

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

SETTLEMENT AT THE SACRED POOLS:  
PRELIMINARY ARCHAEOLOGICAL INVESTIGATIONS AT THE  
LATE CLASSIC MAYA SITE OF CARA BLANCA, BELIZE

A thesis submitted in partial fulfillment of the  
requirements for the degree of Master of Arts in Anthropology

by

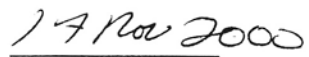
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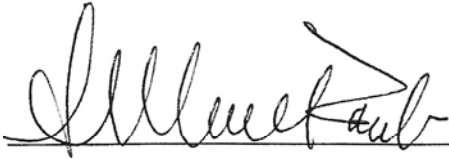
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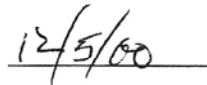
Dr. Lisa Lucero



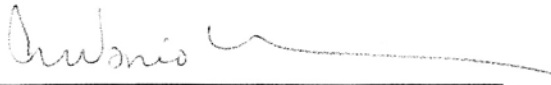
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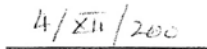
Dr. L. Mark Raab



Date



Dr. Antonio Gilman, Chair



Date

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## ABSTRACT

### SETTLEMENT AT THE SACRED POOLS:

#### PRELIMINARY ARCHAEOLOGICAL INVESTIGATIONS AT THE LATE CLASSIC MAYA SITE OF CARA BLANCA, BELIZE

by

Andrew Kinkella

Master of Arts in Anthropology

Although it is peripheral to the great centers of the Peten, the Valley of Peace area in central Belize holds information that can elucidate a greater understanding of the Maya whole. In order to create a link between the well known sites of the Belize Valley and the unknown expanse of the Valley of Peace area nearby, we have focused our studies on a handful of sites, one of which is Cara Blanca. As a small site composed of seven structures constructed around a natural freshwater spring, Cara Blanca affords the possibility of studying both material and ritual aspects of Classic Maya culture.

The aim of this thesis is to install Cara Blanca into the overall Maya sphere, from the Belize Valley onward. The settlement has been analyzed according to both the ceramic remains present at the site and its architectural relationships to nearby centers. The distribution of fertile agricultural soils and the ritual implications of the pools are also taken into consideration. The ceramic analysis shows that Cara Blanca has a very narrow chronology for the area, with over 90 percent of the ceramics found there dating to between 600 and 900 AD.

## INTRODUCTION

The Yucatan peninsula has been inhabited by Maya-speaking peoples from sometime before 2000 BC until present day (Henderson 1981:48). Within this large expanse of time, the Maya have lived in varying degrees of complexity, from simple hunter-gatherer societies to pre-industrial states (Sharer 1994:72-73). Arguably the most complex and affluent era for the Maya people came during the Classic period (AD 250-900), a time of maximum cultural expansion and fluorescence. As the Yucatan Peninsula of the Classic period supported an ever increasing population, a “filling in” phenomena occurred in the more marginal and peripheral areas of Maya society (Rice and Culbert 1990). One such area is the Valley of Peace in west central Belize. Within this relatively unknown area are a number of Maya archaeological sites, ranging in size from large centers to solitary mounds. Since 1997, the Valley of Peace Archaeological Project (VOPA) has endeavored to explain the archaeological findings within the Valley of Peace area with regards to chronological placement, construction history, soil qualities, and water ritual. The purpose of this thesis is to analyze and interpret the data gleaned from the Cara Blanca site, a Late Classic (AD 600-900) Maya mound group situated some ten kilometers north of the Valley of Peace village. The interpretations of this data will provide an increased understanding of the relationship between Cara Blanca and the larger Maya world of the Belize Valley and beyond.

Cara Blanca is a small site composed of seven mounds ranging in height from 3 meters to under a meter, and is situated on the edge of a natural pool. The pool is fed by an extensive underground water system and is part of a string of 22 freshwater springs in the area which roughly follow the course of Labouring Creek. This uncommon location

brings up issues of Maya water ritual, as any opening in the earth (including pools) was seen as a portal to the underworld (Bassie-Sweet 1996). The site also happens to be built upon very poor soils (clayey), but decent soils for hand cultivation are nearby (Fedick 1996; Lucero and Fedick 1998). The isolation of this small site and its relative equidistance between larger centers (Yalbac, Saturday Creek, San Jose) may earmark it as something more than a basic settlement. Classifications of Cara Blanca as a pilgrimage center, elite compound, or stopover point on a trade route can not be ruled out.

The ceramics found at Cara Blanca will be compared to ceramics excavated at the well-known site of Barton Ramie, in order to establish chronological relationships with the rest of the Belize Valley. Cara Blanca's similarities to nearby San Jose will be explored through architectural parallels between Cara Blanca's Structure 1 and Structure C5 at San Jose. The pool at Cara Blanca will also be investigated in the hopes of relating it to cenotes found at other sites within the greater Yucatan area, such as Chichen Itza and Dzibilchaltun. The cultural material exposed at Cara Blanca has traits that may be correlated with both the ritual and the material aspects of Maya culture (Chase and Chase 1992), as will be explored later with examples from Fedick's soil model (Fedick 1996), and Lucero's model on Maya ritual and water (Lucero 1999a). In the end, it is hoped that the study undertaken herein will connect Cara Blanca in time and space to the other Maya sites of the Late Classic (AD 600-900).



## CHAPTER 1: THE PREHISTORY OF MAYA SOCIETY

The society of the Ancient Maya inhabited the Yucatan peninsula, encompassing large expanses of the present day countries of Mexico, Guatemala, Belize, and Honduras (Figure 1). There are three distinct geographical areas within the Maya world: The highlands to the south, the tropical lowlands in the center of the peninsula, and the less vegetated northern region (Sharer 1994:40). These three regions roughly correspond to the centers of power within the three major eras of ancient Maya society. The highlands are heavily Preclassic (2000 BC to AD 250), the lowlands achieved prominence in the Classic (AD 250-900), and the northern region is home to many major sites of the Postclassic (AD 900-1500). Belize lies on the eastern periphery of the lowlands, and has sites that date from all time periods (Hammond 1983; Ford n.d.), although sites from the Classic period are the most numerous (Willey et al. 1965).

The chronology of Maya civilization is split into five periods: The Archaic (ca. 6000-2000 BC), the Preclassic (2000 BC to AD 250), the Classic (AD 250-900), the Postclassic (AD 900-1500), and the Colonial (after AD 1500). Most studies center around the three periods of Preclassic, Classic, and Postclassic, as this is the time identified as the era of high Maya civilization. This is the time of temple construction, stela carving, complex methods of agriculture and social hierarchy. The five periods are summarized below with a special focus on the Classic period, as this is the time when virtually all sites in the VOPA area, including Cara Blanca, were at their maximum size. This chronology is also presented in order to insert the Valley of Peace area into a temporal context alongside the great Maya centers.

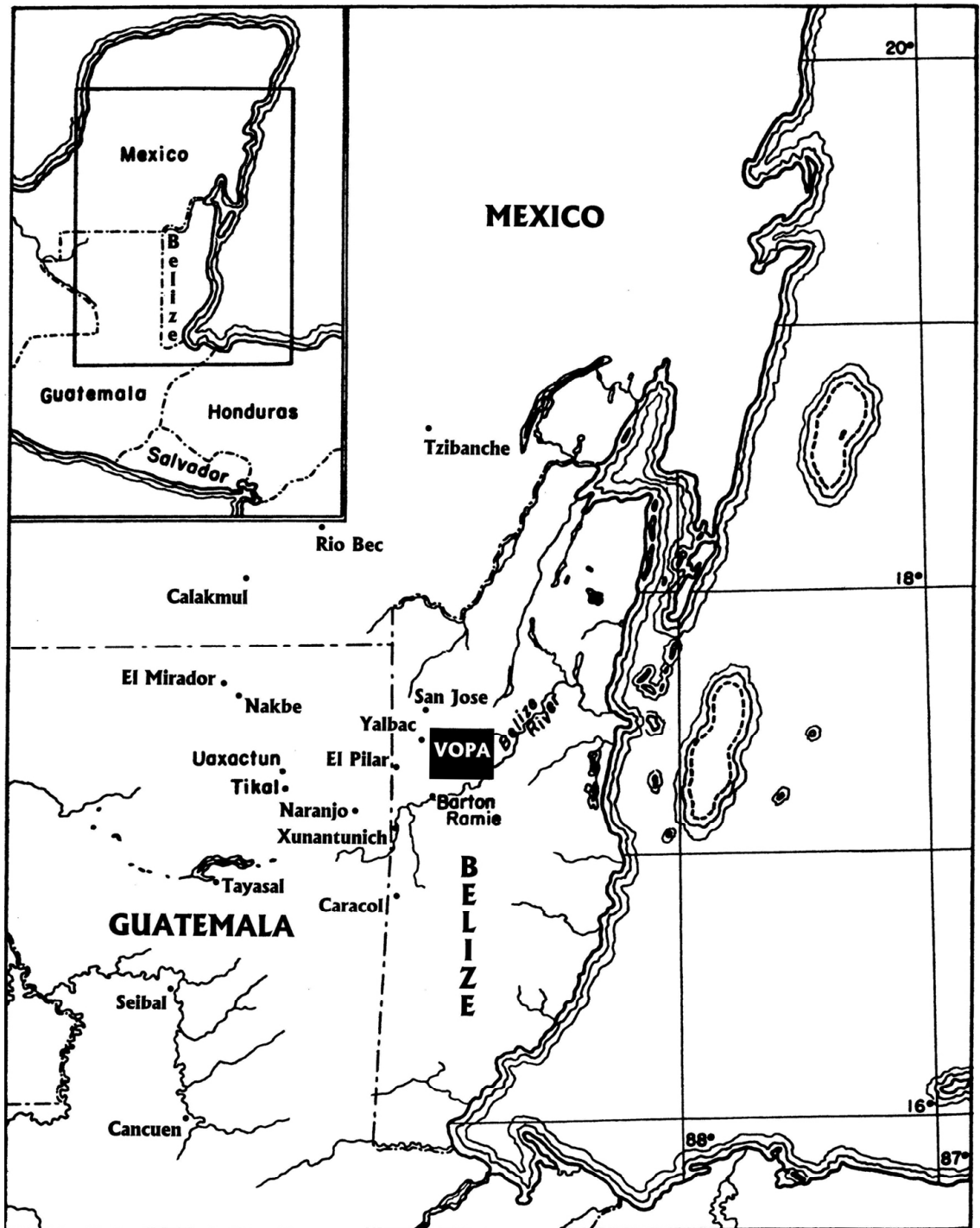


Figure 1: The Maya Area (from Willey et al. 1965)

## ARCHAIC (ca. 6000-2000 BC)

The first peoples of the Maya lowlands were foragers who subsisted largely upon coastal resources and the mosaic of environments that exist near the coast (Sharer 1994:50-54). This amalgamation of different environments gave prehistoric foragers variety in their diet. As with most egalitarian communities, the Archaic period sites appear to be largely seasonal occupations, but there is some evidence in Northern Belize for more substantial occupations beginning as early as 4200 BC (Zeitlin 1984).

## PRECLASSIC (2000 BC to AD 250)

Dating from approximately 2000 BC until AD 250, the Maya Preclassic period was a time of massive change within the society. Also known as the Formative, the Preclassic begins with a shift in subsistence from foraging to sedentary maize agriculture. At about this time, we also find the first ceramics with clear assemblage relationships, and the beginnings of household architecture. The site of Cuello, located on the northern coastal area of Belize, is home to many of the earliest ceramics that have thusfar been found.

The Middle Preclassic (1000 BC to 300 BC) encompasses a time when the Maya were expanding from their coastal settlements and moving inland up the river valleys. The first evidence of Maya settlement within the Belize Valley comes from this time period (Willey et al. 1965; Gifford 1976; Ford 1990). This is also the time when the Maya first began to build large public architecture, as seen in Belize at the sites of Cuello, Cerros, and Lamanai (Figure 2). The large Guatemalan site of El Mirador was also prominent at this time (Sharer 1994:110-117).

The Late Preclassic is a time of rapid change and growing complexity (300 BC to AD 250). There is evidence to suggest that some centers within the Valley of Peace area (such as Saturday Creek) were initially settled during this time (Lucero 1999b).

#### CLASSIC (AD 250 to AD 900)

The first recorded examples of carved stone monuments (circa AD 250) demarcate the beginning of a time of great florescence that is referred to as the Classic period. From AD 250 until AD 900, the Maya enjoyed a time of expansion, social complexity, and power that they would never again attain. They expressed this prosperity in an increasing population, ever larger architecture, and greater power centralization. The power base of this society was centered in the Maya lowlands, with the ultimate expression of high Maya culture coming from the large lowland centers such as Tikal, Caracol, Palenque, and Naranjo (Coe 1988). As these great centers ruled the Peten, the sites within the Valley of Peace area were undergoing rapid construction, and the initial settlement at Cara Blanca was well under way.

The Terminal Classic period (AD 750-900) was a time of collapse. We often hear of the “mysterious” Maya; this phrase comes from the lack of conclusive evidence concerning the end of this phase of their society. Pyramid construction ceases in the lowlands, as does the carving of hieroglyphic inscriptions (Schele and Freidel 1990:382-396). Not all centers collapsed at once; the sites within the Peten seem to fail by around AD 800, while the Belize Valley sites seem to hold on a bit longer until around AD 900 (Willey et al. 1965). Cara Blanca and the other sites within the Valley of Peace area

follow the general trends of collapse seen within the Belize Valley, as there is little evidence for substantial habitation after AD 900 (Lucero 1999b; Kinkella 1999a).

#### POSTCLASSIC (AD 900 to AD 1500)

After the collapse of Classic Maya society, the center of Maya power moved northward to the northern lowlands of the Yucatan peninsula, and the civilization continued on in various forms from AD 900 until the Spanish Conquest of the early 1500's. The large centers of the north, including Chichen Itza and Uxmal, vied for power until they met the same fate as their cultural antecedents in the thirteenth century. At Chichen Itza, the early Postclassic (AD 900-1150) was the time of the greatest usage of the famous "cenote of sacrifice," where water-based ritual took place (Henderson 1981:212-214; Coggins and Shane 1984; Andrews and Corletta 1995:101-104). Although these rituals were enacted a few hundred years after the abandonment of Cara Blanca, it is hoped that similarities will be found in usage between the two pools (see Chapter 4).

By the time of European contact in the early 1500's, the great centers of Classic Maya culture had been forgotten, but the Maya people of the time still spoke Mayan, and used the Maya hieroglyphic system to record events. Almost all of this written information was lost as the conquerors burned all traces of what was seen as a pagan religion (Sharer 1994:598-599). Of the unknown (and presumably very large) amounts of paper documents written by the Maya, only fragments of four codexes survive (Love 1994).

## COLONIAL (after AD 1500)

With the Spanish Conquest and the introduction of Christianity came a new era of Maya history. This involved an infusion of new beliefs with old traditions, and the product of this mixture still guides the spiritual beliefs of the Maya to this day. Politically, the region that was once split into many distinct Maya communities became part of the modern day countries of Mexico, Guatemala, Honduras, and Belize.

Unlike most other New World civilizations, the Maya were not conquered rapidly. Portions of the Maya world stayed untouched by Spanish rule for almost 200 years until a battle at Tayasal (modern-day Flores) in 1697 erased the last independent Maya state (Jones 1989:269).

## CHAPTER 2: ARCHAEOLOGICAL BACKGROUND OF BELIZE

The history of archaeological studies undertaken in Belize begins at a relatively late date in comparison to nearby Guatemala and Mexico, as the country itself was (and sometimes still is) thought of as a peripheral locale (Hammond 1983; Ford n.d.). Part of this discrimination stems from the fact that Belize lies on the far eastern edge of the Yucatan peninsula, away from the great centers of archaeological research in the Guatemalan Peten. Belize is also a small country, with dimensions of only 290 kilometers long and 109 kilometers wide, and a total area of only 8,866 square miles (22,963 square kilometers) (Figure 2). The current population of the country is quite low as well, at somewhere around 250,000 (Mallan 1996:3). This hot (80 degrees on average), humid (85% humidity on average) little country also happens to be split roughly in half by the rugged Maya Mountains (Garel and Matola 1995). It is in this setting that the first explorers ignored Belize in favor of the larger and more glamorous centers of the Peten.

John Lloyd Stephens and Frederick Catherwood began much of the interest in Maya studies with their famous trek through the Yucatan from 1839-40. The combination of Stephen's vivid writing and Catherwood's stunning drawings of the Maya ruins made the Ancient Maya a hot topic in the Western world (Stephens 1841). In the late nineteenth and early twentieth centuries, the first archaeologists began work on the large Maya city centers. Names such as Maler, Maudslay, Tozzer, and Morley became well known within the archaeological discipline for their work at sites such as Tikal and Palenque (Sharer 1994:149-153, 276-278; Willey and Sabloff 1993:64-75).





Interestingly, while many of these early explorers used Belize as an entry point (called British Honduras at the time), none made note of the many ruins that the country contained (Hammond 1983). The first intensive study of the Belizean Maya ruins was undertaken by Dr. Thomas Gann, the Colonial Medical Officer of British Honduras. Stationed at the town of Corozal in 1893, Gann became interested in local ceramic and skeletal remains that were regularly found. This interest would eventually take him to the prominent Maya sites of Lubaantun, Santa Rita, and Xunantunich, where he worked in 1894-95 and again in 1924 (McKillop and Awe 1983). Gann is infamous for his occasional use of dynamite to explore Maya ruins, but he did attempt to record his findings scientifically. He even published his findings in a timely manner. Several archaeological projects have followed Gann's at Xunantunich, both because of its impressive Castillo and its relative ease of access. The famous archaeologist Teobert Maler spent a month in 1905 exploring Xunantunich's Castillo before heading further into the interior (Hammond 1983).

From about 1925 until 1960, large institutions such as the British Museum, the Peabody Museum, the University of Pennsylvania, and the Carnegie Institution of Washington were seeking to broaden their knowledge on the Ancient Maya, and to expand their related antiquities collections. Because of the generous sponsorship of these powerful organizations, this time is known as the institutional period of Maya exploration (Hammond 1983). During this period, an increasingly more scientific approach was being applied to glean useful information from archaeological sites. A sterling example of this new methodology was the work that famed Maya archaeologist J. Eric Thompson completed in the Belize River Area. During field seasons in 1931, 1934, 1936, and 1938,

Thompson focused his energies upon the minor ceremonial center of San Jose (Thompson 1939).

## SAN JOSE

San Jose is a medium-sized center composed of four pyramid groups (Thompson 1939) (Figure 3), and happens to be located a mere 9 kilometers from Cara Blanca and the Valley of Peace research area (see Chapter 4). One of the range structures within Group C (C5) also happens to bear a close resemblance to Structure 1 at Cara Blanca (see Chapter 4 for a more detailed analysis). Thompson's work at San Jose was groundbreaking in many ways, as it was one of the first times that an archaeologist concentrated on a site with the hopes that it might yield information on the common people of the ancient Maya. In spite of limited funds, limited help, and jungle sickness, Thompson was still able to generate a good map of the site and excavate many of the structures (Thompson 1963, 1939). From these excavations came a solid ceramic chronology of the site, one of the first in the Belize Valley. This chronology has time periods labeled San Jose I thru V, with a transition phase between III and IV. The San Jose chronology is not used much anymore, but provided an excellent jumping off point for later Belize Valley archaeologists to hone ceramic typologies (see Gifford et al. 1976).

Thompson was one of the first to discuss the importance of smaller settlement studies (Thompson 1939), but the idea of settlement pattern analysis had yet to really take root. It became increasingly apparent that settlement pattern studies were more than just

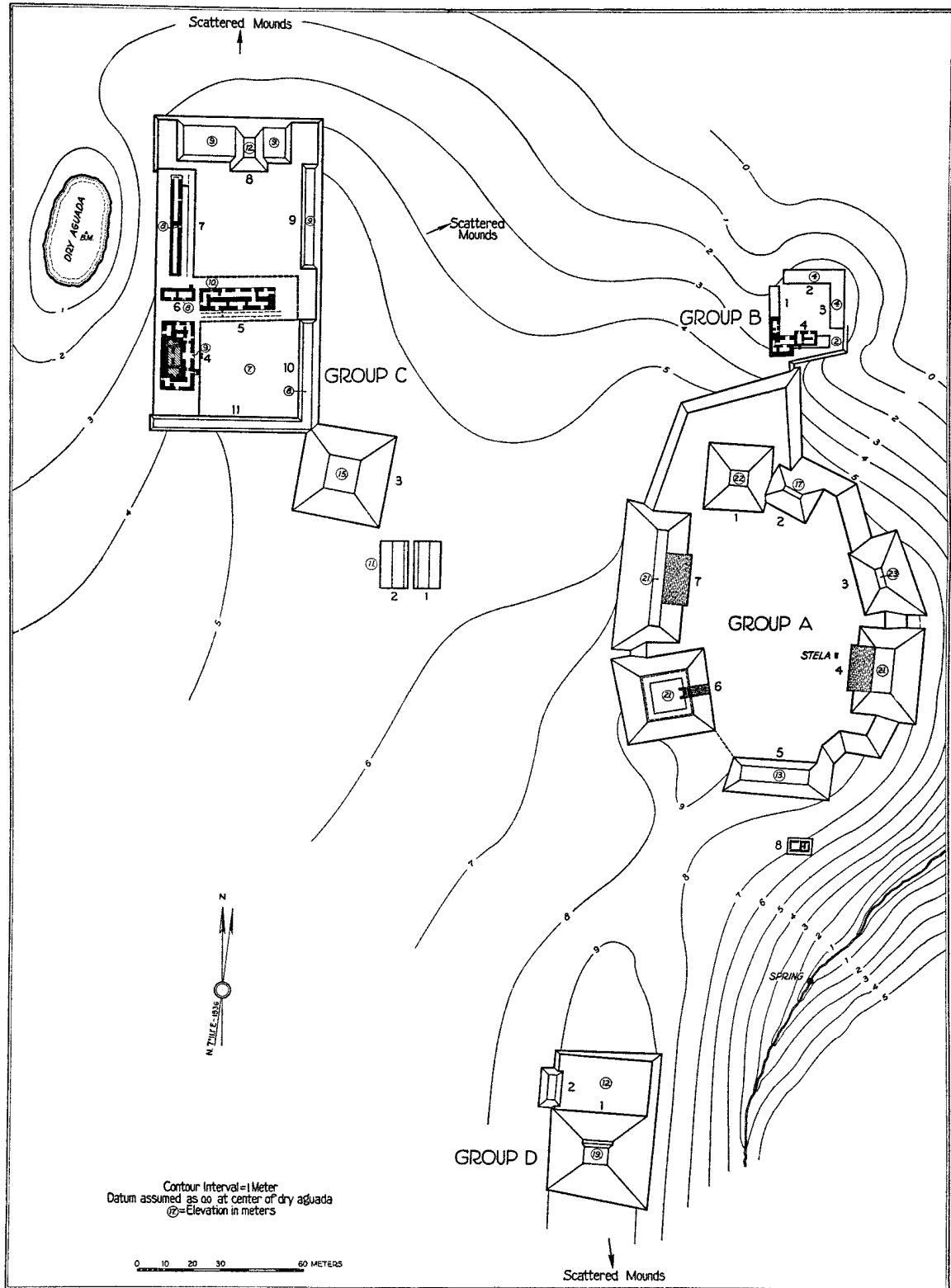


Figure 3: San Jose (from Thompson 1939)

a way to collect basic data from small sites. Larger sites (i.e. Tikal) also benefit with an improved context for the monumental architecture of the core area. As a result of this type of work, it became increasingly apparent that the small housemounds dotting the area were the keepers of some useful information that even the large pyramids did not contain. These housemounds held information on the common people of Maya society, the social base that made the elite's quality of life possible (Ford 1990).

Settlement pattern archaeology was brought to a new plateau by Gordon Willey in his work at Barton Ramie (Willey et al. 1965). From 1953-56, Gordon Willey conducted his famous Belize Valley Project, where he conducted site survey along the Belize River from the border at Benque Viejo up to Cocos Bank (which we now call Three Sisters - see Chapter 3). Willey spent much of his effort at the riverine site of Barton Ramie, and from this original work came many modern ideas on systematic Maya settlement survey.

## BARTON RAMIE

Gordon Willey's work at Barton Ramie also has direct bearing on the Cara Blanca site, both in its proximity and its ceramic assemblage (Figure 4). Barton Ramie lies only 24 km from Cara Blanca, and 25 km from the similar riverine site of Saturday Creek located within the VOPA area (see Chapter 3). The fine comparative ceramic chronology obtained from Willey's excavations provides the baseline from which virtually all Belize Valley archaeologists date their ceramics, ourselves included (Willey et al. 1965, Gifford 1976).

The 1970's and 1980's saw a general growth in the numbers of archaeological projects in the Belize Valley, most continuing directly in the steps of Gordon Willey

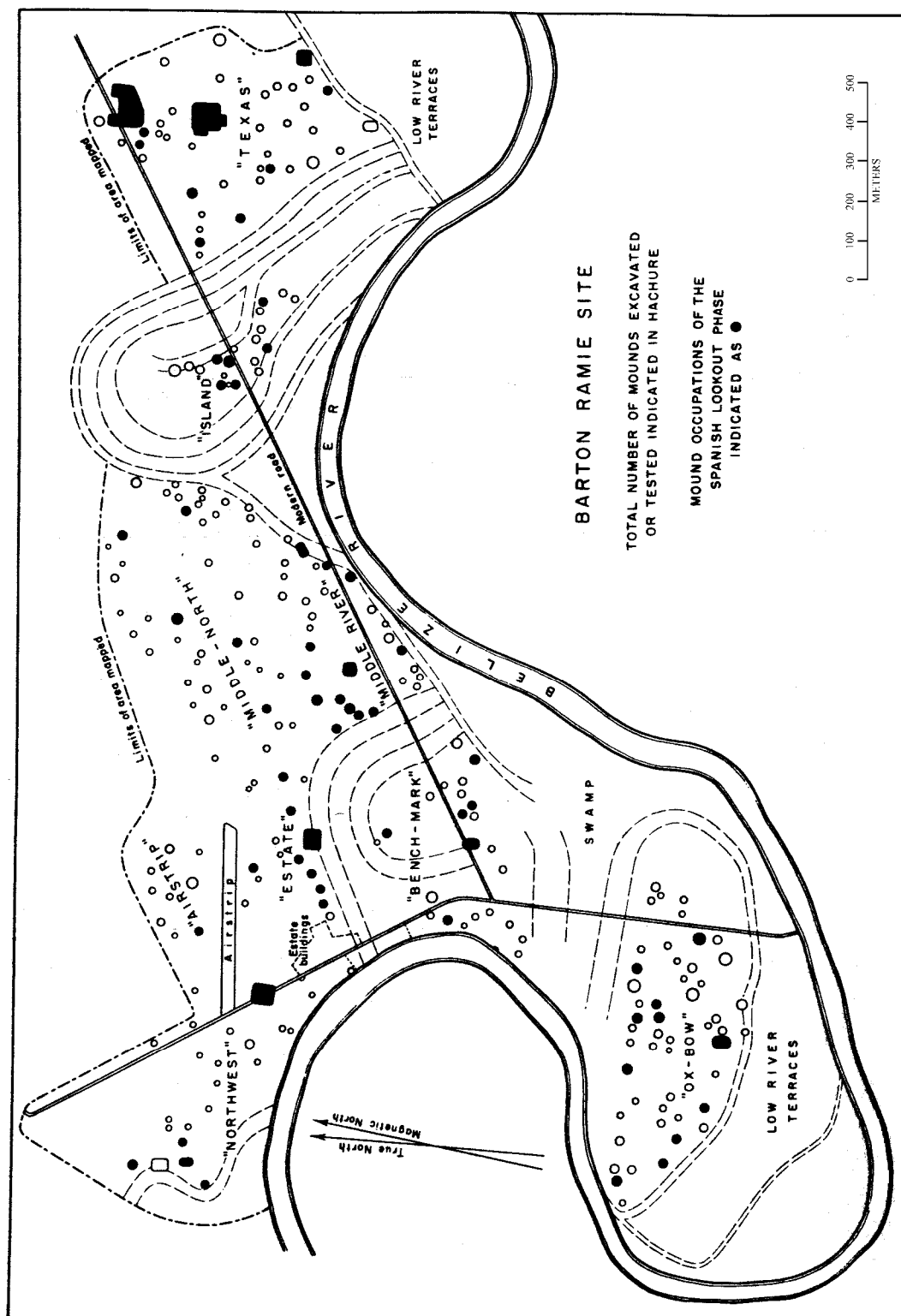


Figure 4: Barton Ramie (from Willey et al. 1965)

(Awe 1984; Ford and Fedick 1992). Many new centers have been uncovered, and new projects are devised in order to study the masses of new data.

In the past decade, there have been over a dozen major archaeological projects to work within Belize, with about half of these working in the Belize Valley. Currently, Anabel Ford from UCSB leads the Belize River Archaeological Settlement Survey (BRASS) that works at the major center of El Pilar (Ford and Fedick 1992; Werneke 1994), a site that straddles the present day international boundary between Belize and Guatemala. Jaime Awe had investigated Cahal Pech in previous years, and now leads a dual effort, studying the riverine site of Baking Pot, and also heading a Maya cave expedition at work in various caves within the Cayo District. Richard Leventhal and Wendy Ashmore led the Xunantunich Archaeological Project (XAP) throughout most of the 1990's until its conclusion in 1997. James Garber of Southwest Texas State University conducts work in the Blackman Eddy area, and Gyles Iannone directs the Social Archeology Research Project (SARP), working at the recently rediscovered site of Minanha.

Continuing in this vein, Lisa Lucero directs the Valley of Peace Archaeology Project (VOPA). It was begun in 1997 to record archaeological sites within the VOPA area and to test the location of these sites using Scott Fedick's soil model, which states that settlement distribution depends upon soil quality (Fedick 1996). Efforts in 1998 soon expanded to study minor ceremonial centers in the area and their relation to Maya ritual and political organization. The 1999 field season was largely devoted to developing a chronological history of the area, with efforts centered at the riverine site of Saturday Creek and to a lesser extent at Cara Blanca (Lucero 1999b; Kinkella 1999a).

### CHAPTER 3: THE VALLEY OF PEACE SURVEY AREA

The Valley of Peace survey area (VOPA) encompasses roughly 200 square kilometers immediately north of the Belize River at Roaring Creek (Figure 5). There are few real geographic markers to differentiate this area from the rest of Belize; the Valley of Peace village is roughly in the center, and the northern termination lies somewhat along the northern side of Labouring Creek (UTM 1928N). The southern boundary of VOPA is marked by a portion of the Belize River, along with the UTM line at 1914N. To the west the survey area ends just before the site of Yalbac and the associated Yalbac Timber Company, at the 297E UTM line. The eastern edge of VOPA terminates along the 88 degree 45 minute line of west longitude, at UTM 313E (Figure 6).

The boundaries of VOPA have been a bit fluid over the years according to project needs and governmental allowances, but the rough boundaries laid out above have stayed largely unchanged. The Valley of Peace village is located in the southern area of the VOPA survey area, just north of the Belize River, and a few kilometers northwest of the capital city of Belmopan. The Valley of Peace village itself was created in the early 1980's as a refugee camp for people fleeing from the civil war in El Salvador. This village comprises the only area within VOPA that has seen any appreciable amount of construction during modern times (Awe 1984).

Geologically, a map compiled by Bryson Geological Services for the Anschulz Corporation in 1974 shows an east-west fault in the Cara Blanca area, with the north side being uplifted (Robert Johnson, Castle Belize Ltd., personal communication 1998). The

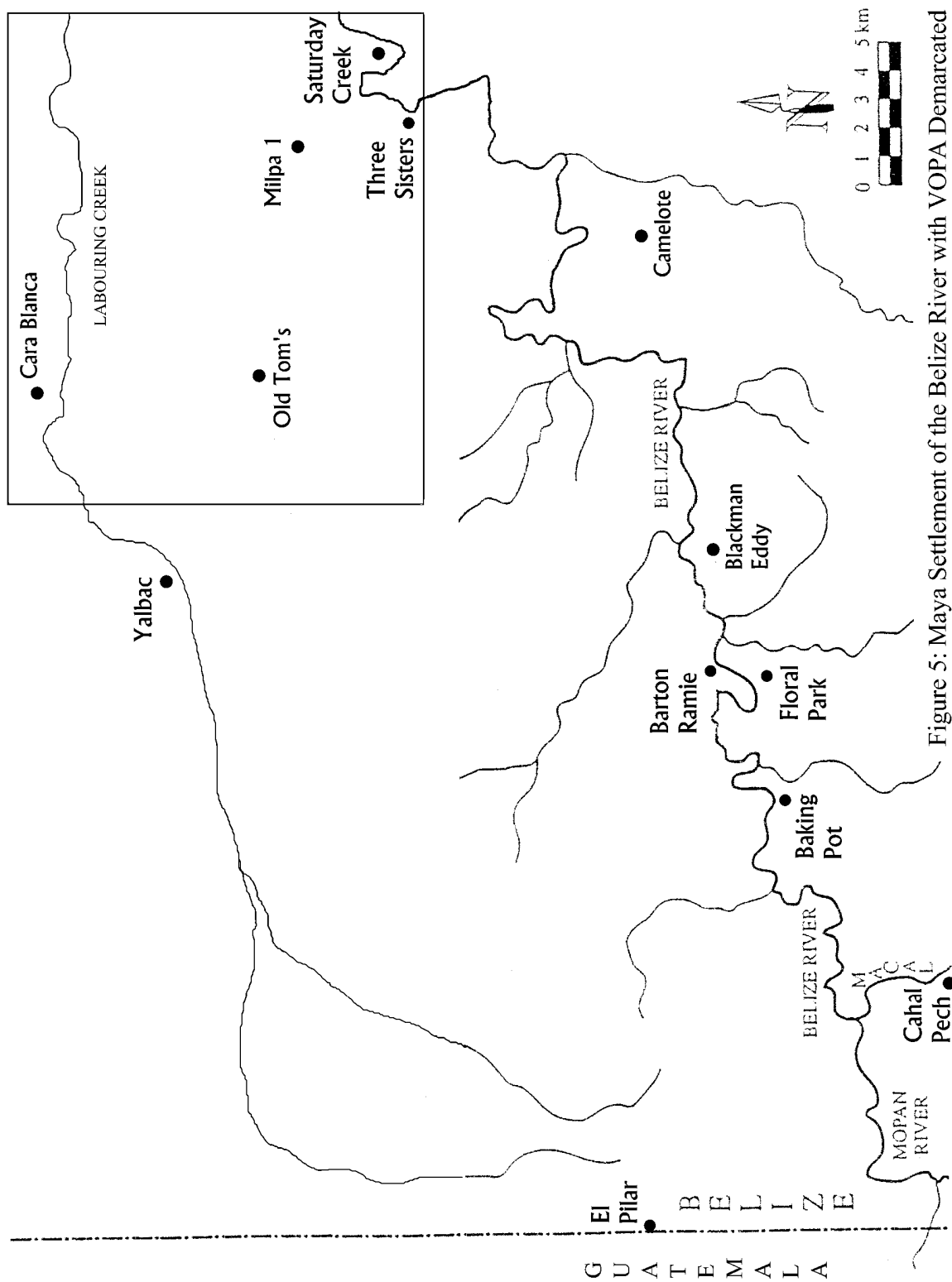


Figure 5: Maya Settlement of the Belize River with VOPA Demarcated



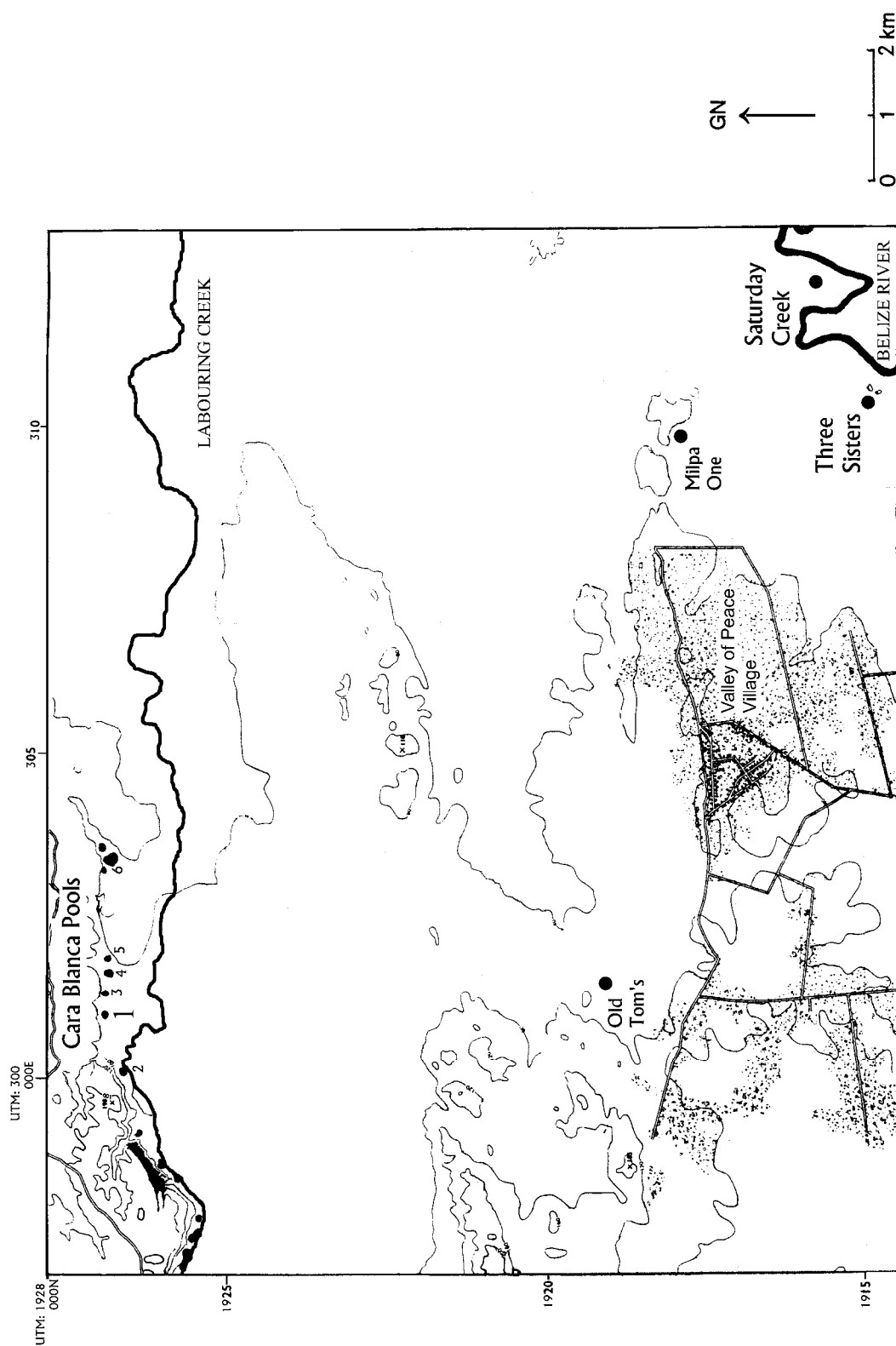


Figure 6: The Valley of Peace Archaeology Project (VOPA) research area with sites mentioned in text

two rock types at the fault are defined as Kbc (Barton Creek Formation limestone and dolomite of the Cretaceous age, 65-70 million years) and Trb (Redbank Formation clay, sands, and gypsum of Miocene-Pleistocene ages, 25-2 million years) (Lucero 1999b).

Apart from the Valley of Peace village proper, most of the area is still forested. The logging industry has operated in this area of Belize for many years, and continues to do so even to this day (the nearby site of Yalbac is located in an area currently being culled for timber). This is because Belizean hardwoods, especially mahogany, are still prized throughout the world (Mallan 1996:8-9). Travel throughout the area is still quite difficult, as there are no paved roads. A few dirt roads serve as the main arteries that the locals use to traverse the area on their bicycles. One large and tired Mercedes flatbed truck serves as a makeshift bus, delivering the residents to nearby Roaring Creek on its one morning trip, and picking them up on its one evening trip.

In the rainy season, when access to the outside world becomes difficult for Valley of Peace residents, as the solitary river ferry that connects the village to the rest of the country on the other side of the Belize River is invariably taken out of service due to high water. The residents are forced to use the small footbridge nearby, and vehicular transportation across the river becomes impossible. The rainy season also brings with it difficult travel within the Valley of Peace area proper. The dirt roads that run through the area become mud puddles, and vehicle travel is severely limited. The road to the Cara Blanca site becomes impassible for anything except foot travel (even bicycles get stuck in the mud).

The Cara Blanca vicinity at the northern edge of VOPA often exhibits very thick secondary growth, much thicker than most other areas. The locals said that this may be

because the area was used for illegal marijuana crops in past years, and the old clearings have not had time to become true jungle again. Other areas near Cara Blanca are still quite pristine, with large mahogany trees still standing, along with sapodilla, ramon, gumbo limbo, and cohune palm.

## THE VALLEY OF PEACE SITE

There has been only one previous archaeological excavation in the Valley of Peace area prior to the VOPA project. The Valley of Peace Maya Site was introduced to the world in 1982, when a group of Belizean archaeologists responded to news of Maya artifacts turning up in a new bulldozer cut within the Valley of Peace village (Awe 1984). One of the larger mounds in the area was being bulldozed to make way for a new town center, so archaeologist Jaime Awe lead a recovery effort very similar to CRM efforts done on distressed archaeological sites in the United States (Awe 1984). Along with Harriot Topsey and John Moris, the team excavated the remains of the mound group, and analyzed the artifacts and burials for chronology (see Awe 1984; Awe and Topsey 1984; Moris 1984).

Among the artifacts collected was an imitation pabellon model-carved vase, indicating an occupation period beginning possibly as early as AD 400 (Moris 1984:20). As for occupation history, the population appeared homogenous throughout the area with fairly high density, while not being concentrated around any large center. The Valley of Peace site dates from the Early Classic to the Late Classic, with a focus on Late Classic (AD 600-900) occupation (Tepeu 1-3 Phase) that coincides with other sites in the general area (Awe and Topsey 1984).

The excavators found seven burials at the site, separated into 4 burial groups. Teeth modifications were present that included V-shaped grooves, stepped shapes, and jade inlay (Topsey 1984). The deepest burial was the best preserved, while others were more fragmentary. The deepest burial was also the only one that was solitary. Ceramic analysis of the Valley of Peace pottery indicated that the most prevalent vessel forms were bowls, followed by jars (Moris 1984). The other artifacts recovered from the Valley of Peace are quite varied, consisting of obsidian blades, marine shell, jade, mosaic fragments, chert, and mano and metate fragments. Most of the artifacts seemed fairly utilitarian, except for some of the grave goods, but even those are fairly common in the Maya area (Moris 1984).

## SATURDAY CREEK

The minor river center of Saturday Creek is about 11 kilometers to the southeast of Cara Blanca, in the southeast corner of the VOPA area (UTM 1916N/312E). This site is where the VOPA project has spent the lion's share of its energies, as it is the largest Maya site yet discovered within the Valley of Peace survey area (Figure 7). The site has an occupation history from at least Middle Preclassic to early Postclassic, as seen in the chronological data supplied by the potsherds found in controlled excavations of select housemounds and looter's trenches (Lucero 1999b). Saturday Creek is similar to Barton Ramie in its layout and style, being a relatively spread out, large settlement located immediately adjacent to the Belize River. The main pyramid groups are constructed of mud, with stone used sparingly to face the structures. This style of construction is an

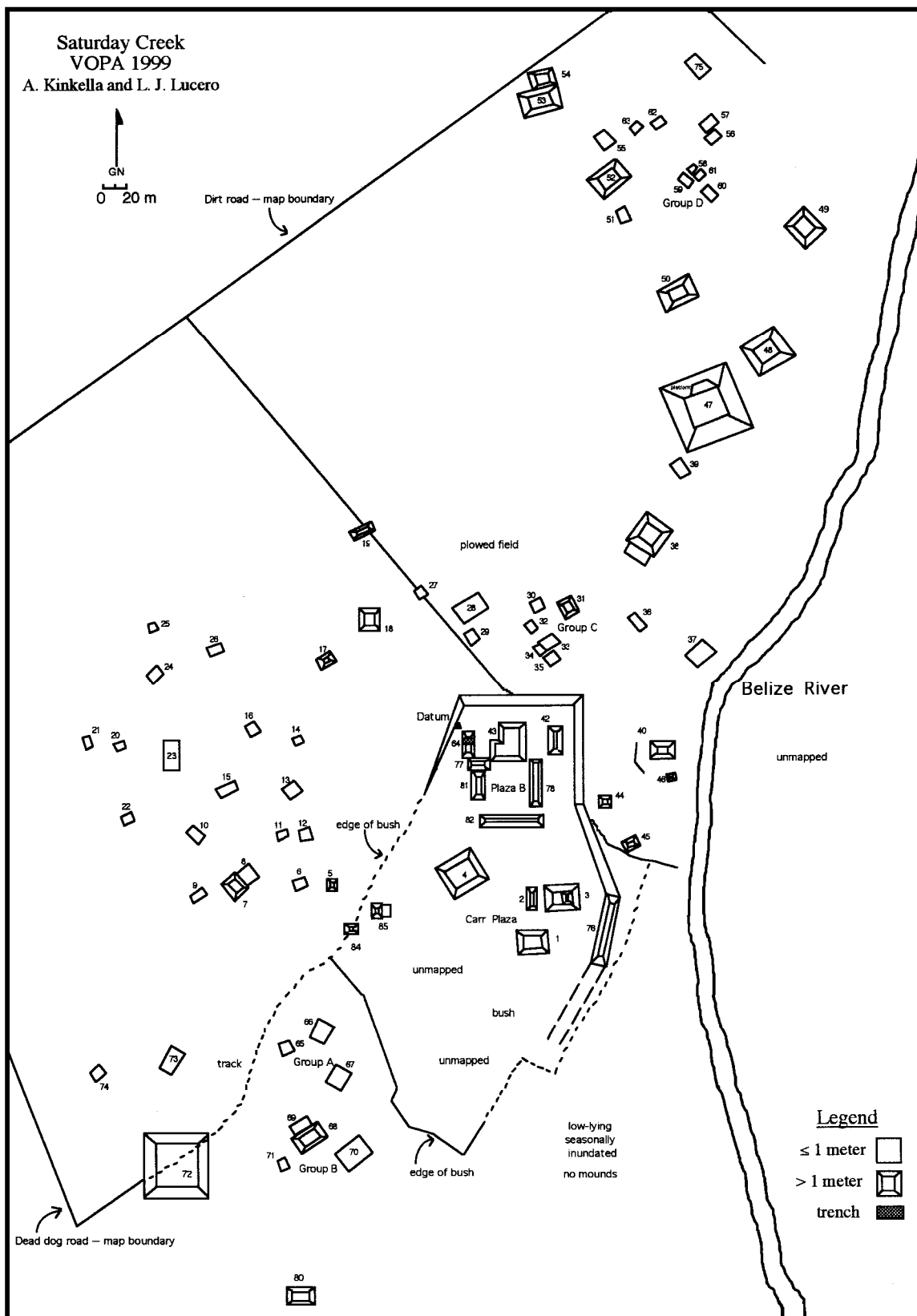


Figure 7: Saturday Creek

obvious adaptation to the building materials at hand; an abundance of river mud and a lack of stone. We have so far identified over 85 mounds of varying sizes, from the large (10+ meter) pyramids of the core area to small housemounds under a meter in height in the immediately outlying region (Lucero 1999b).

### THREE SISTERS

The small, minor ceremonial center of Three Sisters lies less than a kilometer west of the Belize River, and near the Banana Bank Lodge (Figure 8). It is surrounded by numerous dispersed mounds and is located next to a lagoon that may be either natural or manmade. The largest structure (TS 1) stands five meters above a five meter high plaza (approx. 10 m. above the ground in total), and has at least four corbel-arch rooms on top, one collapsed. Buildings TS 1 through 4 form a classic plazuela group on top of the main platform. The surrounding dispersed settlement consists of several small mound groups ranging from 0.5 to 1.5 meters in height. It is important to keep in mind that the surrounding settlement has been heavily affected by plowing; as a consequence, many of the mounds have been ‘spread’ out and thus appear larger in surface area than they actually were. Surface collections from these smaller mounds suggest that the prehistoric occupants had access to a variety of exotic goods, including Pachuca obsidian and polychrome ceramics (Lucero 1999b).

Gordon Willey originally recorded this site with the name of “Cocos Bank” during his settlement survey of the late 1950’s, and the site also happened to demarcate the furthest extent of his explorations. He wrote:

A small ceremonial group was visited by us at Cocos Bank, part of the Banana Bank Estate of the Belize Estate and Produce Company. Cocos

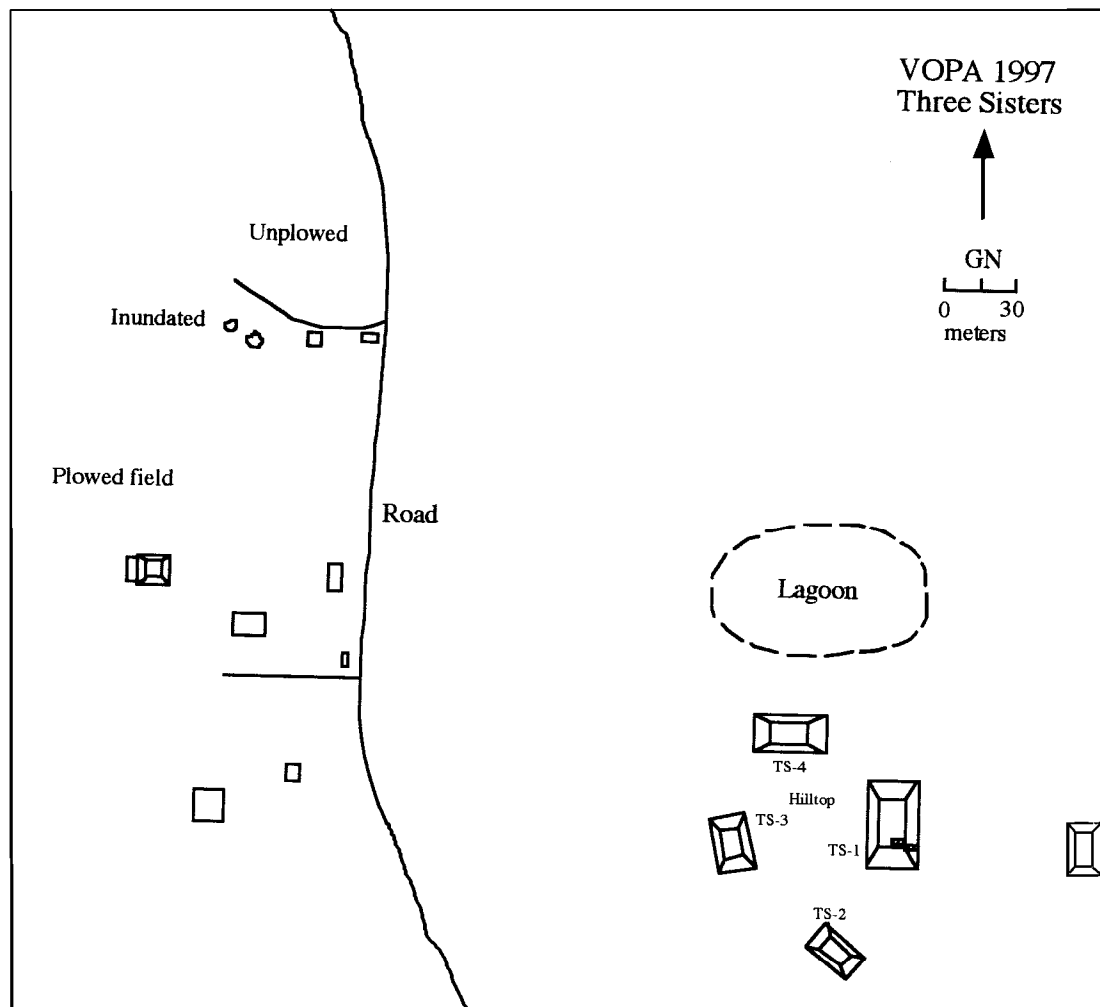


Figure 8: Three Sisters

Bank is about 20 km. northeast of Barton Ramie air line distance, but over 40 km. via the river. The terrain is flat alluvial soil. The ceremonial group is raised on a square, probably earth-filled, basal platform so as to form a plaza group. The highest of these, on the east side, rises 4 to 5 meters above the plaza and is thus 9 to 10 meters above the ground level. A bulldozer cut at one corner of this highest mound shows rubble and earth fill with boulder retaining walls. The other mounds are a meter or so high and have signs of smaller superimposed platforms. Traces of a stone pavement, at ground level, can be seen adjacent to the east side of the Cocos Bank group. On the north, west, and south sides of the group are deep pits from which soil was probably obtained for the construction of the mounds. These depressions now form small ponds. In addition to the ceremonial group, house mounds and occasional 'plazuelas' are scattered on the flat alluvial terrain both at Cocos Bank and at the near-by Banana Bank (Willey et al. 1965:313).

The site remains exactly like this today, with the exception that there is now a good-sized looter's trench in the back side of the largest structure (TS 1). The bulldozer cut that Willey describes in TS 1 is still immediately discernable, as are the deep pits which we label as lagoons (see Figure 8).

#### SMALLER SITES WITHIN VOPA

Since 1997, the VOPA project has discovered numerous mounds and plazuela groups; some of which are discussed here. A site we call Old Tom's was discovered in the western portion of the survey area in 1997, on land that was owned by an ex-patriate American hermit named Old Tom. This site consists of a handful of structures, some of which are quite substantial (8.5 meters in height), and easily merit further study (Figure 9). Milpa 1 was a cluster of housemounds of differing sizes that we also explored in 1997 (Figure 10). Both of these sites were discovered as part of our attempt to explain settlement located upon the five different soil classes as delineated in Fedick's soil model



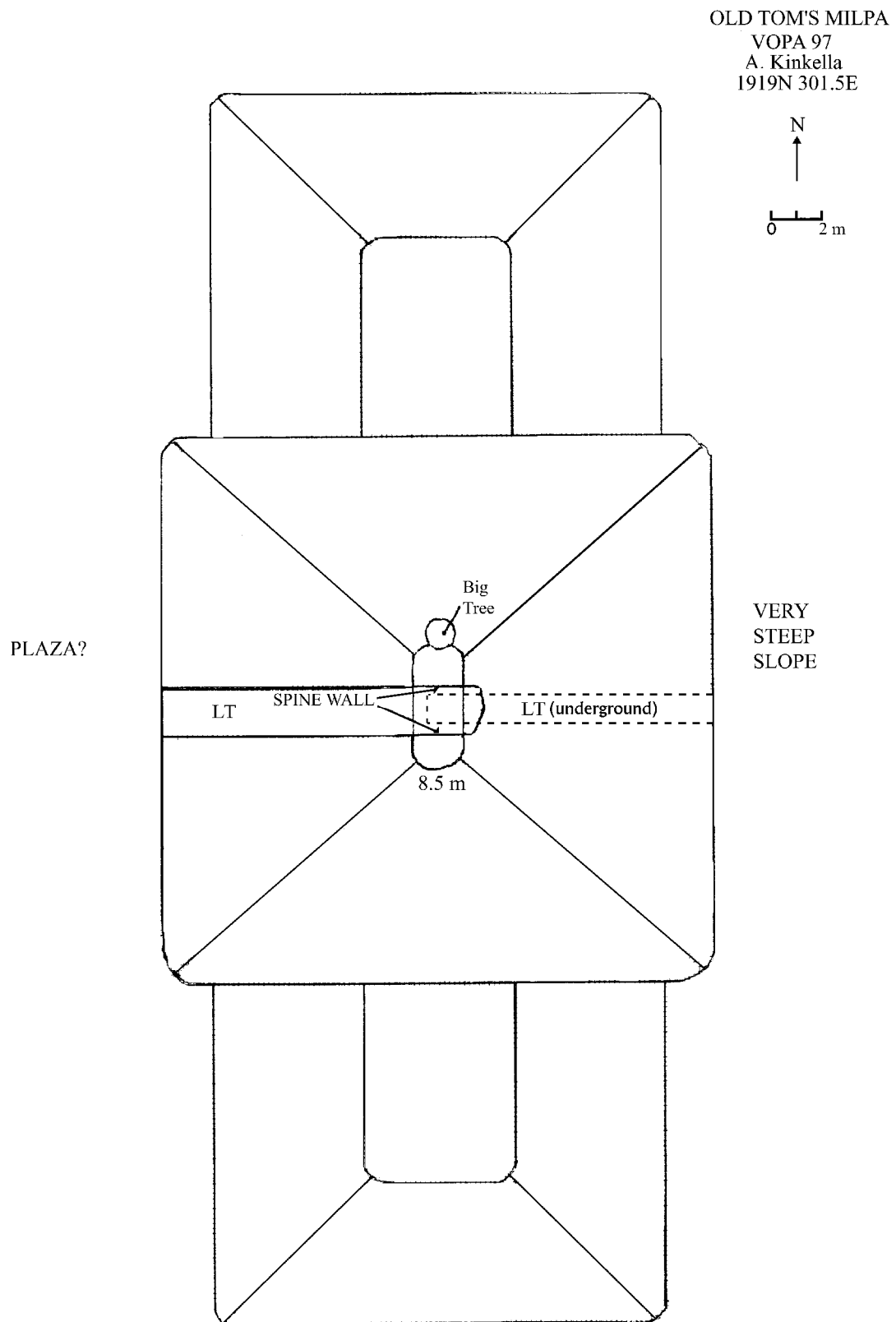


Figure 9: Large Mound at Old Tom's Milpa

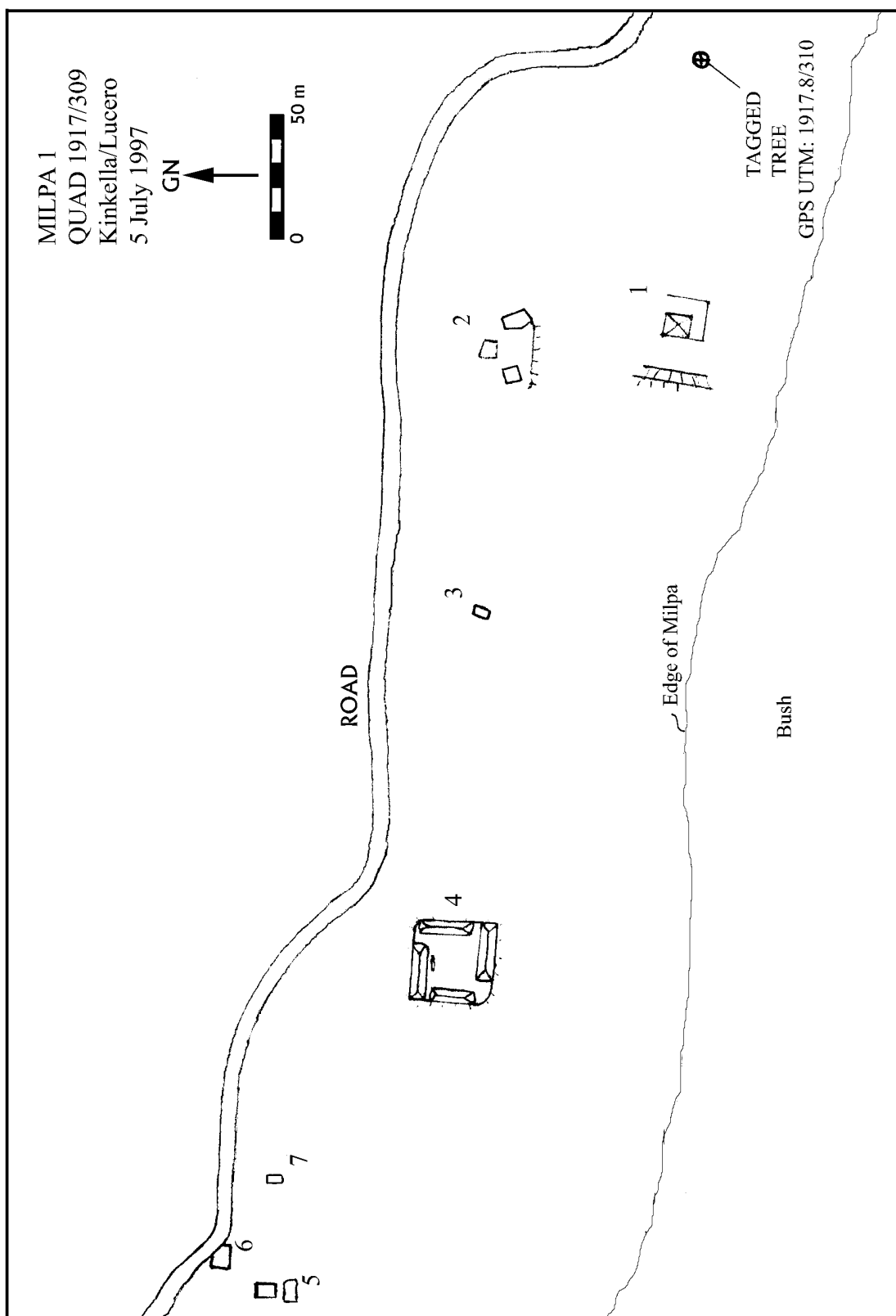


Figure 10: Milpa 1

(Fedick 1996; Lucero 1999c). The main reason we found these sites was because Fedick's model suggested that some form of settlement should be located in the general vicinity.

## YALBAC

The closest large ceremonial center to Cara Blanca is the center of Yalbac, located some seven kilometers to the southwest (UTM 1922.7N/294.5E). Yalbac lies a mere 2.5 kilometers outside of the eastern termination of the VOPA project. With the exception of a few looter's trenches, no archaeological work has been done on this site. During the 1998 season, we found a newly created, major looter's trench in the top of temple A1. The looters had broken through two corbel arched rooms, and traces of red plaster could still be observed on the lowest portions of the walls. The 1999 VOPA project made a preliminary map of this impressive site, which is currently located on land owned by the Yalbac Cattle and Ranch Company (Figure 11). The tallest structure at Yalbac, which we labeled A1, stands at 18.62 meters above ground surface.

Because of its extreme proximity to the Valley of Peace survey area, it is hoped that Yalbac will be included within later demarcations of the VOPA survey area. The inclusion of Yalbac into the study area would add valuable data on the relationship of a major center to the other sites within the project area.

## CARA BLANCA

The site of Cara Blanca (the subject of this thesis) lies about 1 kilometer North of Labouring Creek, on the edge of a natural spring (Figure 12). The closest large centers

recorded so far are Yalbac at 7 kilometers to the Southwest, and San Jose at 9 kilometers to the Northwest. The riverine site of Saturday Creek and the minor center of Three Sisters lie to the Southeast, and the small group at Valley of Peace is to the Southeast as well (Figure 5).

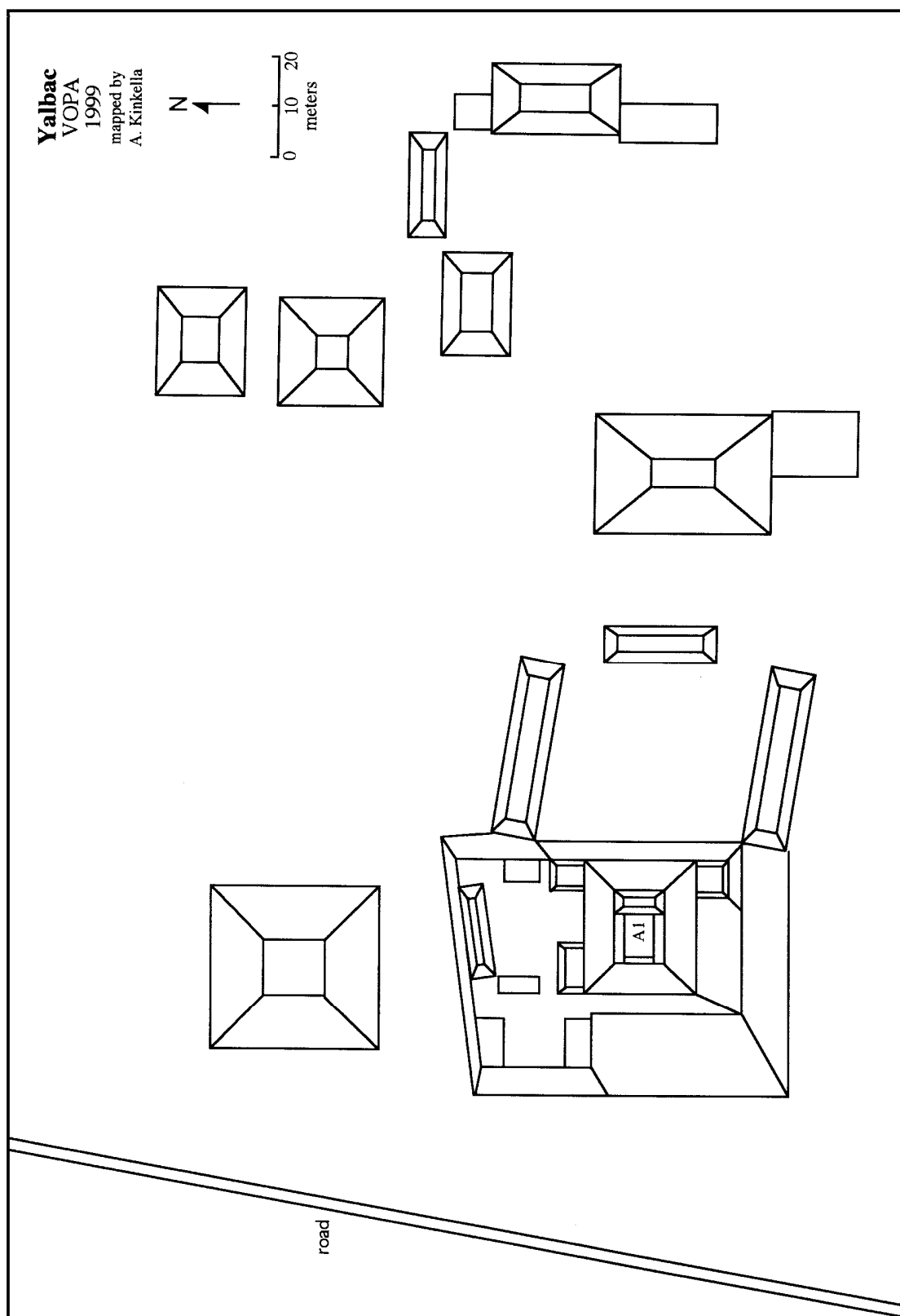


Figure 11: Yalbac

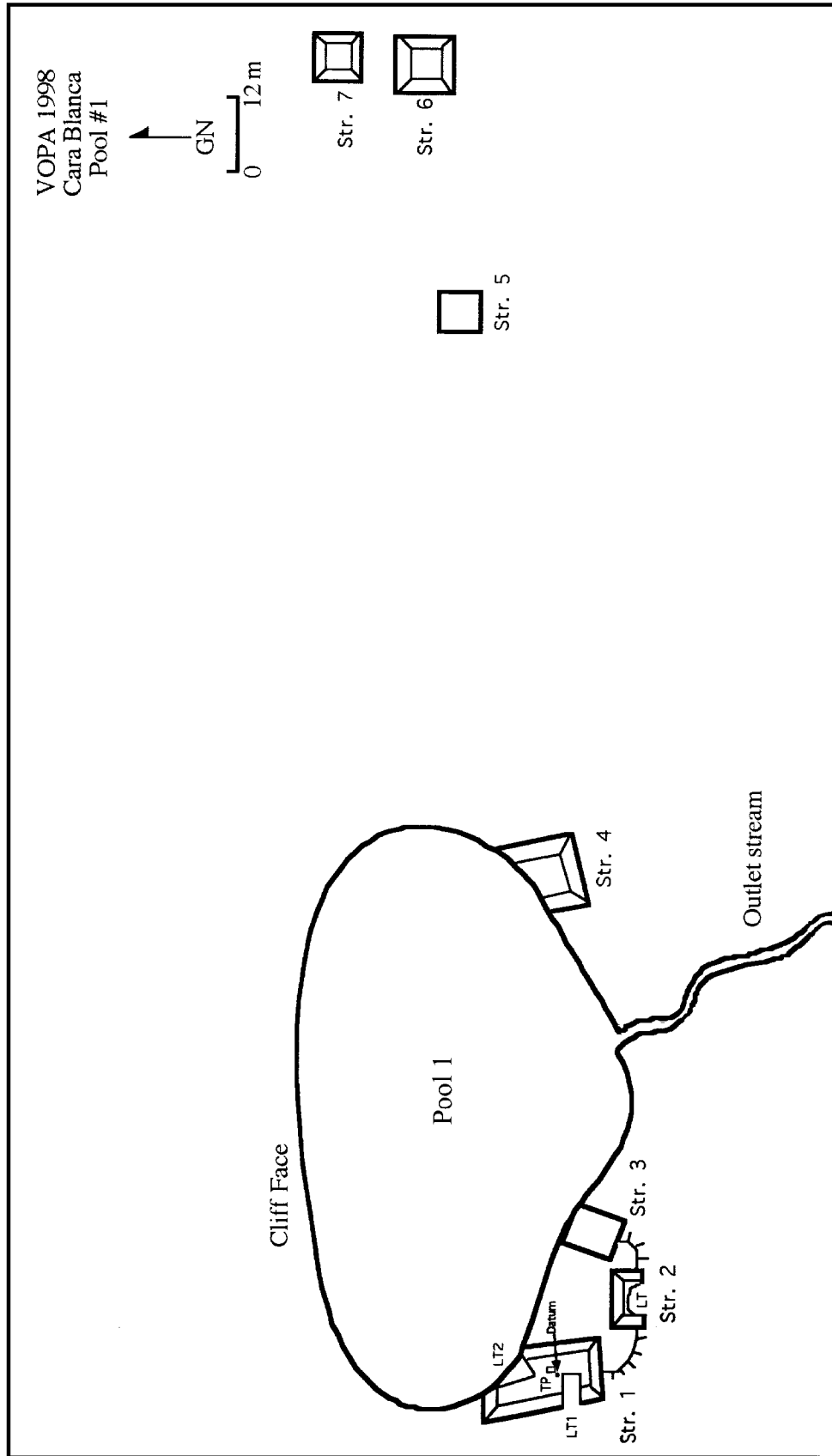


Figure 12: Cara Blanca

## CHAPTER 4: CARA BLANCA

The Cara Blanca site and corresponding Pool 1 are located approximately 12 kilometers north of the Belize River, and 9 kilometers north-northwest of the Valley of Peace Village in the Cayo District of Belize (UTM 1927N/301E; Figure 12). Pool 1 is a natural spring located at the base of a steep cliff (fault), part of a string of 22 pools that run east-west along the southern edge of a natural limestone ridge. We were able to locate five of the other pools during a survey in 1998 (Figure 6). The water in the pool is supplied via an underground water system, evident by the small stream running out from the southernmost edge of the pool (and continuing in a south-easterly direction). As there is no stream running into the pool, it is obvious that the excess water must be coming from underground. This chapter describes the reconnaissance, mapping, and excavations at the Cara Blanca site, and applies these findings to a broader framework with the hopes of clarifying Cara Blanca's relationship to Maya settlement patterns within the Belize Valley and beyond.

The closest large ceremonial center to Cara Blanca is the center of Yalbac, located some seven kilometers to the southwest (UTM 1922.7N/294.5E). San Jose is also quite close, at about nine kilometers to the northwest. The minor riverine center of Saturday Creek is also nearby, at about 11 kilometers to the southeast (UTM 1916N/312E).

The site itself consists of seven structures, ranging in height from one to four meters. The four largest structures are situated around a freshwater pool that has dimensions of approximately 100 meters east-west and 60 meters north-south. The

remaining three smaller structures of Cara Blanca are clustered roughly 125 meters east of the eastern edge of the pool (Figure 12).

## RESEARCH GOALS

I have so far had three main research goals for Cara Blanca. First, the settlement patterning of the immediate area was to be clarified. This entailed using a model developed by Scott Fedick (Fedick 1996), where settlement can be predicted based on a five tier rating system of the quality of soil (Class I is best, Class V is worst) (Figure 13). A preliminary site map was made in 1997 and improved upon in the successive fieldwork of 1998 and 1999 (see Lucero 1999c; Lucero and Fedick 1998; Kinkella 1999a). These improvements were made by conducting ever more extensive survey of the surrounding terrain (including searching for new pools), and recording any new mounds that went previously unrecorded. Increasingly more detailed measurements of the known structures were also recorded, as were more precise measurements of the overall dimensions of the pool itself.

The second goal was to get an idea of the building chronology of the Cara Blanca structures. This was done mainly in 1998 by clearly exposing the looters' trench sidewalls, and excavating a 1x1 meter test pit at the top of the largest structure. The information gained from the looters' trenches and the test pit gave a better understanding of floor and wall orientation as well as providing a sample of potsherds that could be used as a datable estimate of occupation history.

The final goal was to search for ritual offerings by scuba diving Pool 1. This would enable us to locate any visible Maya offerings on the pool floor, make preliminary



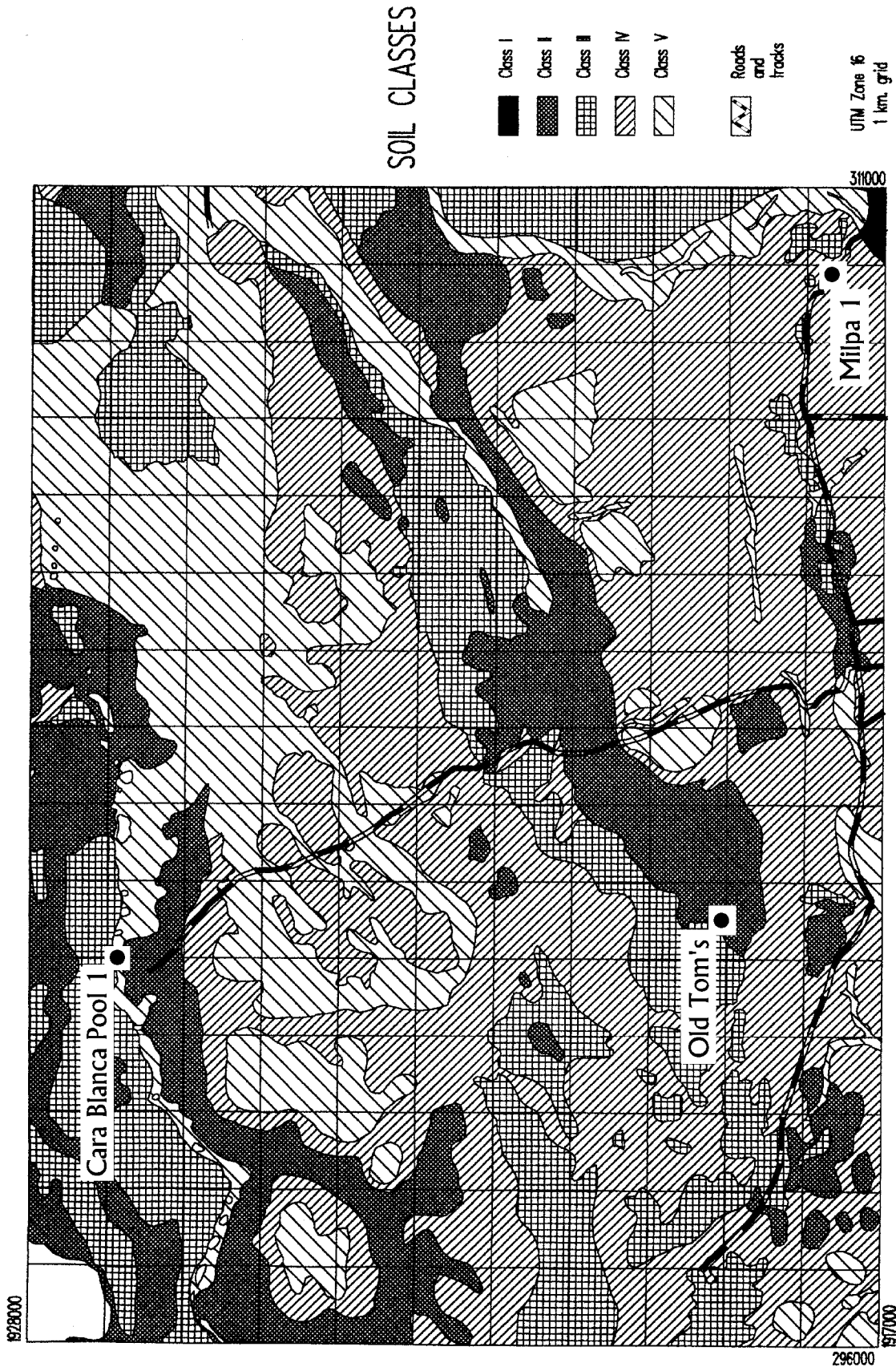


Figure 13: Soil Classes in the VOPA area

measurements of the pool, and get a general overview of the underwater environment to ascertain the feasibility of later, more elaborate dive strategies.

## STRUCTURE 1

Structure 1 is the largest structure at Cara Blanca. It appears to be a range building consisting of six rooms, three on a side, radiating out from a central spine wall (Figure 14). Structure 1 measures approximately 15 meters wide, 22 meters long, and four meters tall, with the orientation of the long axis being roughly north-south. This structure bears a strong resemblance to structure C5 at San Jose, a range building at the center of Group C (Figure 15). Thompson discusses the “collonade appearance” of the north face of structure C5 (Thompson 1939: 59-60). Structure 1 has the same patterning on its east face (the side overlooking the pool). Although most of Structure 1 is still buried, the pieces that are exposed suggest the presence of a central spine wall such as that found in structure C5 at San Jose.

This structure has lost its northeast corner due to severe erosion into the adjacent freshwater Pool. It contains two large looters' trenches, appropriately titled Looters' Trench 1 (LT 1), and Looters' Trench 2 (LT 2). Although the actions of the looters have brought an unfortunate amount of destruction to the mound, the locations of the two trenches enable us to create an idealized cross-section of Structure 1 (Figure 16). This cross-section provides further evidence that the mound is very similar to C5, with a central spine wall and a row of rooms on either side.

Looters' Trench 1 runs east-west on the west side of the central axis. It is oriented a bit to the south of the center of the building, and provides a good cross-section

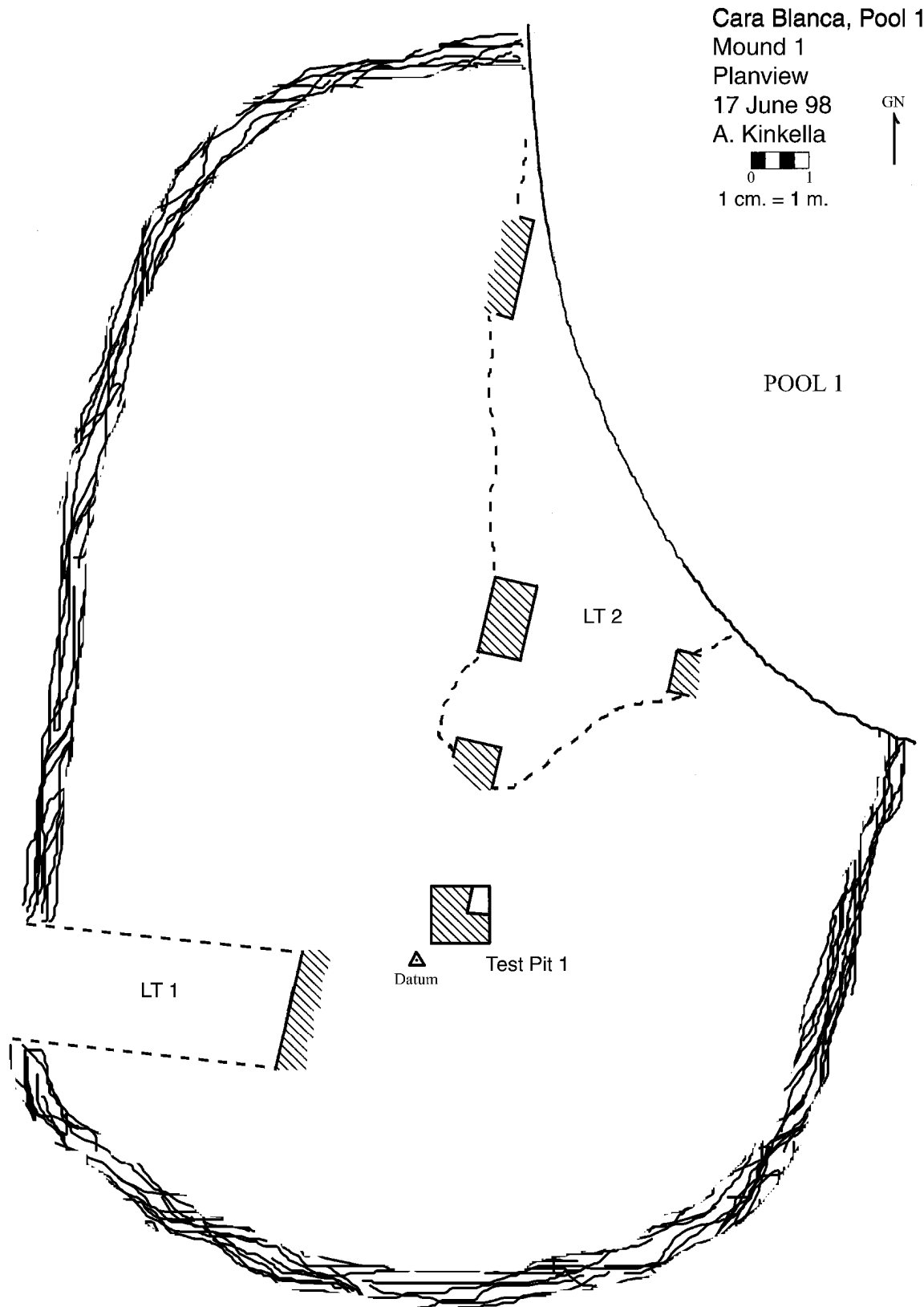


Figure 14: Structure 1 at Cara Blanca

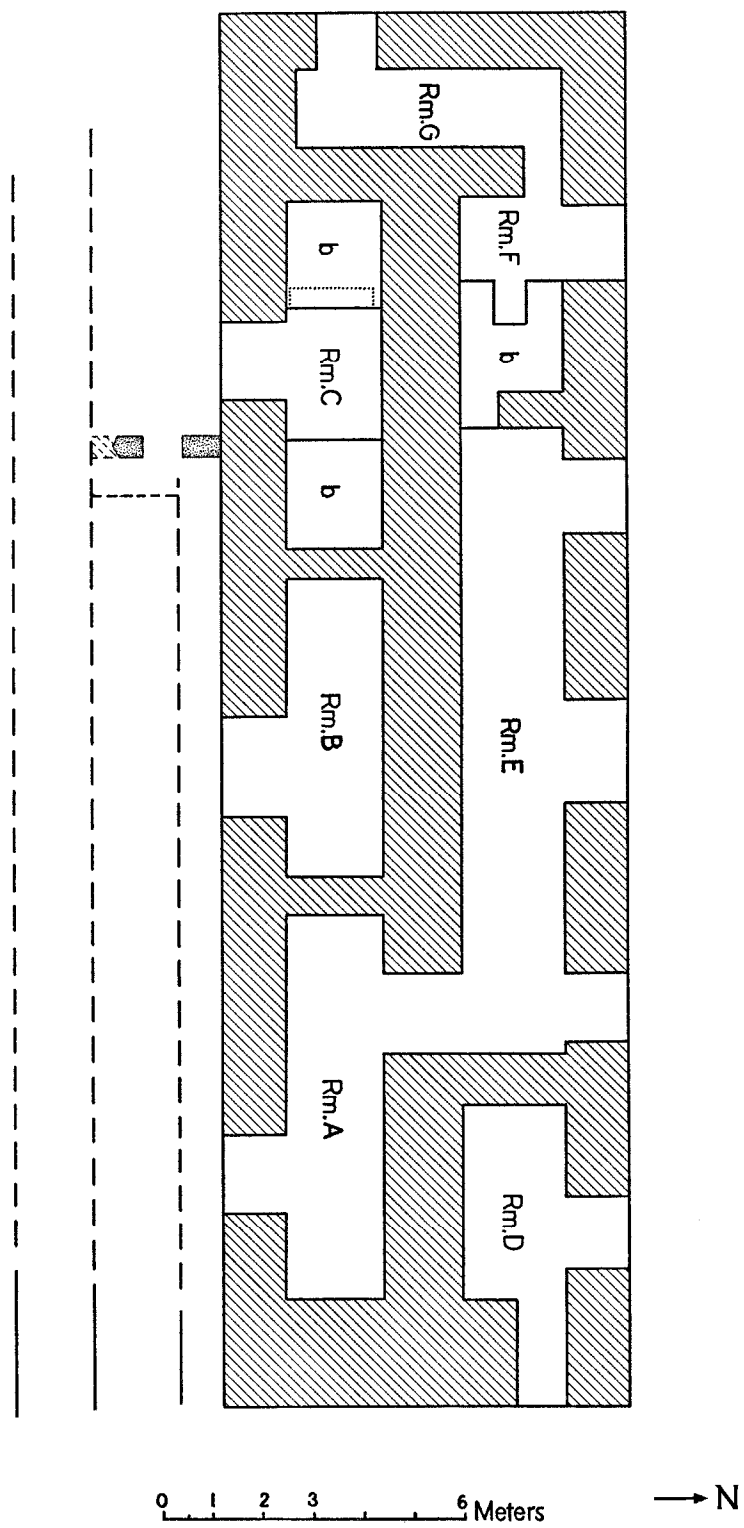


Figure 15: Structure C5 from San Jose (from Thompson 1939)

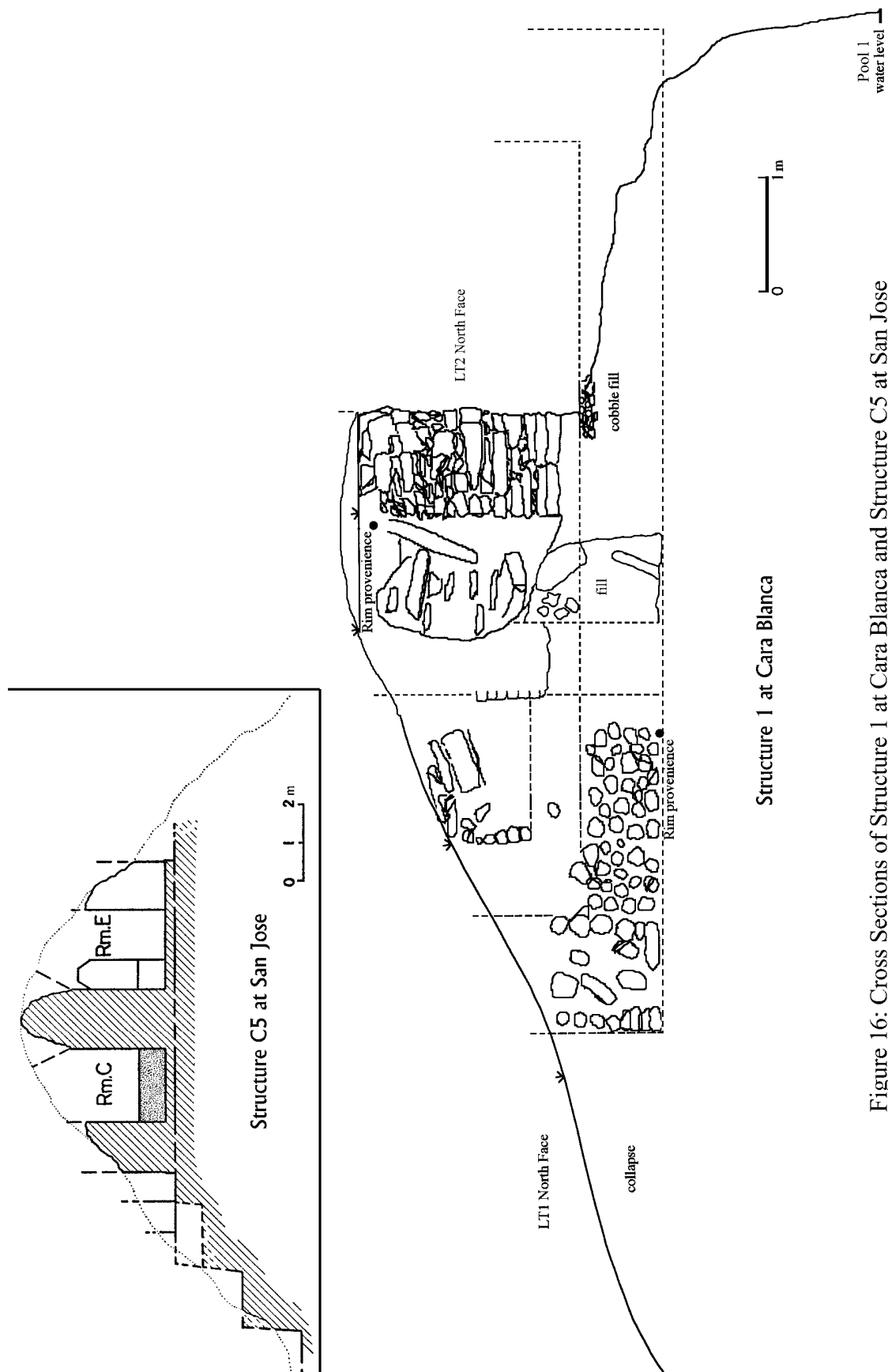


Figure 16: Cross Sections of Structure 1 at Cara Blanca and Structure C5 at San Jose

of the western portion of the mound. Within the north wall of LT 1, two walls are easily discernable, the outer one lower than the inner one, indicating a possible platform/range structure design (Figure 16). It is also important to note that the east wall of LT 1 contains a nicely preserved wall which runs north-south, quite a bit longer than the pillar-like walls that are in line with it on the north-south axis. This large wall is probably part of the central spine. There were several weathered face stones strewn about, some measuring 0.5 meters in length (rectangular in shape). There were also a number of sherds in the vicinity, almost all out of context.

Looters' Trench 2 runs east-west on the east side of the central axis. It is approximately five meters north of LT 1, and on the opposite side of the mound, facing out towards the Pool. It provides an excellent vantage point of one of the pillar-like walls. Pieces of two other pillar-like walls can be seen, helping the viewer become oriented to the overall plan of the building. Measurements taken between the walls in Looter's Trench 2 suggest that the rooms within Structure 1 may have been approximately four meters in length and 2.5 meters wide. In the northern section of the trench there is a well preserved 0.8 meter wide wall with shaped stones, underneath which is a plaster floor with a cobble ballast (Figure 16).

#### TEST PIT 1

In 1998, a 1x1 meter test pit was placed at the top of Structure 1, between LT 1 and LT 2. Natural levels were used. The soil was dark and organic near the surface, changing to a typical gray sandy loam in the lower levels.

The first level was comprised largely of humus and roots, and contained only two body sherds. The soil was dark and organic (Figure 17, 18). The average depth of this deposit was between 17 cm and 20 cm thick. Level one's Munsell color was given at 7.5YR 3/2 (dark brown). Level 2 had more artifacts to offer than Level 1. Artifacts excavated from Level 2 include 23 pottery sherds, some of which were identified as the Belize Red: Belize Variety of the Spanish Lookout Complex, indicating Late Classic occupation (A.D. 700-900). Eight of these sherds were obviously from the same Late Classic vessel (a jar). Level two's average deposit depth was between 25 cm and 31 cm thick, and Munsell was recorded at 10YR 4/2.

By the time we hit the bottom of Level 2, we could begin to see the general outlines of one of the central walls running along the north-south axis of the building, and abutting an eastern perpendicular wall. The next level was dug in order to solidify our assumptions concerning this orientation. Level 3 consisted of a more compact matrix containing 15 sherds, and had an average deposit depth of between 5 cm and 58 cm thick. It had a Munsell color of 10YR 5/1. Once we were deep enough to get accurate measurements of the pillar and abutting wall, the unit was closed. We were able to uncover at least five courses of the north-south wall, and two courses of the east-west perpendicular wall. The north-south wall runs at approximately 10 degrees from magnetic north, and the east-west wall runs at about 95 degrees. The north-south wall looks like it may be a corbel going north, but it is hard to say. The maximum depth, recorded at the northeast corner of the unit, was approximately 1.1 meters below ground surface (Figure 18).

Cara Blanca - Pool 1  
Structure 1  
Test Pit  
Level 3 (termination)

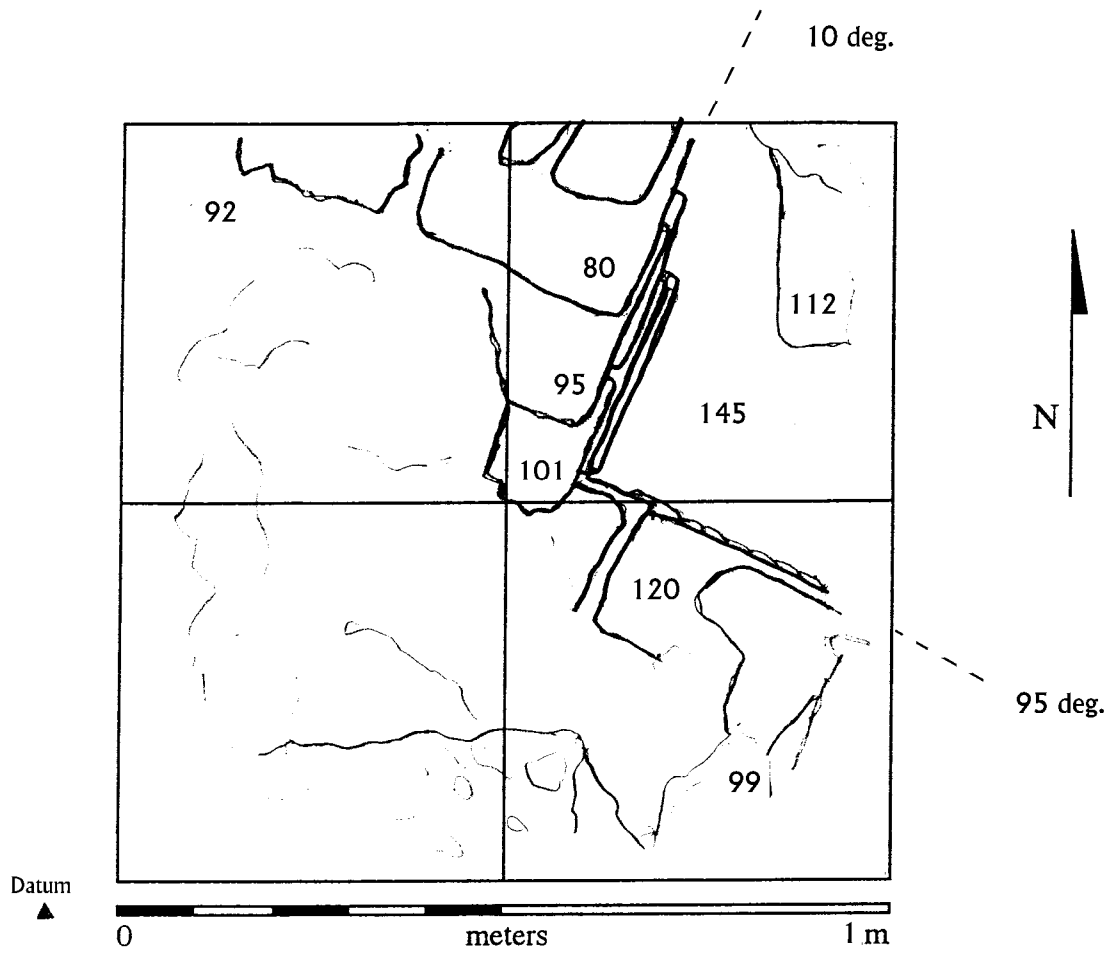


Figure 17: Test Pit 1 Planview with cm below datum indicated



Cara Blanca - Pool 1  
Structure 1  
Test Pit  
North Wall profile

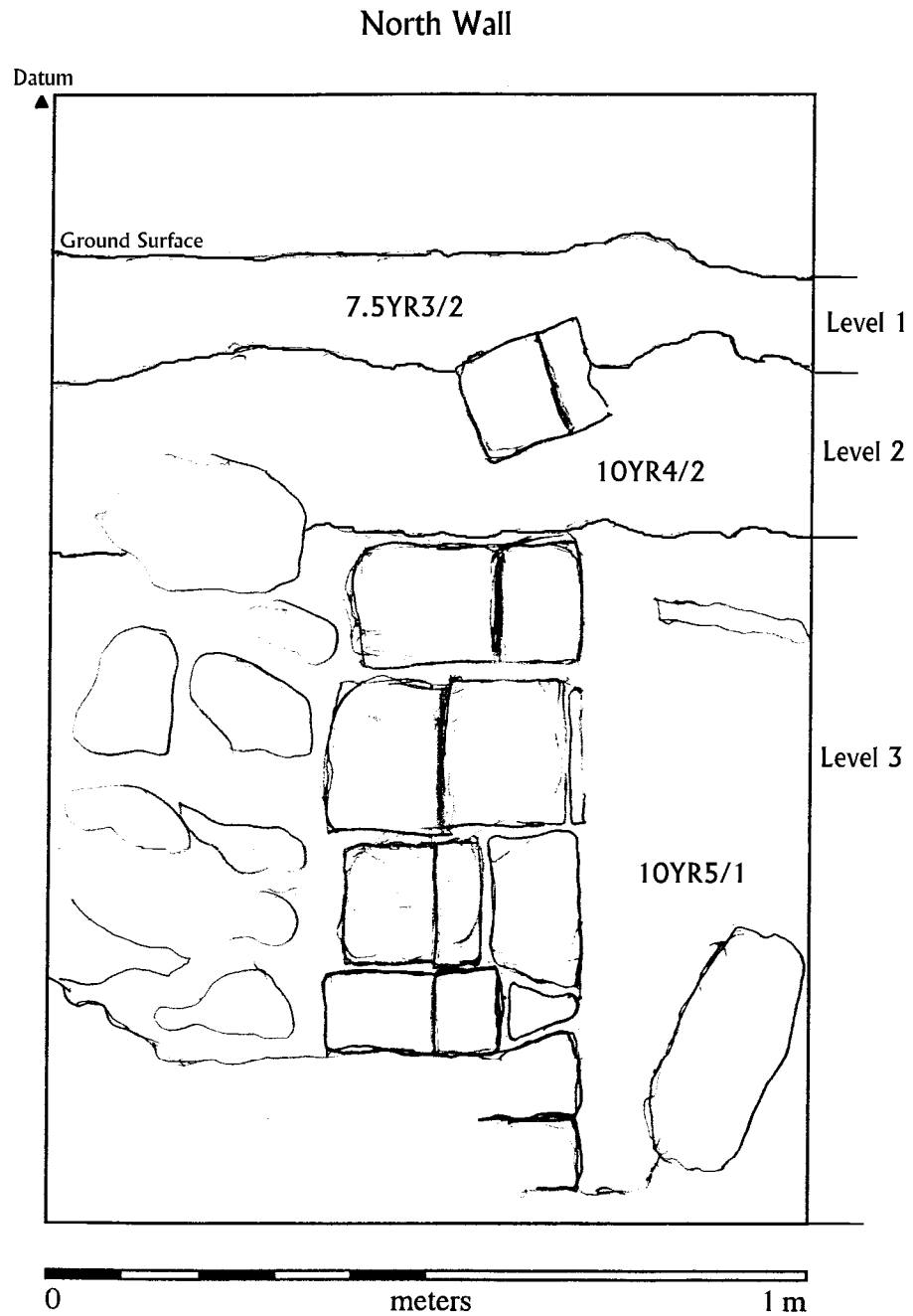


Figure 18: Test Pit 1 North Wall Profile

## STRUCTURE 2

Structure 2 is the second largest mound at the Cara Blanca site, located five meters to the southeast of Structure 1, and 15 meters due south of the edge of Pool 1. It is approximately 1.7 meters tall, and has a footprint of about 5 x 10 meters, oriented roughly east-west. Structure 2 has been devastated by looting; the top of the structure resembles a bomb crater. We were able to recover five potsherds from the looters' sidewalls, three from a possible upper construction phase, and two from an earlier construction phase. One of these from the earlier phase was datable to the Alexander's Unslipped Beaver Dam Variety of the Spanish Lookout Complex, c. AD 700-900 (Late Classic).

## STRUCTURE 3

Structure 3 lies 17 meters east of Structure 1, and four meters northeast of Structure 2. When viewed together, Structures 1 through 3 form three-quarters of a plazuela group (Figure 12). It is about 10 meters square at the base, and only about 0.75 meters tall. Structures 1-3 are located on a shared platform, and obviously comprised a patio group of some sort.

## STRUCTURE 4

Structure 4 lies at the southeast corner of Pool 1. It is solitary, being 55 meters away from Structure 3, and 90 meters away from Structure 1. It appears that Structure 4 is also eroding into the Pool, but not with the severity found in Structure 1. It is

approximately 15 meters by 11 meters at the base, oriented upon an east-west axis, and about 1.5 meters tall.

#### STRUCTURES 5, 6, AND 7

Structures 5 through 7 appear to be average housemounds, ranging in height from 0.8 to 1.9 meters, and instantly discernable as “typical” to anyone who has worked elsewhere in the Belize Valley. Although these three mounds are located in the same general area, Structure 5 seems to be an independent unit, while Structures 6 and 7 were probably closely interrelated because of their close proximity to one another (7 meters). Structures 6 and 7 also delineate the easternmost known limit of the Cara Blanca site.

#### WATER AND RITUAL AT POOL 1

Many of our ideas concerning the ritual implications of Cara Blanca’s poolside location stem from previous work done at other cenotes, such as the famous “Cenote of Sacrifice” located at the Postclassic Maya center of Chichen Itza. Edward H. Thompson began a simple steel bucket dredge of the cenote on March 5, 1904. The cenote dredge project was undertaken because Bishop de Landa had written that the Maya of the sixteenth century had thrown ritual objects into the cenote (Henderson 1981:212-214). Since then, there have been a plethora of offerings recovered from the cenote at Chichen Itza, including figurines, masks, bells, cups, human bone, ritually “killed” (broken) objects, representations of the long-nosed Chac water diety, and rare metalwork of gold and copper (Sharer 1994:719).

The cenotes of Chichen Itza and Cara Blanca share both similarities and differences. Chichen Itza's cenote has one small structure associated with it located on the edge of the south rim, somewhat similar to the groundplan at Cara Blanca (Coggins and Shane 1984). In contrast, trade goods from all over Central America have been found at Chichen Itza, while Cara Blanca seems relatively localized. Also, virtually all of the offerings at Chichen Itza date from between AD 700 and AD 1250 (Coggins and Shane 1984, Andrews and Corletta 1995:101). While this fits perfectly with the Postclassic age of Chichen Itza, it centers a little bit later in time than the dates found for Cara Blanca (AD 600-900).

There are a few other sites with associated cenotes throughout the Maya zone, and most contain offerings. Dzibilchaltun is one such site, and the ceramics found in its cenote (called Xlakah) date from the Late and Terminal Classic, the same as the ceramics at Cara Blanca (Andrews and Corletta 1995:104). Andrews and Corletta believe that at this time there were "area-wide water cults, which included pilgrimages to 'sacred' water localities, and ritual offerings of elite goods and human victims to water and other deities" (Andrews and Corletta 1995:112). If this is so, Cara Blanca would surely be a perfect spot to engage in such activities.

In an attempt to find underwater evidence for ritual activities akin to Chichen Itza and Dzibilchaltun, two crewmembers (Osterholtz and myself) conducted preliminary exploration of Pool 1 by scuba diving to a depth of about 20 meters. A sounding of the pool undertaken earlier by myself gave its deepest depth at about 40 meters, but the dive crew was not able to explore that far down, as our limited light source was not able to illuminate the surroundings below about 20 meters. We were hoping to find a shelf

underwater where any offerings may have found their final resting place, but all indications point to any artifacts being located at the very bottom (40 meters down), as the sides of the spring were extremely steep. Two potsherds were found on separate tiny rock outcroppings at about a 10 meter depth, but the outcroppings were both immediately under Looters' Trench 2 of Structure 1. This indicates that the sherds were probably from looters' debris, and not a part of any offering made in prehistory (see Appendix A).

On the positive side, the series of dives undertaken at the pool did demonstrate that the underwater structure of the pool is the same as a cenote. The sheer walls indicate that the formation of this water source was due to a sinkhole effect, which is in accordance with the geology of the area. The reason that the Cara Blanca pool does not look like a cenote from the surface has to do with the local groundwater levels and the sheer volume of water that the underground spring produces. So much water is produced that a small creek runs out to the south to alleviate the excess (Figure 12).

We explored five other pools in the Cara Blanca region in 1998 via surface survey only. Pool 2, which was the only pool to the west of Pool 1 that we explored, was very similar to Pool 1. We think that the name "Cara Blanca" or "white face" actually comes from Pool 2, as there is a large white limestone cliff on one side. This cliff is in the vicinity of 80 meters high, and may contain caves (Lucero 1999c:5). To the east of Pool 1 are pools 3-6, none of which have cultural material around them.

## FURTHER STUDY

One of the more useful things that later expeditions to Cara Blanca could do would be to obtain a ceramics sample from the three outlying mounds (Structures 5-7) of

the Cara Blanca group. If the ceramics closely resemble those found within the main group, this would cement the idea that the outer mounds are indeed related to the poolside ones. Further explorations of Structure 1 would also be extremely useful to better establish the number and configuration of the rooms within the structure. A unit concentrated near the southeastern corner of Structure 1 would also be helpful in clarifying the relationship between the structure and the basal platform that it is built upon.

A second diving expedition could also be mounted to further study the contents of the pool. This would probably be quite expensive, but the pioneering work done in the 1998 season could be built upon with greater results. Even though no ritual objects have yet been found within the pool at Cara Blanca, the similarities to Dzibilchaltun and Chichen Itza indicate that a more extensive study could uncover ritual material. I would recommend that the next dive team use large dive lights (ours were woefully inadequate), and possibly use Nitrox certified divers as the maximum depth is in the range of 40 meters (130 feet). It would also be a good idea to carry a good dive knife, as a real possibility exists of getting tangled in the myriad of dead tree branches that exist under the water.

## CHAPTER 5: CERAMIC ANALYSIS

Unlike previous years at Cara Blanca, where many different investigations were undertaken, the 1999 season consisted of only one goal: To obtain good chronological data in order to better date the occupation history of the site. It is known that many sites within the Belize Valley have a fairly long occupation history, dating from the Middle Preclassic (c. 1000 BC) until the Late Classic (AD 900) and even into the early Post Classic (Willey et al. 1965). However, the Valley of Peace site excavated by Jaime Awe had a much narrower chronology, centered upon the later Classic (AD 400-900) (Moris 1984). It was imperative to know where the Cara Blanca site fit within this continuum. Only two crew members, Kinkella and Choc, ventured to the Cara Blanca site for the 1999 season, as the road was impassable for even 4 wheel drive vehicles. Bikes were used to cross the tough terrain, and were eventually jettisoned in favor of walking (Kinkella 1999a).

### SHERD COLLECTION

I decided that our plan would be to find and collect only rim sherds and diagnostic body sherds in order to ascertain the chronology of this site. We collected sherds only from Structure 1, because this structure is much more voluminous than the other mounds. A careful survey of the surface of the looters' trench within Structure 2 was undertaken, but not a single diagnostic sherd was seen this year, as the few that existed were collected the previous summer.

The sherds from Structure 1 were separated into three categories, delineating sherds found in Looters' Trench 1, Looters' Trench 2, and the Testpit. Unprovenienced sherds found in the looters' backdirt were differentiated from those taken directly out of the trench sidewalls or in controlled excavation.

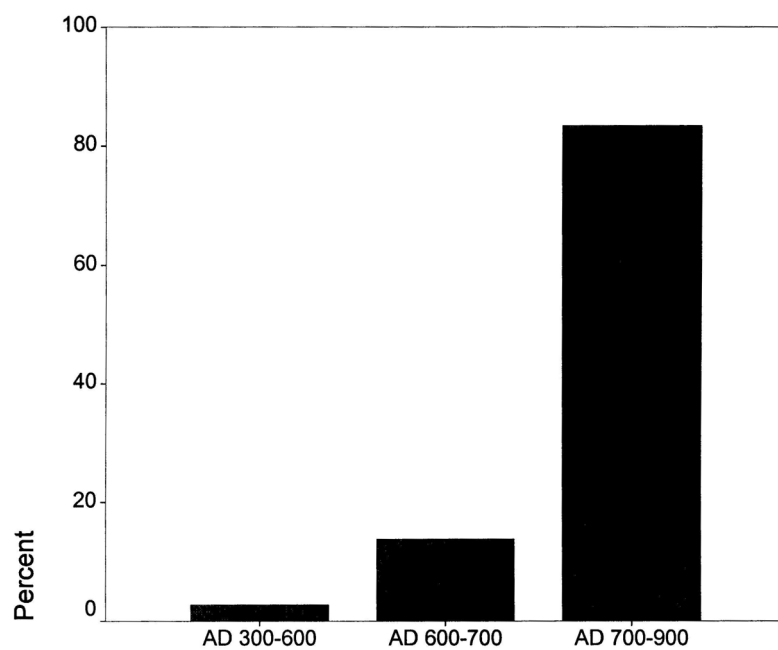
## SHERD MEASUREMENT

Each of the 36 rim sherds collected in 1999 was measured for rim diameter and neck diameter (if applicable). They were also measured for height, length, and width, and drawn at a 1:1 scale in cross section. A planview drawing of the sherds was also included if a simple cross sectional drawing did not record all the substantial attributes. Special attributes were also noted, such as bichrome, polychrome, presence of slip, and slip color. The 9 diagnostic sherds found in 1998 were also added to the data set, although their rim diameters were not measured at the time (see Appendix A). Sherds were catalogued using Gifford's Pottery Analysis of Barton Ramie (Gifford 1976), and all chronological interpretations stem from his categorizations.

At the Cara Blanca site, there were a total of 22 diagnostic jar rims, 7 plate rims, 5 bowl rims, and 1 censor rim (Appendix A). This gives us an overall percentage of 63% jars, 20% plates, 14% bowls, and 3% censors (Figure 19). The ceramics recovered at Awe's Valley of Peace site were only analyzed for chronology and form, but the excavators did make note of the general ratios of pottery types that they saw. They found bowls to be most prevalent, followed by jars at a close second (Awe 1984). Given this information, we would expect the Cara Blanca site to roughly equal the Valley of Peace site in ratios of bowls and jars, but this is not the case at all. The severe lack of bowls at



### Percentage of Vessels from Cara Blanca According to Time Period



### Percentage of Vessel Forms at Cara Blanca

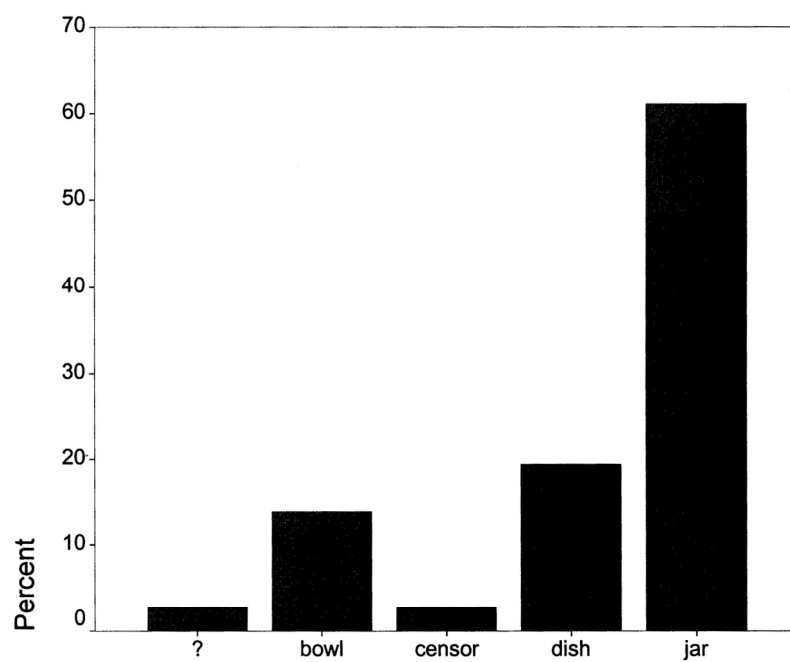


Figure 19: Ceramics at Cara Blanca

Cara Blanca in comparison to Valley of Peace may point to differences in site usage. Indeed, the high percentages of jars inside Cara Blanca's Structure 1 may indicate relationships with water and cave ritual (Chase and Chase 1998:325).

In terms of chronology, the pottery sherds give us overwhelming evidence that Cara Blanca was almost exclusively a Late Classic site (AD 600-900) (Figure 19). Most (79%) of the sherds are from the Spanish Lookout phase (AD 700-900), while 13% are from the Tiger Run phase (AD 600-700), and only a maximum possible 8% belong to the Hermitage phase (AD 300-600) (Figure 19). These dates are very similar to the dates from the Valley of Peace site (AD 400-900).

Certain sites in Belize, such as Lamanai, are known to be Postclassic enclaves for the Maya (Rice and Culbert 1990:24). The Belize Valley is also generally known for its resistance to the collapse (Adams 1973:33), but many centers in the Valley fall at around AD 900. Cara Blanca fits right into this general trend, as not even one Post Classic sherd has yet to be recovered. This indicates that Cara Blanca collapsed right along with most of the Belize Valley, at around AD 900.

We had originally dated this site as having a large chronological history, from Middle Preclassic all the way to the Late Classic (Kinkella 1999b). This assumption was made based on a shaky date from one sherd found underwater in 1998. Reanalysis has shown that this sherd is probably from the Late Classic (AD 600-900), making Cara Blanca much more narrow in its chronology. This agrees with dates found at many other secondary sites and household groups within the general area (see Awe 1984; Willey et al. 1965).

## OBSIDIAN AND BONE

While obsidian blades are quite plentiful at the Saturday Creek site, with every housemound having at least a few somewhere on its surface, Cara Blanca has yet to yield a single piece. This may be partially because Saturday Creek is plowed, and it is easy to spot obsidian in the dirt, while Cara Blanca is perpetually covered with a thick blanket of secondary rainforest growth. No burials have yet to be found at Cara Blanca, and no bone has yet to be recovered. Luckily, it appears that none of the looter's trenches at the site have hit upon burials.

## CONCLUSION

From the chronological interpretations of the potsherds, it appears that settlement at the Cara Blanca site began during the Middle Classic (AD 600), possibly earlier. Habitation continued into the Late Classic and Terminal Classic (AD 900), at which point the site was abandoned along with most sites in the Belize Valley. Cara Blanca most likely had strong ties to the major centers in the area, including Yalbac, located just 7 kilometers to the southwest, and San Jose, located 9 kilometers to the northwest. San Jose's Structure C5 displays many architectural similarities to Cara Blanca's Structure 1, and further study at either structure should enlighten the other.

Cara Blanca's location immediately adjacent to a sizable natural spring mirrors other water ritual sites such as the cenotes at Chichen Itza and Dzibilchaltun (Andrews and Corletta 1995). Because of this similarity we have speculated that Cara Blanca may have been used as a ritual pilgrimage center during prehistory. The Maya viewed anything pertaining to the underworld as sacred (Bassie-Sweet 1996), and the underground water source at Cara Blanca may have been seen as a portal to that world. Natural pools of water such as the ones in the Cara Blanca area often contain ritual offerings and the presence of multiple pools in this area may earmark it as a special location, although nothing conclusive has as yet been found on this front (e.g. Andrews and Corletta 1995).

With an extremely reliable supply of fresh water and fairly good soil (Class II and III) only a short distance away, the relative lack of settlement in the area is surprising. This tends to favor the classification of Cara Blanca as a ritual pilgrimage center or even

as a private elite compound, where plentiful resources were restricted due to the relative ease of control. Since the primary water source is a pool and not a river, the entire water source could have been delineated for the elite, while the commoners were forced to share nearby Labouring Creek.

The main line of evidence which would refute such an elite characterization is the lack of elite goods found in the excavation. Arlen and Diane Chase (Chase and Chase 1992) list the main traits that should enable an archaeologist to identify the presence of elites within the archaeological record, which include the presence of luxury goods, the presence of elaborate architecture, and the presence of ornate burials. The Cara Blanca site can only lay claim to elaborate architecture, as the other two traits are either absent or have yet to be found.

Considering the settlement characteristics in the immediate area encompassing the Cara Blanca site (settlement on poor soil) and the relatively good soil characteristics (Class II and III) of the surrounding uninhabited area, it would appear at first glance as though Fedick's model of good soil correlating to increased settlement is not viable. But if we look more closely, it becomes clear that the model works. Although the Cara Blanca settlement is built upon Class V soil, which is the very worst in the Maya area, the good Class II and III soils are located less than a kilometer away. It appears as though the Maya are truly getting the most out of their available resources by building their dwellings upon poor soils adjacent to good soils, so as to be close to good farm land while not covering it up with living space.

## Appendix A: Ceramics from the Cara Blanca Site

Ceramic Types: Structure 1, LT 1:

Rim Type	Rim/Neck Dia. (cm)	Type or Group	Complex	Dates
jar	27/22	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	20/17	Cayo Unslipped	Spanish Lookout	AD 700-900
?	17	Roaring Creek Red	Spanish Lookout	AD 700-900
bowl	25	Mountain Pine	Tiger Run	AD 600-700
dish	30	Belize Red	Spanish Lookout	AD 700-900
jar	19/16	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	18/16	Cayo Unslipped	Spanish Lookout	AD 700-900
jar	16/14	Cayo Unslipped	Spanish Lookout	AD 700-900
jar	17/15	Cayo Unslipped	Spanish Lookout	AD 700-900
jar	20/18	Cayo Unslipped	Spanish Lookout	AD 700-900
dish	23	Mountain Pine Red	Tiger Run	AD 600-700
dish	25	Mountain Pine Red	Tiger Run	AD 600-700
dish	32	Belize Ceramic Group	Spanish Lookout	AD 700-900
jar	21/18	Cayo Unslipped or Minanha	Spanish Lookout or Hermitage	AD 700-900 or AD 300-600
jar	23/21	Cayo Ceramic Group	Spanish Lookout	AD 700-900
jar	21/19	Cayo Unslipped	Spanish Lookout	AD 700-900
jar	18/15	Tutu Camp Striated	Spanish Lookout	AD 700-900
sensor	25	Pedregal Modelled Carved	Spanish Lookout	AD 700-900
dish	27	Mountain Pine Red	Tiger Run	AD 600-700
bowl	21	Yuhactal Black on Red	Spanish Lookout	AD 700-900
body	-	Polychrome		
body	-	Polychrome		
bowl	14	Dolphin Head Red	Spanish Lookout	AD 700-900

Ceramic Types: Structure 1, LT2:

Rim Type	Rim/Neck Dia. (cm)	Type or Group	Complex	Dates
jar	20/15	?	Hermitage?	AD 300-600?
jar	22/18	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	24/21	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	21/17	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	20/17	Cayo Unslipped	Spanish Lookout	AD 700-900
bowl	40	Belize Red	Spanish Lookout	AD 700-900
jar	23/19	Yaha Creek Cream	Spanish Lookout	AD 700-900
jar	18/15	Cayo Unslipped	Spanish Lookout	AD 700-900
bowl	33	Belize Red	Spanish Lookout	AD 700-900
dish	28	Belize Red	Spanish Lookout	AD 700-900
jar	18	Cayo Unslipped	Spanish Lookout	AD 700-900
jar	25/22	Yaha Creek Cream	Spanish Lookout	AD 700-900
base	13 (base)	Mountain Pine Red	Tiger Run	AD 600-700

Ceramic Types: Structure 1, Testpit 1, Level 2

jar	8 sherds	Belize Red	Spanish Lookout	AD 700-900
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Ceramic Types: Structure 2, LT1

jar	-	Alexander's Unslipped	Spanish Lookout	AD 700-900
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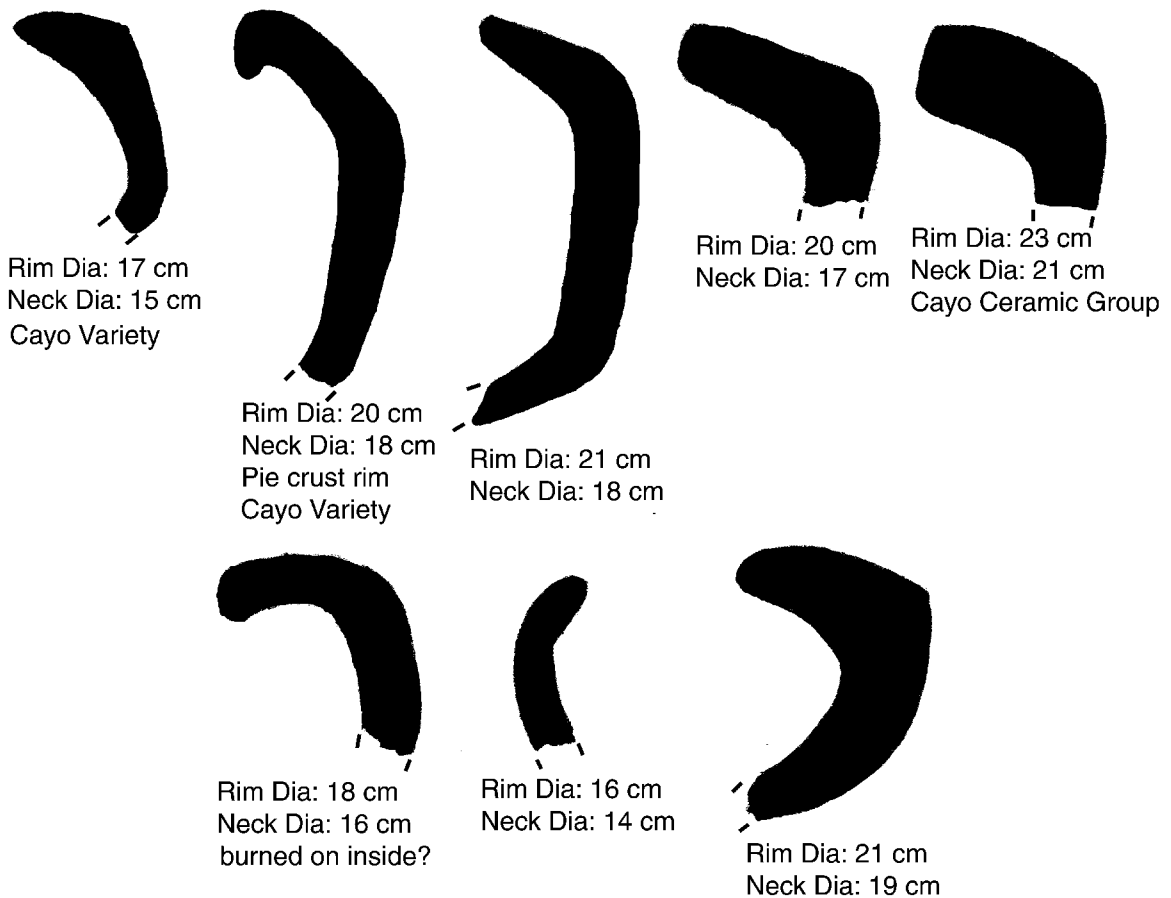
Totals

Type	Dates	Period	Number
Spanish Lookout	AD 700-900	Late Classic	30
Tiger Run	AD 600-700	early Late Classic	5
Hermitage	AD 300-600	Early Classic	3?

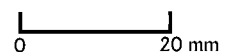
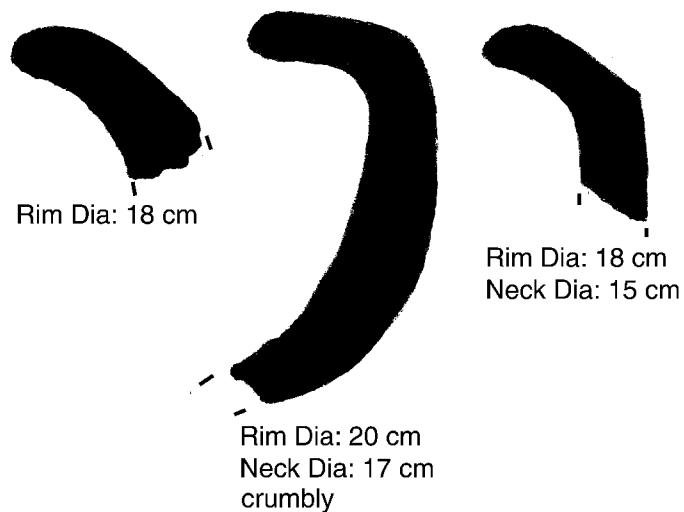
Vessel Type	Number
Jar	22
Dish	7
Bowl	5
Censor	1
Uncertain	3
TOTAL	38



Structure 1 - Looter's Trench 1  
 Cayo Unslipped Jars  
 Spanish Lookout Complex  
 AD 700-900



Looter's Trench 2



Structure 1 - Looter's Trench 1  
 Yaha Creek Cream Jars  
 Spanish Lookout Complex  
 AD 700-900

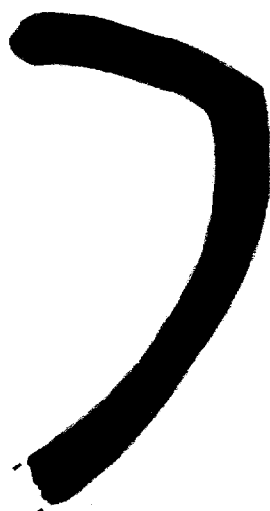


Rim Dia: 27 cm  
 Neck Dia: 22 cm



Rim Dia: 19 cm  
 Neck Dia: 16 cm  
 maybe White Cliff

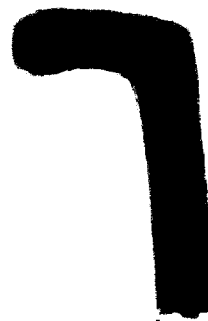
Looter's Trench 2



Jar rim (3 pieces)  
 Rim Dia: 22 cm  
 Neck Dia: 18 cm  
 paste: 10YR66



Rim Dia: 25 cm  
 Neck Dia: 22 cm  
 broken



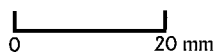
Rim Dia: 23 cm  
 Neck Dia: 19 cm



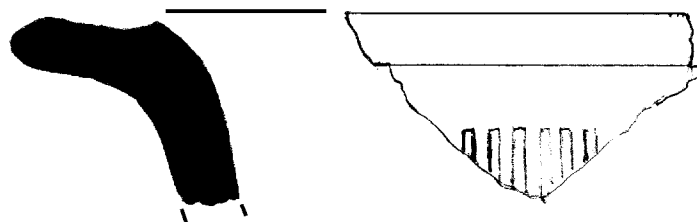
Rim Dia: 24 cm  
 Neck Dia: 21 cm  
 maybe Cayo Unslipped



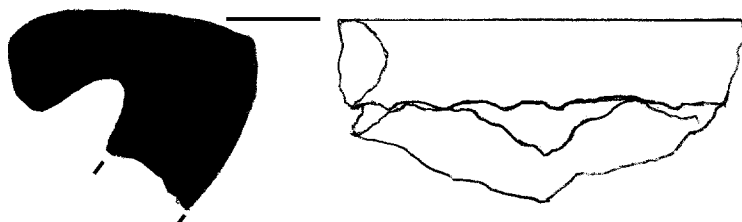
Rim Dia: 21 cm  
 Neck Dia: 17 cm  
 maybe Cayo Unslipped



Structure 1 - Looter's Trench 1  
 Spanish Lookout Complex  
 AD 700-900



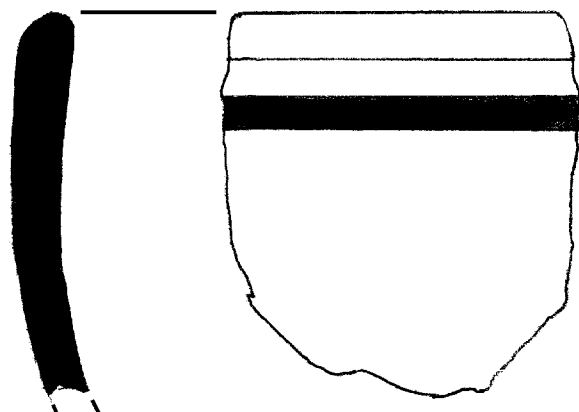
Jar rim  
 Rim Dia: 18 cm  
 Neck Dia: 15 cm  
 Tutu Camp Striated



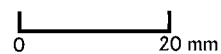
Jar/Censor rim  
 Rim Dia: 25 cm  
 Pedregal Modelled Carved  
 Cayo Ceramic Group



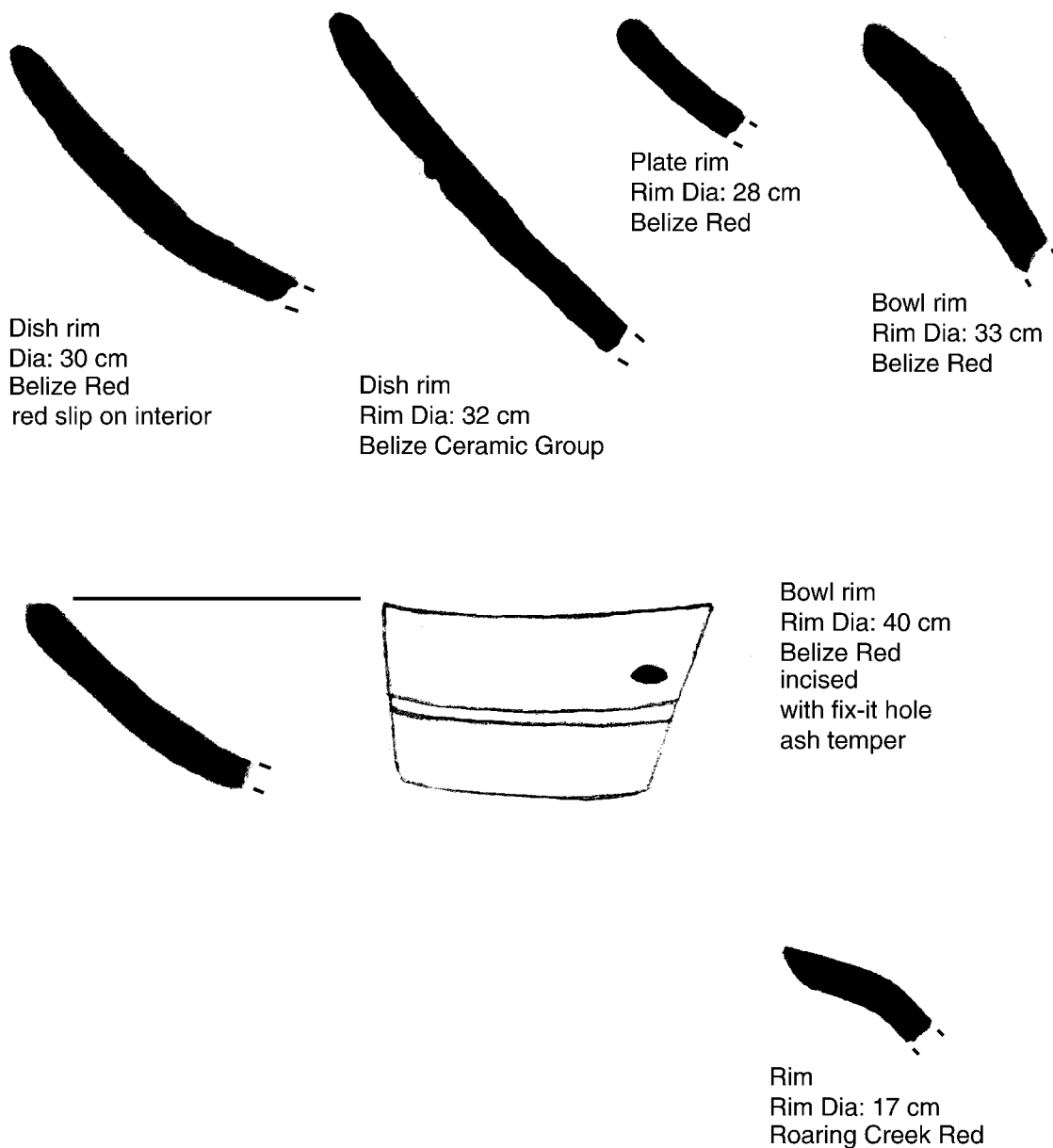
Bowl rim  
 Rim Dia: 14 cm  
 Dolphin Head Red  
 accession #10048-35  
 inner slip 25YR46



Bowl rim  
 Rim Dia: 21 cm  
 Yuhactal Black on Red

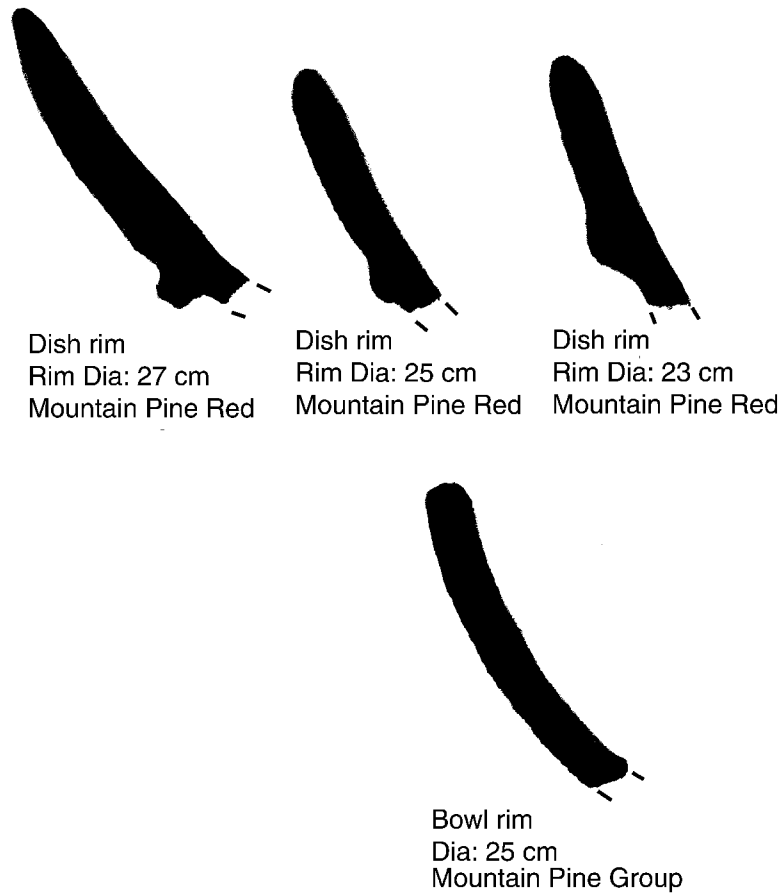


Structure 1 - Looter's Trench 1  
 Spanish Lookout Complex  
 AD 700-900

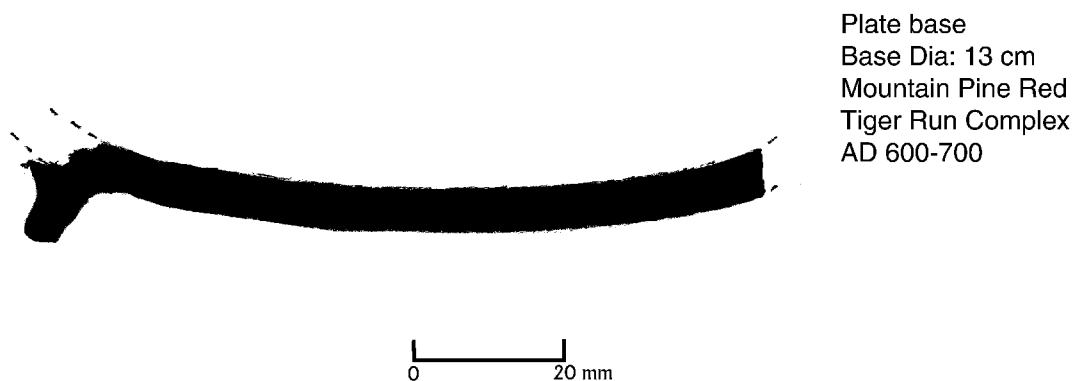


0 20 mm

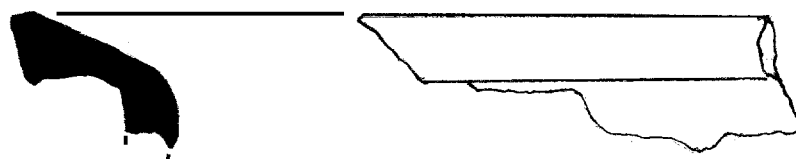
Structure 1 - Looter's Trench 1  
Tiger Run Complex  
AD 600-700



Looter's Trench 2



# Miscellaneous Sherds from Cara Blanca



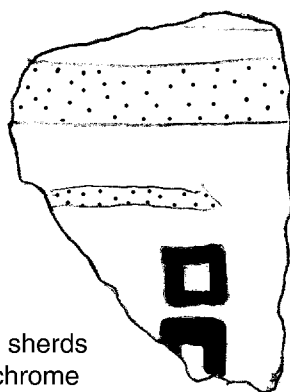
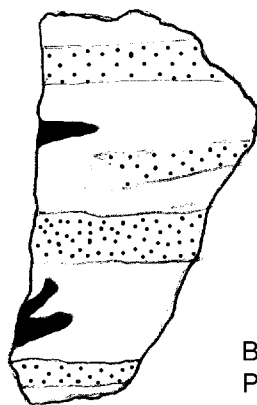
Structure 1  
Looter's Trench 2  
Jar rim  
Rim Dia: 20 cm  
Neck Dia: 15 cm  
Hermitage Ceramic Group?  
AD 300-600?  
accession #10048-34



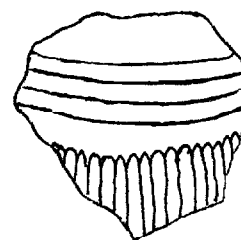
Structure 2  
Looter's Trench  
Lower Level



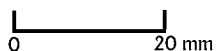
Structure 1 - Test Pit 1  
Level 2  
Belize Red  
Spanish Lookout Complex  
AD 700-900  
from cluster of 8 sherds



Body sherds  
Polychrome  
Dos Arroyos?



Pool 1 - 10 meters underwater  
Below Structure 1  
Tutu Camp Striated  
Spanish Lookout Complex  
AD 700-900



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