# Report on the 2010 Excavations at Marco Gonzalez, Ambergris Caye

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## **PART 1**:

# The 2010 Excavations at Marco Gonzalez, Ambergris Caye

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## The 2010 Excavations at Marco Gonzalez, Ambergris Caye Report to the Institute of Archaeology, Belize

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#### **Introduction and Background**

#### Introduction

The original exploration and investigations that provided the context for the 2010 excavations at Marco Gonzalez began in 1986¹ (Graham 1989; Graham and Pendergast 1987, 1989; Pendergast 1990; Pendergast and Graham 1986, 1987). Work was expanded at Marco Gonzalez, and initiated in the community of San Pedro itself, in 1990²; investigations continued for two short seasons in 1991 and 1993, during which time additional test excavations were carried out at the site of Santa Cruz and much of the southern tip of the caye was explored for other sites³ (Dunn and Mazzullo 1993; Graham 1991, 1992a, 1992b; Mazzullo, Teal and Graham 1994; Pendergast and Graham 1990a, 1990b). Although Marco Gonzalez was the original focus, a good deal of construction took place in San Pedro in the late 1980s and early 1990s. As a result, Pendergast and Graham salvaged burials and artefacts that turned up as construction proceeded. Salvage excavations were carried out where northern additions to Elvi's Restaurant are now located, as well as on the site of the shopping centre across from the Atlantic Bank, and along Middle Street just north of the Sea Turtle Gift Shop (Pendergast and Graham 1991).

In 1993, excavations were carried out in limited areas of the grounds of the Sands Hotel, owned by George and Marie Parham, located in the centre of San Pedro across from the beach park and playground (Graham and Pendergast 1994). Although the 1990 season was intended to be the first season of a long-term project, and small grants were obtained for soils and botanical work, further funding for archaeological research never materialized. The 2010 season at Marco Gonzalez was aimed specifically at assisting the local Marco Gonzalez Preservation group in drawing attention to the site as a potential archaeological and nature park, and our hope is that funding can be found to develop the site (in coordination with local and national efforts), process; interpret and permanently house the finds; and ensure that the artefacts become available for public viewing.

A number of publications on the results of analyses of data from Marco Gonzalez, San Pedro and Santa Cruz have been produced over the years. These range from palaeocoastal reconstruction (Dunn and Mazzullo 1993); marine resource studies (Emery and Graham 2003); procurement and use of chert and obsidian tools (Stemp and Graham 2006; Stemp, Graham and Goulet 2011); perspectives on Maya economy (Graham 2002); and the implications for perceptions of the Maya Postclassic period (Pendergast 1990) and for our understanding of European impact in the early colonial period (Graham 2011). In addition, the detection of the presence of distinctive soils, vegetation, sediment history and stratigraphy at Marco Gonzalez and other Belize coastal sites (e.g., Graham 1989, 1992, 1994) has stimulated a number of publications on the significance of anthropogenic soils and the importance of studying the long-term environmental impact of human activities--particularly in coastal environments--in order to be able to assess present-day goals of attaining sustainability and resilience with any security (Graham 1996, 1998, 1999a, 1999b, 2006a, 2006b).

<sup>&</sup>lt;sup>1</sup> Supported by the Royal Ontario Museum.

<sup>&</sup>lt;sup>2</sup> Social Sciences and Humanities Research Council of Canada (SSHRC) and Committee for Field Archaeology, ROM (CFFA)

<sup>&</sup>lt;sup>3</sup> CFFA, York University (Toronto).

In 2009, the threat from the South Beach Development (SBD) was brought to Graham's attention by Dr. Awe, and Graham was put in touch with Jan Brown, who was heading archaeological preservation efforts on Ambergris Caye. Graham, Tim Beach and Sheryl-Luzzader Beach visited the caye in May of 2009 to carry out a preliminary environmental assessment; Graham then visited the caye later in May to meet Jan Brown and discuss strategy; and in January 2010, Graham and the Beaches returned to the caye to take soil samples at Marco Gonzalez, the test results of which are forthcoming.

Graham and Simmons joined forces in the autumn of 2009 and began to strategize with Jan Brown. Although neither we nor the local organisation had access to funding, the local San Pedro group was able to provide some logistical support, and we arranged to run a field school on the island in the hope of drawing attention to the site's importance. Fifteen students from the University of North Carolina Wilmington field school and 11 students from UCL participated in the excavations, along with 5 Belizean field excavators. Given the relative inexperience of the students we did not plan to excavate large or sensitive areas, but the team proved to be uniquely capable, well organized, and extremely hard-working. We were able to add information to what we had learned in earlier years and to form more detailed questions about the history of the site that will help to structure future excavations.

### What we knew about the site before 2010 Chronology

in the lowermost levels.

The site or locale which we now call 'Marco Gonzalez' has a long history of occupation and utilization on the caye. Sherds recovered from one of the test pits in 1986 date to Late Preclassic times--to about the time of Christ and possibly to as early as 100 B.C. Coastal sites such as Marco Gonzalez (see Graham 1994) grow circumferentially as well as vertically. Therefore we would have to run a trench across the entire site in order to pinpoint its 'centre' and original zone of occupation. Test pits in this zone would be expected to yield evidence of the earliest occupation

Excavations so far reveal that the area was continuously and intensively occupied from Late Preclassic times until about A.D. 1250 or 1300. Sedimentological and environmental studies (Dunn and Mazzullo 1993) indicate that by this time mangrove vegetation had encroached significantly enough to discourage the site's use as a port or trading centre (Fig. 1), and its inhabitants moved to another part of the caye, most likely where the town of San Pedro is now located.

Some occupation clearly continued, however, because Late Postclassic-style low house platforms were detected in 1990, and Late Postclassic sherds can be found in surface deposits. That there were people in the area as late as the 16th century is indicated by the appliqué faces from censers

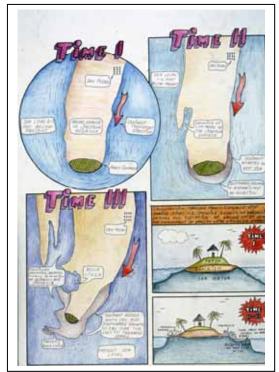


Figure 1: Artist's reconstruction of mangrove encroachment. (Drawn by Emil Huston)

deposits over the giant riser stairs of Str. 12 (Fig. 2). The style of these effigy appliqué faces is very much in keeping with those found at the mainland site of Lamanai, all of which date to the colonial period.



Figure 2: Effigy faces found in deposits overlying the giant riser stairs of Str. 12.

There is good evidence from the various excavations in San Pedro that the town was a thriving Late Postclassic centre. Colonial contact is also in evidence in the form of a few sherds of Spanish pottery. Late Postclassic pottery is abundant, however, and it is unfortunate that, to date at least, most of the material comes from disturbed deposits, although house platforms were detected in the excavations at the Sands Hotel. It is clear from excavations carried out north of the centre of San Pedro, in the region of what today is the site of Castillo's Hardware Store, that this part of the caye experienced greater depth of occupation than simply the Late Postclassic period. Burials that seem to be associated (we say this because the area was very disturbed and primary associations could not be established) with a Middle or Early Postclassic occupation turned up in this zone, as did sherds from Coconut Walk Unslipped ware, the pottery believed to have been used in the making of salt cakes during the Late Classic period.

Pottery and lithics have appeared in ditches and drainage canals from San Pedro south to Marco Gonzalez, and it is clear that Ambergris Caye was a densely occupied island in Precolumbian times. Sal Mazzullo has remarked (personal communication 1993) that the beach sands that characterize the modern leeward shore of San Pedro have accumulated rapidly in the past two to three hundred years and therefore represent relatively recent deposits. The coastline in Precolumbian times probably ran more or less along what is now Front St. (Barrier Reef Drive). Nevertheless, a small probe in 1991 through the beach sands at the south end of the island, about 10m from the shoreline, revealed Maya artefacts at approximately 60cm below the surface. This suggests, not surprisingly, that sand deposition is uneven, with some areas more heavily affected than others.

Suffice it to say, based on present evidence, that the southern part of Ambergris Caye was intensively occupied in Precolumbian times from at least the Late Preclassic through to the early Spanish colonial period.

#### Nature of occupation and use

Late Preclassic and Early Classic periods: Very little can be said about Preclassic occupation at this stage, except for the fact that more work needs to be done to clarify it. The pottery dating to the Early Classic comes from test pits, and almost all sherds come from below the modern water level. Surfaces are blackened and not well preserved. Comparisons with pottery recovered from similar levels, although much better preserved, at Colson Point in the Stann Creek District tell us that this was a time when ceramics seem to have been moved up and down the coast as an exchange item. Polychromes are common, as are jar types. This matches the Colson Point profile. Jars seem to be associated with water storage; the polychromes seem to have been a valued trade item. One floor was discovered in 1990 that sealed a Terminal Preclassic level and therefore is dated to the Early Classic. Only a small portion was recovered at the base of a looter's pit, however, and we have little information beyond the fact that the floor was thick and solid and well constructed.

Late Classic period: It is during the Late Classic period that we see the inhabitants of Marco Gonzalez, and elsewhere on the caye, change their focus of activity from trade in ceramics (and presumably other items such as obsidian and dried or salted fish, shell products) to intensive processing. Based on evidence found elsewhere on the Belize coast by Graham (1983, 1994), McKillop (2002), McKinnon and Kepecs (1989) and Mock (1994); and evidence on salt-making in other areas of the Yucatan Peninsula (Andrews 1983; Andrews and Mock 2002), we think that the material being processed is salt. Test pits dug in 1986 and 1990 revealed layers of charcoal alternating with red-coloured soil. The main artefact type recovered from these layers is Coconut Walk Unslipped pottery--hundreds of sherds of poorly made, unslipped shallow bowls that we think were used as moulds for salt cakes. No bowl bases have yet been discovered; all of the sherds are from the sides and lips. This suggests strongly that the bowls were set directly on or over fires and that once the water from the salt had evaporated, and the bowls were broken to remove the salt cakes, the bases disintegrated. Coconut Walk sherds have been recovered in abundance from several locales on the island, including the site noted above in San Pedro Town. All indications are that the salt processing was not a subsistence activity but instead was a major export industry. Whether the salt travelled around Yucatan or south to Honduras or mostly to inland Late Classic Maya cities is unknown, but there is the strong suggestion that the success of Late Classic centres, even in Peten, was somehow intertwined with the salt trade.

With regard to trade in items other than salt, there is very little evidence. The only polychromes that show up consistently, although in very small numbers, in association with the salt processing deposits are small fragments of Late Classic cylindrical vases. Were these items moved along the coast as trade or exchange items? Are the sherds we recovered from vases that broke in transit? And why are there only these vases, whereas in the Early Classic, many types and kinds of polychrome bowls were transported up and down the coast of Belize?

<u>Terminal Classic or Epiclassic period (A.D. 800-1000)</u>: Evidence tells us that the salt industry on the island declined in the latter part of the 8th century. At Marco Gonzalez, salt processing deposits are overlain by Structures 12 and 14, and excavations in 2010 (see below) indicate that salt processing may underlie many of the visible structures at the site. Str. 14 has burials interred beneath its floor that date largely to the Terminal Classic period (Fine Orange ware, plumbate, Teabo Red), although the earliest burials (as revealed in 2010) are of Late Classic date.

The demise of the salt processing industry seems not to have dented the activities of Marco Gonzalez's inhabitants. They turn again to trade in an array of items: ceramics, lithics, and obsidian. Green obsidian suggests connections with central Mexico, plumbate pottery with highland Guatemala and El Salvador and Teabo Red and Fine Orange pottery with Yucatan. Burials

(ca. 35) are almost all face-down with the legs bent back at the knees, and usually with lower limbs crossed. There is one exception--a child on his back with his legs crossed. A change in worldview of some kind seems the most likely explanation, and it might tie the Marco Gonzalez inhabitants to broader trends such as those seen at Chichen Itza (Ringle et al. 1998, 2004).

Early Postclassic period (A.D. 1000 to 1250): A great deal in the way of Buk-phase pottery, best known and described at Lamanai (Pendergast 1982, Graham 1987) but officially named by Deborah Walker at Cerros as Zakpah Orange-red and Zalal Gouge-incised, has been found at Marco Gonzalez. It has not yet been found in primary contexts, however. Most has been recovered from the surface, where it is common everywhere on the site, or from the large shell mounds at the site's periphery. The 'mounds' are the remains of platforms built up of shells and stone, with the shells used as core material and the stones as facings. The bulk of the sherds from amongst the shells forming the cores of these structures are forms of Zakpah-group pottery. Given present evidence, it is hard to say whether the sherds were swept up in debris used as core, or we are looking at percolation through what once were surfaces or floors of the shell-built platforms. Sherds of Zakpah-group pottery have been found on the surface and in mixed deposits in the areas of Structures 12 and 14, and it would seem that the phase in which the Zakpah group pottery was made and used post-dated the Terminal Classic, but the disturbed contexts in which the pottery was recovered do not permit a more refined assessment.

<u>Late Postclassic to colonial period (A.D. 1250 to 1600):</u> As noted above, two or three platforms were detected in 1986 and 1990 that reflect Late Postclassic construction style--tabular stones set on-end to form a low platform face with other tabular stones placed horizontally to 'cap' the line of the face. A few sherds were also recovered from Tulum Red-style bowls, indicating that people indeed resided at the site in the Late Postclassic, but it no longer served as a major port facility. The only colonial-period remains, as noted above, were recovered from the stairs of Str. 12 in the form of effigy human faces that had been applied to censers.

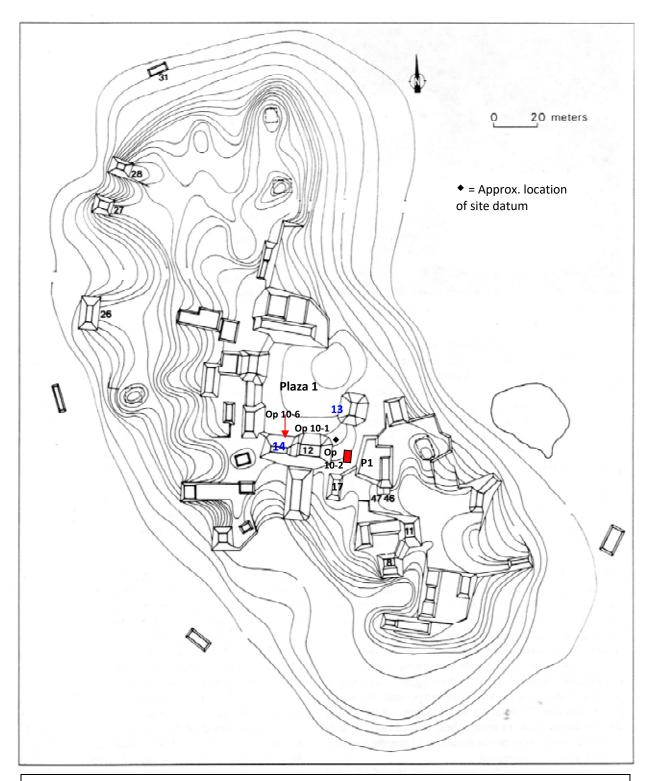
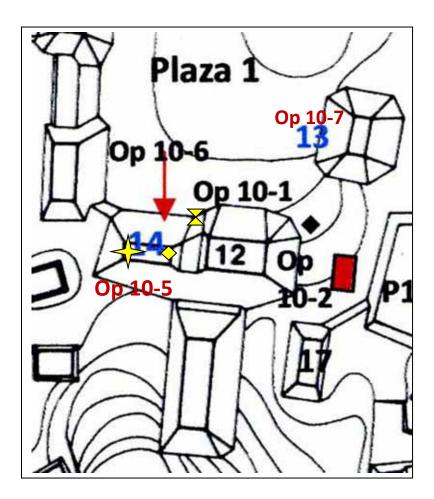


Figure 3a: Map of the Marco Gonzalez site (C. Belanger 1986)



- **♦** Op 10-4
- Op 10-3
- **∑** Op 10-8

Figure 3b: Focus on Structures 12 and 14 showing approximate locations of the operations in 2010.

#### The 2010 Initiative

(Refer to Table 1 for operation descriptions)

#### **Description of the operations** (Fig. 3a,b)

Excavations in 2010 were aimed initially at learning more about salt processing activity. However, since the salt processing levels lie beneath rather substantial Terminal Classic construction, we knew that there would be logistical challenges to face. Also, because we were running a field school we did not want to venture into new or sensitive areas of the site. Past excavations--and a looters' trench--had revealed salt processing levels beneath both Str. 12 and Str. 14. Because Graham and Pendergast had excavated portions of Strs. 12 and 14 in the past, our hope was that we would be able to clear their infill and the recent surface accumulation over the previously excavated areas and get down immediately to the salt-processing layers.

This was not to be the case, however, because strata representing decayed floors of Str. 14 continued to a depth greater than anticipated, and several burials were encountered. Because the burials were close to the surface and in danger of being disturbed and looted, we decided that it made sense to excavate them and add the data, which included reconstructable vessels and one complete pot, to what we were learning about the Late Classic to Terminal Classic transition on the island. (See Figure 3a,b and Table 1: **Ops 10-3, 10-4, 10-5**)

In the case of Str. 12, the giant stair risers (not present on Str. 14) proved to extend along the entire plaza-facing side, and we decided in this case to excavate on the that side in order to learn more about the sequence of occupation/activity at this locale. (**Op 10-1, 10-8**).

We also extended clearing operations to Str. 13 (**Op 10-7**) to recover more data on the appearance of the platforms and perhaps their function; and, as originally intended, we initiated two operations geared to exploring salt processing. One operation picked up where Graham and Pendergast left off in 1990, along the primary axis of Str. 14 on the plaza-facing side beneath what had once been a stair, where salt levels were encountered in 1990 (**Op 10-6**); and another operation (**Op 10-2**) was situated in an area peripheral to Plaza 1, just beyond its southeastern limits between Str. 12 and P1, the platform of an adjacent group (see red rectangle on Figure 3), on the assumption that there would be less overburden here, which would make the salt processing levels more accessible.

Operation	Structure(s)	Explanation
10-1	Str. 12	Architectural clearing of stair risers; investigation of relationship of Str. 12 to plaza
		surface; test pit in area of plaza to determine stratigraphic sequence.
10-2	Between Str.	Exploratory test situated in a piece of flat ground just to the southeast of Str. 12 and
	12 & P1	between Str. 12 and a platform designated P1 (see the map, Fig. 3a); the intent was to
		determine whether salt processing levels occurred here and whether they would be
		more easily accessible than those beneath Strs. 12 and 14.
10-3	Str. 14	Investigation of remains, structural or otherwise, associated with the superstructure
		that once stood on the platform surface (eastern half).
10-4	Str. 14	Investigation of remains, structural or otherwise, associated with the superstructure
		that once stood on the platform surface (western half)
10-5	Str. 14	Clearing the south face of the platform, west side.
10-6	Str. 14	N face of the platform, transverse (primary) axis, re-opening of 1990 test trench to
		access salt-processing levels.
10-7	Str. 13	Clearing of plaza-facing side of structure to expose terrace faces and/or stair.
10-8	Strs. 12, 14	Clearing the passageway that separates Str. 12 from Str. 14; includes some clearing of
		terrace faces of respective platforms.

Table 1: Marco Gonzalez excavation operations, 2010.

Data points	Description	Horizontal	Vertical
Site	Concrete benchmark placed in 1990 at NE corner of Str. 12; NO EO	N0, E0	Arbitrary 0
Datum	or N1000, E1000	N1000,	
		E1000	
Datum	Nail found in gumbo limbo tree at SE corner of Op 10-4; used in		2.38m above Site
10-A	1990		Datum
Datum	Op 10-1, arbitrary point on palm tree at SE corner of Op 10-1, E		1.00m above Site
10-B	test pit		Datum
Datum	NE corner of Op 10-2 at ground surface		1.25m above Site
10-C			Datum
Datum	Op 10-7, arbitrary point on tree in proximity of stair risers		1.65m above Site
10-D			Datum

Table 2: Datum Points in 2010

#### **Interim summary of excavation results**

In the paragraphs below, we summarise the results of the excavations. The information is organised by structure and/or operation. Some operations bridged structures, whereas in other circumstances more than one operation contributed to our knowledge of a structure.

#### Structure 14 (Ops 10-3, 10-4, 10-5, 10-8)

Str. 14 measures about 13m by 7.2m, although with so much collapse it is difficult to know its precise dimensions. It has been highly disturbed by roots, animal burrowing, uprooted trees, and looting activities. Stone from collapse surrounds the structure. Some faces collapsed naturally but many were dismantled as part of looting efforts. Looters exploit the site not only for artefacts but also for the black soil for which the site is well known. This means that there are holes everywhere: at the top, side, and base of the structure.

What remains is a relatively low (just under 2m) stone-faced platform that once supported a wooden superstructure, although given the fragmentary remains of a number of successive floors, the superstructure was probably rebuilt a number of times over the years. Access to Str. 14 from the plaza was on the north side (see Fig. 3a,b), as indicated by the presence of a central stair, ca. 1.5m wide. It is difficult to be certain, but it appears that there were at least two terrace faces on the north side and at least two on the south side. So much of the platform lies buried, however, that a third terrace face may lie below present ground level on the south side. On the north side, we did not quite reach the level of the plaza surface, but evidence from the excavation of the north side of Str. 12, where we did reach the plaza, suggests that we did not have far to go, which means that there were only two terrace faces on Str. 14's north side. There was some evidence from the south side of Str. 14, recovered from the excavations carried out in 1990, that the terrace faces now exposed had been covered by a construction phase in which the platform's faces were battered, which could be said to be a Postclassic phenomenon. It might never be possible to elucidate this later phase, however, owing to the extent to which the structure has been disturbed by looters on the south side. What we can say is that there is no evidence that giant riser stairs, such as those characterizing Str. 12 and Str. 13, were ever added.

Numerous individuals were interred beneath successive floors of the building, which suggests that Str. 14 served as a residence. No clear ritual architectural features have yet been recovered to suggest a ceremonial function, although Burial 14/35 included a shell quincunx. The nature of the burial accompaniments (see below) also indicates that the residents must have been fairly well off. They could be lumped with what are traditionally referred to in Maya studies as "elites," which was in fact what was proposed in 1990 (Pendergast and Graham 1990: 4). Given what has since

been learned, however, about the collapse of the Classic-period dynasties of the central Maya lowlands (Demarest, Rice and Rice 2004), and given the dating of the burials and the stratigraphy of Str. 14 (see discussion below) it is possible that the inhabitants of Str. 14 were merchants or traders and therefore represent a middle class.

We know from earlier excavations that there were at least 7 and possibly as many as 10 floors in Str. 14 (Pendergast and Graham 1990a: 4). Thirty-one (31) burials were recovered from Str. 14 in 1990 (Pendergast and Graham 1990a: 3) and a further 7 were encountered in 2010, although only 3—Burials 14/32, 14/34 and 14/35--were articulated and completely excavated. The remaining four burials are represented by partial and fragmentary remains recovered during the excavation of Burials 14/32, 34, and 35 (see Table 3). Of the 31 burials recovered in 1990, all but one were buried face down (prone) with the knees flaring and the lower legs crossed. The exception was a child who was buried face up (supine) with knees flaring and lower legs crossed. Of the articulated 2010 burials, two (Burials 14/32 and 14/35) were buried supine, knees flared and lower legs crossed.

Structure	Burial	Brief description	Primary Lot
	No.		No.
14	14/32	Op 10-3, near north edge of platform; supine, legs 'frogged', N-S, grave goods	MG 320
14	14/33	Op 10-3, just E of Bur 14/32, incomplete	MG 332
14	14/34	Op 10-4, roughly in the centre of the platform surface just W of the transverse	MG 333
		axis; face down, prone, legs 'frogged'	
14	14/35	Op 10-3, beneath Bur 14/32, supine, legs 'frogged', oriented E-W, grave goods	MG 341
14	14/36	Op 10-3, sub-adult just SE of Bur 14/35	MG 346
14	14/37	Op 10-3, skull fragments only were removed; remainder not excavated.	MG 345
14	14/38	Op 10-3, phalanges and fragment of mandible (remainder left in situ)	MG 354

Table 3: Burials, 2010

<u>Burial 14-32</u> (Fig. 4a-f) lay close to the mid-line of Str. 14 at its northern edge (ca 20cm below ground surface in 2010 but ca 45 cm below original ground surface in 1990.) The burial was supine, face-up with knees flared and lower legs crossed. The head lay to the north. A pedestal-based, orange-red slipped, tulip-shaped vase was found at the individual's left (east) side, adjacent to the left shoulder.



Figure 4a: Burial 14/32. Note the left arm positioned over the torso with left hand on upper part of right arm. View E.

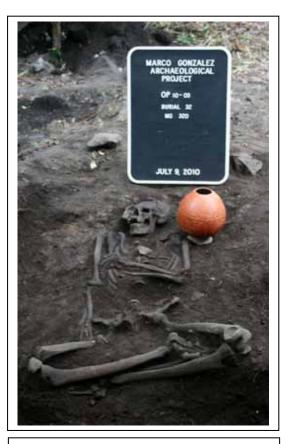


Figure 4b: Burial 14/32 View N.



Figure 4c: Burial 14/32 looking west showing floor cuts as well as the altered skull.



Figure 4d: Burial 14/32 close-up of altered skull



Figure 4e: Burial 14/32 showing vessel in situ on individual's upper left arm, leaning slightly towards the body. Skull can be seen in the bright patch of sunlight.



Figure 4f: Burial 14/32 showing closeup of left arm and hand on upper right arm.

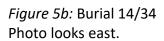
<u>Burial 14-33</u> was found within the vicinity of Burial 14-32, at its SE edge, but had been disturbed in ancient times and was highly fragmentary. The bone fragments were removed to access Burials 14/32 and 14/36 (See Fig. 8a,b for humerus, radius and ulna resting on a humerus of Burial 14/36).

<u>Burial 14-34</u> (Fig. 5a,b) lay just west of the transverse axis of Str. 14, more or less in the centre of the building, ca 20cm bgs (this side of Str. 14 was not excavated in 1990). The burial was oriented N-S. The individual was buried face-down with the knees flared, lower legs crossed and head to the N. Two lip-to-lip pottery vessels were discovered about 35-40 cm to the burial's east, but this is enough distance to make it doubtful that the pottery is associated with the burial, although for the time being the vessels share the burial lot number (MG 333).





Figure 5a: Burial 14/34
Trowel points North; head of burial ca. 20 cm below ground surface.





<u>Burial 14-35</u> (Fig. 6a,b) lay just south of Burial 14-32 at about the same level. Like Burial 14/32, the individual was on his/her back but in this case oriented E-W, with the head to the E, knees flared and lower legs crossed. Three shells—1 *Melongena* sp. and 2 West Indian chank shells (*Turbinella angulata*) formed an edge to the grave-cut, and can be seen to the right of the individual's skull in Fig. 6a. Unfortunately our photographs for this burial are not clear owing to the difficult weather conditions on the day, but once our drawings are finalized, these should make up for any deficiencies in the photos.



Figure 6a,b: Burial 14/35; photo on the left looks W; photo on the right looks E. Burial objects can be more clearly seen in the photo on the left. The Melongena sp. lies just to the right of the individual's skull. The animal skull and artefacts lie just to the left of the mid-section partly on the left arm.



No pottery vessels are associated with the burial, but a range of other artefacts/ecofacts served as burial accompaniments in addition to the three unworked shells noted above:

- A bone spatulate object that may be a weaving implement
- The skull of a small mammal
- A shell point?
- An unidentified conch shell, unworked
- Two spent obsidian cores
- A perforated olive shell (Oliva sp.)
- A carved shell adornment, quincunx in style
- A shell button or game piece





Figure 7b: Close-up of quincunx and possible shell inlay, Bur 14/35,

Figure 7a: The nine objects from Bur 14/35, MG 341. The animal skull broke into two fragments and only one fragment is shown.

<u>Burial 14-36</u> was a sub-adult that lay just SE of Burial 14/35 and was complete. <u>Burial 14-37</u> is a designation applied to skull fragments (skull face-down) recovered ca. 25-30 cm N of Burial <u>14-36</u> (Fig. 8b). <u>Burial 14-38</u> is the designation applied to phalanges believed to be associated with a mandible fragment which was left in situ, but later pillaged.



Figure 8a: Burial 14/36 lies just to the left of the trowel, which points N. The individual in the upper right is recording a terrace face on the north side of Str. 14.



Figure 8b: Some of the sub-adult bones of Burial 14/36 can be seen more clearly in this photo. The red arrow points to the east (head) end of the burial cut of 14/37.

We had hoped in 2010 to clear away the remaining floor fragments of Str. 14 over its eastern half (where the 1990 excavations had focused) to reveal the underlying salt processing levels. (Prior test pits suggested that piles of salt-processing debris formed the core of the Str. 14 platform.) Graham's assumption was that the entire eastern half of the surface of Str. 14 had been excavated in 1990, but this assumption turned out to be wrong, and fragmented floor surfaces continued below where we thought in 1990 that they ended. It also turned out that the platform surface was larger than we had measured in 1990. It seems to have been extended slightly to the north as part of a late construction phase, but this was hard to delineate owing to collapse on the north side. As noted above, in 1990 we discovered that a battered face was constructed over earlier terrace faces on the south side, and it may be that what we revealed in 2010 was the platform floor surface that had been extended to coordinate with the re-facing of the platform. No battered face was detected on the north side; however collapse and disturbance on this side was considerable, and some answers may lie beneath the material if it becomes possible to dig down to the original plaza surface at its juncture with the base of Str. 14.

Combining the information from earlier and recent excavations suggests that the period of occupation in which individuals were interred beneath successive floors of Str. 14 extended from the end of the Late Classic through the Terminal Classic period. Figures 9, 10 and 11 depict the three complete vessels recovered from burials in 2010, although only the jar from Burial 14/32 was found whole.







Figure 11: MG Bur 14/34, upper vessel, MG 333

Figures 12-14 show some of the burial accompaniments recovered during excavations in 1990. Terminal Classic styles are in evidence here, such as the plumbate hunchback vessel, the Fine Orange vase and the Teabo Red (tentative identification) tripod vessel.



Figure 12: Plumbate jar, hunchback

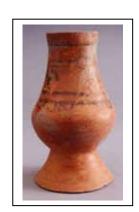


Figure 13: Fine Orange Vase

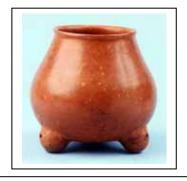


Figure 14: Teabo Red (?) tripod jar

The Teabo Red tripod jar was found in a burial that included bones re-deposited from six other burials. Given the position of the jar atop the chest area of one individual, the implication was that the jar, too, was originally interred in previous burial. The plumbate hunchback jar and the Fine Orange vase could not be linked to a specific burial owing to disturbance.

The pottery types and styles taken together thus indicate a Late to Terminal Classic date for the use of Str. 14, from about 750/800 to perhaps 950/1000. Evidence from the 2010 excavations suggests, as did that from 1990, that Str. 14 was modified during this period, with the latest modifications possibly dating to as late as the beginning of the 11<sup>th</sup> century. Unfortunately Str. 14 has been disturbed to an extreme degree by both the ancients (in the process of successively burying people under the floors) and moderns (in mining soil). In addition, a huge amount of soil has accumulated on the former plaza surfaces with which Str. 14 is associated, which means that a

great deal of earth removal would be necessary to clear the structure in order to make sense of its faces and their modifications.

Early Postclassic Buk-phase pottery fragments similar to the Buk-phase Zakpah group ceramics from Lamanai have been found in the core of a terrace face, and extensively on the surface of Str. 14. This suggests that there was Early Postclassic activity associated with Str. 14, but the surfaces of the structure were too disturbed and we have not been able to determine if there was an Early Postclassic building on the Str. 14 platform, although the presence of the sherds strongly suggests this. Complete clearing of the structure and its remaining faces as well as clearing of Str. 12 and Str. 14's connections to Str. 12 would be necessary to determine the nature of Postclassic activity.

*Structure 12 and its history* (Ops 10-1, 10-8) (Adapted from Lindsay 2011) (Excavation photos in this section taken by Amy Lindsay)

Structure 12, like Structure 14, comprises multiple construction phases, and we were only able to examine its latest phase. Although Str. 12 is composed of a stone-faced platform, its superstructure(s) were made of wood. Plaster floors at one time capped the platform, but as was the case with Str. 14, these were fragmentary, and decomposed. The giant riser stairs (see below) and possibly the 16th-century effigy fragments found in 1986 (noted above) suggest that this structure served, and perhaps was known long after to have served, a ritual rather than a residential function.

One burial was recovered from beneath the surface (former floor) of Str. 12 in 1990. The vessel associated with it was a utilitarian-type jar and was therefore not as distinctive as the beautifully slipped jars recovered from the Str. 14 burials. There are indications that the two structures were contemporaneous and continued to be used and occupied for many years, but of the two, only Str. 12 exhibited the addition of distinctive giant riser stairs. The giant riser stairs at Lamanai date to the end of the Terminal Classic and to the Early Postclassic period; therefore one hypothesis is that they represent an 11<sup>th</sup> to 12<sup>th</sup> century addition to Str. 12. Certainly a large quantity of Buk-phase vessel sherds was found during clearing of the stairs and in the excavation of deposits above the

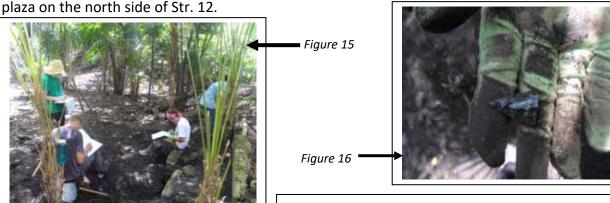




Figure 15: Shows the students just beginning work in Area A, Op 10-1. Jenny is seated on one of the stair risers that would be found to be associated with the plaza floor. Athena continues cleaning stair risers while Amy and Kyle are taking notes. The photo looks E.

Figure 16: Fragment of an obsidian point (biface?); from MG 310, the lot which incorporates material found while cleaning around the stair risers.

Figure 17: Here Jenny can be seen exposing Str. 12's plaza floor on the west side of Area B, Op 10-1. She is sitting on collapse from Str. 12. Str. 12 is to the viewer's left (Jenny's right); photo looks W.

One of the goals in 2010 was to expose more of the front (plaza-facing) side of Str. 12 to determine the extent of the giant risers. It turned out that they spanned the entire front of the platform (rather than, for example, forming a central stair). We could not expose Str. 12's earlier face, so we do not know if terraced faces underlay the giant risers.

Another of the goals was to see if we could tie the stair risers to a plaza surface. If we could, it would mean that the risers were part of construction that dated to a time when the community was still thriving and its plaza floors were maintained. There was always the possibility that the giant risers represented some Late Postclassic revisiting of the site rather than actual habitation and use. The excavators worked hard at what began to seem a thankless task, but ultimately were able to expose a small but significant patch of plaster that indeed lapped up onto the bottom-most stair riser and could thereby be associated with Str. 12 in its giant stair riser phase. This suggests, as noted above, that the stairs represent an Early Postclassic phenomenon.

We also wanted to know whether the plaza and giant risers represent the earliest occupation at this location, or tests might indicate other activities. The excavation area established to expose the giant riser stairs and to find the plaza floor was not extensive, which made any features discovered through deeper soundings rather limited and difficult to interpret. After digging down below the level of the plaza, however, excavators encountered a burnt orange-coloured level that in all its characteristics matched the burnt surfaces associated with salt processing. Coconut Walk Unslipped sherds associated with salt-processing turned up, but so did a sherd or two dating to Early Classic and even Preclassic times. Clearly the deposits are disturbed, but they do provide an indication of the time-depth of occupation at this locale.

#### Op 10-1

Work began on Str. 12 (Fig. 18) by clearing around the stair risers and the plaza directly in front (north) of the structure. Attempts were made to follow the stair risers to their junctions with the east and west sides of the Str. 12 platform. Although more soil needs to be removed to clarify construction, the evidence so far indicates that the risers actually extend the entire length of Str. 12.



Figure 18: Stair risers of Str. 12, north side, view looking SE.

The risers themselves are rather roughly fashioned (see Fig. 18). **Op 10-8**, which was designed to clear between Strs. 12 and 14, revealed portions of Str. 12's western platform face, which is composed of cut stone blocks (Fig. 19). Further excavation is necessary, but the implications are that the cut stones represent an earlier phase of Str. 12 construction and were associated with a platform face that is now overlain by the stair risers.



Figure 19: Cut stones forming the west face of the Str. 12 platform. View ENE.



Figure 20: Op 10-1, Area A, view NE.

The area in front of Str. 12 was marked out as a 2.7m by 5.8m excavation (Fig. 20). Ultimately work concentrated on the east (Area A) and west (Area B) ends; each area measured ca. 2m x 1.5m with a baulk left between. The NE corner of Area A, at ground surface, served as Datum C. We also had a datum point, Datum B, represented by a nail hammered into a palm standing on the east side of the test pit (see arrow in Fig. 20); the nail was 80cm above ground surface (a.g.s.). Measured from the site datum (0,0) established in 1986 (a cement column with a rebar positioned east of Str. 12), Datum B was 27.8m from 0,0 at 256 degrees. The NE corner of Op 10-1 (Area A) stood at 2cm below site datum (0,0)—measured from the surface of the cement column.

Stratigraphy was poor owing to roots and the activities of burrowing crabs. Even if the surface of the test area was cleaned and smoothed at end of day, the next morning it would be riddled with crab holes.

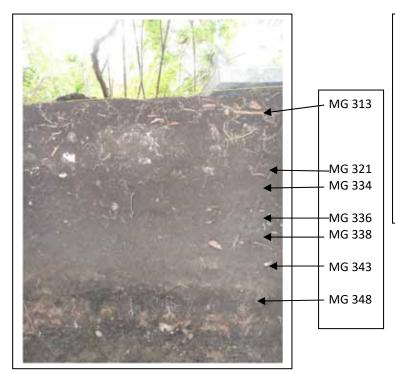




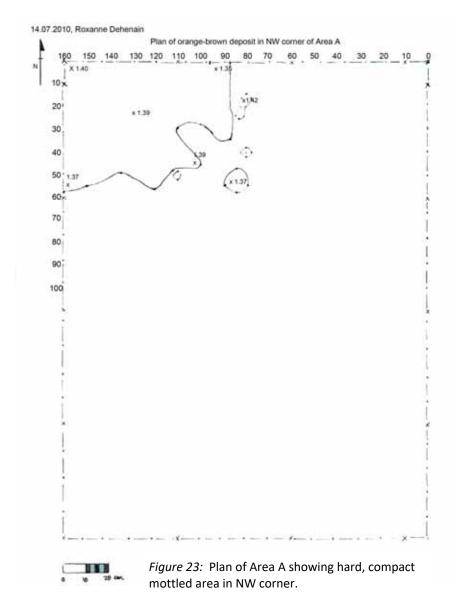
Figure 22: Plaza floor abutting Str. 12.

Figure 21: Str. 12, Op 10-1: North section of Area A.

MG 310, not shown in Fig. 21, represents the deposit cleared around the stair risers as well as collapse north of the risers. (Some of the surface deposit in Area B was included in MG 310 but not in Area A.) MG 313 (Fig. 21) represents the thick, dark deposit, ca. 20-30cm in depth, that accumulated above the remains of a plaza floor (MG 321). MG 313 occurred across the excavated areas (A & B) except for the SW corner of Area A where large stones remained, apparently collapse from Str. 12. The plaza floor, MG 321, was patchy and poorly preserved; it was best preserved in Area B (Figs. 17, 22) but appeared in Area A (Fig. 20) as a resistant/compacted but eroded surface. The floor lay at 111.5cm (1.115m) below Datum B in Area B, and at 1.105m below Datum B in Area A, which is about 30 cm b.g.s. It abutted the lowermost riser of Str. 12 in Area B.

Below the plaza floor level, MG 334 (10cm) and MG 336 (10cm+) (Fig. 21) represent an arbitrary distinction. Both were dark brown and almost black in colour, similar to MG 313, which reflects heavy disturbance and possibly exposure to the elements. A slight colour change was noted at the base of MG 336. The soil changed from the dark brown colour of previous layers to a light grey colour, MG 338, which may reflect a greater admixture of limestone/reefstone construction material (ca. 20-30cm thick). One interpretation would be that MG 338 represents all that is left of construction that pre-dates that with which the MG 321 floor is associated, with MG 336 and 334 reflecting abandonment or absence of activity at this location. In the NW corner of Area A, a light brown, sandy, compact area of soil was encountered (Fig. 23) but remained restricted. Large stones in the SW corner of Area A continued to be found at this depth.

MG 343 was the lot number assigned when mottling was first noted along the northern side of Area A, with possible associated burning activity. MG 343 was a light orange/orange-brown colour (ca. 20cm thick). At this same level, around the rocks in the SW corner, a light grey ashy deposit was in evidence.



**MG 348** was the designation given to the sand layers as the orange colour became consistent (ca 20-40cm in thickness). These layers are believed to be associated with salt processing activities; the orange colour comes both from burning and from the disintegration of vessels used in the process of making salt cakes. At this level, about 160 cm b.g.s., the excavation was ended for the season. An attempt was made to clean the rocks in the SW corner (**MG 349**) to determine their function, but time was too limited. What we can say is that the stones seem to be the fill of a pit-like feature, possibly a large posthole but conceivably a burial. The feature was about 70cm in diameter (see Figs. 24, 25), and lay in a matrix of what appeared to be ash. The uppermost stones protruded above the level of the plaza floor **MG 321**, which suggests that the feature post-dates construction and use of Str. 12 and its plaza floor.

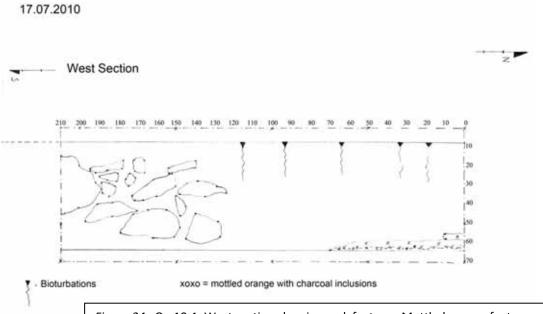


Figure 24: Op 10-1, West section showing rock feature. Mottled orange feature = xoxo.

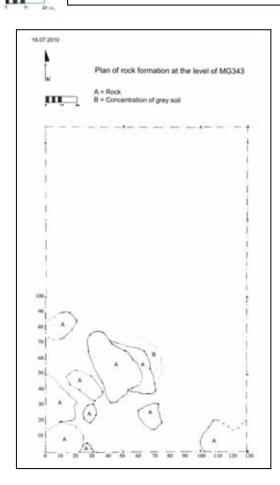


Figure 25: Op 10-1, plan showing rock feature in the SW corner of Area A.

#### **Artefacts**

<u>MG 310, 313</u>: Pottery, conch shells and a broken obsidian point (Fig. 16) were found. The ceramics remain to be analysed; Preclassic and Classic pottery are represented but Lamanai Bukphase-like pottery is the most easily recognisable.

MG 321: A jade 'button' (Fig. 26) and jade bead were found as part of this lot, as was a perforated shell adornment (Fig. 27); fine sieving revealed fish bones and small shells. Chert artefacts were also recovered from a grey soil deposit at this level.



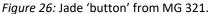




Figure 27: Perforated shell from MG 321.

MG 321		
Туре	Date	Quantity
Utilitarian vessels		
Arrowhead/wide-mouthed jars	Terminal Classic or later	2
Body fragment-Ram Jam Red on White	Protoclassic or Early Classic	1
Coconut Walk bowl/dish	Late Classic	20
Striated body sherds	Mixed	54
Utilitarian unslipped body sherds	Mixed	69
Serving vessels		
Bichrome rounded bowl	Classic	1
Medial flanges from bowls	Proto, Early Classic	2
Nondescript rounded bowls,	Classic	4
monochrome		
Ring bases	Middle to Late Classic	2
Button foot tripod base (volcanic ash	Late Classic	1
temper)		
Monochrome black slip	Late Classic	1
High quality body sherd		1
Outcurving jar sherd	Early Postclassic	1
Narrow-mouthed jars		2
Censer fragment, pie-crust appliqué	Terminal Classic	1
Incised body sherds		2
Base fragments		2
Slipped body sherds		95

### MG 334 and 336:

MG 334		
Туре	Date	Quantity
Utilitarian vessels		<u>.</u>
Red-necked mother	Late Classic	1
Arrowhead rim jars	Terminal Classic or later	3
Wide-mouthed jar	Terminal Classic	1
Coconut Walk dish/bowl	Late Classic	1
Brazier dish fragment	Postclassic	1
Coarse ware body sherd		1
Prop from censer	Middle to Late Postclassic	1
Striated body sherds	Mixed	28
Plain body sherds	Mixed	21
Serving vessels		<u>.</u>
Polychrome rounded bowl	Classic	1
Monochrome rounded bowl	Classic	1
Ring bases of dishes/bowls	Late Terminal Classic	5
Narrow mouthed jars, orange	Terminal to Early Postclassic	2
Narrow mouthed jars, other	Mixed	3
Buk-style orange incised rounded bowl	Early Postclassic	1
	MG 336	
Utilitarian vessels		
Red-necked mother wide-mouthed jar	Terminal Classic	1
Thick-walled collared rim (Mayapan-	Postclassic?	1
style) jar		
Jar fragment	Early Classic	1
Striated body sherds	Early and Late Classic	10
Non-slipped body sherds	Mixed	12
Serving vessels		
Red-slipped tecomate sherd	Classic	1
Ourcurving dish	Classic	1
Incised body sherd		1
Frying pan censer	Classic to Postclassic	1
Slipped body sherds		20

# MG 338: This represents the deposit light-grey in colour. In addition to pottery, fish bones and shells were recovered.

MG 338		
Туре	Date	Quantity
Utilitarian vessels		
Red-necked mother	Terminal Classic	1
Double-mouthed jar	Late to Terminal Classic	1
Wide-mouthed jar		1
Coconut Walk dish	Late Classic	2
Striated body sherds	Mixed	9
Body sherds		7
Serving vessels		
Monochrome rounded bowl		1
Outcurving narrow-mouthed jar		1
Body sherds	Mixed	26

MG 343: This lot was separated owing to the mottling along the northern end of Area A (Fig. 23). The layer was a light orange and orange-brown colour.

	MG 343	
Туре	Date	Quantity
Utilitarian vessels		
Red-necked mother jar rims	Terminal Classic	5
Coconut Walk dishes/bowls	(Note: Amy has Middle to Late Postclassic? If CW, they are Late	6
	Classic; it is possible they are not CW)	
Pedestal bases		3
Jar neck	Early Postclassic	1
Red-slipped rim	Proto or Early Classic	1
Slipped coarseware, slateware finish	Terminal Classic	1
Unslipped body sherds	Mixed	80
Coarseware striated body sherds	Terminal Classic	16
Serving Vessels		
Rounded bichrome bowl	Classic	1
Rounded bichrome dish	Terminal Classic	1
Monochrome red-slipped dish	Late-Terminal Classic	3
Monochrome red-slipped outcurving	Late-Terminal Classic	4
dishes		
Slipped body sherds	Mixed	53
Buk-style orange-slipped incised sherd	Early Postclassic	1
Pedestal-based jar	(Amy has no date but probably Early Postclassic)	1
Chalice	(Amy has no date but is Early Postclassic)	2
Body sherds		3
Pedestal base		1

MG 348: As the orange colour became pronounced, the lot number was changed from MG 343 to MG 348. As described above, this deposit was orange in colour, and sandy; it is believed to represent the debris of salt processing activities. At this level, the excavation terminated.

MG 348			
Туре	Date	Quantity	
Utilitarian vessels	Utilitarian vessels		
Jar rim		1	
Coconut Walk bowl	Middle to Late Classic	5	
Striated body sherds	Mixed	5	
Body sherds	Mixed	6	
Serving vessels			
Rounded bichrome	Classic	1	
Slipped body sherds		5	

<u>MG 349</u>: This refers to the matrix of the enigmatic rocks in the SW corner of Op-1, Area A. All that was recovered in the way of artefacts were two sherds, one slipped and the other unslipped; both were fragments from the body of a vessel.

#### **Summary**

Str. 12 will be worth returning to once longer-term funding is acquired. The first thing to investigate will be the rock feature in an ash matrix, particularly because it seems to post-date the occupation and use of Str. 12. Str. 12 itself is judged, based on limited evidence, to have had at least two construction phases. The cut stone of its east platform face is similar to the stone used in Str. 14, and it is therefore likely that its earlier phase is contemporaneous with a phase of construction of Str. 14 in which both shared a construction style. Str. 12, however, at some point had giant riser stairs constructed on its north side. Although we know that the stairs stretched the full length of the platform, we do not yet know the nature of the junctions of the stairs with the

platform sides. We also do not know the nature of the north face of Str. 12 before the addition of the giant stair risers.

The plaza floor encountered in Op 10-1 was shown to be associated with the 'stair-riser' phase of Str. 12. No earlier floors were encountered, but the characteristics of the deposits, such as the light grey colour of MG 338, hint at earlier construction phases. Based on excavations in 1986 and 1990 but also on results of excavations at other coastal sites, such as Colson Point, the orange colour and 'sandy' features of MG 343 and MG 348 are believed to be indicative of salt processing that was the main activity in Late Classic times, although evidence from Colson Point suggests that intensive processing began as early as the Middle Classic period (5<sup>th</sup> century). Sterile deposits were not reached in Op 10-1, so we do not know the nature of any activities that might have preceded salt processing.

#### **Structure 13 (Op 10-7)**

The excavation of Str. 13, which lies just northeast of Str. 12 and also faces the plaza, shed some light on Str. 12. The plaza-facing side of Str. 13 was cleared to determine its architecture. Unlike Str. 14 but like Str. 12, Str. 13 had giant riser stairs on its entire front or plaza-facing side. Therefore occupation and use of Str. 12 and 13 must have been contemporaneous.



Figure 27: Str. 13 showing giant riser stairs behind backdirt pile. View looks E.

To what uses these structures were put, we do not know. The small surface of the Str. 13 mound (platform) suggests a ritual rather than residential function; Str. 13 is also the easternmost structure in Plaza 1, adding to the possibility that it was used for ritual purposes. Both Str. 13 and Str. 12, in their giant stair-riser phases, are likely to be contemporaneous with the later phases of

Str. 14. Str. 14 displayed no giant riser stairs, however. It could be that Str. 14 served a residential use whereas Strs. 12 and 13 had ceremonial or civic functions in the Early Postclassic. We suggest this because the giant riser stairs, though negotiable, are not what one would want to climb up and down every day to access and to leave one's house. The treads are wide, however, and in the case of a lower step of Str. 13, very wide. This suggests that individuals could sit or stand on the steps rather easily, so it is possible that the giant risers served as seating for people viewing or attending to activities in the plaza. Only future excavations can help to clarify these issues.

#### **The Salt Industry (Op 10-6, Str. 14; Op 10-2)** (Fig. 3a,b)

These operations were intended to expose more of the Late Classic salt-processing levels encountered in 1986 and 1990, and by Graham elsewhere in Belize (Graham 1989, 1994). Op 10-6 was situated where the north-side stair of Str. 14 once stood. The stones of the balustrades are still in place but the stones of the steps have been severely disturbed. In 1990 this area was planned and a test trench begun with the intention of exposing salt processing. Time prevented completion of the operation in 1990, so we re-opened the test area in 2010 and carried the excavations deep into the core of Str. 14. As it turned out, the 'core' of Str. 14 seems to be the massive debris of salt processing: burnt levels of earth, charcoal, and the pottery (Coconut Walk Unslipped) used to make the salt cake moulds. In other words, the debris from salt processing provided the 'armature' over which Str. 14 was built.

Op 10-6 was limited (5m x 1.7m) but did reveal stone alignments, ash-coloured soil, and other features that were clearly part of the salt processing activities but could not be clarified without opening up a much larger area of excavation. Unfortunately we could not open up a larger area without damaging what remained of Str. 14. We did manage to recover samples of the burnt earth, sherds with various residues, and most important, charcoal which we hope can be analysed to determine the kind of wood that was burnt. The assumption is that wood from the area was used as fuel in driving off the remaining water to make the salt cakes.



Figure 28: Op 10-6 showing the salt-processing deposits, which were overlain by construction of Str. 14. View looks W. In the west section, one can see where the charcoal levels have been cut into—this reflects the construction of the terrace faces of Str. 14. August (left) and Jake are taking levels.



Figure 29: Op 10-6, view looking S. The three large stones at the top of the photo were part of the building platform of Str. 14. In the west section can be seen the cut through the charcoal levels made during the construction of one of the terrace faces of the platform of Str. 14. The charcoal seems to be the remains of spent fuel; the orange levels appear to be worn and degraded Coconut Walk bowls/dishes used to make salt cakes. Most of these deposits are not, however,primary but instead represent debris from processing that has been shifted. The line of white stones lower down in the section, seems to be part of a constructed surface associated with salt production. Unfortunately, until an extensive area can be exposed, the nature of the salt processing, as regards the steps in its production as well as the level of community involvement (household, supra-household, specialized), remains unknown.

Op 10-2 was located east of Strs. 12 and 13 in an area that gave all appearance of being 'behind' the plaza group of which Strs. 12, 13 and 14 are a part (Figs. 3a,b). The area was distinguished by being low in elevation and relatively flat, and we hoped that with no evidence of structural remains (mounds) we could reveal salt-processing deposits that had not been built over. Unfortunately it was also devoid of breezes and a haven for mosquitoes. Working conditions were extremely challenging. What we encountered was a line of stones (Fig. 30) (the facing of a step or low platform?) that we expect is part of a structure associated with the salt processing activity. A pit excavated in front of the line of stones (Fig. 30) did indeed reach salt-processing levels (burnt earth, charcoal, Coconut Walk sherds). Below the salt processing levels in this area lay a hard white surface that at first seemed equivalent to the Early Classic floor encountered in 1990. We exposed such a small area, however, that it was difficult to determine the identity of the feature. The other important result of these excavations was the recovery of more than the usual number of Terminal Preclassic sherds, which suggests that this area, upon further excavation, might reveal information on early occupation of the site.



Figure 30: Op 10-2. The line of stones standing on edge at the right of the photo represents the face of a low platform that seems to be associated with the salt processing activity. The debris of processing, light orange-brown in colour, can be seen in the side of the test pit, overlain by the dark black soil that is characteristic of the site. Just below the water level lies a stratum of white, hard material which may be a construction surface of some kind.

#### Conclusions and future research

It will be possible to sort out the construction sequence of Str. 14 if the entire base can be cleared, the plaza floor encountered, and the platform methodically excavated. Str. 12 has at least given us an indication of the plaza floor level, and this can be followed to determine the nature of the junction with Str. 14. The hope, ultimately, is to excavate Str. 14 completely so that the underlying salt processing levels can be extensively exposed. We need to determine if there are indeed houses associated with the phase, whether or not people were living at the site, and most important, what was involved in the extraction and processing of salt. How much fuel was used, and where did it come from? Did the resulting charcoal act in the same way that the charcoal in the Amazon deposits acts to produce *terra preta*, hence enhancing soil fertility?

A number of important questions remain to be answered. Where are the features or residences that are associated with the Buk pottery? Are the giant stair risers from this period? Clearly Marco Gonzalez had associations with Chichen Itza in its Terminal Classic phase as indicated by the ceramics. What happened in the Early Postclassic? Once Chichen Itza declined, did Lamanai become the urban focus? And what can we learn from the San Pedro artefacts about how the transition was made to the Late Postclassic?

With regard to the Late Classic period in general, where did the salt processing fit in with Late Classic activity in Peten? Were the powerful Peten dynasties dependent on coastal salt? Or were they the 'market' for the merchants on the coast? Did the Classic collapse cause the collapse of the salt industry, or is it the reverse—did the collapse of the salt industry cause the Classic

collapse? Marco Gonzalez is a small and modest site, but it is rich in information. There is no question that its activities, although they seem peripheral, can provide keys to unlocking many of the 'mysteries' of Late Classic competition and the downfall of Classic dynasties, but it can also show us how the Maya weathered the inland storms and continued to flourish on the cayes by adjusting activities to suit the demands of the day.

#### Some of the Artefacts from the 2010 Excavations



Coconut Walk sherds encrusted in charcoal & soil from Op 10-6.



Chert from Op 10-1, MG 310.



MG 306/1 on the left.



Oval biface.



Standard Maya Biface - MG 313/2, from Str. 12 PAA (post-abandonment accumulation).



Various obsidian prismatic bladelets.



Buk and other sherds from Op 10-1.



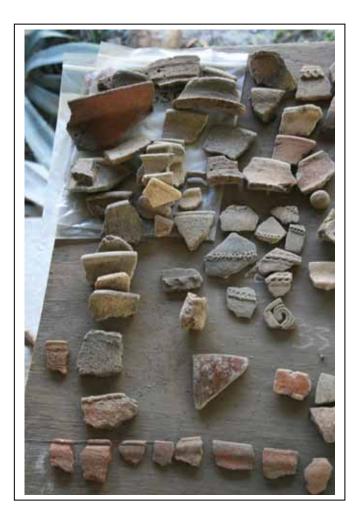
Sherds from Op 10-1, MG 310.



Examples of Coconut Walk Unslipped sherds lined up in the centre, with striated jar sherds piled in the lower corner of the photo.



Some of the worn 'Buk' sherds from Op 10-1, Str. 12.





Above: Sherd from polychrome bowl, from Op 10-1 deposits that are believed to be debris from salt processing. Levels of Op 10-1 are heavily disturbed, however, with little reliable in the way of stratigraphy. Fine polychromes such as this have been found in salt processing deposits at Colson Point, in the Stann Creek District, which suggests that some trade in polychromes may have taken place in the period when salt was also traded.

Left: Examples of sherds from Op 10-1. Coconut Walk are present as well as glossy Classic wares and jars that are Terminal Preclassic-Early Classic.

## Appendix I: Lot Numbers and Assessments

Lot No.	Description	Structure	Op
MG 306	PAA		Op 10-2
MG 307	Architectural clearing, N face of platform on E side of C trench.	Str. 14	Op 10-3
MG 308	Architectural clearing, S face of platform at W end.	Str. 14	Op 10-5
MG 309	Decayed remains of former floors plus PAA (cont'd from 1990 exposure).	Str. 14	Op 10-3
MG 310	Architectural clearing of giant stair risers (originally 1st stair riser but now subsumes all).	Str. 12	Op 10-1
MG 311	Architectural clearing, 2nd stair riser.	Str. 12	Op 10-1
MG 312	Architectural clearing, 3rd stair riser.	Str. 12	Op 10-1
MG 313	North of bottom-most stair riser, in area of plaza surface, PAA.	Str. 12	Op 10-1
MG 314	General surface collection on and around platform; PAA.	Str. 14	
MG 315	N side, C trench, PAA plus in some areas backfill from 1990.	Str. 14	Op 10-6
MG 316	W side of platform surface; PAA.	Str. 14	Op 10-4
MG 317	Below MG 315 at S end of trench; begins at the level of salt processing deposits.	Str. 14	Op 10-6
MG 318	Below MG 306 at level where rock feature appears; clearing rocks (possible face).		Op 10-2
MG 319	PAA.	Str. 13	Op 10-7
MG 320	Bur 14/32; primary lot.	Str. 14	Op 10-3
MG 321	Below MG 313; outside structure in presumed plaza area which structure faces.	Str. 12	Op 10-1
MG 322	Between structures; PAA and possible fill/core.	Strs 12,14	Op 10-8
MG 323	Bur 14/32; fill (deposit from around burial).	Str. 14	Op 10-3
MG 324	Below MG 316; arbitrary.	Str. 14	Op 10-4
MG 325	Below MG 317; salt processing levels.	Str. 14	Op 10-6
MG 326	Below MG 306 in area of pit extension; salt processing levels.	Ch., 1.4	Op 10-2
MG 327	Ashy level; at same depth as MG 325 (does not show in section); backfill from 1990?	Str. 14	Op 10-6
MG 328	Architectural clearing of (uppermost?) terrace face, NE corner; also includes some	Str. 14	Op 10-8
	material from between the structures, below MG 322, that is possible core material deliberately deposited between structures (see notes).		
MG 329	Clearing on W half of platform surface from upper edge of S-side terrace face (Op 10-5)	Str. 14	Op 10-4
IVIG 329	(and presumed edge of building platform) moving N across area of floor surfaces; PAA;	301.14	Ор 10-4
	equivalent to MG 316.		
MG 330	Below MG 316; PAA, decayed floor surfaces	Str. 14	Op 10-4
MG 331	Below MG 326 in area of extension; not clear from notes whether MG 331 includes clay		Op 10-2
1010 331	beneath the white 'floor'; should include lower processing levels.		Op 10 2
MG 332	Bur 14/33; primary lot.	Str. 14	Op 10-3
MG 333	Bur 14/34; primary lot.	Str. 14	Op 10-3
MG 334	Below MG 321; apparently still PAA.	Str. 12	Op 10-1
MG 335	Equivalent to MG 306; PAA but in SW extension (1m).		Op 10-2
MG 336	Below MG 334; arbitrary as soil remains black & root-disturbed (PAA?).	Str. 12	Op 10-1
MG 337	Fill of Bur 14/33; not primary to burial.	Str. 14	Op 10-3
MG 338	Clearing down to orange sandy area or patch (top of processing levels).	Str. 12	Op 10-1
MG 339	Architectural clearing of terrace face in area of the NE corner; largely equivalent to	Str. 14	Op 10-8
	MG 328.		
MG 340	Equivalent to MG 309 in are of Burials 14/33,35, 36,37; extending excavation into baulk	Str. 14	Op 10-3
	on E side.		
MG 341	Bur 14/35; primary lot.	Str. 14	Op 10-3
MG 342	Notes say below MG 326 but as this lot applies to the clayey deposit below water level,		Op 10-2
	it is beneath MG 331.		
MG 343	Below MG 338; clearing at level of sandy patch (processing level).	Str. 12	Op 10-1
MG 344	Clearing NW corner.	Str. 12	Op 10-8
MG 345	Extension E of Bur 14/34; 50 x 80 cm.	Str. 14	Op 10-4
MG 346	Burial 14/37; primary lot.	Str. 14	Op 10-3
MG 347	Core of lowermost stair riser.	Str. 13	Op 10-7
MG 348	Below MG 343; excavating processing level of orange fired deposit of sand, tiny sherds,	Str. 12	Op 10-1
	possible lime-making debris (?); largely in N. side of test pit or at least higher here.		
MG 349	Deposit that constitutes probable fill of a pit into which large rocks were placed;	Str. 12	Op 10-1
140 0==	very ashy, grey, with shell bits; below MG 336?	6	0.15.5
MG 350	Lot given to shell (horse conch or shank) taken from 3 shells shown on plan.	Str. 14	Op 10-3
MG 351	Burial 14/36; primary lot.	Str. 14	Op 10-3
MG 352	Burial 14/35; fill; refers to material found in proximity of burial but not provably primary.	Str. 14	Op 10-3
MG 353	Refers to material originally excavated as MG 340 but now refers to deposit under skull	Str. 14	Op 10-3
NAC 25 4	of Bur 14/37.	C+v 1.4	05 10 3
MG 354	Primary burial lot for Bur 14/38.	Str. 14	Op 10-3
MG 355	Surface finds but not certain of locale; so refers to general surface.	1	<u>j</u>

#### Marco Gonzalez 2010, Graham & Simmons, Page 33

MG 356	Found a bag dated 6 June that is from coring the "New Road"; I think this is when Sal		1992
	took me S of MG where a road had just been built at the end of the island. We cored		
	through the sand and got out pottery and ground stone, I believe in 1992.		
MG 357	Found sediment samples from 1992; 'bricotage' plus mixed clays probably from below		1992
	water level at MG so this number was assigned to the samples.		
MG 358	See MG 320, Bur 14/32; assigned to material excavated with Bur 14/32 but not likely	Str. 14	Op 10-3
	Primary.		

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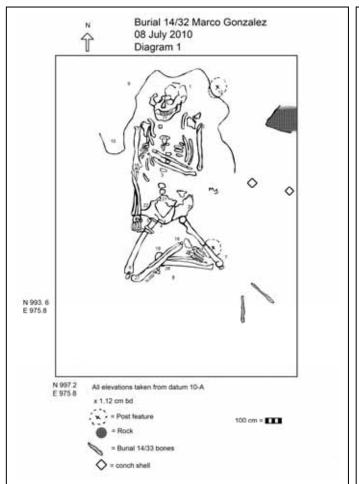
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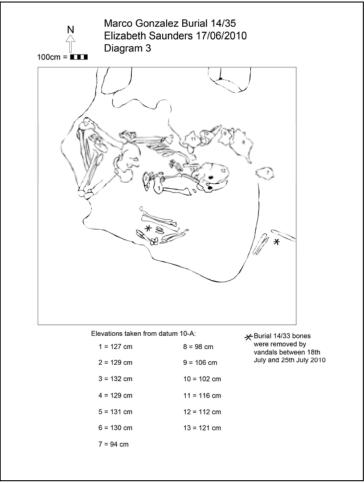
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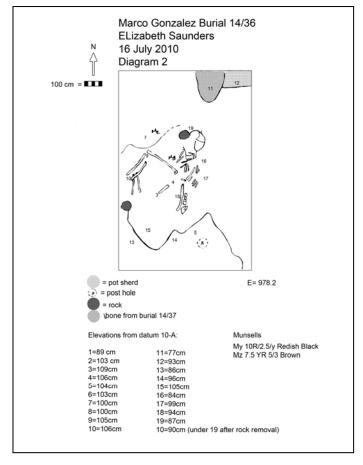
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#### Appendix 1 - Burial drawings

Field drawings adapted by Amy Lindsay







### PART 2: (A)

# A Brief Report on the Analysis of the Buk-Phase Ceramics from Marco Gonzalez

Carmen Ting, Institute of Archaeology, UCL

(B)

List of exported ceramic fragments taken from Buk sherds

Bag No.	Sample No.	Material	Quantity	Site	Provenance (OP/Lot No.)	Description
1	26-CH1	pottery	1	Marco Gonzalez	26	Chalice fragment
2	26-CH2	pottery	1	Marco Gonzalez	26	Chalice fragment
3	26-CH3	pottery	1	Marco Gonzalez	26	Chalice fragment
4	26-CH5	pottery	1	Marco Gonzalez	26	Chalice fragment
5	26-CH6	pottery	1	Marco Gonzalez	26	Chalice fragment
6	26-CH7	pottery	1	Marco Gonzalez	26	Chalice fragment
7	26-CH8	pottery	1	Marco Gonzalez	26	Chalice fragment
8	26-CH9	pottery	1	Marco Gonzalez	26	Chalice fragment
9	26-CH10	pottery	1	Marco Gonzalez	26	Chalice fragment
10	26-CH11	pottery	1	Marco Gonzalez	26	Chalice fragment
11	26-CH13	pottery	1	Marco Gonzalez	26	Chalice fragment
12	74-CH1	pottery	1	Marco Gonzalez	74	Chalice fragment
13	74-CH2	pottery	1	Marco Gonzalez	74	Chalice fragment
14	74-CH3	pottery	1	Marco Gonzalez	74	Chalice fragment
15	74-CH4	pottery	1	Marco Gonzalez	74	Chalice fragment
16	76-CH1	pottery	1	Marco Gonzalez	76	Chalice fragment
17	76-CH2	pottery	1	Marco Gonzalez	76	Chalice fragment
18	76-CH3	pottery	1	Marco Gonzalez	76	Chalice fragment
19	76-CH4	pottery	1	Marco Gonzalez	77	Chalice fragment
20	77-CH1	pottery	1	Marco Gonzalez	77	Chalice fragment
21	77-CH2	pottery	1	Marco Gonzalez	77	Chalice fragment
22	77-CH3	pottery	1	Marco Gonzalez	77	Chalice fragment
23	77-CH4	pottery	1	Marco Gonzalez	77	Chalice fragment
24	77-CH5	pottery	1	Marco Gonzalez	77	Chalice fragment
25	77-CH6	pottery	1	Marco Gonzalez	77	Chalice fragment
26	77-CH7	pottery	1	Marco Gonzalez	77	Chalice fragment
27	77-CH8	pottery	1	Marco Gonzalez	77	Chalice fragment
28	77-CH10	pottery	1	Marco Gonzalez	77	Chalice fragment
29	78-CH1	pottery	1	Marco Gonzalez	78	Chalice fragment
30	81-CH1	pottery	1	Marco Gonzalez	81	Chalice fragment
31	90-CH1	pottery	1	Marco Gonzalez	90	Chalice fragment
32	94-CH1	pottery	1	Marco Gonzalez	94	Chalice fragment
33	94-CH2	pottery	1	Marco Gonzalez	94	Chalice fragment
34	94-CH1 95-CH1	pottery	1	Marco Gonzalez	95	Chalice fragment
35	95-CH2	pottery	1	Marco Gonzalez	95	Chalice fragment
36	104-CH1		1	Marco Gonzalez	104	Chalice fragment
37	104-CH1 104-CH2	pottery	1	Marco Gonzalez	104	Chalice fragment
		pottery	1			
38 39	105-CH2 105-CH3	pottery	1	Marco Gonzalez  Marco Gonzalez	105 105	Chalice fragment Chalice fragment
	103-CH3 107-CH1	pottery	1	Marco Gonzalez	107	
40						Chalice fragment
41 42	107-CH2	pottery	1	Marco Gonzalez  Marco Gonzalez	107 107	Chalice fragment
	107-CH3	pottery				Chalice fragment
43	107-CH4	pottery	1	Marco Gonzalez	107	Chalice fragment
44	107-CH5	pottery	1	Marco Gonzalez	107	Chalice fragment
45	107-CH6	pottery	1	Marco Gonzalez	107	Chalice fragment
46	107-CH8	pottery	1	Marco Gonzalez	107	Chalice fragment
47	114-CH1	pottery	1	Marco Gonzalez	114	Chalice fragment
48	114-CH2	pottery	1	Marco Gonzalez	114	Chalice fragment
49	120-CH1	pottery	1	Marco Gonzalez	120	Chalice fragment
50	120-CH2	pottery	1	Marco Gonzalez	120	Chalice fragment
51	122-CH1	pottery	1	Marco Gonzalez	122	Chalice fragment
52	129-CH2	pottery	1	Marco Gonzalez	129	Chalice fragment
53	129-CH3	pottery	1	Marco Gonzalez	129	Chalice fragment
54	129-CH4	pottery	1	Marco Gonzalez	129	Chalice fragment
55	129-CH6	pottery	1	Marco Gonzalez	129	Chalice fragment
56	131-CH1	pottery	1	Marco Gonzalez	131	Chalice fragment
57	135-CH2	pottery	1	Marco Gonzalez	135	Chalice fragment

Bag No.	Sample No.	Material	Quantity	Site	Provenance (OP/Lot No.)	Description
58	135-CH3	pottery	1	Marco Gonzalez	135	Chalice fragment
59	135-CH4	pottery	1	Marco Gonzalez	135	Chalice fragment
60	137-CH1	pottery	1	Marco Gonzalez	137	Chalice fragment
61	158-CH1	pottery	1	Marco Gonzalez	158	Chalice fragment
62	158-CH2	pottery	1	Marco Gonzalez	158	Chalice fragment
63	158-CH5	pottery	1	Marco Gonzalez	158	Chalice fragment
64	160-CH1	pottery	1	Marco Gonzalez	160	Chalice fragment
65	161-CH1	pottery	1	Marco Gonzalez	161	Chalice fragment
66	189-CH1	pottery	1	Marco Gonzalez	189	Chalice fragment
67	195-CH1	pottery	1	Marco Gonzalez	195	Chalice fragment
68	195-CH2	pottery	1	Marco Gonzalez	195	Chalice fragment
69	196-CH1	pottery	1	Marco Gonzalez	196	Chalice fragment
70	199-CH1	pottery	1	Marco Gonzalez	199	Chalice fragment
71	199-CH2	pottery	1	Marco Gonzalez	199	Chalice fragment
72	199-CH3	pottery	1	Marco Gonzalez	199	Chalice fragment
73	200-CH1	pottery	<u>·</u> 1	Marco Gonzalez	200	Chalice fragment
74	200-CH2	pottery	1	Marco Gonzalez	200	Chalice fragment
75	202-CH1	pottery	1	Marco Gonzalez	202	Chalice fragment
76	202-CH3	pottery	1	Marco Gonzalez	202	Chalice fragment
77	202-CH4		1	Marco Gonzalez	202	Chalice fragment
78	202-CH4 202-CH5	pottery	1	Marco Gonzalez	202	
79	202-CH3 202-CH6	pottery		Marco Gonzalez	202	Chalice fragment
	202-CH6 202-CH7	pottery	<u> </u>		202	Chalice fragment
80		pottery		Marco Gonzalez	-	Chalice fragment
81	202-CH8	pottery	1	Marco Gonzalez	202	Chalice fragment
82	202-CH9	pottery	1	Marco Gonzalez	202	Chalice fragment
83	202-CH10	pottery	1	Marco Gonzalez	202	Chalice fragment
84	206-CH1	pottery	1	Marco Gonzalez	206	Chalice fragment
85	216-CH1	pottery	1	Marco Gonzalez	216	Chalice fragment
86	216-CH2	pottery	1	Marco Gonzalez	216	Chalice fragment
87	216-CH3	pottery	1	Marco Gonzalez	216	Chalice fragment
88	224-CH2	pottery	1	Marco Gonzalez	224	Chalice fragment
89	224-CH3	pottery	1	Marco Gonzalez	224	Chalice fragment
90	224-CH4	pottery	1	Marco Gonzalez	224	Chalice fragment
91	224-CH5	pottery	1	Marco Gonzalez	224	Chalice fragment
92	224-CH6	pottery	1	Marco Gonzalez	224	Chalice fragment
93	224-CH7	pottery	1	Marco Gonzalez	224	Chalice fragment
94	230-CH1	pottery	1	Marco Gonzalez	230	Chalice fragment
95	233-CH1	pottery	1	Marco Gonzalez	233	Chalice fragment
96	233-CH2	pottery	1	Marco Gonzalez	233	Chalice fragment
97	233-CH3	pottery	1	Marco Gonzalez	233	Chalice fragment
98	233-CH4	pottery	1	Marco Gonzalez	233	Chalice fragment
99	233-CH5	pottery	1	Marco Gonzalez	233	Chalice fragment
100	233-CH6	pottery	1	Marco Gonzalez	233	Chalice fragment
101	233-CH9	pottery	1	Marco Gonzalez	233	Chalice fragment
102	233-CH10	pottery	1	Marco Gonzalez	233	Chalice fragment
103	233-CH11	pottery	1	Marco Gonzalez	233	Chalice fragment
104	233-CH12	pottery	1	Marco Gonzalez	233	Chalice fragment
105	233-CH13	pottery	1	Marco Gonzalez	233	Chalice fragment
106	234-CH1	pottery	1	Marco Gonzalez	234	Chalice fragment
107	234-CH2	pottery	1	Marco Gonzalez	234	Chalice fragment
108	234-CH3	pottery	1	Marco Gonzalez	234	Chalice fragment
109	234-CH4	pottery	1	Marco Gonzalez	234	Chalice fragment
110	234-CH6	pottery	1	Marco Gonzalez	234	Chalice fragment
111	234-CH7	pottery	1	Marco Gonzalez	234	Chalice fragment
112	234-CH8	pottery	1	Marco Gonzalez	234	Chalice fragment
113	234-CH9	pottery	1	Marco Gonzalez	234	Chalice fragment
-	234-CH11	pottery	1	Marco Gonzalez	234	Chalice fragment

Bag No.	Sample No.	Material	Quantity	Site	Provenance	Description
					(OP/Lot No.)	•
115	234-CH12	pottery	1	Marco Gonzalez	234	Chalice fragment
116	234-CH13	pottery	1	Marco Gonzalez	234	Chalice fragment
117	234-CH14	pottery	1	Marco Gonzalez	234	Chalice fragment
118	234-CH15	pottery	1	Marco Gonzalez	234	Chalice fragment
119	234-CH16	pottery	1	Marco Gonzalez	234	Chalice fragment
120	234-CH17	pottery	1	Marco Gonzalez	234	Chalice fragment
121	234-CH18	pottery	1	Marco Gonzalez	234	Chalice fragment
122	234-CH19	pottery	1	Marco Gonzalez	234	Chalice fragment
123	234-CH20	pottery	1	Marco Gonzalez	234	Chalice fragment
124	234-CH21	pottery	1	Marco Gonzalez	234	Chalice fragment
125	234-CH23	pottery	1	Marco Gonzalez	234	Chalice fragment
126	235-CH8	pottery	1	Marco Gonzalez	235	Chalice fragment
127	235-CH1	pottery	1	Marco Gonzalez	235	Chalice fragment
128	235-CH2	pottery	1	Marco Gonzalez	235	Chalice fragment
129	235-CH3	pottery	1	Marco Gonzalez	235	Chalice fragment
130	235-CH4	pottery	1	Marco Gonzalez	235	Chalice fragment
131	235-CH5	pottery	1	Marco Gonzalez	235	Chalice fragment
132	235-CH6	pottery	1	Marco Gonzalez	235	Chalice fragment
133	235-CH7	pottery	1	Marco Gonzalez	235	Chalice fragment
134	236-CH1	pottery	1	Marco Gonzalez	236	Chalice fragment
135	237-CH2	pottery	1	Marco Gonzalez	237	Chalice fragment
136	240-CH1	pottery	1	Marco Gonzalez	240	Chalice fragment
137	240-CH2	pottery	1	Marco Gonzalez	240	Chalice fragment
138	240-CH3	pottery	1	Marco Gonzalez	240	Chalice fragment
139	241-CH1	pottery	1	Marco Gonzalez	241	Chalice fragment
140	256-CH1	pottery	1	Marco Gonzalez	256	Chalice fragment
141	256-CH2	pottery	1	Marco Gonzalez	256	Chalice fragment
142	256-CH3	pottery	1	Marco Gonzalez	256	Chalice fragment
143	258-CH1	pottery	1	Marco Gonzalez	258	Chalice fragment
144	258-CH2	pottery	1	Marco Gonzalez	258	Chalice fragment
145	274-CH1	pottery	1	Marco Gonzalez	274	Chalice fragment
146	282-CH1	pottery	1	Marco Gonzalez	282	Chalice fragment
147	291-CH1	pottery	1	Marco Gonzalez	291	Chalice fragment
148	291-CH2	pottery	1	Marco Gonzalez	291	Chalice fragment
149	291-CH3	pottery	1	Marco Gonzalez	291	Chalice fragment
150	291-CH4	pottery	1	Marco Gonzalez	291	Chalice fragment
151	291-CH5	pottery	1	Marco Gonzalez	291	Chalice fragment
152	291-CH6	pottery	1	Marco Gonzalez	291	Chalice fragment
153	291-CH7	pottery	1	Marco Gonzalez	291	Chalice fragment
154	291-CH8	pottery	1	Marco Gonzalez	291	Chalice fragment
155	291-CH9	pottery	1	Marco Gonzalez	291	Chalice fragment
156		<u> </u>	1			
	295-CH1	pottery	1	Marco Gonzalez	295	Chalice fragment
157	295-CH3	pottery	1	Marco Gonzalez  Marco Gonzalez	295 295	Chalice fragment
158	295-CH3	pottery				Chalice fragment
159	295-CH5	pottery	1	Marco Gonzalez	295	Chalice fragment
160	299-CH1	pottery	1	Marco Gonzalez	299	Chalice fragment
161	26-PJ1	pottery	1	Marco Gonzalez	26	Pedestal base jar fragment
162	26-PJ2	pottery	1	Marco Gonzalez	26	Pedestal base jar fragment
163	26-PJ3	pottery	1	Marco Gonzalez	26	Pedestal base jar fragment
164	74-PJ1	pottery	1	Marco Gonzalez	74	Pedestal base jar fragment
165	76-PJ1	pottery	1	Marco Gonzalez	76	Pedestal base jar fragment
166	76-PJ2	pottery	1	Marco Gonzalez	76	Pedestal base jar fragment
167	76-PJ3	pottery	1	Marco Gonzalez	76	Pedestal base jar fragment
168	76-PJ5	pottery	1	Marco Gonzalez	76	Pedestal base jar fragment
169	76-PJ6	pottery	1	Marco Gonzalez	76	Pedestal base jar fragment
170	77-PJ1	pottery	1	Marco Gonzalez	77	Pedestal base jar fragment
171	77-PJ2	pottery	1	Marco Gonzalez	77	Pedestal base jar fragment

Bag No.	Sample No.	Material	Quantity	Site	Provenance (OP/Lot No.)	Description
172	77-PJ3	pottery	1	Marco Gonzalez	77	Pedestal base jar fragment
173	77-PJ7	pottery	1	Marco Gonzalez	77	Pedestal base jar fragment
174	81-PJ1	pottery	1	Marco Gonzalez	81	Pedestal base jar fragment
175	81-PJ2	pottery	1	Marco Gonzalez	81	Pedestal base jar fragment
176	81-PJ3	pottery	1	Marco Gonzalez	81	Pedestal base jar fragment
177	81-PJ4	pottery	1	Marco Gonzalez	81	Pedestal base jar fragment
178	94-PJ1	pottery	1	Marco Gonzalez	94	Pedestal base jar fragment
179	95-PJ1	pottery	1	Marco Gonzalez	95	Pedestal base jar fragment
180	107-PJ1	pottery	1	Marco Gonzalez	107	Pedestal base jar fragment
181	107-PJ2	pottery	1	Marco Gonzalez	107	Pedestal base jar fragment
182	107-PJ4	pottery	1	Marco Gonzalez	107	Pedestal base jar fragment
183	107-PJ5	pottery	1	Marco Gonzalez	107	Pedestal base jar fragment
184	113-PJ1	pottery	1	Marco Gonzalez	113	Pedestal base jar fragment
185	115-PJ1	pottery	1	Marco Gonzalez	115	Pedestal base jar fragment
186	129-PJ1	pottery	1	Marco Gonzalez	129	Pedestal base jar fragment
187	129-PJ2	pottery	1	Marco Gonzalez	129	Pedestal base jar fragment
188	130-PJ1	pottery	1	Marco Gonzalez	130	Pedestal base jar fragment
189	130-PJ2	pottery	1	Marco Gonzalez	130	Pedestal base jar fragment
190	130-PJ4	pottery	1	Marco Gonzalez	130	Pedestal base jar fragment
191	135-PJ2		1	Marco Gonzalez	135	
191	135-PJ2 135-PJ3	pottery	1	Marco Gonzalez	135	Pedestal base jar fragment
192		pottery	1			Pedestal base jar fragment
	135-PJ4	pottery		Marco Gonzalez	135	Pedestal base jar fragment
194	135-PJ5	pottery	1	Marco Gonzalez	135	Pedestal base jar fragment
195	135-PJ6	pottery	1	Marco Gonzalez	135	Pedestal base jar fragment
196	137-PJ1	pottery	1	Marco Gonzalez	137	Pedestal base jar fragment
197	137-PJ2	pottery	1	Marco Gonzalez	137	Pedestal base jar fragment
198	158-PJ1	pottery	1	Marco Gonzalez	158	Pedestal base jar fragment
199	158-PJ2	pottery	1	Marco Gonzalez	158	Pedestal base jar fragment
200	158-PJ3	pottery	1	Marco Gonzalez	158	Pedestal base jar fragment
201	189-PJ1	pottery	1	Marco Gonzalez	189	Pedestal base jar fragment
202	189-PJ2	pottery	1	Marco Gonzalez	189	Pedestal base jar fragment
203	194-PJ1	pottery	1	Marco Gonzalez	194	Pedestal base jar fragment
204	196-PJ1	pottery	1	Marco Gonzalez	196	Pedestal base jar fragment
205	202-PJ1	pottery	1	Marco Gonzalez	202	Pedestal base jar fragment
206	202-PJ2	pottery	1	Marco Gonzalez	202	Pedestal base jar fragment
207	206-PJ1	pottery	1	Marco Gonzalez	206	Pedestal base jar fragment
208	216-PJ1	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
209	216-PJ2	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
210	216-PJ3	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
211	216-PJ4	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
212	216-PJ5	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
213	216-PJ7	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
214	216-PJ8	pottery	1	Marco Gonzalez	216	Pedestal base jar fragment
215	224-PJ1	pottery	1	Marco Gonzalez	224	Pedestal base jar fragment
216	233-PJ1	pottery	1	Marco Gonzalez	233	Pedestal base jar fragment
217	233-PJ2	pottery	1	Marco Gonzalez	233	Pedestal base jar fragment
218	233-PJ4	pottery	1	Marco Gonzalez	233	Pedestal base jar fragment
219	233-PJ5	pottery	1	Marco Gonzalez	233	Pedestal base jar fragment
220	233-PJ6	pottery	1	Marco Gonzalez	233	Pedestal base jar fragment
221	234-PJ1	pottery	1	Marco Gonzalez	234	Pedestal base jar fragment
222	235-PJ1	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
223	235-PJ2	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
224	235-PJ3	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
225	235-PJ4	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
226	235-PJ6	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
227	235-PJ7	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
228	235-PJ8	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
220	200-1 00	pottery	<u>'</u>	Maroo Gorizalez	200	i odobidi baso jai iraginistit

Bag No.	Sample No.	Material	Quantity	Site	Provenance (OP/Lot No.)	Description
229	235-PJ9	pottery	1	Marco Gonzalez	235	Pedestal base jar fragment
230	237-PJ1	pottery	1	Marco Gonzalez	237	Pedestal base jar fragment
231	237-PJ2	pottery	1	Marco Gonzalez	237	Pedestal base jar fragment
232	237-PJ3	pottery	1	Marco Gonzalez	237	Pedestal base jar fragment
233	241-PJ1	pottery	1	Marco Gonzalez	241	Pedestal base jar fragment
234	256-PJ1	pottery	1	Marco Gonzalez	256	Pedestal base jar fragment
235	258-PJ1	pottery	1	Marco Gonzalez	258	Pedestal base jar fragment
236	291-PJ1	pottery	1	Marco Gonzalez	291	Pedestal base jar fragment
237	291-PJ2	pottery	1	Marco Gonzalez	291	Pedestal base jar fragment
238	295-PJ1	pottery	1	Marco Gonzalez	295	Pedestal base jar fragment
239	129-B1	<u> </u>	1	Marco Gonzalez	129	
240	129-B1 129-B3	pottery	1		129	Outcurving rim bowl fragment
		pottery		Marco Gonzalez		Outcurving rim bowl fragment
241	129-B2	pottery	1	Marco Gonzalez	129	Outcurving rim bowl fragment
242	224-B2	pottery	1	Marco Gonzalez	224	Outcurving rim bowl fragment
243	236-B1	pottery	1	Marco Gonzalez	236	Outcurving rim bowl fragment
244	230-B2	pottery	1	Marco Gonzalez	230	Outcurving rim bowl fragment
245	137-B1	pottery	1	Marco Gonzalez	137	Outcurving rim bowl fragment
246	233-B2	pottery	1	Marco Gonzalez	233	Outcurving rim bowl fragment
247	291-B2	pottery	1	Marco Gonzalez	291	Outcurving rim bowl fragment
248	194-B1	pottery	1	Marco Gonzalez	194	Outcurving rim bowl fragment
249	224-B3	pottery	1	Marco Gonzalez	224	Outcurving rim bowl fragment
250	256-B1	pottery	1	Marco Gonzalez	256	Outcurving rim bowl fragment
251	105-B1	pottery	1	Marco Gonzalez	105	Outcurving rim bowl fragment
252	258-B1	pottery	1	Marco Gonzalez	258	Outcurving rim bowl fragment
253	74-B1	pottery	1	Marco Gonzalez	74	Round bowl fragment
254	113-B1	pottery	1	Marco Gonzalez	113	Round bowl fragment
255	291-B3		1	Marco Gonzalez	291	Round bowl fragment
256	202-B1	pottery	1	Marco Gonzalez	202	
		pottery				Round bowl fragment
257	158-B1	pottery	1	Marco Gonzalez	158	Round bowl fragment
258	224-B1	pottery	1	Marco Gonzalez	224	Round bowl fragment
259	18-B1	pottery	1	Marco Gonzalez	18	Round bowl fragment
260	107-Non buk	pottery	1	Marco Gonzalez	107	Non-buk bowl fragment
261	216-Non buk	pottery	1	Marco Gonzalez	216	Non-buk bowl fragment
262	MGMC1- 290	pottery	1	Marco Gonzalez	290	moulded-carved sherd
263	MGMC2- 282	pottery	1	Marco Gonzalez	282	moulded-carved sherd
264	MGMC3-76	pottery	1	Marco Gonzalez	76	moulded-carved sherd
	MGMC4-					
265	347	pottery	1	Marco Gonzalez	347	moulded-carved sherd
266	MGMC5- 285	pottery	1	Marco Gonzalez	285	moulded-carved sherd
267	MGMC6- 285	pottery	1	Marco Gonzalez	285	moulded-carved sherd
268	MGMC7- 285	pottery	1	Marco Gonzalez	285	moulded-carved sherd
269	MGMC8- 285	pottery	1	Marco Gonzalez	285	moulded-carved sherd
270	MGMC9- 299	pottery	1	Marco Gonzalez	299	moulded-carved sherd
271	Vpnk	pottery	1	Marco Gonzalez	pnk (check 1989 pub Graham)	outcurving bowl
272	V30/6	pottery	1	Marco Gonzalez	30	pedestal-based jar
273	V30/7	pottery	1	Marco Gonzalez	30	pedestal-based jar
J-1	n/a	pottery	2 rim sherds	Marco Gonzalez	325	unslipped, rounded, thin-walled bowls (CW)
J-2	n/a	pottery	5 rim sherds	Marco Gonzalez	325	unslipped, rounded bowls with grooved rims (CW)
J-3	n/a	pottery	6 rim sherds	Marco Gonzalez	325	unslipped, in-curving, thin-walled bowls

Bag No.	Sample No.	Material	Quantity	Site	Provenance (OP/Lot No.)	Description
J-4	n/a	pottery	17 rim sherds	Marco Gonzalez	325	unslipped, sack-shaped jars
J-5	n/a	pottery	14 rim sherds	Marco Gonzalez	325	unslipped, thick-walled crude bowls
J-6	n/a	pottery	2 sherds (1 rim & 1 body)	Marco Gonzalez	325	polychrome rounded bowl fragments
J-7	n/a	pottery	5 body sherds	Marco Gonzalez	325 (orange soil G)	pottery sherds
J-8	n/a	modern charcoal	4 packets	Marco Gonzalez	n/a	modern charcoal samples
J-9	317-1	charcoal	1 vial	Marco Gonzalez	317	carbon sample
J-9	317-2	charcoal	1 vial	Marco Gonzalez	317	carbon sample
J-9	317-3	charcoal	1 vial	Marco Gonzalez	317	carbon sample
J-9	317-4	charcoal	1 vial	Marco Gonzalez	317	carbon sample
J-9	317-5	charcoal	1 vial	Marco Gonzalez	317	carbon sample
J-9	325-1	charcoal	1 vial	Marco Gonzalez	325	carbon sample
J-9	325-2	charcoal	1 vial	Marco Gonzalez	325	carbon sample
						'
J-9	325-3	charcoal	1 vial	Marco Gonzalez	325	carbon sample
J-9	325-4	charcoal	1 vial	Marco Gonzalez	325	carbon sample
J-9	325-5	charcoal	1 vial	Marco Gonzalez	325	carbon sample
J-9	348-1	charcoal	1 vial	Marco Gonzalez	348	carbon sample
J-9	333-1	charcoal	1 vial	Marco Gonzalez	333	carbon sample
J-10	n/a	archaeological matrix	4 vials	Marco Gonzalez	325	archaeological matrix (control samples)
J-11	M-1	archaeological matrix	1 bag	Marco Gonzalez	325	archaeological matrix
J-11	M-2	archaeological matrix	1 bag	Marco Gonzalez	325	archaeological matrix
J-11	M-3	archaeological matrix	1 bag	Marco Gonzalez	325	archaeological matrix
J-11	M-4	archaeological matrix	1 bag	Marco Gonzalez	325	archaeological matrix
J-12	BR-1	construction material	1 piece	Marco Gonzalez	325	bricotage
J-12	BR-2	construction material	2 pieces	Marco Gonzalez	313	plaster
J-12	BR-3	construction material	1 piece	Marco Gonzalez	309	plaster
J-12	BR-4	construction material	5 pieces	Marco Gonzalez	OP 10-4	plaster floor
J-12	BR-5	construction material	6 pieces	Marco Gonzalez	OP 10-1	plaster floor (plaza)
J-12	BR-6	construction material	6 pieces	Marco Gonzalez	OP10-2	processing levels in deep pit extension, below water level
J-12	BR-7	construction material	1 piece	Marco Gonzalez	338	compacted sand
J-12	BR-8	construction material	2 pieces	Marco Gonzalez	306	bricotage
J-12	BR-9	construction material	1 piece	Marco Gonzalez	310	plaster
C-1	1	bone/teeth	2 teeth & one bone fragment	Lamanai	N25/E50 Burial 4 LA2800	premolar, 3rd molar and rib fragment
C-1	2	bone/teeth	3 teeth & one bone fragment	Lamanai	N12-4 Burial 1 LA2466	premolar, 3rd molar and rib fragment

#### A brief report on the analysis of the Buk-phase ceramics from Marco Gonzalez

Carmen Ting

Throughout the course of my three-week research at the Marco Gonzalez Archaeological Project, I went through the ceramic assemblages – which was excavated during the early 1990s – from the site of Marco Gonzalez at the Ambergris Cay. In particular, I focus on the ceramic materials that was produced during the Early Postclassic period (A.D. 1050 – 1250), which share similar stylistic attributes (e.g. forms, surface treatment and decoration) with the Buk-phase ceramics from Lamanai. These ceramics, also known as the Zakpah Orange Red in the type variety naming system, occur in a great variety of forms (Fig. 1), such as chalice, pedestal base jar, outcurving rim bowl, round bowl, and tripod dish. The exterior surface are covered in slips that range from light orange to red in colour. Incision is the most common mode of decoration. Another distinctive feature of these ceramics is the presence of dark firing core almost throughout the entire cross sections of the freshly fractured surfaces in most cases. I, therefore, refer the pottery that displays the above characteristic stylistic attributes as Buk ceramic. The occurrence of the Buk ceramic was first reported in Lamanai (*Pendergast the Spanish article*, Graham 1987), as well as numerous sites, which are mostly located along the coastal and riverine locations (Masson 2000, Andres & Pyburn 2004, Walker 1990).



Figure 1. Different forms of Buk-phase ceramics. Pedestal base jar (left) from Actun Yaxteel Ahau; chalice (right) from Lamanai (Photographed by Carmen Ting).

As part of my doctoral research, samples of the Buk ceramics from Marco Gonzalez were taken. The sample selection procedures involve the separation of the Buk-phase ceramics from the rest of the ceramic assemblage on the basis of their form, the presence/absence of dark firing core, the presence/absence of slip, and decoration. Only the diagnostic sherds, such as rim sherd, pedestal base, and foot, were selected for further macroscopic analyses. The diagnostic sherds were further divided into five major form classes, namely chalice, pedestal base jar, outcurving rim bowl, round bowl, and tripod bowl/dish. Strenuous effort was then made to refit the sherds together so as to obtain the minimum vessel number of the assemblage. The initial result of the macroscopic analyses suggested that the Buk ceramic assemblage from Marco Gonzalez is highly complex and there is a great variety in terms of the morphology, especially the curvature and thickness of the chalice rims, and the fabric and the surface treatment. Samples, which represent statistically the variations within the Buk assemblage from Marco Gonzalez, were then taken for further petrographic, chemical and technological analyses in the Wolfson Archaeological Sciences Laboratory at University College London. All sherds were documented, photographed and illustrated before a tiny piece (ca. 2cm x 2cm) of samples were cut off by the tile cutter. In total, 261 samples, including 160 chalices, 78 pedestal base jar, 12 outcurving rim bowls, and 6 round bowls were collected. More research will be required to sample the Buk ceramics which is excavated during the 2010 field season.

The Buk ceramics samples from Marco Gonzalez will be analysed by an integrated archaeometric approach. Thin-section petrography and instrumental neutron activation analysis (INAA) will be employed to identify the mineralogical and chemical compositions. These data are useful in discriminating the potential production groups within the assemblages and characterizing the organization of production, as well as determining the provenance of ceramic production if the information on local geology is available or clay samples are collected. Scanning electron microscopy (SEM) will be used to examine the manufacturing technology, such as firing temperature and atmosphere, and the application of slip. This, together with the compositional data, is useful in reconstructing the ceramic tradition(s) of the Buk ceramics from Marco Gonzalez. The results of my analyses will then be compared with those of Dr. Linda Howie, who conducted a comprehensive technological analyses of the ceramics, including the Buk ceramics, from Lamanai during the Classic to Postclassic transition (Howie 2005). In addition, samples from other coastal or riverine sites, such as Caye Coco, Laguna de On and Cerros – which I have collected earlier this year – will also be included in my research to obtain a regional perspective in terms of the production, distribution and consumption of the Buk ceramics during the Early Postclassic period. Overall, I expect to reveal the mechanism(s) behind the resultant production and distribution patterns of the Buk-phase ceramics and their implications for the political, social, economic and ideological development of the Early Postclassic in the Maya Lowlands. More importantly, it is hopeful that my research will provide an insight on the nature of settlement and the relationship between the coastal sites during the Early Postclassic period.

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### **PART 3:**

# The Flora of Marco Gonzalez, Ambergris Caye

Preliminary Survey, May 2010

Zoe Goodwin, Royal Botanical Garden Edinburgh

## The Flora of Marco Gonzalez, Ambergris Caye

**May 2010** 

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Acknowledgements	
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Zoë Goodwin (Royal Botanic Garden Edinburgh)



#### Surveyers

Zoë Goodwin (Royal Botanic Garden Edinburgh)

Jan Brown (San Pedro)

Ramon Gonzalez (San Pedro)

#### Location

Belize District; Ambergris Caye; 7 Km South of San Pedro at very southern tip of Ambergris Caye. 17° 52' 54.75"N 88° 00' 52.24"W

#### **Methods**

A general survey of the flora of Marco Gonzalez was conducted on the 29<sup>th</sup> & 30<sup>th</sup> May 2010 by wide area patrolling and general collecting of voucher specimens where necessary. Two to five duplicates were collected for every voucher specimen. The duplicates of each specimen will be deposited at the Royal Botanic Garden Edinburgh (E), Forest Department, Ministry of Natural Resources, Belmopan, Belize (BRH), the Natural History Museum, London (BM), the Missouri Botanical Garden (MO) and Universidad Nacional Autónoma de México (MEXU).

#### Results

27 vascular species were recorded on the island, Voucher specimens were made of 18 species. Currently (August 2010) 13 out of 27 species observed or collected have been identified to species. A full species list with voucher details (Table 1) is provided. In addition, a brief description and observations on the vegetation, and notes on past human disturbance at the site are also provided. Plant species of interest to highlight and interpret for visitors to the site are also suggested.

#### General Site Description

Forest island on site of Mayan ruins in red mangrove (*Rhizophora mangle L.*) swamp.

#### **Vegetation Description**

Low canopy 12-15 m characterised by abundant *Coccoloba* sp (Goodwin 1646, & 1629), frequent *Bursera simaruba* (L.) Sarg. (pers.obs.), *Pouteria campechiana* (Kunth) Baehni (pers.obs.), *Guazuma ulmifolia* Lam. (pers.obs.), *Ficus* sp. (Goodwin 1636), *Citharexylum sp.* (Goodwin 1630) & *Thrinax radiata* Lodd. ex Schult. & Schult. f. (pers.obs.). Many of the canopy trees including the *Caesalpinia* sp. had significant trunks up to the dense understory shrub layer contained abundant *Picramnia antidesma* Sw. (Goodwin 1628) & frequent *Psychotria* sp. (Goodwin 1631).

#### **Notes on Vegetation**

The forest was species poor, probably due to the small area of the island. Most of the species observed at Marco Gonzalez are typical of disturbed, lowland, broadleaved forests on limestone found throughout Belize, such as *Bursera simaruba*, *Pouteria campechiana*, *Hirtella americana* L., *Guazuma ulmifolia*, *Hamelia patens* Jacq. and *Metopium brownei* (Jacq.) Urb.. Two species found across the island, *Thrinax radiata* and *Pithecellobium keyense* Britton are typical of the coastal fringes of the cayes and the coasts of Corozal and Belize districts, these two species are found only in the Yucatan & Greater Antilles. *Hyperbaena winzerlingii* Standl. is a Northern Mesoamerican species that has only been found in Corozal and the northern parts of Belize and Orange Walk districts within Belize.

The forest appears to have suffered some wind damage on various occasions, several large trees being partially uprooted including a large *Caesalpinia* sp. tree (that one has to duck under to enter the central clearing from the north) and a large strangler fig to the east (?) of structure 12, the latter probably toppled by Hurricane Dean in 2008.

Vegetation differed between the formerly cultivated clearing at the centre of the island and the non-cultivated areas; the clearing had an open understory and was dominated by cultivate species such as *Cocos nucifera* and *Coccoloba uvifera*. Where as the rest of the site, especially on the structures, had a 10-12 m canopy of forest trees and dense understory of *Picramnia antidesma* and *Psychotria* sp.. The 'shoreline' of the island, contained some additional species (Goodwin 1640, 1641) not found further into the island and other mangrove associated species including sterile sedges (Cyperaceae) that were probably associated with the adjacent red mangrove swamp and more open canopy. There was no observed difference in vegetation between structures 12 and 14 and the other structures on the site.



Figure 1. Thrinax radiata Lodd. ex Schult. & Schult. f. leaves (left) and stem with leaf bases (right).

For visitor intrepetation species of interest include:

• Thrinax radiata Lodd. ex Schult. & Schult. f. (Arecaceae, palm) is the common solitary palm across Marco Gonzalez that can be identified by its

- radiate leaves and split at the base of the leaf stalk, Figure 1, this is restricted to the coastal fringes of Northern Belize.
- Strangler fig (*Ficus* sp.) for its unusual habit and life style, especially the individual to the east (?) of structure 12 that has been knocked down fairly recently (Hurrican Dean in 2008?) and has numerous new trunks sprouting from the fallen trunk.
- *Bursera simaruba* ('gumbo limbo' or the 'tourist tree') is easy to recognise due its extremely distinctive peeling bark. It is used traditionally as a medicinal tree especially for skin complaints.
- *Metopium brownei* ('black poisonwood') is a member of the mango family and is infamous for its high toxicicity; depending on your susceptability to the sap, simply touching the tree can cause severe blisters to the skin. This species often grows near *Bursera simaruba*, whose bark can be used as a salve for poisonwood burns. The trunk of this tree is often marked with machete marks by Belizeans as a warning because the cut marks dry black. Visitors should be careful of this tree.
- *Hamelia patens* Jacq. ('polly redhead') is a common shrub of disturbance on limestone, the red tubular flowers are loved by hummingbirds and thus this species is often cultivated to attract them to gardens.
- Guazuma ulmifolia Lam. ('bay cedar' and 'pix oy' amongst many other names) is a classic species of disturbed forest in Belize. This species has many traditional uses.
- Rhizophora mangle ('red mangrove') has many adaptations to prolonged inundation by salt water such as fleshy leaves, salt-excreting glands, stilt roots to stabilise the sediment and to assist aeration of the roots below the surface. Also there are some Avicennia germinans (L.) L. ('black mangrove') and Laguncularia racemosa ('white mangrove') are present here, with slightly different methods of coping with the same harsh conditions (salt excretion on the leaf surface and finger-like pneumatophores which protrude above the ground, allowing oxygen uptake to continue even when there is standing water at the surface).

For further reading on traditional plant uses for these species see Arvigo 1993 and for more common plants in Balick 2000.

#### **Human Activity**



Figure 2. Coccoloba uvifera

There are many signs of human disturbance including looters and attempts at cultivation. The latter is indicated by the presence of cultivated species such as *Cocos nucifera & Coccoloba uvifera* (Figure 2), as well as abandoned tools and the presence of nails & wire in the trunks of some of the trees (Figure 3). Regrowth of the affected trunk and size of the *Coccoloba uvifera* tree suggests some time has past since this cultivation, perhaps a decade or more.



Figure 3. Wire (left) & nails (right) in the trunk of a tree (Coccoloba sp.).

Table 1. List of species observed and collected at Marco Gonzalez with family, full species name, voucher name and number (where appropriate) and DAFOR frequency.

Family	Species	Voucher	Frequency
	Metopium brownei		
Anacardiaceae	(Jacq.) Urb.	Goodwin, Z.A. s.n. (O)	Frequent
Arecaceae	Cocos nucifera L.	Goodwin, Z.A. s.n. (O)	Occasional
	Thrinax radiata Lodd. ex		
Arecaceae	Schult. & Schult. f.	Goodwin, Z.A. s.n. (O)	Frequent
	Bursera simaruba (L.)		
Burseraceae	Sarg.	Goodwin, Z.A. s.n. (O)	Frequent
Chrysobalanaceae	Hirtella americana L.	Goodwin, Z.A. s.n. (O)	Rare
Fabaceae			
(Caesalpinioideae)	Caesalpinia sp.	Goodwin, Z.A. 1643 (V)	Occasional
Fabaceae (Faboideae)	Crotalaria sp.	Goodwin, Z.A. 1638 (V)	Rare
Fabaceae	Pithecellobium keyense		
(Mimosoideae)	Britton	Goodwin, Z.A. 1634 (V)	Occasional
Lauraceae	Unknown sp.	Goodwin, Z.A. 1637 (V)	Rare
Malvaceae	Guazuma ulmifolia Lam.	Goodwin, Z.A. s.n. (O)	Frequent
	Hyperbaena winzerlingii		
Menispermaceae	Standl.	Goodwin, Z.A. 1641 (V)	Rare
Moraceae	Ficus sp.	Goodwin, Z.A. 1636 (V)	Frequent
Myrtaceae	Eugenia sp.	Goodwin, Z.A. 1632 (V)	Occasional
	Picramnia antidesma		
Picramniaceae	Sw.	Goodwin, Z.A. 1628 (V)	Abundant
Polygonaceae	Coccoloba sp.	Goodwin, Z.A. 1646 (V)	Abundant
Polygonaceae	Coccoloba sp.	Goodwin, Z.A. 1629 (V)	Occasional
	Coccoloba uvifera (L.)		
Polygonaceae	L.	Goodwin, Z.A. s.n. (O)	Rare
Pteridophyta	Unknown sp.	Goodwin, Z.A. 1642 (V)	Rare
Rubiaceae	Hamelia patens Jacq.	Goodwin, Z.A. s.n. (O)	Rare
Rubiaceae	Psychotria sp.	Goodwin, Z.A. 1631 (V)	Occasional
	Pouteria campechiana		
Sapotaceae	(Kunth) Baehni	Goodwin, Z.A. s.n. (O)	Frequent
	Pouteria sapota (Jacq.)		
Sapotaceae	H.E. Moore & Stearn?	Goodwin, Z.A. 1635 (V)	Occasional
Unknown	Unknown sp.	Goodwin, Z.A. 1640 (V)	Frequent
Unknown	Unknown sp.	Goodwin, Z.A. 1644 (V)	Occasional
Unknown	Unknown sp.	Goodwin, Z.A. 1645 (V)	Rare
Unknown	Unknown sp.	Goodwin, Z.A. 1633 (V)	Rare
Verbenaceae	Citharexylum sp.	Goodwin, Z.A. 1630 (V)	Frequent

#### **Acknowledgements**

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#### **Futher Reading**

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## PART 4: Lot designations from all field seasons through to 2010

Lot #	Date	Op#	Area/ Str. #	Description
MG0001	1986	N/A	Str. 12	Looters' backdirt, N (front) face hole, Str. 12
MG0002	1986	N/A	Str. 18	Burial 18/1 (vessel)
MG0003	1986	N/A	Str. 12	Core in looters' pit area, N. face Str. 12, upper stratum
MG0004	1986	N/A	Str. 27	Looters' pit into core, Str. 27
MG0005	1986	N/A	Str. 28	Looters' pit into core, Str. 28
MG0006	1986	N/A	Str. 28	Surface, scraped at S. face of Str. 28
MG0007	1986	N/A	Str. 27	Surface, scraped, at N. face of Str. 27
MG0008	1986	N/A	Str. 28	Lower (undisturbed) portion of Str. 28 core, below looters' pit (MG-5); to old land surface
MG0009	1986	N/A		Faunal concentration, packed bed of charcoal and tiny fish bones beneath MG-8 in some places
			Str. 28	above MG-10
				"Old land surface"; layer of grey, sticky soil beneath MG-8 and MG-9. Small sherds, no large
MG0010	1986	N/A	Str. 28	shells, possibly some fish bones though these may be from above (1/2" sample sieved)
MG0011	1986	N/A	Str. 27	Undisturbed core in axial trench into N face of Str. 27
WIGOUII	1380	IN/ A	501. 27	Shallow (ca 15 cm below surface of MG-10) "pit" within MG-10 but includes some material from
				MG-8. Lots of bones, but earth is black as is MG-10. May just be lowest cms. of MG-8 where
MG0012	1986	N/A	Str. 28	surface of MG-10 was pitted or undulating.
MG0012	1986	N/A	Str. 12	Cache 12/1
MG0013	1986	N/A	Str. 12	Jade beads in stair core, Str. 12
MG0014	1986	N/A	Str. 28	Burnt clay stratum, test pit in Str. 28
MG0015	1986	N/A	Str. 12	Sherds from looters' pit in core of Str. 12 (relw/MG-1)
MG0017	1986	N/A	Str. 12	Yellow-brown lower (inner) core, Str. 12 ("salt-bed") strata; rel.w/MG-61)
MG0017	1986	N/A	Str. 12	Core of outermost platform construction, jStr. 11, capping masontry facing, at N. side
MG0019	1986	N/A	Str. 12	Cache 12/2
MG0020	1986	N/A	Str. 12	Sherds from upper soil in area of Cache 12/2
MG0021	1986	N/A	Str. 27	Lower "bone bed" stratum in Str. 27
	1300	1.4//		
MG0022	1986	N/A	Str. 12	Str. 12, material east of easternmost high riser in stair, excavated in vain searc h for stairside
MG0023	1986	N/A	Str. 28	Artificial separation of material from Str. 28 test pit below water level
MG0024	1986	N/A	Str. 12	Cache 12/3
MG0025	1986	N/A	Str. 12	Fragmentary (unreconstructable) jar from atop uppermost floor, Str. 12
MG0026	1986	N/A	Str. 12	Trench across top of Str. 12, surface to uppermost floor
MG0027	1986	N/A	Strs. 26-28	Surface at site perimeter in area of Strs. 26-28
MG0028	1986	N/A	Str. 11	Trench, W face of Str. 11, upper portion of core (+ surface)

MG0029	1986	N/A	Str. 11	Core at W side of Str. 11 (outermost phase)
MG0030	1986	N/A	Str. 11	Garbage dump at W side of Str. 11, in core of outermost phase
MG0031	1986	N/A	Str. 31	Surface, area SE of Str. 31
MG0032	1986	N/A	Str. 31	Front area of Str. 31
MG0033	1986	N/A	Str. 31	Core of front portion of Str. 31
MG0034	1986	N/A	Str. 12	Burial 12/1
MG0035	1986	N/A	Str. 11	Core/refuse outside masonry faceing, S. side fo Str. 11
MG0036	1986	N/A	Str. 12	Core atop floor at N face of Str. 12 (floor that caps sea level; see section)
MG0037	1986	N/A	Str. 12	Material atop cap of "Great Pit", Str. 12
MG0038	1986	N/A	Str. 12	Material in cap above top stratum of Great pit, Str. 12
MG0039	1986	N/A	Str. 12	Material in top stratum of Great Pit, Str. 12
MG0040	1986	N/A	Str. 12	Core of structure atop lowerst floor beneath St. 12 (see MG-36)
MG0041	1986	N/A	Str. 12	Core of "salt-beds" levels, above MG=40
MG0042	1986	N/A	Str. 12	Material below "varve" stratum in Great Pit, Str. 12 (Probably not part of the pit)
MG0043	1986	N/A	Str. 12	Burial 12/3
MG0044	1986	N/A	Str. 12	Core below sea-level floor beneath Str. 12
MG0045	1986	N/A	Str. 12	Cache 12/4
MG0046	1986	N/A	Str. 12	Core above the top of the "salt-beds" stratum in Str. 12, beneath overlying floor (see section)
MG0047	1986	N/A	Str. 12	Core atop floor that caps MG-46
MG0048	1986	N/A	Str. 12	Core atop sea-level floor, in front (N) of Str. 12
MG0049	1986	N/A	Str. 12	Test pit N of Str. 12, to level of sea-level floor
MG0050	1986	N/A	Str. 11	Burial 11/1
MG0051	1986	N/A	Str. 27	Dark grey midden beneath "bone bed" in Str. 27
MG0052	1986	N/A	Str. 27	Lighter gray deposit beneath MG-51; charcoal, sherds, high sand
MG0053	1986	N/A	Str. 11	Core of uppermost stair, Str. 11, below level of topmost floor but not sealed by the floor
MG0054	1986	N/A	Str. 12	Material in upper part of Collapse Dome, Str. 12
MG0055	1986	N/A	Str. 11	White ash lens, Str. 11 (see section)
MG0056	1986	N/A	Str. 12	"Bag" of shells and dark soil just above gray layer over water table, Collapse Dome, Str. 12
MG0057	1986	N/A	Str. 12	Core of giant-riser stair, Str. 12
MG0058	1986	N/A	Str. 12	Cache 12/5
MG0059	1986	N/A	Str. 11	Burial 11/7
MG0060	1986	N/A	Str. 12	Core S of "salt beds", axial trench
MG0061	1986	N/A	Str. 12	Core of "salt beds", axial trench S of Collapse Dome, Str. 12
MG0062	1986	N/A	Str. 11	Material filling Burial 1 pit, Str. 11

N4C00C2	1000	N1 / A	C+- 11	Cana after atuations Stu 11
MG0063	1986	N/A	Str. 11	Core of top stratum, Str. 11
MG0064	1986	N/A	Str. 8	Core of Str. 8 (looters' pit)
MG0065	1986	N/A	Str. 16	Exterior of Str. 16, including small alleyway between this str. and Str. 45
MG0066	1986	N/A	Str. 45	Exterior and top surface of Str. 45
MG0067	1986	N/A	Str. 11	Material at E face, probably associated with inner (masonry) facing, Str. 11
MG0068	1986	N/A	Str. 11	Core below top floor series (Floors 1 & 2), Str. 11
MG0069	1986	N/A	Str. 11	Core below Floors 3 & 4, Str. 11
MG0070	1986	N/A	Str. 11	Core below bottom floor/surface (Floor 5), Str. 11
MG0071	1986	N/A	Str. 12	Exterior, S face of Str. 12
MG0072	1986	N/A	Str. 12	Top N portion of Str. 12, N of ends of floor chops, association unclear
MG0073	1990	N/A	Str. 12	Burial 12/6 (single vessel at L. knee)
		N/A		MG 501, give by Liz when she didn't have proper lot nos; probably equals 500 or 26 but separated because
MG0074	1990			here Floor I does not exist & includes all sherds down to Floor II.
MG0075	1990	N/A	Str. 12	MG 502; test pit down to old Early Classic floor in front of (N) Str. 12.
MG0076	1990	N/A	Str. 14	MG 503; Luis digging at base on N side of Str. 14, working towards structure, looking for face.
MG0077	1990	N/A	Str. 14	Bernardo & Jairo on S side of Str. 14, working towards base of structure; MG 504; looking for face.
		N/A		Str. 13 - material from looters' backdirt, mostly processing levels but the earlier and later processing levels
				are mixed; includes the processing pottery mostly, but 2 sherds of polychrome (+ probably stuff from
MG0078	1990		Str. 13	humus levels).
MG0079	1990	N/A		
				Str. 21, where Anne and Cathy are working in looters' pit - refers to older processing levels, whitish in color
				that I originally interpreted as a decomposed floor; interesting large polychrome sherd, overlain by
			Str. 21	yellower processing levels (see MG 90) (polychrome from here).
MG0080	1990	N/A	Str. 14	Surface stripping of Str. 14, N of trench divider line (Cathy & John).
MG0081	1990	N/A		Sherds from looters' backdirt dug on 4 June in process of clearing a path for stakes on S sides of Strs. 12 &
			Str. 12	14 (sherds mostly from Str. 12).
		N/A		4 June test pit to floor on N side of Str. 12 just at base of giant risers; this refers to Protoclassic midden
MG0082	1990		Str. 12	levels that start about at level of white floor 85 (see 227).
MG0083	1990	N/A	Str. 12	Burial 12/5 - juvenile - disturbed found in MG 26 on Str. 12.
MG0084	1990	N/A		Base of MG 26 right above N. edge of Floor I; Nicolas and Tino cleaning edge of Floor I.
MG0085	1990	N/A		
				"FLOOR" Cathy and I reached at water level in 1986; dug test pit down to it to find floor at beginning of
				season - just N. of east (lowest) stair riser on N. side of Str. 12 - below 75 & at same level as MG 82.
MG0086	1990	N/A	Str. 12	Decided to give Floor I a lot number. Uppermost floor in Str. 12.
MG0087	1990	N/A	Str. 12	Assigned to Floor II in Str. 12 (lower floor).

MG0088	1990	N/A	Str. 14	Burial (originally cache) 14/2 w/ small jar; grey, near putative top of stairs of Str. 14
MG0089	1990	N/A	Str. 12	N pit on Str. 12 dug through MG 87. (NE pit; = posthole)
MG0090	1990	N/A	Str. 13	Humus level - cleaning looters' backdirt - mostly humus but all mixed
MG0091	1990	N/A	Str. 12	General surface finds
MG0092	1990	N/A	Str. 15	Temporary for net sinker found E of Str. 15.
MG0093	1990	N/A	Str. 21	"Level II" - yellow processing levels - over white ash levels - MG 79.
MG0094	1990	N/A	Str. 14	11 June - Cleaning surface of Str. 14 on W end, S side (Josh and Anne) (94 &95 = 77?).
MG0095	1990	N/A	Str. 14	11 June - Next layer down from 94. Experiment to see if there is a difference between uppermost layer and lower hummus (S side).
		N/A	50.14	and lower hammas (5 side).
MG0096	1990	IN/A	Str. 14	Cache 14/1, Middle Postclassic jar that Edberto accidentially damaged with machete; in Lot 80 core.
MG0097	1990	N/A	Str.14	Burial 14/1; adult, no skull, assoc. w/ chert biface.
MG0098	1990	N/A	Str. 14	94 & 95; cleaning structure on W end, N side (Nick did this deeper) (98=80?)
MG0099	1990	N/A	Str. 14	Not excavated at time of writing - area at W end of surface.
MG0100	1990	N/A	Str. 14	Four perforated teeth assoc. w/ Burial 14/3.
MG0101	1990	N/A	Str. 14	Perforated shell disc assoc. w/ Burial 14/4.
MG0102	1990	N/A	Str. 14	Material associated with Burial 14/5.
MG0103	1990	N/A	Str. 14	Small lobed pot associated with Burial 14/6.
		N/A		Same as 77 (&80) but approaching E end of Str. 14 where it meets Str. 12. MG 104 is 1st 10 cm or so on S
MG0104	1990		Str. 14/Str. 12	side of Str. 14, where Bernardo began.
MG0105	1990	N/A	Str. 14	Same as MG 80, approaching E end of Str. 14 where it meets Str. 12. MG 105 is N side of Str. 14.
MG0106	1990	N/A	Str. 14	Cache 14/2; stingray spines, Marginella discs, and nacre discs.
MG0107	1990	N/A	Str. 14/Str. 12	Zone between Strs. 12 & 14 - Tino working on June 14 - area further E of MG 105 which he was working on on June 13th.
MG0108	1990	N/A	Str. 14	Surface finds from Str. 14.
MG0108	1990	N/A	Str. 14	Cache 14/3; Fine orange vessel.
10100109	1990	N/A	50.14	Area just E of Lot MG 107. Area is extreme W section of Str. 12 on N side of building (W face of Str. 12 -
MG0110	1990	IN/A	Str. 12	Mariano).
MG0111	1990	N/A	00 ==	Frag of jadeite celt found in area where Pedro and Bernardo are bushing. Could be new building just S of
		.,,,	Str. 13	Str. 13.
MG0112	1990	N/A	Str. 14	Spondylus beads assoc. with Burial 14/9.
MG0113	1990	N/A	Str. 14	Arbitrary level given to W end of building on the S side. Lot below MG 95; Str. 14.
MG0114	1990	N/A	Str. 14	Arbitrary level given to W end of building on the N side. Lot below Mg 98; Str. 14.

MG0115	1990	N/A		Below MG 105; E end of Str. 14, just inside line of stones (face) ca 15-30 cm BELOW SURFACE (N side of
			Str. 14	building).
MG0116	1990	N/A	Str. 14	Oliva shell, center perforation, assoc. with Burial 14/10.
MG0117	1990	N/A	Str. 14	2 bone tubes ("flute"), shell earrings, jaguar teeth, associated with Burial 14/11.
		N/A		Northeast pit- thought at first to be a burial, but yielded carbon only (one of 4 postholes) (same as MG 89!
MG0118	1990		Str. 12	Error in assigning another lot).
MG0119	1990	N/A	Str. 14	Human bones found under old Datum E (no burial no. yet) - now Burial 14/12.
MG0120	1990	N/A	Str. 12	N side of structure where Mariano cleaning around risers (Include with 124).
MG0121	1990	N/A	Str. 12	Pit south side at W end of Str. Excavated by David Pendergast (southwest pit - posthole).
		N/A		Below MG 104 E end of structure just inside line of stones on S side of building. MG 122 = MG 115 ca 15-
MG0122	1990		Str. 14	20 cm below surface.
MG0123	1990	N/A		Arbitrary lot for artifacts without lot numbers.
		N/A		22/9/90 Str. 12; Mariano digging between risers of stair on N side, from surface down; see 147 (between
MG0124	1990		Str. 12	upper 2 risers).
MG0125	1990	N/A	Str. 14	Pottery sherd associated with Burial 14/13 (+ modified shell w/hematite).
MG0126	1990	N/A	Str. 14	Burial 14/7 - 2 jaguar canines.
MG0127	1990	N/A	Str. 14	Burial 14/15 - orange Chichen vessel.
MG0128	1990	N/A	Str. 14	Burial 14/16 - red-necked jar.
MG0129	1990	N/A		Below 77 - furthur cleaning of lowermost battered terrace face on S side of building platform (see 157
			Str. 14	also).
		N/A		
MG0130	1990		Str. 14	West Str. 14, below 114. Removal of hard layers exposed in 114, covering N half of area (Nick).
MG0131	1990	N/A	Str. 14	Southern equivalent to 130.
MG0132	1990	N/A	Str. 14	Small number of sherds from root hole (?) through floor 4 just E of cut for Burial 14/7.
MG0133	1990	N/A	Str. 14	Burial 14/17 - Jar with 2 opposing perforations in wall.
		N/A		Josh's W end, large upsidedown jar found by Nick; has medial ridge, seems to have been sealed by 1st
MG0134	1990		Str. 14	(uppermost floor but cut through the next floor).
MG0135	1990	N/A		Southeast corner of Str. 14 - near base of structure. Tino excavating, June 27 1990 - became "alley"
			Str. 14	between Strs. 14 & 112 (overlsin by 110; some 107).
MG0136	1990	N/A		Digging off Floors I & II down to Floor II - below lot 80; Grid 25/9 and 25/8 to 13/9 and 23/8.
MG0137	1990	N/A		
				Same as 114 on Str. 14 - Nick excavating in Josh's area just W of baulk on N side to very edge of floor
			Str. 14	surface of latest phase - good remains here seem to extend to uppermost terrace surface.
MG0138	1990	N/A	Str. 14	Posthole with tripod dish (2 sherds) - at base of Burial 14/1.
MG0139	1990	N/A	Str. 14	Fill of pit just S of Burial 14/13 ("headless") dug at level of highest floor, Floor I.

		N/A		
		'''		Same as 130 but pit-like area on N side of excavated zone with large conch shells; at time of recording not
MG0140	1990			certain of nature of pit or from what level it was dug, or whether it is a pit or not.
MG0141	1990	N/A	Str. 14	Obsidian blades and sherds associated with Burial 14/19.
MG0142	1990	N/A	Str. 14	Sherd associated with burial 14/18, + shell at S end.
MG0143	1990	N/A		Rock-filled hole - p.h at E side of Str. 14; area of multiple p.h.'s (between 21-22W & 6-7N) -see Bk. 2, p.
		,	Str. 14	60.
		N/A		Cleaning soil (remains of MG 77-80?) off various floor surfaces of Str. 14. This is in area of "Floors" 3 & 4
MG0144	1990		Str. 14	where Cathy planned - S side = 194.
MG0145	1990	N/A		General surface collection from the site. (Material which had been collected and left on old lunch area
			Str. 12/Str. 14	between Strs. 12 & 14).
		N/A		Josh-hole feature on W side of excavated floor (highest decently preserved surface, at least) - has portion
				of pedestal-base censer in hole- possibly posthole, though sides are not smooth but faceted as from tools.
MG0146	1990		Str. 14	Context is 131.
MG0147	1990	N/A	Str. 12	Mariano digging in back (S of) lowermost stair riser; see MG 124.
		N/A		Same as 124, 147. Given to area below risers 2 and 3 but only on last day of digging it! Other material is
MG0148	1990		Str. 12	with 124. Separated because of presence of obsidian and SSNP.
MG0149	1990	N/A	Str. 14	Two classic dishes; top dish is bottom up - infant burial in center of bottom dish.
MG0150	1990	N/A	Str. 14	Material found around Burial 14/20; seeds, fish bone, and sherds.
MG0151	1990	N/A		
			Str. 12	Rock-filled hole through plaster in NW corner of building surface - see C/16/24-29 & BW/5/1-3.
MG0152	1990	N/A		
MG0153	1990	N/A		
MG0154	1990	N/A		
MG0155	1990	N/A		
MG0156	1990	N/A	Str. 14	Posthole (?) near E end of building between 20/7 and 20/8 and 21/7-21-8; see plan.
MG0157	1990	N/A		Beneath 129 but in restricted area; starts about 10 cm below ground surface just at rocks - clearing
				collapse off of lower terrace face on S side. (probably duplicated by 193). Starts at ca 21W and runs E to
			Str. 14	limit of excavation at just beyond E face of Str. 14
MG0158	1990	N/A	Str. 14	S side - beneath 77 - Tino cleaning collapse off uppermost face on S side.
MG0159	1990	N/A		not used.
MG0160	1990	N/A		Cathy at E end of transect Op 6.
MG0161	1990	N/A		Cathy at E end of transect Op 6.
MG0162	1990	N/A		Cathy at E end of transect Op 6.
MG0163	1990	N/A		Cathy at E end of transect Op 6.
MG0164	1990	N/A		Cathy at E end of transect Op 6.

MG0165	1990	N/A		Cathy at E end of transect Op 6.
MG0166	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0167	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0168	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0169	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0170	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0171	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0172	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0173	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0174	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0175	1990	N/A		Edberto & Josh at W end of transect Op 7.
MG0176	1990	N/A	Str. 14	Sherds &c from graves of Burials 14/10 and 15 (fill).
MG0177	1990	N/A	Str. 14	Fill of Burial 14/21.
MG0178	1990	N/A		Stuff stomped into Floors 1/2.
MG0179	1990	N/A	Str. 14	Sherds from grave fill, Burials 14/11 & 12.
MG0180	1990	N/A	Str. 14	Sherds from grave fill of Burial 14/17.
MG0181	1990	N/A	Str. 14	Material from surface of Floor 3 & from level of Floor 3 where no floor is traceable.
MG0182	1990	N/A		
MG0183	1990	N/A		
MG0184	1990	N/A		
MG0185	1990	N/A		
MG0186	1990	N/A		
MG0187	1990	N/A		
MG0188	1990	N/A		
MG0189	1990	N/A	Str. 12	Fill of NW pit, Str. 12 (=posthole). (Lots 182-188 not used).
MG0190	1990	N/A		Fill of PH; between W 23-W24 and N5-N6; actually lies over N5 line.
MG0191	1990	N/A		Fill of PH that cut into MG 156 on SW side; on line 7N + between 20 and 21 W.
MG0192	1990	N/A	Str. 14	Burial 14/23.
MG0193	1990	N/A		
				Cleaning lower face on S side; see 157 as the same; my error in giving 193 to lot that was already 157.
		N/A		See 144; cleaning E side of SS; Cathy finding floors at levels lower than Floors 1/2 - lips around PH's are ca
MG0194	1990		Str. 14	Floor 2 but we decided to go down to the best preserved floor.
MG0195	1990	N/A		Same as 77 and 80 - west trench to see the relationship between surface and terrace face - where Kitty
			Str. 14	and George were digging along W side of Str. 14.
MG0196	1990	N/A	Str. 12	Clearing off Floor 1 below where Efrain was working (center of building; above "red" floor).

MG0197	1990	N/A		
				Polished/worked piece of albite & jadeite found along trail beyond site perimeter by Edberto.
MG0198	1990	N/A	Str. 14	Burial 14/21 - associated plumbate vessel.
MG0199	1990	N/A		Bernardo - E end of transect Op 6 - 5th & 6th 10 cm levels.
MG0200	1990	N/A		Bernardo - E end of transect Op 6 - 5th & 6th 10 cm levels.
MG0201	1990	N/A	Str. 14	Material found in close proximity to Burial 14/20.
		N/A		Same as 77 & 113 clearing down terrace face - Lot is S of 131 - Josh's area on Str. 14 being cleared by
MG0202	1990		Str. 14	Efrain (check with Josh - below 95? - YES).
MG0203	1990	N/A		Artifacts from Posthole in square 27/4. Approx. coordinated 70 70 in square.
		N/A		Same as 194; Digging down to "Fred" but in area of trench on S side, Str. 14, where George is working with
MG0204	1990		Str. 14	Kitty, = 205 = 238.
MG0205	1990	N/A		Beneath 80 and in some areas beneath 76; given to area of axial trench as platform top reached & Pedro &
				Tony are moving in towards ceneter of structure looking for floors; Josh is also worked here, George too; a
				cath-all lot as it was difficult in this area to find floors - once edges were distinguished, finer distinctions
			Str. 14	were possible - includes dark earth core in stair.
		N/A		Beneath 157 (77/129/157/206). Cleaning off sloped or battered surface (that is, removing the stones) in
				one section of the lower terrace face on the south side of Str. 14 to reveal an earlier building phase, i.e., a
MG0206	1990		Str. 14	vertical terrace face. Section is near SE corner of Str. 14.
MG0207	1990	N/A	Str. 14	Burial 14/17 grave fill.
MG0208	1990	N/A	Str. 14	Burial 14/26.
MG0209	1990	N/A	Str. 14	Charcoal from burnt area in Floor 2 E of burial 14/21 cranium.
MG0210	1990	N/A	Str. 14	Ash &c from posthole N of Burial 14/21 (under multi-hole area dug by Josh).
MG0211	1990	N/A		
			Str. 14	W portion (Josh), below 131; given to deposit cleared to permit planning of stones and features.
		N/A		Pedro & Tony digging down at base of possible stair riser on N side of Str. 14, reached plaster floor
MG0212	1990		Str. 14	(outside (N of) stair).
MG0213	1990	N/A	Str. 14	Plaster floor that laps up onto stair riser, Str. 14.
MG0214	1990	N/A	Str. 14	Digging behind (S of) stair riser (that is core of stair) (see 228).
MG0215	1990	N/A	Str. 14	"Crypt" on W side of Str. 14 - Kitty.
		N/A		Same as 135 but we jumped to N side & Edberto is looking for NE corner + cleaning area between Strs. 14
MG0216	1990		Str. 14/12	& 12 below 110 - goes all around corner of N terrace face. (see 237).
MG0217	1990	N/A	Str. 14	Beneath 206; cleaning down to base of lower terrace face, down to floor.
		N/A		
MG0218	1990		Str. 14	Floor on which low terrace (vertical) face rests - turns out not to be floor at base of face, but an addition.
MG0219	1990	N/A	Str. 14	Burial 14/27. (Jar).
MG0220	1990	N/A	Str. 14	Pit in Fred floor, Str. 14, E of Burial 14/27 (drummer figurine; Cache 14/4).

MG0221	1990	N/A		Op 6 - Mariano digging down through midden to BR in E periphery; below MG 200.
MG0222	1990	N/A		Op 6 - below 221, Mariano digging in white sand.
MG0223	1990	N/A	Str. 14	Pit in center of trench, David's 2nd figurine - cache area on N side of trench (Cache 14/5).
MG0224	1990	N/A	Str. 14	Same as 202; Efrain on W side nearing NW corner looking for upper terrace face.
MG0225	1990	N/A	Str. 14	Artifacts from fill pit in Fred floor (Str. 14) (same pit as figurine MG 220; Cache 14/4).
MG0226	1990	N/A	Str. 14	Pit in center trench (cache 14/5) artifact associated with whistle figurine.
MG0227	1990	N/A		Op 4 - test pit at base of riser to earlier floor. Below MG 82 but actually has some material from 82.
				Whitish sand beneth 82, presumably as we are nearing bedrock.
		N/A		Stair on N side, core; below 214; sherds from processing levels in stair core; much from this deposit has
MG0228	1990		Str. 14	been included in 214, above 229 (grey clay).
MG0229	1990	N/A	Str. 14	Stair core; below 228; bits of sherds from grey clay below processing levels (214/228/229).
MG0230	1990	N/A	Str. 14	Stair core/platform core/digging at interface of platform surface and stair N of 205; S of 76 and below 76; between 25/13 and 25/11; digging remains of surface soil and collapse; really mixed as no clear stone alignments visible; mixed hummus and processing levels (76/230 205).
MG0231	1990	N/A		Op 4; (82/227); this mixture of 82 and 227; Mariano I think dug below water level in areas that included 82, and other areas in the white sand.
		N/A		Below 135- Southeast corner near base- Estevan working checking to see if lower vertical terrace face
MG0232	1990		Str. 14	continues eastward; does not, but battered face does.
MG0233	1990	N/A		Right at northeast corner - Efrain now moving eastward from corner. This includes all material up to
			Str. 14	stairon N (see 266).
		N/A		David sent Edberto & Mariano to sieve Postclassic midden near swamp periphery on path home; Str. 12
MG0234	1990		Str. 12	(looters' pit).
MG0235	1990	N/A		Imp!; Estevan digging down to base of upper terrace face on S side (behind lower face); lots of 9th-10th c
			Str. 14	ceramics.
MG0236	1990	N/A	Str. 16 (?)	Nicolas testing E of Str. 12; includes area skirting vertical stone face and cap from test area.
MG0237	1990	N/A		Continues 216, Luis continued along N "face" where Edberto left off. Found only collapse so moved farther
				S & encountered a true N face and followed it westward.
		N/A		Trench area of Str. 14, S side; = 204; but Josh cleaning mainly band along platform edge on S side at
MG0238	1990		Str. 14	junction with upper terrace face (see 269).
MG0239	1990	N/A	Str. 12	Contents of SW pit.
		N/A		Digging to find W face & following it northward; below 110; = 216 and just E of 216; however continues N
	1.00-			beyond limit of 110 + includes surface soil down; Late Postcl. Pottery; Mayapan-style pottery (censer?)
MG0240	1990		Str. 12	fragment.
MG0241	1990	N/A	Str. 14	Stair on N side; Edberto excavating outside stair on E side, that is along E stairside down to a surface.

MG0242	1990	N/A		
MG0243	1990	N/A		
MG0244	1990	N/A		
MG0245	1990	N/A		
MG0246	1990	N/A	Str. 14	Taking off Floor 4 in area of C. trench down to 5 (Lots 242-245 not used).
MG0247	1990	N/A		In level to 246; George taking away deposit that had only 1 "Crust" of Floor 4 in one small area; TD found
				instead with rocks that protruded slighty above level of 4 (at ca -97 BD at F) - dug in area between 25W
				and 26W and between ca 7N and 9N; between 7-8N a lower floor ringed by some stones found; between 8-
			Str. 14	9N is mostly TD and may be a cut.
MG0248	1990	N/A	Str. 14	Burial 14/28.
MG0249	1990	N/A	Str. 14	Burial 14/ 29.
		N/A		Same as 194 but near E "wall" feature where Cathy was digging postholes that seem to be part of a
MG0250	1990		Str. 14	dividing wall - digging down to "Fred" (see 257).
MG0251	1990	N/A		Estevan digging through 218 (which turns out to be base of lower terrace face) down to piso verdadero
			Str. 14	(254).
MG0252	1990	N/A	Str. 14	Contents of ash pit, centre trench.
MG0253	1990	N/A	Str. 14	George; fill of a hole in which 2nd tulip vessel was found (vessel with Burial 14/29).
		N/A		True Floor at base of lower terrace face on S side, Str. 14; below 251, which is below 218:
MG0254	1990		Str. 14	157/206/217/218/251/254.
MG0255	1990	N/A	Str. 16	Nicholas; below 236; in area of test pit, Str. 16.
		N/A		N side upper (inner) terrace face; after exposing a line that runs E/W, Mariano is digging down to find the
MG0256	1990		Str. 14	base of this face; 256 is below 237 (which runs to the surface) 237/256.
MG0257	1990	N/A		
			Str. 14	Cathy and postholes, below 250; digging away posthole area down to Fred to PH area overlies Fred.
MG0258	1990	N/A	Str. 14	N side; Efrain & Pedro, digging to find W stairside (from surface).
MG0259	1990	N/A		NW corner; Edberto moving in after Efrain traced the face and poking down to find base of face on W and
			Str. 14	N sides.
MG0260	1990	N/A	Str. 14	Below 256; see above; Mariano encountered a TD surface; 260 is below the TD (237/256/260).
MG0261	1990	N/A	Str. 14	Below 246; area of center trench; taking off Floor 5 down to 6.
MG0262	1990	N/A	Str. 14	Small PH through 6 - dug by Luis; see plan of Floor 6.
MG0263	1990	N/A	Str. 14	Big Posthole through Floor 6, dug by Luis; see plan of Floor 6.
MG0264	1990	N/A	Str. 16	Nick, Str. 16; below 255.
MG0265	1990	N/A		PH through Fred - see Bk 2, p. 84.
		N/A		Continuation of 233 but Ef has gone elsewhere & Edberto is digging here - moved into area which should
MG0266	1990		Str. 14	be above stair; trying to define stair & its W edge.
MG0267	1990	N/A	Str. 14	Kitty cleaning 6 to reveal next floor.

MG0268	1990	N/A	Str. 14	Fill of Burial 14/29.
MG0269	1990	N/A		Part of trench at junction with upper face; below 238; Josh examining levels of juncture between floors &
			Str. 14	stones of upper terrace face.
MG0270	1990	N/A	Str. 14	PH in Fred cleared by Cathy.
MG0271	1990	N/A	Str. 14	Luis cleaning PH on W side of SX trench, S of center between 8-7N; see plan.
		N/A		Luis cleaning on west side of SX trench down to 5 or its equivalent; PH area seems to be associated with
MG0272	1990		Str. 14	floor above & perhaps 4 & go through 5.
MG0273	1990	N/A		Posthole in Floor 7 or the trench, below directly, posthole in floor 6. Conch shells and chert lump.
MG0274	1990	N/A	Str. 14	Fill, burial 14/27.
MG0275	1990	N/A	Str. 14	Estevan's last job - digging SW corner of upper face looking for base - did not reach yet.
MG0276	1990	N/A	Str. 14	Efrain clearing around & inside crypt feature off W side.
MG0277	1990	N/A	Str. 14	Burial 14/30.
MG0278	1990	N/A	Str. 14	Burial 14/7 fill.
MG0279	1990	N/A	Str. 14	Burial 14/30 grave fill.
MG0280	1990	N/A	Str. 40	Surface collection from looted structure - looters' trench in Str. 40.
MG0281	1990	N/A		This is stuff that Anne labelled 147, but we are not sure that the material is 82; it looks like 82 but sine
				Mariano's 147 was on the other side of the lowermost riser, there may have been a quantity of Postcl. Sherds.
		00-9		Pass 1 EASTERN EDGE TEST PIT Surface to 20 cm (top of Conchs) Above 285. OP - 9 Originally to designate
MG0282	1992			0-20 cm but reached Conch so refers to layer above conch.
MG0283	1992	00-10	Str. 14	Pass 1 Str. 14 TEST PIT
MG0284	1992	00-11		Pass 1, OP 11, WESTERN TEST PIT Surface to 20 cm. Below: 0, Above: 286.
1460205	4003	00-9		Pass 2, Layer of conch and assorted shell at depth of approx. 10-25 cm below surface. Below: 282, Above:
MG0285	1992	20.11		290. Goes deeper than 25- ca. 40 cm.
MG0286	1992	00-11	_	Pass 2, Approx. 21-40 cm. Below 284, above 287.
MG0287	1992	00-11		40-60 cm, Below 286, above 289. Lots of conch; see book; also includes 60-80 cm
MG0288	1992	00-10		Pass 2, 10-40 cm deep, south end of square: 40 cm, north end of square: 10 cm.
MG0289	1992	00-11		Below 287, 80 -> 100
MG0290	1992	00-9		Below 285, Above:; Level of sticky earth below conch/sherd midden; starts at 40 cm below ground surface.
MG0290 MG0291	1992	00-9		
			+	0-20 cm. Edberto in grove of Gumbo limbo.
MG0292	1992	00-10		Continuation to N of original pit, same as 283 and 288; slightly less than 40 cm. Ca. 0-30-40 cm.
MG0293	1992	00-10		Continuation to North of original pitt, below 292. South end of pit 20 cm deep, north end of pit starts 30 cm deep.

MG0294	1992	00-9		Below lot 290, starts 60 cm below surface.
MG0295	1992	00-12		Below lot 291, starts approx. 25 cm down.
MG0296	1992	00-9		Below lot 294, starts at 90 cm.
MG0297	1992	00-10		Below lot 293, starts 50 cm down - area now totally rock and shell.
MG0298	1992	00-9		Below lot 296 - approx 1 m below surface, white sandy clay.
MG0299	1992	00-12		Tierra dura and below - lot 295 above this level.
MG0300	1992	00-10		South area, 50 cm by 50 cm in North Square, grey clay level area restricted by rock.
				South area, 50 cm by 50 cm in North Square. Starts 124 cm down (from datum line #2 on section) - water
MG0301	1992	00-10		level with white sandy clay. Munsell = 10 yr 3/2.
				Sherds picked up along new road between Ruben's house and new houses of Reef Realty; not really MG;
MG0302	1992			most are v. blackened; seem burned and have tannin stains.
MG0303	1992	00-10		White possible construction level below 301. OP 10: on drawing below grey/postclassic sherds.
MG0304	1992			Beige clay level, below 303 - lots of fish bone.
				22 June 2010; Found Sp bag with sherds labelled R. Woods. Int. & ext. glazed sherds from Alijua Bldg.
MG0305	2010			Other 2, Beach, SP.
MG0306	2010	10-2	Behind Str. 12	Test pit for 100. Mike and Jake; 24 June. 0-15 cmbs. PAA
MG0307	2010	10-3	Str. 14	Structure 14, north side; cleaning north fac e on E. side of C. trench; Alicia, Nora; 24 June. 0-
				Structure 14, S. side, cleaning south 'face' at western end of structure. Gavin,, Miles, Jordan and Caitlin;
MG0308	2010	10-5	Str. 14	24 June
				Decayed remains of former floors plus PAA (cont's from 1990 exposure), S. side, top of Structure.
MG0309	2010	10-3	Str. 14	Elizabeth, Kenda and Mandy; 24 June.
				Architectural clearing of giant stair risers on N. side (originally lowest stair riser but now subsumes all).
MG0310	2010	10-1	Str. 12	Amy; 24 June.
	2040	10.4		
MG0311	2010	10-1	Str. 12	Structure 12, area north of second stair riser. IE - area between 1st and 2nd stair riser. Jenny; 24 June.
MG0312	2010	10-1	Str. 12	Structure 12, area north of 3rd stair riser, or area between 2nd and 3rd stair risers; 24 June.
MG0313	2010	10-1	Str. 12	Surface collection, area immediately north of structure 12.
MG0314	2010		Str. 14	Surface collection on and around platform. PAA
				Structure 14; N. side central trench; All material from upper level digging down to salt processing. PAA in
MG0315	2010	10-6	Str. 14	some areas plus backfill from 1990
MG0316	2010	10-4	Str. 14	Structure 14; W. side clearing down 1st 10-20cm. PAA
		1		Below MG 315 at S end of trench- digging down ca. 10-15 cm. Mistakenly given 316 but should be 317.
MG0317	2010	10-6	Str. 14	Begins at level of salt processing deposits
MG0318	2010	10-2	Behind Str. 12	Op 10-2 Beneath 306, "toilet" pit - begun at point of clearing rocks.
MG0319	2010	10-7	Str. 13	Upper level; ca. 15-20 cm. PAA

MG0320	2010	10-3	Str. 14	Burial 14/32, primary lot
MG0321	2010	10-1	Str. 12	Str. 12, N side below 313, largely outside structure in presumed plaza area where structure faces
MG0322	2010	10-8	Strs. 12/14	Strs. 12, 14 between structures. Top level. Paa and possible fill/core
MG0323	2010	10-3	Str. 14	Burial 14/32 fil (deposit from around burial). Most material including spindle whorl is from E of the burial.
MG0324	2010	10-4	Str. 14	Below MG 316, arbitrary. Rachael & Gavin.
MG0325	2010	10-6	Str. 14	Below MG 317 salt processing levels
MG0326	2010	10-2		Below 306, in toilet pit - area of pit extension; salt procesing levels.
MG0327	2010	10-6	Str. 14	ASH LEVEL at same depth as MG 325. Does not show in east section; backfill from 1990?
MG0328	2010	10-8	Str. 14	Architectural clearing of (uppermost?) terrace face, NE corner; also includes some material from between the structures; below MG 322, that is possible core material deliberately deposited between structures (see notes)
MG0329	2010	10-4	Str. 14	Clearing of West half of platform surface from upper edge of South side terrace face (Op 10-5) (and presumed edge of building platform) moving north across area of floor surfaces; PAA; equivalent to MG 316
MG0330	2010	10-4	Str. 14	Beneath MG 316 in NE 2x2 m square. PAA, decayed floor surfaces. Miles and Alicia.
			30.14	Below MG 326 in 'toilet pit'; beneath brickotage, hit water level; soil texture changed to clayey soil. Not clear from notes whether MG 331 include clay beneath the white 'floor'; should include lower processing
MG0331	2010	10-2		levels.
MG0332	2010	10-3	Str. 14	Burial 14/33; primary lot
MG0333	2010	10-3	Str. 14	Burial 14/34; primary lot
MG0334	2010	10-1	Str. 12	Below MG 321. Apparently still PAA. Roxanne & Amy  Equivalent to MG 306, first 10-15 cms of SW extension of 'toilet pit'. PAA in 1x1 m extension. Mikey,
MG0335	2010	10-2		Leanna and Alice Gomer
MG0336	2010	10-1	Str. 12	Below MG 334. Arbitrary as soil remains black and root disturbed. Roxanne & Amy
MG0337	2010	10-3	Str. 14	Fill of Burial 14/33. Not primary to the burial
MG0338	2010	10-1	Str. 12	Below MG 336, Str. 12 plaza area (abutting Str. 12); clearing down to sand area or patch (top of processing levels)
MG0339	2010	10-8	Str. 14	architectural clearing of terrace face in area of NE corner. Kyle excavating below Strs. 14 & 12 but then moving to clear terrace face of Str. 14. MG 328 also has sherds from here. MG 328, however, was meant to apply to posible core behind the face we discovered that connected Str. 12 to Str. 14 but it got used for architectural clearing as well. So MG 339 = MG 328.
MG0340	2010	10-3	Str. 14	equivalent to MG 309 in area of Burials 33, 35, 36 & 37 - extending excavation into baulk on east side.
MG0341	2010	10-3	Str. 14	primary lot for Burial 14/35.

				notes say clayey deposit in 'toilet pit' below MG 326 but as this lot applies to the clayey deposit below
MG0342	2010	10-2		water level it is beneath MG 331
MG0343	2010	10-1	Str. 12	below MG 328 clearing at level of sand patch (processing level). Amy & Roxanne
MG0344	2010	10-8	Str. 12	clearing NW corner of structure. Luis.
MG0345	2010	10-4	Str. 14	extension (to east) of Burial 14/34; 50x80 cm. Gavin, Leanne & Rachael.
MG0346	2010	10-3	Str. 14	primary lot for Burial 14/37
MG0347	2010	10-7	Str. 13	core of lowermost stair riser
				below MG 343, excavating processing level of orange fired deposit of sand, tiny sherds, possible lime-
MG0348	2010	10-1	Str. 12	making debris(?); largely in north side of test pit or at least higher here.
				deposit that constitutes probable fill of a pit into which large rocks were placed; very ashy grey with shell
MG0349	2010	10-1	Str. 12	bits; below MG 336?
MG0350	2010	10-3	Str. 14	lot given to shell (horse coch or shank) taken from 3 shells shown on plan
MG0351	2010	10-3	Str. 14	primary lot for Burial 14/36
MG0352	2010	10-3	Str. 14	Burial 14/35; fill; refers to material found in proximity of burial but not primary
MG0353				
MG0354				
MG0355				
MG0356				
MG0357				
MG0358				
MG0359				
MG0360				


# PART 5: Summary of Artifact Counts by Lot, 2010 Field Season

#### Summary of Artifact Counts by Lot, 2010 Field Season, Marco Gonzalez, Belize

#### Lot Number

#### **Material Type**

	Ceramic sherds	Notched Sherds	Perforated Sherds	Chert	Bone	Obsidian	Shell	Stucco/ Plaster	Charcoal Samples	Historic Artifacts	Special Ceramics	Small Finds	Quartz/ Quartzite	Teeth	Copper	Slate	Metamorphic	Glass	Concretions	Daub	Metal
MG 306	2739	33	0	74	145	16	682	0	0	0	0	3	0	1	0	0	0	0	0	0	0
MG 307	56	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MG 308	382	3	1	14	32	3	25	0	0	2	0	0	0	0	0	0	1	0	0	0	0
MG 309	136			17	90	3	5	0	0	1	1	0	1	1	0	0	0	3	0	0	1
MG 310	0			0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	0	0	0
MG 311	300			129	380	7	32	0	0	171	6	13	5	2	0	0	0	9	4	0	3
MG 312	65			66	22	22	2	0	0	13	0	13	0	2	0	0	0	76	2	0	42
MG 313	24			10	37	2	2	0	0	2	1	2	0	0	0	0	0	2	0	0	5
MG 314	83			9	5	2	0	0	0	5	1	2	0	0	0	0	0	1	0	0	7
MG 315	390			99	230	6	32	2	0	1	7	12	3	1	0	0	0	0	16	0	1
MG 316	136			45	17	1	1	0	0	5	7	6	0	0	0	0	0	6	1	0	6
MG 317	57			29	19	5	3	0	0	9	1	7	2	0	0	0	0	22	2	0	17
MG 318	81			27	39	1	7	0	0	27	0	7	2	0	0	0	0	47	26	0	21
MG 319	321			61	29	6	13	0	0	1	2	5	0	1	0	0	0	6	1	1	5
MG 320	67			16	12	4	1	0	0	3	0	1	0	0	0	0	0	2	0	0	1
MG 321	458			43	160	5	16	0	0	4	0	8	7	1	0	0	0	1	1	0	7
MG 322	33			22	30	2	0	0	0	16	0	3	0	0	0	0	0	18	0	0	13
MG 323	84			25	9	0	1	0	0	0	1	3	1	0	0	0	0	1	1	4	0
MG 324	712			121	315	6	76	2	0	0	22	26	1	1	0	2	1	1	1	1	0
MG 325	21			4	20	1	0	0	0	0	1	7	0	0	0	0	0	13	0	0	7
MG 326	- not exca	vated in 20	06 -																		
MG 327	372			41	118	4	5	1	0	0	8	17	2	2	0	0	0	0	4	0	0
MG 328	48			15	20	0	0	0	0	0	1	3	3	0	0	0	0	4	0	1	2

MG 329	596			71	174	6	39	4	0	0	27	12	0	1	0	0	0	0	0	0	0
MG 330	78			14	16	0	5	0	0	0	1	0	0	0	0	0	0	0	0	1	0
TOTALS	7239	•	•	952	1927	102	947	9	0	261	89	153	27	13	0	2	2	213	59	8	138

Coral	Brickatage	Pumice	Ground Stone	Limestone (artifact)	Total Artifact Count
7	2	1	12	0	3715
0	0	0	0	0	65
0	0	0	9	2	463
					259
					7
					1061
					325
					87
					115
					800
					231
					173
					285
					452
					107
					711
					137
					130
					1288
					74
					574
					97

		930
		115