by a crew led by the author and including students associated with the CBAS field school. The purpose of this season’s activity was two-fold. First, while previous archaeological reconnaissance had been conducted within Lubul Ha (Graham et al. 1980; Helmke 1999, 2000; (Miller 1981a), this season’s work represents the first systematic survey of material cultural and its spatial contexts within Lubul Ha. Second, the archaeological integrity of the cave was assessed. In keeping with the former, the field objectives included: 1) exhaustive exploration of the areas of the cave known to contain archaeological materials; 2) detailed survey of these environs; and 3) *in situ* illustration, photography and description of the artifact assemblages and cultural features contained therein.

SETTING AND LOCATION

The Caves Branch river basin lies roughly in the centre of Belize, covering an area of about 200-235 km², its headwaters lying in the escarpment of the non-carbonate highlands. Actun Lubul Ha is one of two other major allogenic sources of input to the Caves Branch (the other being Actun Chek; Miller 1981b:3). The karst is sharply delineated: it is bounded on the south at 200-300 m elevation by the Northern Boundary Fault, and to the north by the abrupt end of the Cretaceous limestone in hills 30 m or

more in height at an elevation of 40 m.a.s.l. (Miller 1981b). The Caves Branch River eventually merges with the Sibun River.

Lubul Ha is located above the valley bottom on the western side of the Caves Branch River, which flows northward out of the Maya Mountains (south of the Hummingbird Highway; Figure 1.1). This area is known for a number of important cave sites including, among others, Petroglyph Cave (Reents-Budet 1980, 1981; Reents-Budet and MacLeod 1986), and Footprint Cave (Graham, et al. 1980). North of the highway lies the Caves Branch Rockshelter (Glassman and Bonor Villarejo 2005; Wrobel 2008) and several small caves surveyed by the author as a member of the BVAR project (Morton 2008).

METHODOLOGY

Reconnaissance of the cave site consisted of two phases and employed up to four personnel. The first phase entailed a thorough and exhaustive speleological exploration of two upper chambers previously identified as containing archaeological materials (Graham et al. 1980; Miller 1981a). The second phase of the reconnaissance consisted of the implementation of survey procedures followed by inventorying of cultural assemblages and features in these chambers.

Exploration

The exploration was conducted in order to assess the size and morphology of the site for descriptive purposes. Exploration also allowed superficial evaluation of the frequency and spatial distribution of archaeological assemblages and features and aided in scheduling time available for the operations to follow.

Survey

At a scale of 1:100, the cave's features were recorded in plan and profile views punctuated by appropriate cross-sections. Baselines were oriented, as practicality allowed, with the long dimension of each chamber. These baselines were not level, and their inclination and bearing were recorded using a Brunton™ compass. Using a Leica Disto™, measurements were then taken to the left, right, above, and below the baseline at half-meter intervals. These data were recorded in tabular form and plotted to graph within the cave to ensure accurate plots and to identify errors in context. Details of the cave environment were recorded on the plan view at this time. The locations of features of archaeological significance were secured by *ad hoc* intervals projected perpendicularly along the baselines.

Permanent datums were established for the survey: A site datum in concrete was established outside the eastern entrance with additional permanent markers set in the two chambers surveyed (one in each; nails with aluminium tags). Cameron Howell using a

total station integrated survey markers. Errors introduced into the survey by inclined baselines were corrected digitally and the scale was adjusted to the CBAS standard of 1:50. The maps presented in this report were generated from these larger versions.

Inventory of Archaeological Assemblages and Features

The inventory entailed the identification and definition of spatially discrete ‘areas,’ exhibiting concentrations of material culture. These areas primarily consisted of concentrated surface scatters of ceramic materials and isolated ceramic finds, hearth features, and modifications to the cave environment; their locations were recorded in plan view during the survey phase. Scatters, features, and isolated finds were designated numerically as they were encountered during the survey, generally beginning at the rear of the chamber and increasing numerically as the survey progressed toward the entrance. Detailed drawings and photographs were made of those deposits thought to represent primary contexts with more general attention paid to secondary contexts. These were treated as discrete lots (32 primary and 3 secondary lots associated with Operation 1; 4 primary and 10 secondary lots associated with Operation 2). As Actun Lubul Ha is an active tourist destination, the decision was made to leave artifacts in context. Following the survey, selected diagnostic materials from each of the scatters were catalogued and photographed *in situ*; Rebecca Shelton has identified some of this material, the majority of which appears to date to the Proto and Early Classic periods with a much-reduced Late Classic component. Aluminium tags set in the cave floor associate specific deposits with notes, photographs, and maps.

SITE DESCRIPTION AND MATERIAL REMAINS

As the name suggests, Actun Lubul Ha (Yukatek Maya for “Cave of the Waterfalls”; Figure 5.1) is a wet cave with a steady stream flowing between entrances separated by nearly two kilometres of passage and divided by a series of eight cascades, some nearly five meters high. The cave is beautifully decorated with draperies, stalagmites/stalactites, and columns of dense white, yellow, pink and red flowstone. Substantial archaeological deposits are found nearly a half-kilometre upstream into the cave, though isolated deposits are encountered on small ledges and in niches throughout its dark zone. In the 1990s, the Western Belize Regional Cave Project (WBRCF) conducted a preliminary survey of the archaeological materials present in the cave (C. Helmke pers. com. 2009). Two chambers were mapped and catalogued as part of the 2009 study.

Chamber 1 (Operation 1) is a small antechamber extending off a larger collapse chamber – the larger chamber is known as *Cantziñal Caan*, the “Four Corners of the Sky” for the four large columns seemingly supporting its vast ceiling (Miller 1981a) – and characterized by discrete archaeological deposits distributed liberally on the flat floor space. These deposits include ceramics (both highly fragmented and nearly intact), lithics (obsidian blades are common), ground stone (a *metate*; Lot 14), worked bone (two bone hair pins; Lot 15, Figure 5.2), fire pits (charcoal and ash deposits sometimes

associated with speleothem hearthstones; Lot 4, Figure 5.3), and human remains. Two small circular excavations that may be of ancient origin have also been observed (Lots 23 and 24).

The shattered cranium of what appears to have been an adult male was placed inside a shoe pot by the Caves Branch guides to mitigate further damage (Lot 30, Figure 5.4). They report that the skull was found alone in the vicinity of its current location, and it may therefore represent a partial secondary burial since no other bones of the individual were found. In a small passage off of Chamber 1 were the disarticulated remains of an infant, whose presence was previously unknown (Lot 32). This burial contained a single individual, whose mandibular dentition and epiphysis closure stage suggest an age at death of 9 (+/- 3) months old (Gustafson and Koch 1974). The bones were not disturbed from the site and while they initially appeared to be in good preservation, they were quite fragile. It appeared that the child originally was placed at a higher elevation within the passage and during decomposition taphonomic forces caused the skeleton to disarticulate and scatter down the incline of rocks. All skeletal elements were identifiable with the exception of the maxillae and sacrum, which most likely were covered by rock fall that littered the area (Jenna James, pers. comm., 2010).

Most of the material found in Chamber 1 was encountered in mixed, secondary contexts ('s.' lots) along the south-eastern periphery of the chamber, presumably the result of periodic destruction and clearing activities akin to those suggested to have accounted for the ceramic assemblage at Eduardo Quiroz cave (Pendergast 1971). While carbon dates are, as of yet, unavailable for the hearth features found within Lubul Ha, if it is accepted that Chamber 1 was periodically 'cleaned,' then it may be expected that the hearths presently encountered date to the terminal phase of use; the presence of early ceramics (ex. Lot 11) in these presumably late deposits remains to be explained. The presence of large quantities of diffuse charcoal close to the walls with no accompanying fire/smoke damage, may suggest that fire pits were a prominent feature of earlier ritual within the cave as well and that the contents of these hearths were likewise subjected to periodic destruction or removal.

Chamber 2 (Operation 2), is a smaller, more readily accessible space directly opposite Chamber 1, above the main passage. Here, the ancient Maya appear to have filled and leveled a small corner of the chamber, though excavation is needed to confirm this observation. This architecture is not associated directly with any other material deposit within the cave. Like Chamber 1, the cultural material in Chamber 2 is distributed liberally across the chamber floor in discrete deposits. Charcoal and fractured ceramics litter the southern boundary of the space ('s.' lots), perhaps a result of the same 'cleaning' activity suggested of Chamber 1. A more comprehensive coverage of material deposits encountered in Lubul Ha awaits laboratory analysis and will appear in later reports.

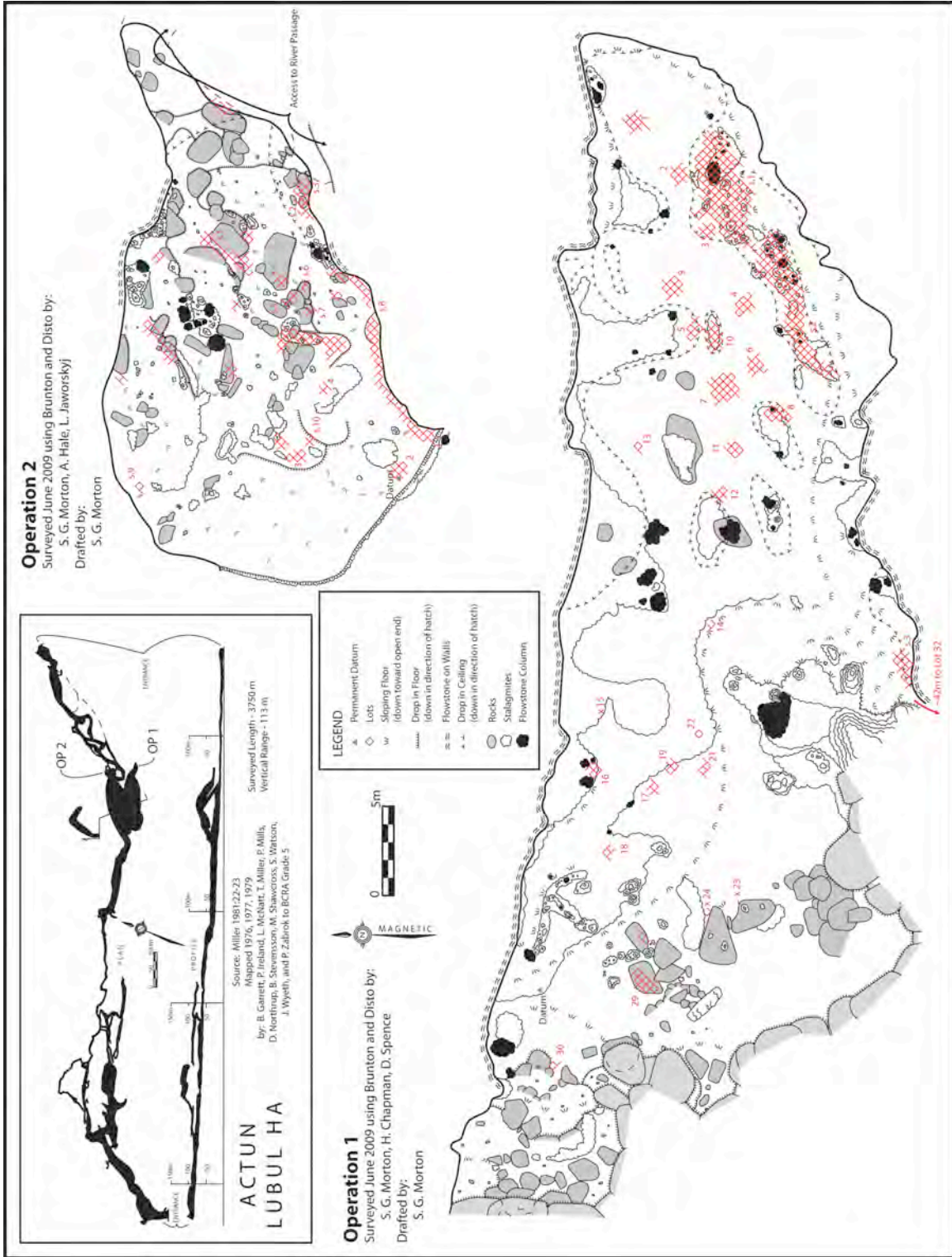


Figure 5.1. Map of Actun Lubul Ha (drafted by Shawn G. Morton).



Figure 5.2. Lot 15, bone hairpins (photograph by Shawn G. Morton).



Figure 5.3. Lot 4, Hearth with speleothem hearthstones (photograph by Shawn G. Morton).

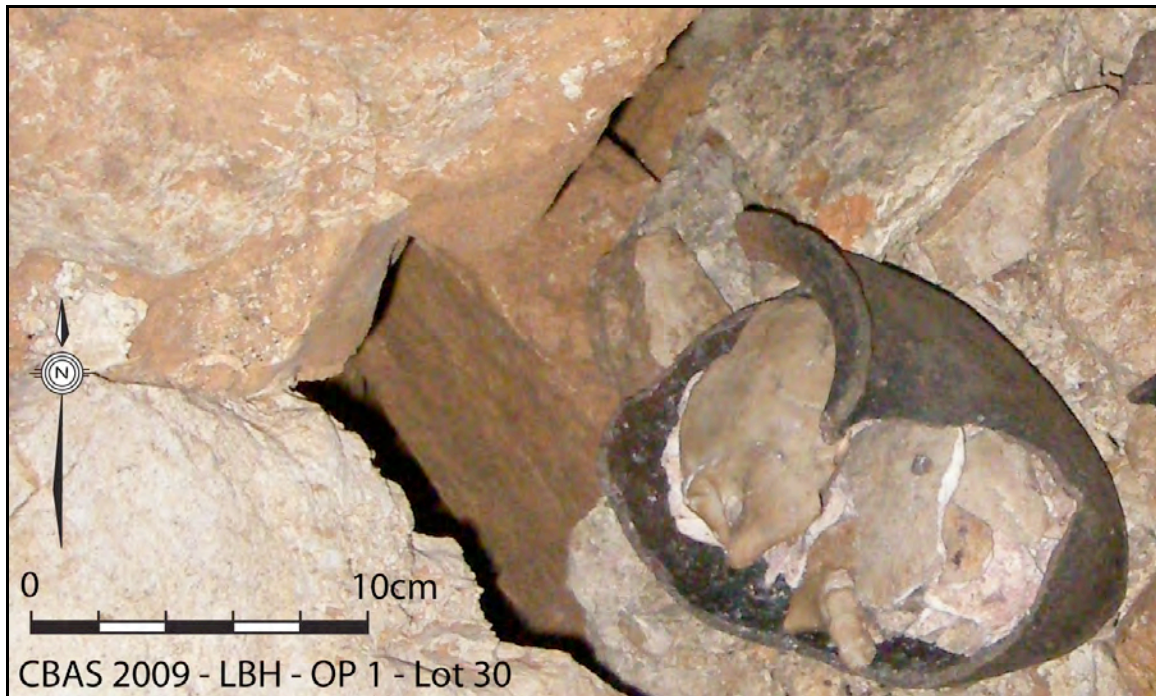


Figure 5.4. Lot 30, shoe pot with human cranium (photograph by Shawn G. Morton).

THE IMPACT OF TOURISM ON THE MATERIAL ASSEMBLAGE OF LUBUL HA

Following the systematic survey of Chambers 1 and 2 in Lubul Ha it has become possible to comment on the condition of the archaeological materials contained therein. The readily accessible material content in many caves allows for a contextual study of ancient activities envied in most other archaeological settings. This accessibility also makes such studies particularly vulnerable to the effects of secondary intrusion on cave materials. Any archaeological assessment of a cave that shows signs of modern intrusion should therefore be treated with caution.

First, the guides responsible for bringing visitors to Actun Lubul Ha should be commended for their continued effort to ensure the security and integrity of the cave and its archaeological assemblages. Nonetheless, following more than a decade of use as a tourist destination, the archaeological assemblage of Actun Lubul Ha is showing signs of wear caused by numerous and irreversible, if relatively minor, and often necessary modern disturbances.

Through field observations and discussions with a number of the Caves Branch guides that have frequented the site over the last decade, it is clear that few, if any, of the delicate surface deposits have remained pristine, though general context has been preserved. Necessary modifications in Chamber 1 include the relocation of a shattered human cranium to a shoe pot (Lot 30) for protection. While the precise origin of this cranium within the chamber is unknown, a heavy crust of CaCO_3 suggests that it may

have once rested along the active northern margin of the chamber. The shoe pot itself is also in a disturbed context, moved out of the way of foot traffic. Similarly, to avoid their being stepped upon, a large number of artifacts have been moved and collected together. These include the numerous beads and blades gathered together on a hearthstone (picked up from the surrounding floor surface; Lot 4), as well as the mixed ceramic clusters on a number of large stones (ex. Lot 29) and forming parts of some peripheral scatters (ex. Lot s.1); similar movement is apparent in the material culture of Chamber 2.

Other modifications to the archaeological assemblage include the fracturing of one of the bone hairpins (Lot 15), the movement of large ceramic fragments into foreign contexts (as with the vessel fragments in Lot 11; an articulating fragment of one of these pieces was found in Lot s.3), and the disturbance of hearth deposits by those in search of small finds (making any dates acquired from carbon samples collected from these contexts somewhat tenuous). A couple of unusual lots may also be the product of modern activity: Lots 23 and 24 are holes, each approximately 50 cm in diameter and 50 cm deep, dug into the red clay of the chamber's floor. While it appears that they were excavated through the use of a stick-like implement, the backdirt from these excavations left adjacent, their purpose remains unclear. The Caves Branch guides could not remember if they are a recent addition or not. Finally, Miller (1981a:18) describes ascending the immense breakdown pile toward Chamber 1 "following a series of hand- and foot-holds cut and worn in the clay," presumably, by the ancient Maya. While clay hand and footholds are still used in the climb to the chamber these are a more recent addition; the whereabouts of the old path remains undiscovered or erased.

SUMMARY AND CONCLUSIONS

This report presents a preliminary account of cultural materials encountered in Chambers 1 and 2 of Actun Lubul Ha. It is not intended as an exhaustive record of such materials; a more detailed analysis will follow the 2010 lab season. Rather, this report serves as a record of the methods employed in the site survey and of the general types of materials that were collected. It is expected that future work in this region by the author will include revisits to this cave and identification of archaeological materials found this season will help fill in our knowledge of the activities carried out therein. The comparisons of these material assemblages with those of other contexts in the region likewise await completion. Finally, this season's activities serve in creating a benchmark from which further changes to the cave environment and archaeological record might be gauged.

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**PRELIMINARY SPELEOARCHAEOLOGICAL RECONNAISSANCE OF THE
UPPER CAVES BRANCH RIVER VALLEY, BELIZE, C.A.,
JULY 2009**

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INTRODUCTION

Over the course of 5 days in July 2009, a preliminary exploratory survey was conducted in the near vicinity of a newly recorded site dubbed Tipan Chen Uitz by the Caves Branch Archaeological Survey, in the upper reaches of the Caves Branch River Valley/Roaring Creek Works, Belize C.A. (Figure 1.1). Following the public announcement of the site at the 7th annual Belize Archaeology Symposium in Belize City, a preliminary exploratory survey was initiated for the purposes of evaluating the nature and archaeological potential of subterranean sites in the region.

Reconnaissance was neither structured nor systematic. Following several exploratory trips to Tipan Chen Uitz in June and early July by members of the CBAS project and guides from the Caves Branch Jungle Lodge, accompanied variously by representatives from the Belize National Institute of Culture and History and the nearby community of Springfield during which a preliminary photographic and cartographic assay of the site core was completed (detailed by Christopher Andres, this volume), the decision was made to more-closely investigate several subterranean sites encountered in close proximity to Tipan (TCU s.01, 02, 06, 07, 08, 20 and 21; previously submitted for publication lacking the 's.' designation, see Andres, et al. n.d.; Wrobel et al. n.d.) and search for others. This resulted in a return trip to Tipan in mid-July by the author and several of the Caves Branch guides during which those subterranean sites previously observed were entered and cultural materials noted. A four-day camping trip followed with Neko and Caesar Medrano during which additional subterranean features were recorded as encountered. This report presents the results of these surveys.

SUMMARY OF FINDINGS

In total, twenty-one subterranean sites (caves, sink holes and rockshelters) were identified during field reconnaissance (Figure 6.1). Of these, sixteen were observed to contain material traces attributable to the ancient Maya and an additional three are considered to have high archaeological potential based on their locations. In general subterranean sites were small caves and rockshelters, which rarely accommodated a standing individual, and lacked significant dark-zone space. Notable exceptions include TCU s.05, 09, 10, 12, 15, and 18. A more detailed description follows.

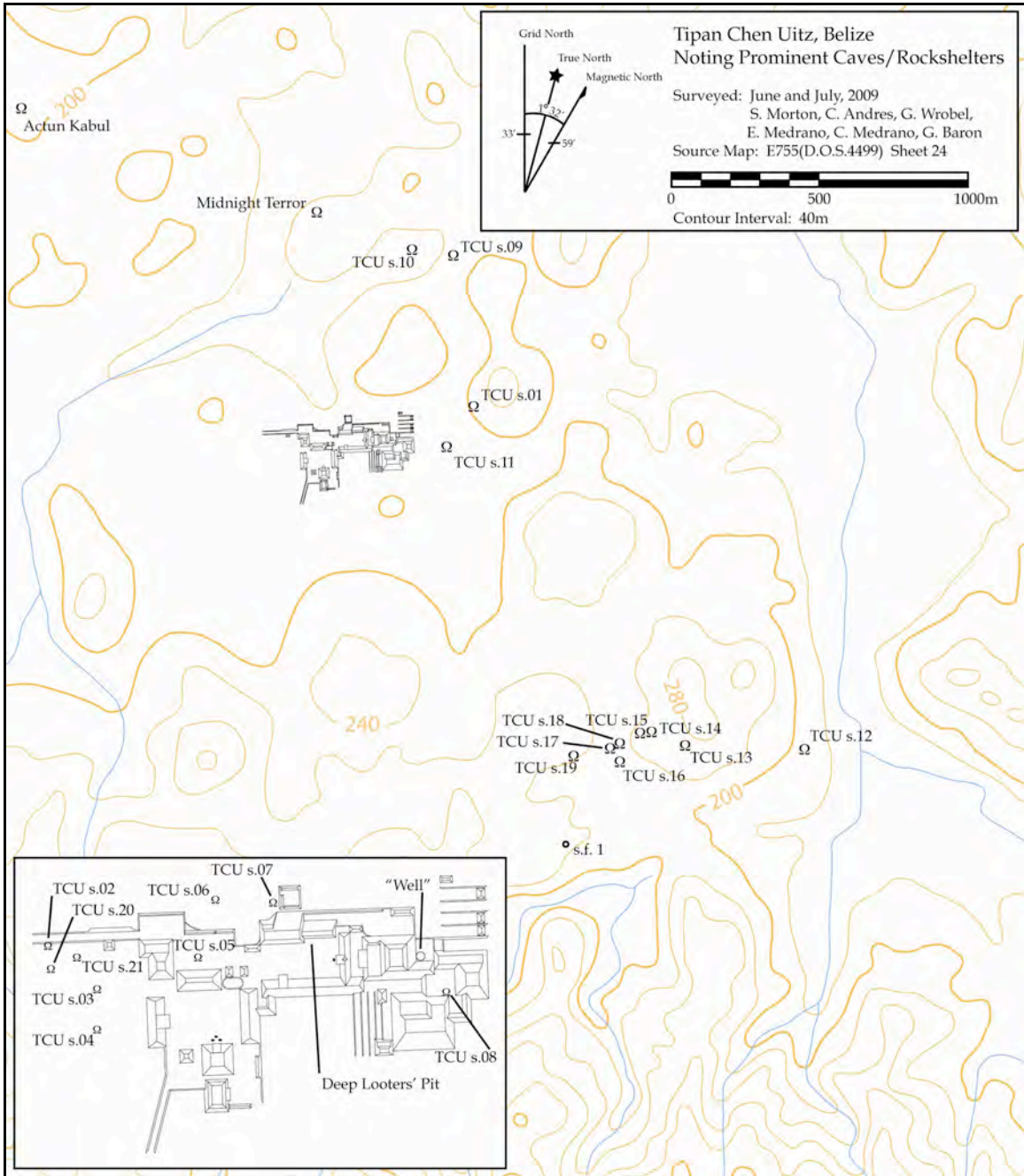


Figure 6.1. Map of Tipan Chen Uitz and subterranean sites identified (drafted by Shawn G. Morton).

TCU s.01

TCU s.01 is a small sinkhole less than two meters deep, located adjacent to the current path into Tipan. Despite its close proximity to the monumental core of Tipan and to a number of small ‘house mounds,’ its relatively small size (the diameter of its entrance is approximately 2.5 m) and the fact that no archaeological materials were observed upon cursory surface inspection suggest that this site offers little potential for future archaeological work. It may be worthwhile, given the opportunity, to place a test excavation in this feature to verify this assumption.

TCU s.02

TCU s.02 (Figure 6.2) is a sinkhole, approximately 7 m deep with a 3 m wide opening set in undulating karst. It is located adjacent to the terminal end of Tipan’s western *sache* and is accessible without the use of climbing equipment. Its close association with this terminus and the presence of cultural materials (fragmented ceramics) at its bottom make this a particularly promising site as a potential ritual locus.



Figure 6.2. TCU s.02, entrance (photo by Christopher R. Andres).

TCU s.03

TCU s.03 is a small sinkhole in the undulating karst immediately to the west of the Tipan site core (approximately 80 m). Though no cultural materials were observed, its close association with the site core may warrant further investigation.

TCU s.04

TCU s.04 (Figure 6.3) is a small sinkhole, approximately 4m deep, in the undulating karst immediately to the west of the Tipan site core (approximately 80 m) and approximately 50 m south of TCU s.03. No cultural materials were observed, however as with TCU s.03, its close association with the site core may warrant further investigation.



Figure 6.3. TCU s.04, entrance (photo by Christopher R. Andres).

TCU s.05

TCU s.05 is a small cave located within the site core itself. The entrance, covered over by the ancient Maya during the construction of the plaza floor in the northwest of the site and later exposed by natural or human processes, is extremely restricted. Access is granted via a narrow 2 m pit through the rubble fill of the plaza followed by an awkward 90° bend to the west and a 2 m restricted, declining, shimmy. From this point the cave opens to standing height, extending approximately 8-10 m to the south with a maximum width of 4-5 m. A small side passage affording crawling room extends to the west for several metres. Walls are liberally covered with flowstone and the floor is a soft matrix of degraded limestone and water-borne silt. This lower chamber is a true dark zone, with natural light being almost completely absent due to the restricted entrance. While no cultural materials were observed, the soft matrix of its floor, its intimate association with monumental architecture, and the fact that its entrance would have been exposed prior to the construction of the plaza above (see also TCU s.08) make TCU s.05 an excellent candidate for further archaeological investigation, including excavation. Due to the restricted access and spatial dimensions of the cave, researchers spending any appreciable time in the chamber should be conscious of air-quality.

TCU s.06

TCU s.06 is a small sinkhole immediately to the north of the Tipan site core (approximately 50 m). No cultural materials were observed, however as with TCU s.03, its close association with the site core may warrant further investigation.

TCU s.07

TCU s.07 (Figure 6.4) is a sinkhole, approximately 10 m deep, requiring climbing equipment to access. The sink is the focal point for a prominent karst formation immediately to the north of the Tipan site core and east of TCU s.06. A courtyard group (presumably serving a residential function) is located adjacent to the east. Cultural materials including fragmented ceramics were noted in the bottom of the sink with larger fragments noted beyond the area currently accessible. This material may have been intentionally and meaningfully deposited, however, it should be acknowledged that this material might have similarly found its way into the sink through the natural action of water or non-meaningful actions of humans. As flowstone is actively building on the walls of the sink, access to a less restricted vertical space observed to the east may have once been possible. Based on its close association with the site core of Tipan and residential architecture, the sink may warrant further investigation.



Figure 6.4. TCU s.07, Neko Medrano dropping into entrance (photograph by Shawn G. Morton).

TCU s.08

TCU s.08 (Figure 6.5) is a sinkhole approximately 2.5 m deep, located within the site core itself. As with TCU s.05, the entrance, covered over by the ancient Maya during the construction of the plaza floor, this time in the east of the site, and later exposed by natural or human processes, is extremely restricted. Unlike TCU s.05, there is no



Figure 6.5. TCU s.08, entrance (photograph by Shawn G. Morton).

navigable passage. This site also differs many of the other caves in the area in that an abundance of ceramic material was observed (Figure 6.6). It appears that this small sink may have served as a ritual cache (dedicatory cache?) associated with the construction of the overlying plaza. Excavation of this subterranean locus and identification of the material culture therein may provide both a *terminus post quem* for this portion of Tipan as well as insight into the use of subterranean sites in an urban context. This site therefore warrants further investigation.

TCU s.09

TCU s.09 is accessible from the logging road leading to Tipan, just south of where it forks toward Midnight Terror. The entrance is small and unassuming (1 m high and 1.5-2 m wide), entering the hill toward the east. The path is well worn and modern refuse within the entrance suggests that it is often visited. When we visited the cave we were unprepared for the size of the space within. Despite spending more than an hour in the cave, time was insufficient to thoroughly investigate the full extent of the main passages. Further, despite its large size and location close to Tipan, little material culture (other than the modern refuse previously mentioned) was observed in the cave, save in isolated



Figure 6.6. TCU s.08, ceramic cache (photograph by Shawn G. Morton).

fragmented scatters and in a gravel wash chamber in some of the lower reaches. An abundance of heavily fragmented and eroded ceramics and lithics were observed in the latter suggesting that the cave once contained a rich material assemblage. Given the clear indications of modern traffic, it is possible that the site has fallen victim to looting. A more intensive survey of the cave may be warranted.

TCU s.10

TCU s.10 (Figure 6.7) was encountered while traversing a hillside exploring the area between Tipan and Midnight Terror. The cave is small with no dark zone. The entrance is approximately 1m high. Nonetheless, clipped speleothems and large pieces of broken ceramic were observed within the cave. It appears that a second entrance may have been blocked off in antiquity and a pile of stones in one corner may block a small niche. Given the cave's small size it is somewhat surprising that it received such elaboration and further investigation may be warranted.

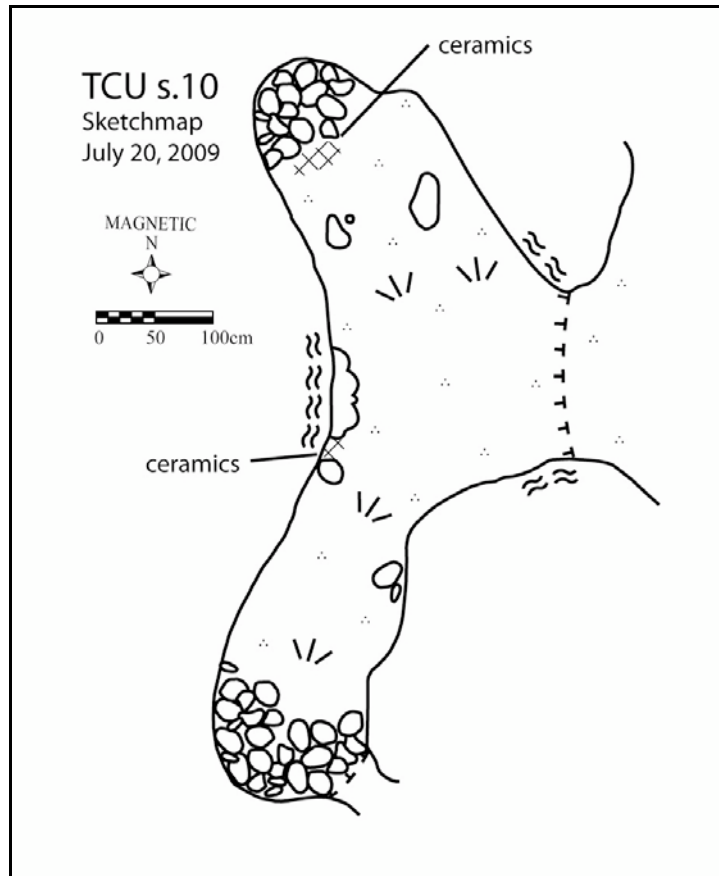


Figure 6.7. TCU s.10, sketch map (drafted by Shawn G. Morton).

TCU s.11

TCU s.11 (Figure 6.8) is a sinkhole, approximately 18 m deep, with a surface aperture of approximately 8 m by 2 m and is only accessible with the aid of climbing equipment. The sink is located immediately adjacent to a rectilinear mound, potentially a housemound (Figure 6.9). The floor of the sink declines toward the southwest where a fissure is blocked by stone rubble. Ceramics and daub litter the floor. It appears that fall from the degrading structure likely contributed to this assemblage. The site is a very tempting locus for future research as it affords the opportunity to look at the close association between a 'ritual' context and a 'domestic' context. How do the religious and secular interact/overlap? Is there such a thing as a purely ritual context?



Figure 6.8. TCU s.11, bottom of sink (photograph by Shawn G. Morton).

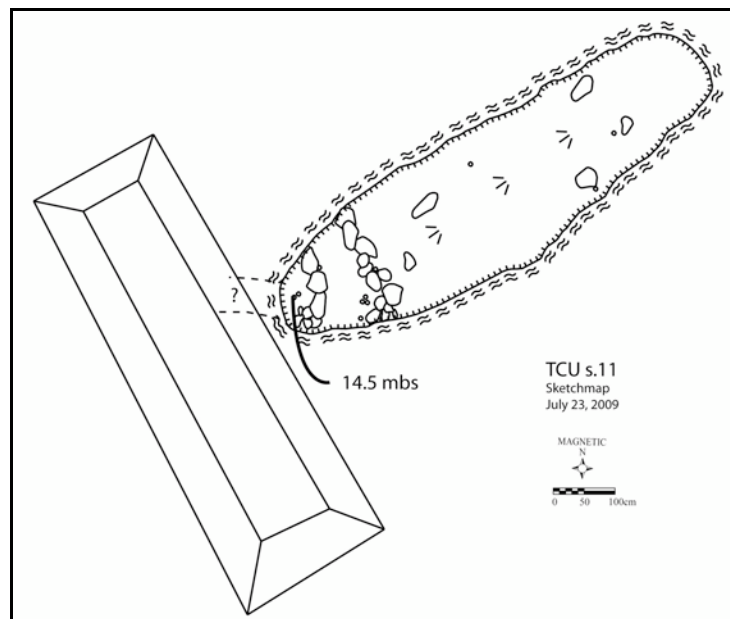


Figure 6.9. TCU s.11, sketch map (drafted by Shawn G. Morton).

TCU s.12

TCU s.12 (Figure 6.10) is a small, restricted cave, approximately 7 m long, lacking a true dark zone. It is located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragments of ceramic similar to those encountered in TCU s.10 were observed. A vessel fragment with a medial flange was observed near the centre of the cave.

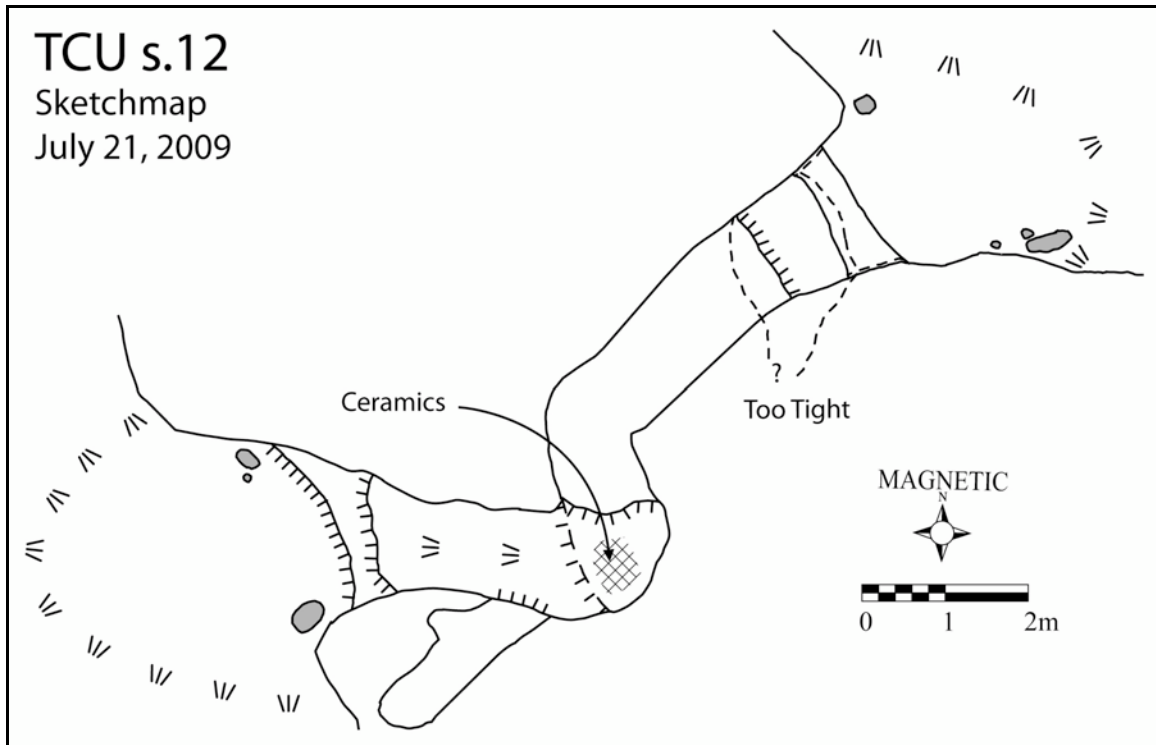


Figure 6.10. TCU s.12, sketch map (drafted by Shawn G. Morton).

TCU s.13

TCU s.13 is a shallow rockshelter located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragmented ceramics and slate were encountered on the surface.

TCU s.14

TCU s.14 is a shallow rockshelter located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragmented ceramics were encountered on the surface.

TCU s.15

TCU s.15 (Figure 6.11) is a small cave, approximately 10 m long, located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. The entrance is restricted with the passage opening to a small chamber affording standing room and approximately 6m wide. Striated body sherds were encountered within the cave near the entrance.

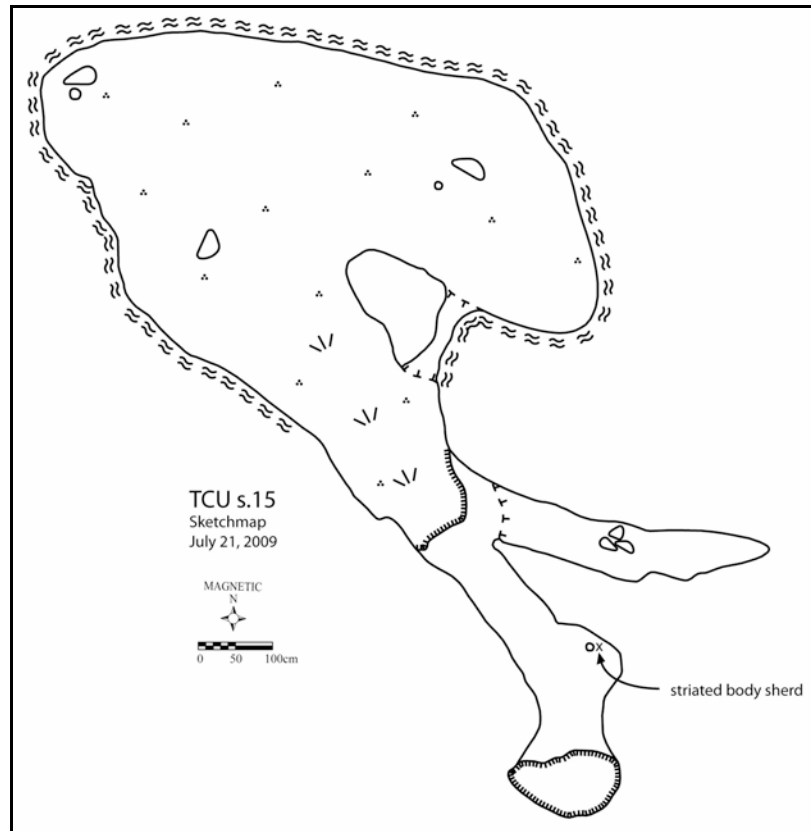


Figure 6.11. TCU s.15, sketch map (drafted by Shawn G. Morton).

TCU s.16

TCU s.16 is a shallow rockshelter located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragmented ceramics were encountered on the surface.

TCU s.17

TCU s.17 is a shallow rockshelter located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragmented ceramics were

encountered on the surface including a possible fragment of a Roaring Creek Red dish attributable to the Spanish Lookout phase.

TCU s.18

TCU s.18 is a small grotto with views to the sky (Figure 6.12), located in the dissected and sharply uprising karst approximately 1-15 km to the southeast of Tipan. This open area affords access to two small, restricted caves. Fragmented ceramic fragments are found throughout these spaces.



Figure 6.12. TCU s.18, view to sky from inside grotto (photograph by Shawn G. Morton).

TCU s.19

TCU s.19 is a shallow rockshelter located in the dissected and sharply uprising karst approximately 1-1.5 km to the southeast of Tipan. Fragmented ceramics were encountered on the surface.

TCU s.20

TCU s.20 is a shallow rockshelter located to the south of Tipan's western *sacbe*. The rockshelter contains fragmented ceramics and may warrant special attention given its close proximity to the site core.

TCU s.21

TCU s.21 (Figure 6.13) is a shallow rockshelter affording crouching room only, located to the south of Tipan's western *sacbe* and on the opposite side of the same limestone outcrop as TCU s.20. Fragmented ceramics were observed on the surface. The shelter may warrant special attention given its close proximity to the site core.



Figure 6.13. TCU s.21 (photograph by Shawn G. Morton).

Special Find 1 (s.f. 1)

Special Find 1 (Figure 6.14) was encountered nearly 2 km southeast of Tipan under a small ledge and above a path used by local hunters. The object appears to be a large, historic period, iron hand jack, possibly associated with the logging industry.



Figure 6.14. s.f. 1 (photograph by Shawn G. Morton).

CONCLUDING THOUGHTS

While a systematic survey of both surface and subterranean sites is still required, it is nonetheless clear that the ancient Maya heavily exploited the region. Cultural material was nearly ubiquitous in the subterranean sites identified and house mounds are encountered at more than a kilometre distance from the Tipan site core. The temporal extent of use is unclear at present; however, the area continues to be important today and is criss-crossed with logging roads and hunting paths. This network of trails affords access to these areas and the accounts of people using them can be directly attributed to the archaeological reconnaissance conducted in the area this season. Unfortunately, the frequent movement of people through this area may have also contributed to the degradation of the archaeological record, including the illegal excavation of Tipan Chen Uitz and the possible looting of prominent cave sites such as TCU s.09. With the permission of the Belizean Institute of Archaeology work will hopefully continue in this area, allowing its incorporation into the regional history of this part of the Maya area.

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SETTLEMENT SURVEY AND PRELIMINARY ARCHITECTURAL ASSESSEMENT OF DEEP VALLEY'S PERIPHERAL GROUPS

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INTRODUCTION

As part of the Caves Branch Archaeological Survey's summer 2009 research activities, two peripheral plaza groups were surveyed in the vicinity of Deep Valley. This work was carried out in addition to mapping conducted at the sites of Actun Lubul Ha and Overlook Rockshelter. As discussed by Andres and Shelton (this volume), Deep Valley consists of a collection of architectural groups scattered over several square kilometers (see also Jordan 2008). Four of these were mapped by Jillian M. Jordan of the Belize Valley Archaeological Reconnaissance (BVAR) Project as a component of her MA thesis research in 2007. However, several previously reported groups at Deep Valley remained unmapped at the beginning of the 2009 field season. As reported below, the survey activities focused at Deep Valley generated a map of one of these groups and also documented a newly discovered architectural complex in 2009.

HISTORY OF SETTLEMENT PATTERN RESEARCH AT DEEP VALLEY

While mapping and initial archaeological investigations had been carried out in Groups A-D of the Deep Valley site core (also known as "Baatelek") (Jordan 2008), many questions surrounded the nature of Deep Valley's settlement at the start of the 2009 field season. Included among these were issues relating to the actual number of peripheral groups and their locations, distances, and functions relative to the Deep Valley site core. In an effort to lay the groundwork for future settlement analysis, the 2009 survey concentrated on mapping known but unmapped groups and recording the locations of previously undocumented architectural nodes. While our understanding of the Deep Valley settlement system is still in its early stages, these efforts are critical in beginning to assess the community's size and areal extent.

Knowledge of the settlement at Deep Valley began to develop in the early 1980s, when two sizable groups, currently designated Groups E and F, and a single large mound, "Deep Valley Lookout" (Group J), were identified by Davis (1980). As previously indicated (Andres and Shelton, this volume), Groups E and F were initially thought to constitute the bulk of Deep Valley's monumental architecture. Davis consequently completed a preliminary pace and compass map of both of these complexes (Figure 7.1). This part of the community was originally distinguished by a *sacbe*, which linked Groups E and F, although this feature was subsequently severed during construction of the

Hummingbird Highway. A test pit excavated at Deep Valley Lookout provided the first chronological data from the area, suggesting that this outlying group dated to the Late Classic period Spanish Lookout phase (Davis 1980:93). In his MA thesis, Davis also noted numerous residential structures throughout the area. Surface artifact scatters provided a preliminary indication that these too were in use during the Late Classic period (Davis 1980:131 in Jordan 2008:28-32).

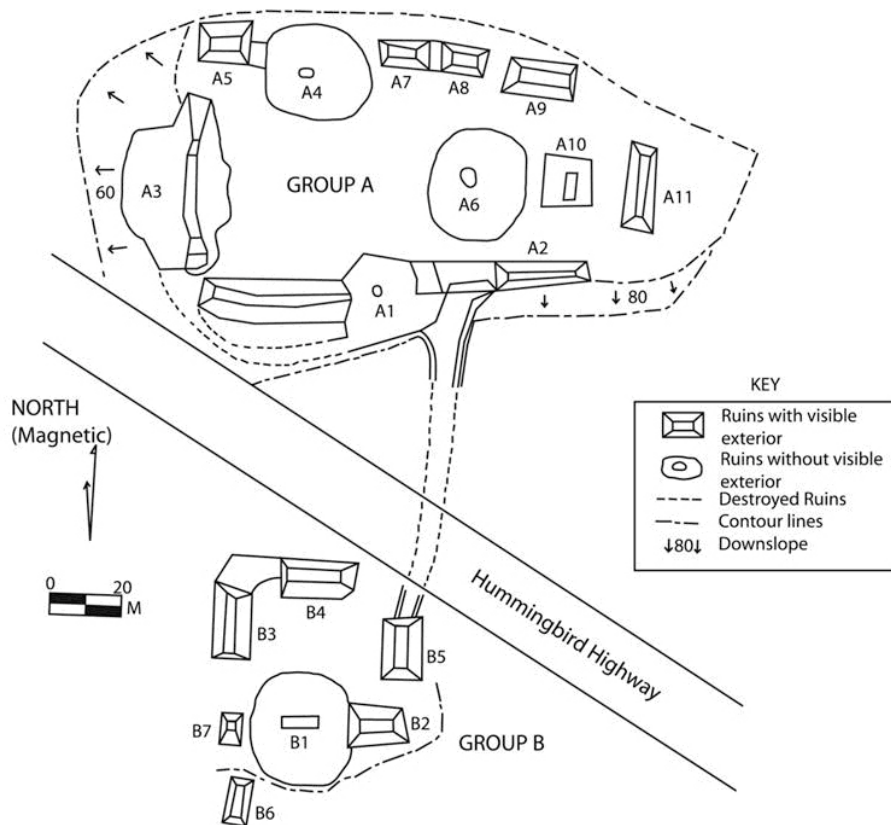


Figure 7.1. Deep Valley Groups E and F (originally designated “A” and “B” by Davis) prepared by Jillian M. Jordan *after* Davis 1980 (Jordan 2008:29).

Unbeknownst to Davis, Groups E and F were relatively modest in comparison with other parts of Deep Valley. When taken to Deep Valley Groups A-D (“Baatelek”) by local tour guides in 2006, Jordan and other members of the BVAR project found that buildings in these assemblages were significantly larger than those previously identified by Davis in other parts of the community. Deep Valley Groups A-D consisted of approximately 24 sizable structures and covered an area of about 2.5 hectares (Jordan 2008). Jordan’s (2008) mapping documented the size and architectural heterogeneity of Group A-D’s buildings; led to recognition of Deep Valley’s status as a “minor ceremonial center” (à la Bullard 1960; Hammond 1975); and identified the site as the primary focus of political, ritual, and administrative activities in the Caves Branch River Valley. Her subsequent sub-surface investigations in these groups revealed that they primarily date to the Late-to-Terminal Classic period (Jordan 2008; also see Andres and Shelton, this volume).

THE 2009 MAPPING ACTIVITIES AT DEEP VALLEY

At the outset of the field season it was recognized that the former piece-meal approach to settlement mapping at Deep Valley required some rethinking in order to minimize confusion and streamline assignment of future architectural designations. Since Jordan's Groups A-D formed the most substantial architectural node documented at Deep Valley, these designations were retained and Davis' Groups A and B were relabeled Groups E and F, respectively. This convention of alphabetical labeling was further extended in 2009, with a newly discovered plaza adjacent to the site core (see below) labeled Group G, two outlying residential groups reported in 2008 by Bruce Minkin and Cameron Griffith labeled Groups H and I, and with so-called "Deep Valley Lookout" designated Group J.

Survey goals in 2009 included mapping Deep Valley Groups E and F with modern survey equipment to produce maps that would accurately reflect their scales, layouts, and relationships to other parts of the settlement. The equipment used consisted of a Lieca TCR 307 total station provided by the University of Mississippi's Department of Sociology and Anthropology. Due to the cumbersome nature of transporting the survey equipment to Belize, a shorter travel rod was substituted for a conventional full scale rod. While this presented a logistical advantage when operating in cave and rockshelter environments, the shorter rod required more station set-ups to shoot around obstacles and over mounds when operating in settlement contexts. Since the total station lacked a data collector, points were downloaded each evening.

The survey methodology employed in 2009 consisted of establishing arbitrary grids within each architectural group and taking readings every two to three paces depending upon the amount of change in elevation. This resulted in relatively tight interval data collection and captured architectural details that were not readily apparent to the naked eye. At night, the downloaded points were converted into an interpolated surface which was evaluated using the kriging option in Surfer. While all maps in this report are based on these point data, ArcGIS was used to generate the final interpolated surfaces employing the Kriging algorithm.

Working conditions were similar in each of the survey areas (Groups E and G). Prior to clearing, both complexes were vegetated by a relatively dense mix of hardwoods, vines, creepers, and by cohune (sp. *Attalea Cohune*), give-and-take (sp. *Chrysophila argentea*), palmetto (sp. *Acoelorrhaphe wrightii*), and pokenoboy (sp. *Bactris major*) palms. Secondary succession in Group E was thicker than in Group G since this larger complex had been recently logged and perhaps also used as a *milpa*. While undergrowth was cleared in Groups E, F, G, and J by a worker from Armenia, mapping activities at Actun Lubul Ha and Overlook Rockshelter meant that survey was only completed in Groups E and G. Mapping was also slowed by unanticipated equipment malfunctions, including issues with total station batteries that did not adequately hold their charge. Heavy rains during the last week of the field season also limited the amount of mapping that could be

completed. For the lighter rains, an improvised shelter consisting of an umbrella and a tarp was employed to protect the total station.

Mapping of Deep Valley Group E

Survey of Group E commenced on June 11th and continued until June 24th with a two to three person crew. Approximately 17 person days (153 hours) were spent surveying the group. While this pace was quite slow, speed was not the primary objective since the 15 field school students were provided with training on the total station during this interval. The resulting contour map is shown in Figure 7.2.

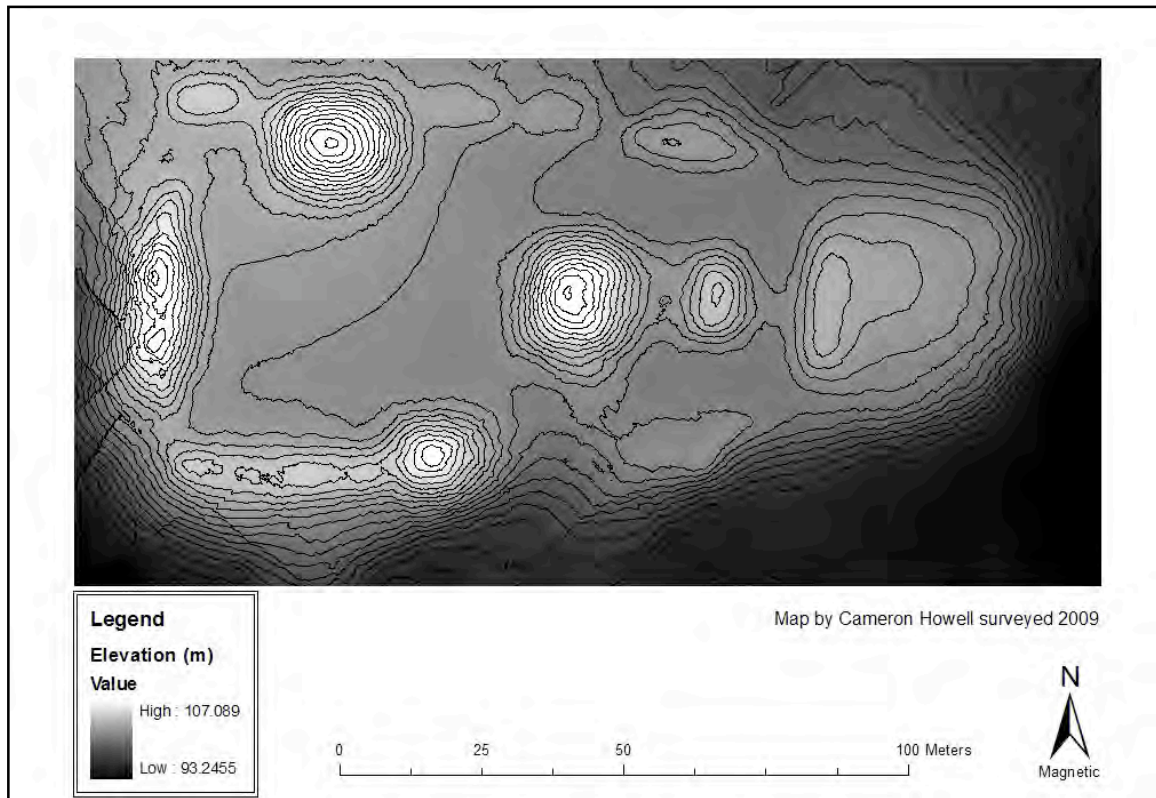


Figure 7.2. Contour map of Deep Valley, Group E (0.5 m contour interval) (map by Cameron Howell).

Davis (1980:69) described Group E (his “Group A”) as a single plaza surrounded by four large pyramids and six low rectangular mounds. Recognizing the substantial size of Group E’s buildings, and that of the complex as a whole, he suggested that it warranted consideration as a minor ceremonial center. While our investigations did not reveal any additional monumental structures, use of a total station allowed for more accurate documentation of building sizes and inter-structural spaces (Figure 7.3 and Table 7.1). The more detailed survey also identified a number of subtle features that do not appear on Davis’ (1980) original pace and compass map. To this extent, close interval mapping revealed distinct corners on several of the mounds that Davis (1980) shows as having

rounded contours. Other details that emerged from the total station data include locations of several outset axial stairways (e.g., on Structures E-1 and E-7) and the presence of a broad staircase (just east of Structure E-11) that provides access to the *sacbe* linking Groups E and F. A subtle, slightly elevated causeway also appeared to be present leading from the north side of Structure E-7 to the space between Structures E-5 and E-6. A large, previously unmapped elevated platform (Structure E-13) was also identified immediately east of Structure E-9. Subtle topography present on this feature may include remains of additional artificial constructions, although these features could also reflect platform core pulled up by the many treefalls in the area. Resolution of this uncertainty will ultimately require excavation.

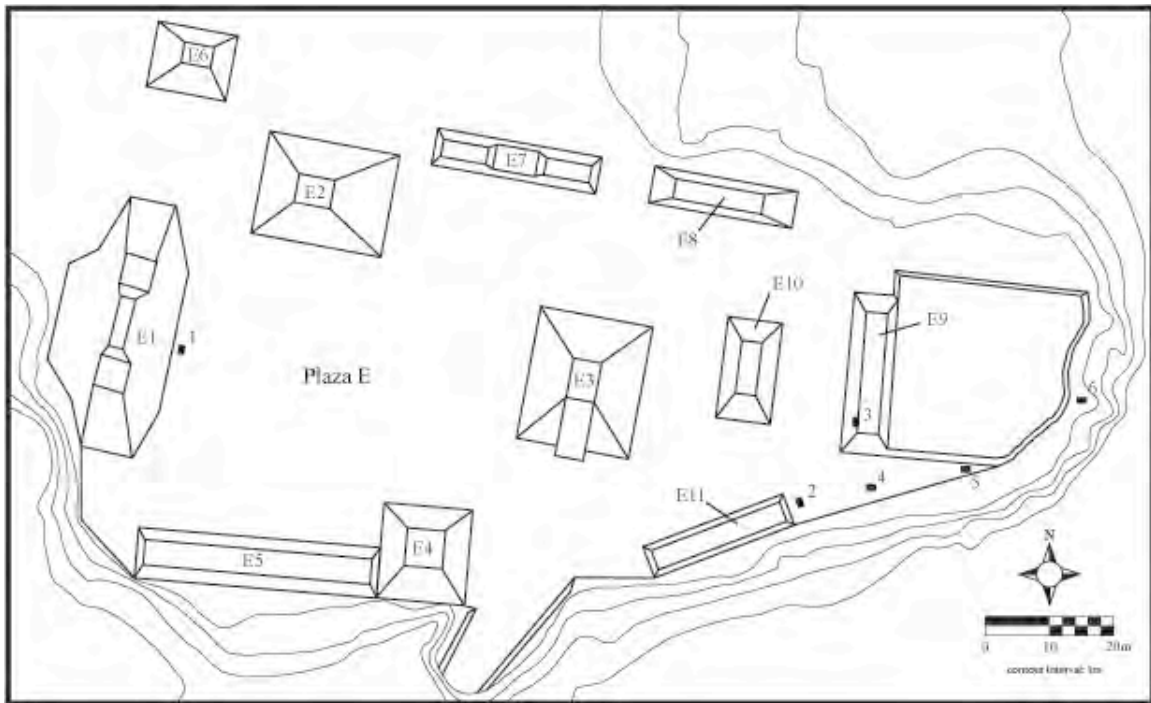


Figure 7.3. Map of Group E, Deep Valley, Belize (map by Cameron Howell).

Aside from identifiable corners and outset staircases, preservation of the group's unlooted structures appears consistent with that documented in Groups A-D at Deep Valley (i.e., poor to moderate). As in the case of Group A-D's buildings, Group E's structures appear to have been rapidly constructed from dry-laid boulder core (presumably once covered with a masonry veneer). This form of construction results in rapid deterioration, with the unconsolidated core spilling out once the facing is compromised by weathering and bioturbation. From this perspective, while there is some chance of reasonable architectural preservation below the accumulated talus in near-plaza-level contexts, the upper parts of the structures in Group E are almost certainly in uniformly poor condition.

Table 7.1. Estimated dimensions of structures in Group E, Deep Valley (data compiled by Cameron Howell).

Feature	Horizontal Dimensions	Height above Plaza
Structure 1a	43.5 x 13.5	3.5
Structure 1b	20.4 x 7.5	5.5
Structure 2	14 x 9.2	2.25
Structure 3	25.8 x 20.9	7
Structure 4	13 x 7.3	1.25
Structure 5	15 x 6.5	0.75
Structure 6	27.5 x 10.8	0.5
Structure 7	25.4 x 22.5	5.5
Structure 8	15.5 x 12.8	2
Structure 9	32.3 x 8.7	1.75
Structure 10	26.3 x 8.2	-0.25
Structure 11	18.2 x 17.7	4.75
Structure 12	40.9 x 11.1	2.75
	all dimensions in meters	

The amount of looting that had taken place in Group E in 1980 is unclear from Davis' thesis. However, by 2009, several structures had been badly damaged by large, illicitly excavated centerline trenches. To this extent, two of the low range structures (Structures 4 and 5) on the group's north side had been extensively impacted. The greatest damage, however, had been inflicted on the group's large eastern pyramidal structure (Structure E-7) and on neighboring Structure E-8, which had been almost completely bisected. The location of Group E immediately adjacent to but also well above (and consequently invisible from) the Hummingbird Highway, unquestionably facilitated the looting. Inspection of the looters' trenches in Structures E-4, E-5, E-7, and E-8 showed that the buildings were constructed almost entirely from dry-laid boulder core. This style of construction is consistent with that documented in Groups A-D at Deep Valley and suggests that Group E was most likely established at the same time. While no diagnostic ceramics were present in Group E's looters' trenches, architectural similarities to buildings in the site core suggest that it too was constructed during the Late Classic period (A.D. 600-800).

Minimal amounts of damage to Group E also appear to have resulted from logging activities. A logging road winds its way through the northern part of the plaza and deep rutting from heavy equipment is evident. Local informants indicated that the residents of the nearby Mennonite community of Springfield have logged the area, but given their methods, impact appears to have been relatively minor. Of greater concern was evidence of what appeared to be bulldozer cuts to the eastern face of Structure E-1a, the group's

large western range structure. Local informants speculated that the building was intentionally swiped with a large piece of equipment to dislodge cut stones that were used for modern building activities. One of the large cut stone blocks believed to be part of a stela (Andres and Shelton, this volume) was uncovered on the building's eastern centerline by these activities. Without excavation, it is difficult to quantify the extent of damage to Structure E-1a. However, based on the building's assumed morphology, the cut minimally appears to have sheared off the lowest terrace face and parts of an eastern outset axial stairway. While the building has not been dramatically destabilized, the vertical walls of the cut will eventually slump and deterioration of the immediately adjacent up-slope architecture will most likely occur.

While Davis (1980:69) noted that “no stelae, altars, or carved stone have been found at Deep Valley,” logging activities and our clearing of much of the understory revealed the presence of five possible limestone stelae (Monuments 1-3, 5, and 6) and one possible limestone altar (Monument 4) (see Figure 7.3). All of these potential monuments were heavily eroded, none showed evidence of inscriptions on their exposed surfaces, and we lacked the equipment necessary to check the down facing sides. A large piece of broken slate (Monument 7) present in the backdirt of the Structure E-7 looter's trench may be a portion of a sixth stela or perhaps a capstone from a looted tomb. As illustrated in Figure 7.3, the majority of these potential monuments were concentrated in the space between Structures E-9 and E-10.

Preliminary Assessment of Deep Valley Group F

As described by Davis (1980 in Jordan 2008), Deep Valley Group F (his group B) lies “74 meters...south of Group A and consists of a single plaza (20 m x 33 m) surrounded by five low rectangular mounds, one small pyramid, and one large pyramid.” While this group was cleared in 2009, mapping was not completed due to time constraints. Visual assessment revealed that while Group F generally conforms to Davis' (1980) description, it has subsequently been adversely affected by multiple forms of disturbance. Most significantly, a relatively recent road has cut through the group's northeastern corner and damaged or destroyed at least one of the eastern mounds and significant portions of the basal platform. Group F's largest pyramidal structure has also been severely impacted by a massive looters' pit excavated into its south face. All evidence of the southeastern end of the *sacbe* originally reported to have linked Groups E and F has also been obliterated by construction of the adjacent Hummingbird Highway.

At the end of the field season, a control point was shot on the south side of the road (from Group E) to facilitate mapping of Group F. Since these architectural groups are closely related, Group F can be easily mapped using the same coordinate system established for Group E. Group F was cleared of vegetation in 2009 and this should greatly facilitate the group's mapping in 2010.

Group J (“Deep Valley Lookout”)

Due to heavy rains during the final week of the project, mapping of Group J could not be completed before the end of the field season. Since this group was also cleared in 2009, it should be ready for mapping with only minimal chopping in 2010. As Group J is located just northwest of Groups E and F, it will be possible to shoot up to the site from these more southeastern locations and maintain the same grid established for these complexes.

Mapping of Deep Valley Group G

Group G is a plazuela group located in a naturally elevated area approximately 90 m southeast of Group C in the Deep Valley site core. The group consists of a large (ca. 30 m x 50 m) bi-level platform that steps up the hillside. Group G’s lower level consists of a platform that is surmounted by two range structures (Structures G-1 and G-8). The northern edge of the upper platform is dominated by a large pyramidal structure (Structure G-2) which faces onto a plaza encircled by a pair of range structures (Structures G-4 and G-6) and two squarer building platforms (Structures G-3 and G-5) (Figure 7.4). This group was discovered by Christopher R. Andres in 2009.

Discovery of this previously undocumented group late in the field season and its proximity to the site core (Groups A-D) bumped it ahead of Deep Valley Groups F and J in terms of mapping priority. Once survey of Group E was completed, mapping of Group G was carried out between June 24th and June 26th with a two person crew. Survey of the group took approximately 45 hours. While the same procedures implemented in Group E were employed, Group G was mapped more expeditiously due to time constraints. To this extent, the grid established for Groups A-D and the permanent datums in Plaza A were used as back sights.

Based on its layout and constituent structures, Group G most likely functioned as an elite residential (or “palace”) group with a private ceremonial component (represented by the Structure G-1 pyramidal structure). While Group G is close to the site center, its position on an adjacent hillside would have provided a considerable amount of privacy from the presumably public activities focused in the Group A plaza. Placement of a large structure on the group’s north side reflects a practice common at Maya sites to the extent that the arrangement not only created an impressive approach from downslope areas, but shielded the complex’s presumably residential spaces from public scrutiny (e.g., Andres 2005, 2009). Limited access to the upper plaza through the narrow inter-structural spaces on the east and west sides of Structure G-2 highlights the compound’s insular qualities and supports its interpretation as a primarily residential facility (e.g., Inomata and Houston 2001).

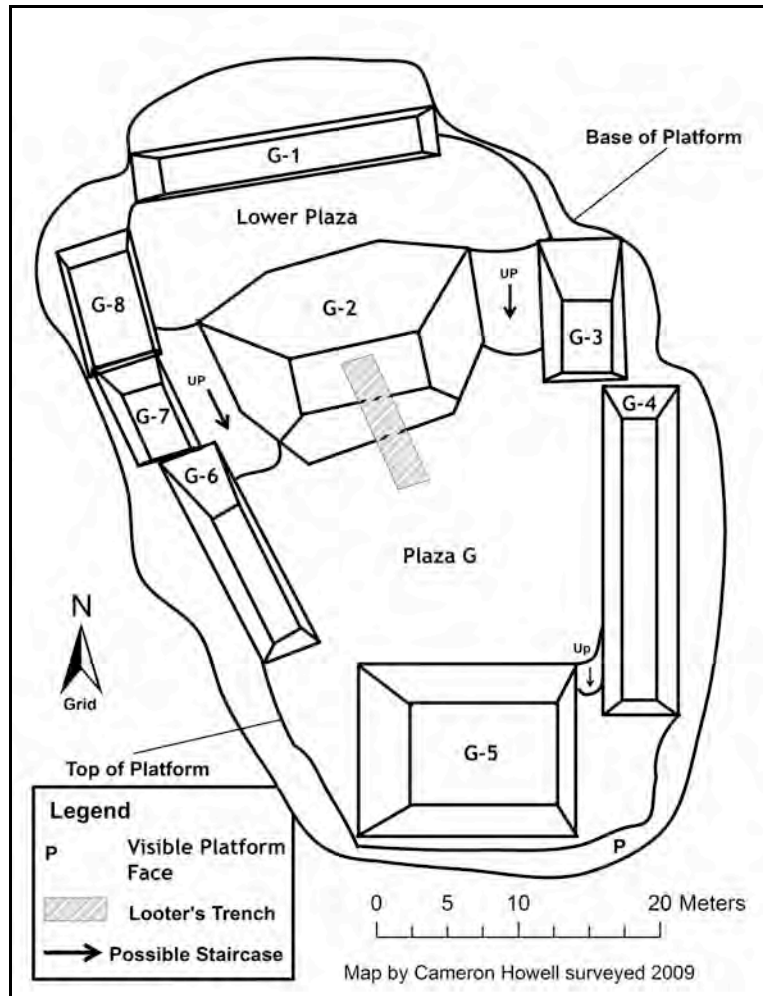


Figure 7.4. Map of Group G, Deep Valley (map by Cameron Howell).

Since no diagnostic ceramics were recovered during investigations in the group, our only glimpse into Group E's chronology was provided by a large looters' trench present in Structure G-2's south face. Examination of the trench's profiles revealed that the building, like much of the known architecture in Groups A-D, E, and F at Deep Valley, was constructed from dry-laid boulder core. Although it is possible that earlier construction phases lie beneath the architecture that is exposed in the looters' trench, the building is, by all appearances, a single phase construction. Structure G-2's expedient style of construction and its resemblance to better dated structures in Group A suggest that it dates to the Late Classic period (A.D. 600-800).

The only architectural details evident on the ground surface in Group G consisted of a substantial platform face visible on the group's south side (Figure 7.5). This feature was constructed from large, uncut chert and limestone boulders and measures up to 1.5 m in height.



Figure 7.5. Boulder platform face supporting the southern edge of the upper plaza in Group G, Deep Valley, Belize (photograph by Christopher R. Andres).

SUMMARY AND CONCLUSIONS

During the 2009 field season, survey activities carried out by CBAS resulted in the successful mapping of two peripheral groups at the minor ceremonial center of Deep Valley. The first of these, Group E, had previously only been documented with a pace and compass sketch map completed by Davis (1980). The second, Group G, was unknown to archaeologists before the 2009 field season. Detailed mapping of both complexes with a total station represents a significant step towards generating a map that completely and accurately reflects the scale and distribution of settlement at Deep Valley. While we initially also anticipated being able to map Deep Valley Groups F and J, these plans proved overly-ambitious in light of survey needs at Actun Lubul Ha and Overlook Rockshelter, and because of unanticipated technical difficulties, rain days, and the limited amount of time available during the brief 4-week-long field season. Survey of Deep Valley's remaining known peripheral groups (Groups F, I, J, and K) is planned for 2010.

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