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# Coastal Maya Trade

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## CHAPTER 10

### BRIEF SYNTHESIS OF COASTAL SITE DATA FROM COLSON POINT, PLACENCIA, AND MARCO GONZALEZ, BELIZE

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This paper digresses from the central theme of the symposium, which is trade and exchange, to present some conclusions drawn from the work I have carried out at coastal sites in Belize. There are several general statements about coastal sites that can be made which may be of use in guiding future research. Not all of these statements relate directly to exchange, but all are concerned with the context within which coastal sites are studied, and in this way they are integral to various assessments of coastal activity through time, including studies of trade.

The bulk of the paper focuses on conditions that affect the stratigraphy and ecology of coastal sites. The complexity of coastal site historical trajectories cannot be overestimated; yet simplistic generalizations underlie many inferences drawn from coastal site data. For example, chronology often takes a back seat in the drive to generalize about lowland developments; or, we assume that all coastal sites functioned in similar ways. Maybe they did, but this must not be taken for granted.

No attempt has been made here to relate the ecological and geomorphological information to site activities because these relationships remain largely unknown except on the elementary level described herein. However, they are pivotal to our understanding of the kinds of activities carried out by the coastal Maya. My work in Stann Creek triggered doubts regarding the legitimacy of statements made about exchange functions involving coastal sites. My research at Marco Gonzalez will focus specifically on illuminating and defining the relationships between ecological changes and the way interpretations are made about site activities.

## SETTING

Coastal settings in Belize vary more than is apparent at first. Savanna vegetation predominates between river valleys in southern Belize and is characteristic of the environment of many of the lagoon systems. Coastal beaches are rare, but can be found along the Placencia peninsula and just south of Commerce Bight at Hopkins (Figure 10.5). Although the standard Caribbean travel poster setting exists on the cays, most of the archaeological sites in these settings are situated away from the swaying palms and cool savanna breezes and are found, instead, surrounded by mangrove swamp.

The vivid contrast in vegetation between the archaeological sites and the mangrove swamps surrounding them suggests that we should be taking a closer look at the rather drastic ecological changes wrought by the intensity of Maya utilization of the coast and cays in Pre-Columbian times. The recognition of these ecological changes is one of two pivotal observations relating to coastal archaeology. The other is that the nature of Pre-Columbian coastal activities was extremely diverse in both time and space. I will elaborate on these two observations by presenting some general statements about coastal sites which I hope will serve to stimulate discussion among those who focus on coastal site archaeology.

Rise in Sea Level

Although a rise in sea level has not yet been documented in the archaeological literature on the Belizean coast, the effects of sea level rise are apparent from submerged archaeological deposits (e.g. Andrews et al. 1988:200-201; McKillop 1987). Recent studies of the sedimentology and hydrology of the southern part of Ambergris Cay, conducted by S.J. Mazzulo and A. Reid (pers. comm. 1986, 1988) have documented a sea level rise of about .65 m from about A.D. 350 to present levels at about A.D. 1150. This means that Preclassic and very early Classic deposits are below present sea level. The implications are that we will have evidence of Preclassic occupation only at sites where occupation areas were well above what was then sea level, such as at Cerros. Alternatively, occupation debris may have escaped total submersion where Preclassic remains have been subject to ongoing shifts and redeposition through time, as appears to be the case at Colson Point.

### Accretion

The rise in sea level has been countered in many areas in Belize by sediment deposition. The implications of this phenomenon are crucial in any investigation of coastal site archaeology, because they mean that coastal sites and their environmental profiles, both spatial and temporal, must be assessed in relation to local conditions and processes. At Ambergris Cay, for example, the geological evidence strongly suggests that the shape of the southern tip of the cay, where the site of Marco Gonzalez lies, is the direct result of a rise in sea level accompanied by island progradation, or southward growth via sediment deposition (Figure 10.1).

A reconstruction of the processes of island formation relevant to Marco Gonzalez begins at Time I, prior to 2000 years B.P. during the Preclassic Period, when sea level was 0.65-1.0 m below present levels. Marco Gonzalez can be seen at the southern tip of the Ambergris land mass.

Time II is about 1600 years B.P. at the beginning of the Early Classic Period, when sea level was 0.35-0.65 m below present levels. Sea level rise has caused the drowning of low areas on the limestone surface of the cay, but accretion of sediments on the east and south sides has begun to change the relationship between Marco Gonzalez and the sea.

Time III is the present. Continued drowning of the cay's leeward side has been balanced locally by accretion of sediments and mangrove colonization, creating Marco Gonzalez as we know it today. The changes brought by sea level fluctuation can also be seen in profile (Figure 10.1): growth of surrounding swamps; elevation of groundwater level; and encroachment of brackish water.

Another example of the process of coastal accretion can be seen in the area of Colson Point, in the Stann Creek District (Figure 10.2). Sedimentation along the coast seems here, too, to have encouraged the colonization of mangrove. The two Colson Point sites--Watson's Island and Kakalche--like Marco Gonzalez, were probably surrounded by more open environments in the past, and may have been cays. Some support for cay status comes from the fact that coral sand was reportedly encountered about 1.2 m below the submerged mangrove roots on the east side of Watson's Island,



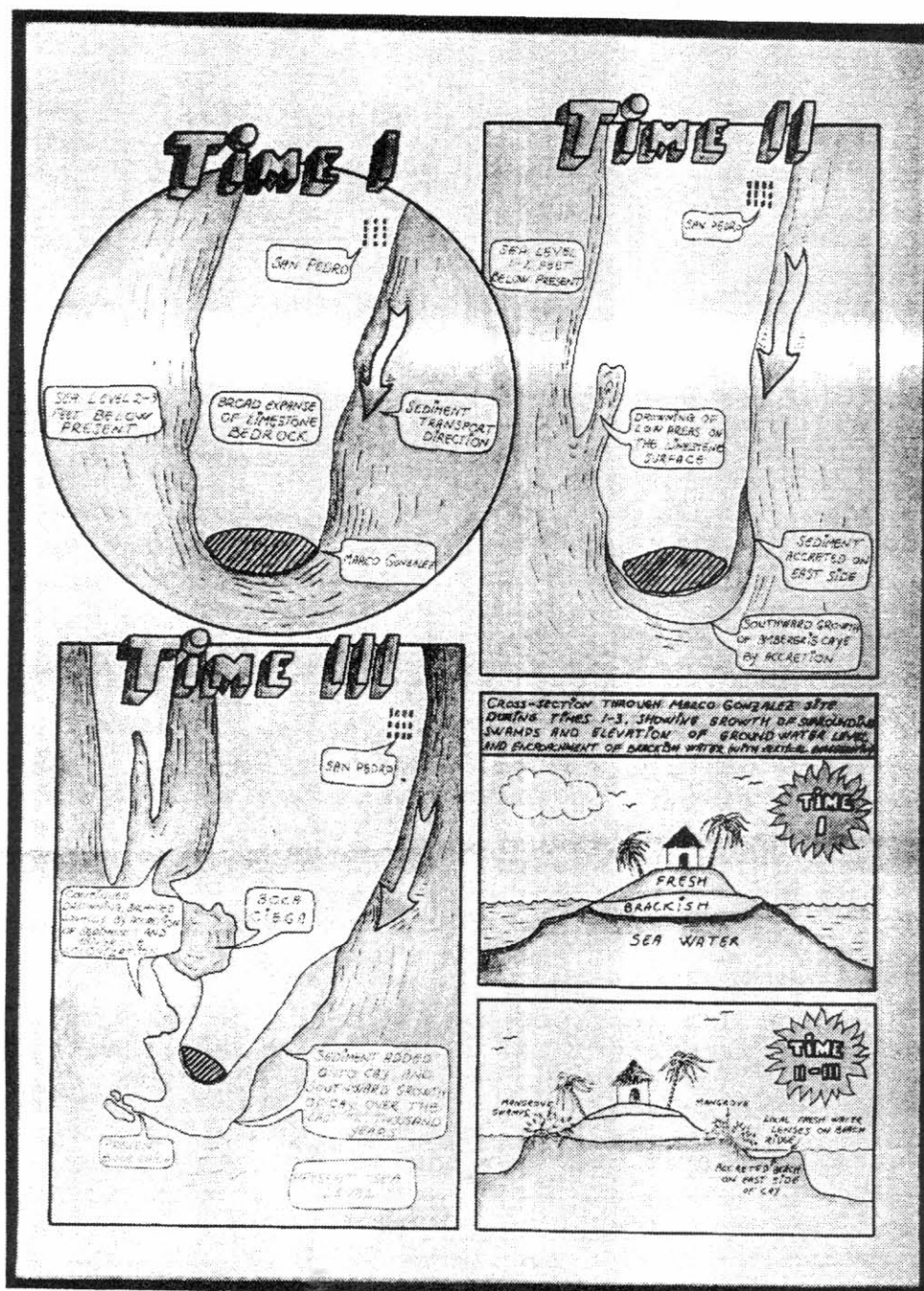


Figure 10.1: A Reconstruction of the Effects of a Rise in Sea Level and Sediment Deposition at the Southern Tip of Ambergris Cay. Time span sometime between 6000 to 4000 years B.P. and the present. (Adapted from Mazzullo and Reid, pers. comm. 1986).

where a canal was dug sometime prior to 1975.

#### Changes in Coastal Ecology Brought About by the Maya

Maya utilization of the cays and coast has unquestionably altered the nature of soil formation as well as the vegetation pattern. The vegetation characteristic of Maya sites can be clearly distinguished in air photographs and serves as an aid in locating sites (Figures 10.2-10.3). The organic debris left behind by the Maya, largely shellfish and fish remains, seems to have been enough to bring about significant alteration of soil development processes and nutrient availability. The communities of plants that subsequently colonized coastal sites are freshwater, mainland species. In the Stann Creek District, sapote or sapodilla (Achras zapote) and the ceiba or cotton tree (Ceiba pentandra) signal ancient Maya use of the coast and cays. At the Marco Gonzalez site, their place is taken by gumbo limbo or chacah (Bursera simaruba) and black and white poisonwood (Metopium brownei and Cameraria belizensis). None of these species occurs naturally in mangrove swamp or littoral forest; they are only present because of the humus accumulation brought about by ancient Maya use of the land. In addition to the broadleaf trees, the altered soils can support root crops and other plants. What this suggests is that once such a soil profile had developed, the Maya would have been able to widen their subsistence base by planting edible crops in coastal or cay settings. Such conditions existed in some areas by Early Postclassic times (Graham 1983: 776-777) and possibly earlier at sites that had seen intensive Preclassic use.

The altered conditions of cay and coastal sites make it clear that in any studies of modern soil profiles, we must take into account the considerable effects the Maya had on soils as we see them today. For example, on a natural vegetation map of southern Belize (Wright et al. 1959) a patch marked by an arrow is described as "broadleaf forest moderately rich in lime-loving species" (Figure 10.4). However, there are virtually no limestone deposits in the district, the soils are generally acidic, and the natural vegetation is characteristically poor in lime-loving species. This particular patch encompasses the ancient Maya site of Kendal, where floor and building "plaster" was made from a kind of calcareous clay that can be found in some localized areas along the Sittee River. The material was used extensively in Classic Maya construction in the area. The modern soil in this

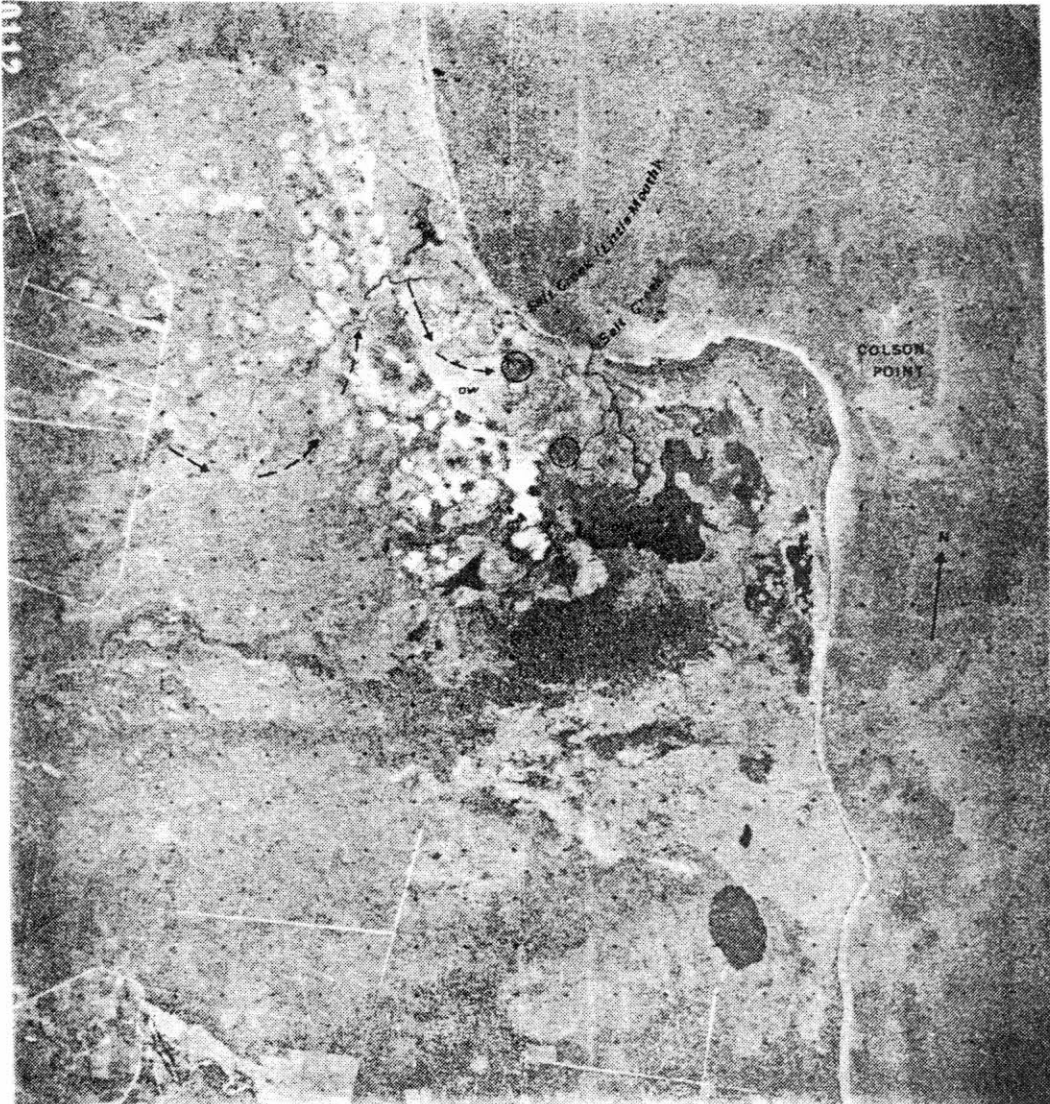


Figure 10.2. The Colson Point Sites, Kakalche (south) and Watson's Island at approx. 1:50,000. (Photo courtesy Directorate of Overseas Surveys, Surrey, England. Arrows indicate access route to sites).

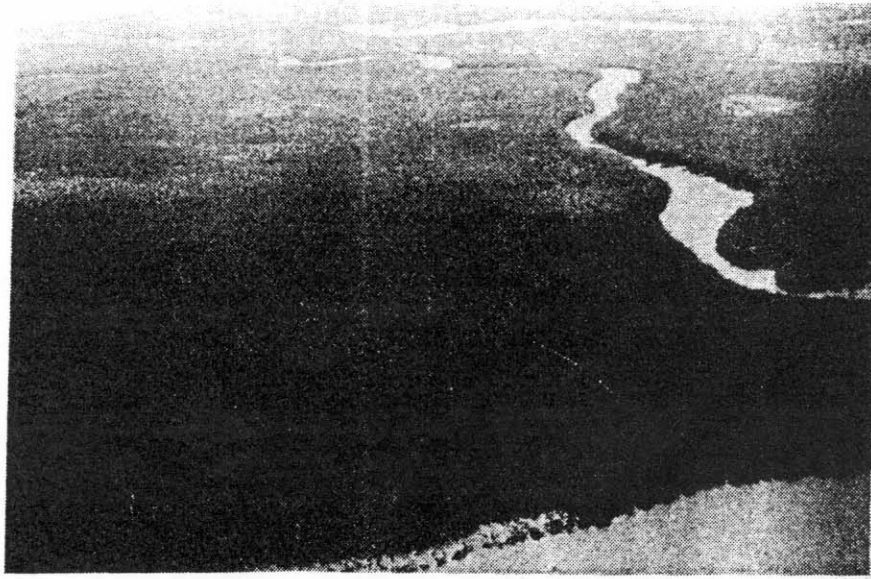


Figure 10.3. Aerial view of Kakalche, Looking Northeast. The site is planted in coconut. The surrounding vegetation is red and white mangrove. Salt Creek flows to the Caribbean just east (to the right) of Kakalche from a brackish water lagoon that can be seen at the base of the photograph.





Figure 10.4. Pattern of Natural Vegetation in Part of the Stann Creek District, Belize. Arrow denotes area discussed in the text. (Adapted from Wright et al. 1959, Natural Vegetation Sheet 2).



patch may have been enriched by erosion of Maya buildings, which permitted colonization by "moderately lime-loving species."

Many archaeologically oriented assessments of soil studies (e.g., Sanders 1977) draw a causal connection between the presence of modern, fertile, well-drained soils, such as the Kendal site example, and ancient Maya site selection. The Kendal, Marco Gonzalez, and Colson Point examples indicate that matters are far more complex than any one-way relationship between the occurrence of modern fertile or well-drained soils and ancient Maya settlement choices. Coastal sites may offer an advantage over inland sites in studies that attempt to sort out the relationships between people and their effect on the environment because the range of plant species that can grow in undisturbed coastal environments is much narrower than that for inland areas. If my assumptions are correct, coastal site soil and ecology studies can provide guidelines for studies of the relationships between modern vegetation and soil profiles and ancient agricultural land use at inland sites.

#### VARYING THE CONTEXTS OF INQUIRY

In order to learn as much as possible about the nature of coastal site utilization we must try to understand not only what makes the sites the same, but exactly what makes them different. This is best approached by varying the ways in which we compare and contrast coastal sites. As a group, coastal sites are linked because of the primary relationship between the setting and the access to marine resources. There is also the relationship between the setting and the ease of communication and transport which the sea provides. It is this latter relationship that stimulates discussion about coastal trade and exchange.

We can view the offshore cays together, since they are part of the ecology of the reef, and provided the Maya with the most direct access to the reef's resources. Within this category, however, there are the atolls, such as Turneffe, the cays that dot the reef edge, such as Ambergris Cay or the Sapodilla Cays, and the mangrove cays, such as Tobacco Range, inside the reef (Figure 10.5). Each of these offshore cay "zones" incorporates different environmental variables that were important to the Maya who were based there. The zones as I have drawn them were not the same in the past. A number of cays that now support only mangrove vegetation retained windward beaches in ancient times.

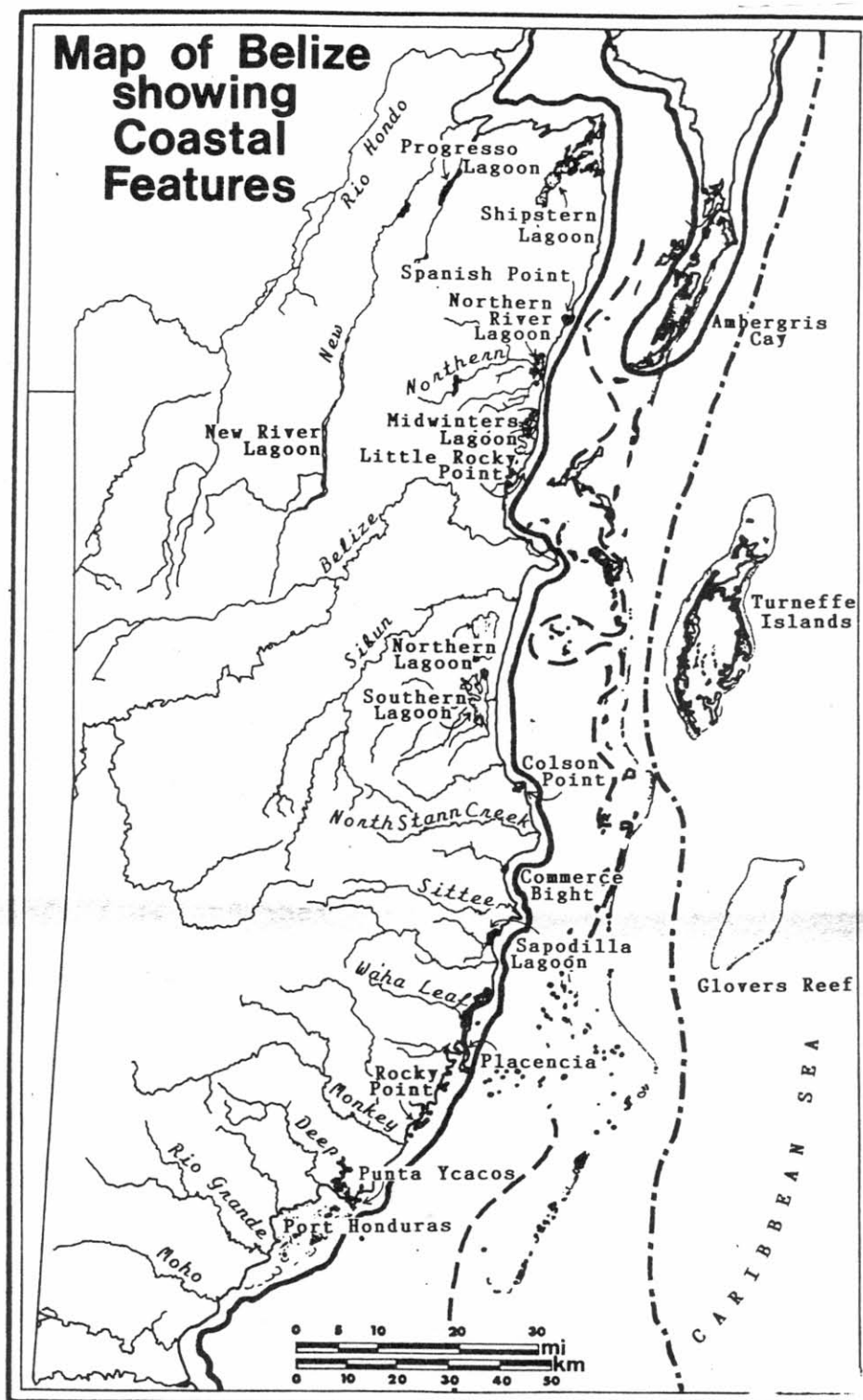


Figure 10.5. Coastal Features. dot and dash line separates atolls from other cays; dashed line separates offshore cays along the reef from mangrove cays; solid line separates offshore cays from inshore cays and mainland sites.

The near-shore cays and coastal sites were tied to the ecology of the local mainland environments and therefore must be studied as extensions of these environments. The coastal contexts of these near-shore cays made them subject to rising sea levels and coastal accretion, but mainland conditions, such as the size and aggradation patterns of rivers, could either mitigate or aggravate the effects of these conditions, and hence factors that affected Cerros were different from those affecting Rocky Point or Stann Creek or Placencia.

If one were to speculate about coastal sites as dependent communities of major river valley settlements, one could draw a circle around the Colson Point sites and include them along with Stann Creek Valley settlement (Figure 10.6). Similarly, the Placencia sites could be linked with the recently discovered inland site of Alabama (see, MacKinnon, this volume), or the Rocky Point-Salt Creek area could become part of the Altun Ha zone. There is evidence that connections with valley settlements existed at Colson Point: ceramic parallels link the coastal sites to the North Stann Creek Valley and indeed to the Belize Valley farther west. The absence of arable land around Colson Point meant that the Maya who fished and traded there had to bring in agricultural products. The small size of the sites likewise suggests that settlement may not have been permanent.

Even after carrying out this exercise of relating coastal sites to inland communities, we cannot assume that all coastal sites related to inland sites in the same way. For example, the Colson Point sites are located in swamp just north of the North Stann Creek Valley and seem to have been the only coastal stations in the area. Farther south in the Toledo District near-shore cays abound, and it is not inconceivable that there may have been groups of communities that interacted there, some on the nearshore cays and some on the mainland (see Jackson and McKillop, this volume). Such interaction may have created a somewhat different coastal culture complex--one that related to mainland sites in a way entirely distinct from that at Colson Point. This sort of group interaction was also possible in the Placencia area where the existence of Placencia Lagoon could have provided shelter for canoes, and in the Salt Creek-Rocky Point area, just east of Altun Ha, where there is extensive evidence of ancient Maya activity around the lagoons and at Marlowe Cay. Facilities such as these may have engendered local interaction networks different from those in

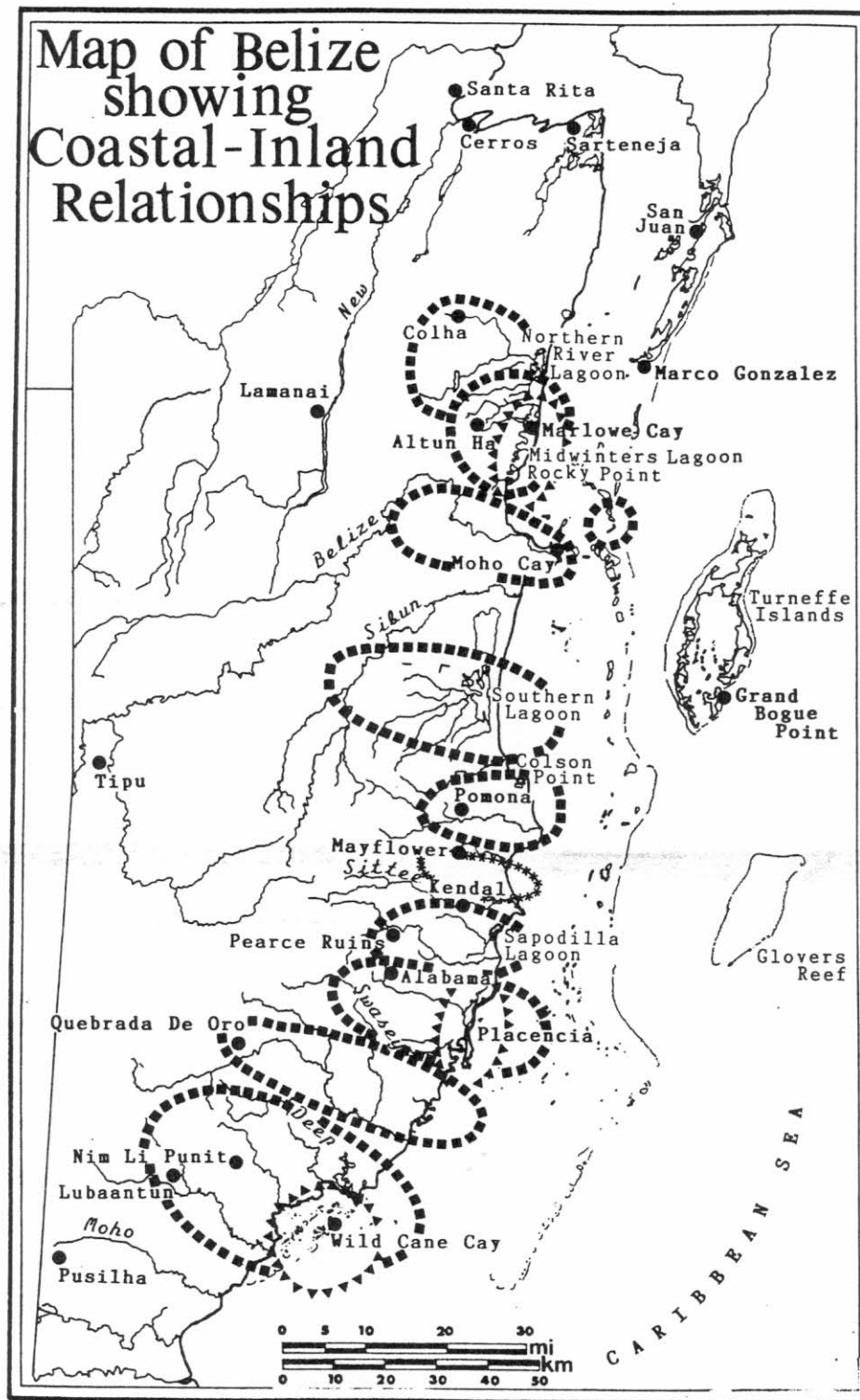


Figure 10.6. Map Showing Proposed Coastal-to-Inland Relationships. Archaeological sites marked by solid black circles.

areas without lagoon systems.

Proximity to arable land was also a relevant factor in site use. Sites along the coast bordering savanna lands undoubtedly developed differently from sites adjacent to arable land. For example, the coastal area in Stann Creek around the modern village of Hopkins has stable beach front with access to ribbons of arable land that border the small creeks nearby. Villagers can both fish and farm, a luxury that seems not to have been afforded those based at Colson Point, at least prior to the Postclassic Period. Variables such as access to arable land, presence or absence of beach front, local sedimentation processes, and local resource availability are all important in the reconstruction of local interaction networks. Such reconstruction is an essential part of understanding trade and exchange at any level (Graham 1987a).

Before I move from ecological and environmental considerations to summarize the archaeological data from Stann Creek and Marco Gonzalez, I will take the opportunity to emphasize how important it is to be cognizant of the localized resources to which the ancient Maya in any given area would have had access. We must consider both the character of the local marine and/or estuarine environments, as well as mainland resources. With regard to marine resources, there are simply too many holes in our knowledge of such areas as the full habitat range of reef species; the range of shellfish species and how habitats differ for juveniles; and generally just how much the marine and estuarine environments differ along the coast of Belize alone, not to mention Mexico. These problems can only be resolved by area-specific studies in the vicinities of our sites (McKillop and Jackson 1987). Assets other than marine will be suggested by looking to the mainland and determining if resources exist that are particular to that area or which the area lacks, that might have stimulated trade: The lack of chert sources, the existence of granite outcrops near the coast, or the presence of mineral resources useful in ceramic manufacture may have stimulated trade in various areas.

#### TEMPORAL RANGE OF SITE UTILIZATION

In the remainder of the paper I will present a summary of the results of excavations at coastal sites in the Stann Creek District and at Marco Gonzalez. Some patterns seem already to be emerging, and although drawing conclusions would be premature, I will attempt



to tie together threads of evidence in the hope that the result will strengthen my arguments for broadening the nature of our inquiry into coastal site utilization.

### Preclassic Period

The earliest solid evidence we have from both the Stann Creek District sites (Graham 1983) and Marco Gonzalez (Graham and Pendergast 1989; Pendergast and Graham 1987) documents coastal activity in the Late Preclassic. At none of the sites is the evidence from undisturbed deposits. At Marco Gonzalez we have a few sherds from bowls of the Sierra Red type (Smith and Gifford 1966: 163). At the Colson Point sites we have a minimal amount of Sierra Red, but the bulk of the Late to Terminal Preclassic ceramic evidence is in the form of distinctive jars with groove-incised rims and occasionally with waxy, red slips.

Jars with multiple groove-incised rims and often scalloped lips occur at Placencia, Colson Point, and the inland site of Kendal (Figure 10.7). The most numerous and distinctive Preclassic jar forms are from the Placencia Lagoon site, where the jar rims have a distinctive flat profile, as do the rims of bowls with a lateral break and often exaggerated lip.

A large quantity of distinctive jars with white-washed surfaces (Figure 10.7) associated with platters and shallow bowls may be Middle Preclassic in date. The shell midden deposits from the Colson Point sites have been disturbed--mainly by crab burrowing--and there is no stratigraphic basis for placing these jars and platters any earlier than the Terminal Preclassic. The possibility of a Middle Preclassic date is introduced by the fact that the jars have an exact parallel in an unnamed variety of a white-washed Jocote type from the Belize Valley in the Temple University collections, which does not seem to be noted in Gifford's (1976: 67-68) descriptions of the unspecified varieties of Jocote Orange-brown. Because I am not clear about the relationship between this unnamed Jocote variety and the remainder of the Jocote ceramic group, I have refrained from assigning a Middle Preclassic date to the pottery, which I have called Kakalche White-washed striated, until more excavation is undertaken. For the present, Kakalche White-washed striated vessels retain a Terminal Preclassic date.

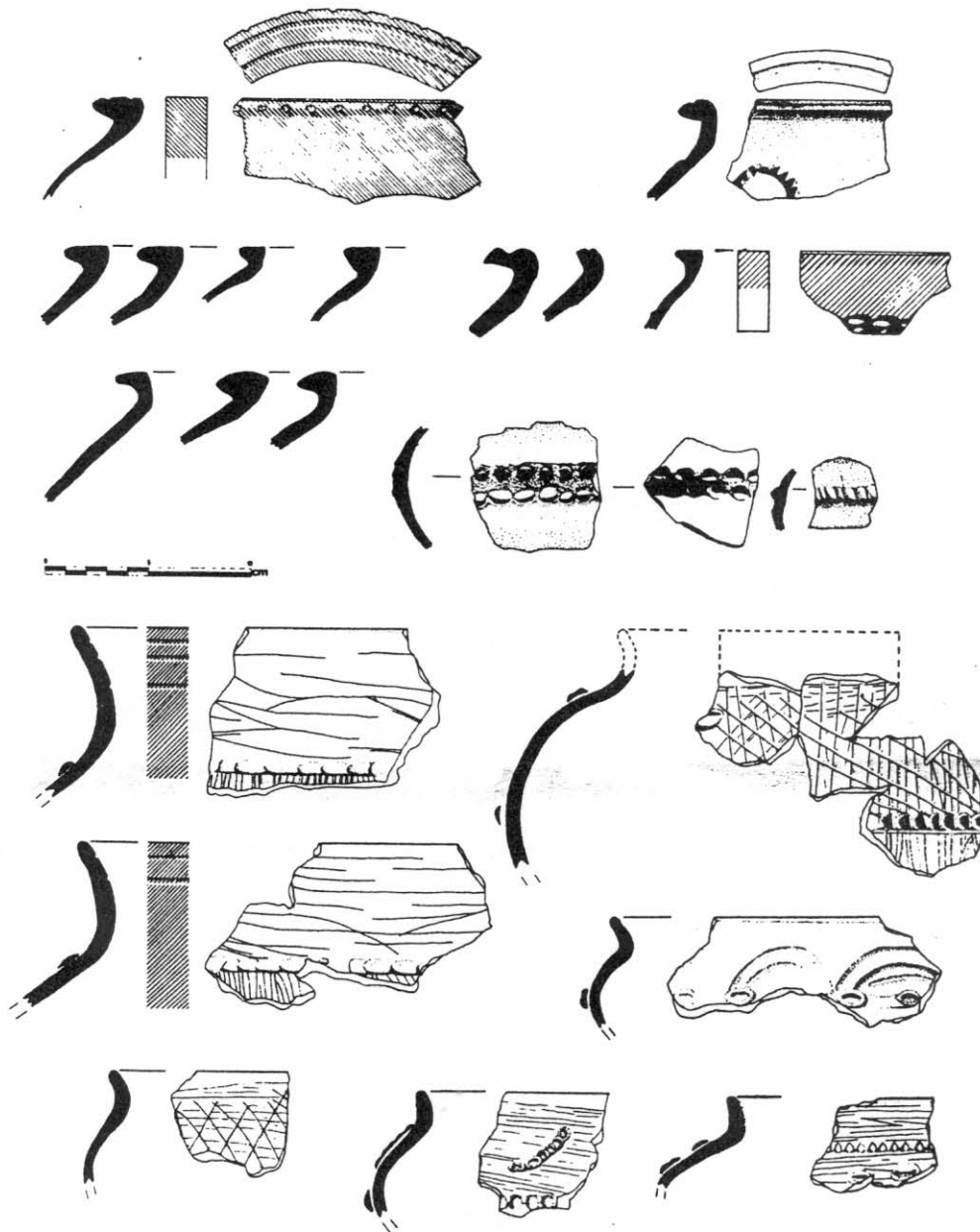


Figure 10.7. Upper half Shows Jar Fragments From Placencia Lagoon site; Lower Half Shows examples of the White-washed striated Jars from Kakalche.

### Protoclassic and Classic Periods

Most of the ceramics from the Colson Point sites are from shell midden deposits that date to the Protoclassic. Some of the more notable examples are the basal flange polychrome bowls that may be distinctive of a particular production centre (Figure 8). The bowls are characterized by simple, often blurred, geometric line decoration; wide flanges, with the flange painted as a separate decorative element from the vessel body; and short, vertical sides, often with everted lips. Indications are that the polychromes were trade vessels that were broken in transit and discarded.

Another artifact of note at coastal sites is the large, stemmed macroblade. The evidence from Colson Point suggests that this was a dominant form among people living on or near the coast, at least during Protoclassic times. At the Colson Point sites, stemmed macroblades were almost invariably modified for other uses after breakage. Behaviour such as this was probably dictated by economic considerations, since the area suffered from a lack of chert sources.

Later Early Classic and Late Classic activity, although documented, is more difficult to interpret because there are fewer sherds from this period than there are from earlier times. What is most distinctive about the Late Classic Period at both Colson Point and Marco Gonzalez is that the same sort of processing activity seems to have been carried out at both sites in the sixth and seventh centuries. Salt-processing is a possible explanation for the masses of crudely-fired, thin-walled bowls that are found amidst beds of ashes and charcoal at both sites (Graham 1983:385; Pendergast and Graham 1987:39). These Coconut Walk Unslipped ware vessels may have been used as molds in which salt cakes were formed (see Reina and Monaghan 1981). Although we need to learn more about salt-processing techniques and residue testing before any firm conclusions can be drawn, the Late Classic dating for the processing is reasonably secure: The deposits are above Early Classic levels at both Colson Point and Marco Gonzalez; radiocarbon dating of wood supports a Late Classic temporal placement of the deposits at Colson Point, where the lower, Early Classic levels contain Tzakol 3 polychrome ceramics (1).

In contrast with the Protoclassic and Postclassic Periods, Late Classic remains, other than the processing deposits, are slim. There is very little Late Classic evidence, other than occasional polychrome

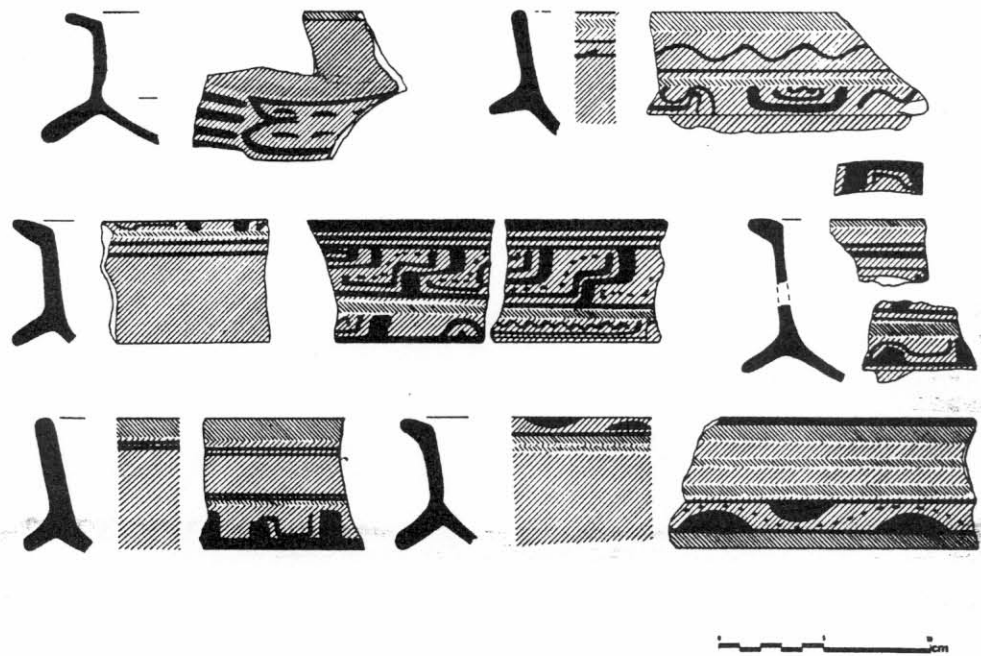


Figure 10.8. Examples of the Distinctive Basal-flange Polychrome Bowls from Kakalche.

sherds in mixed deposits, to tell us about coastal trade activity during the period. However, Coconut Walk-like vessels are found in quantity at two other sites in Belize: the Guerrero site not far south of San Pedro, Ambergris Cay, and an unnamed site between Belize City and Hattieville on the north side of the Western Highway. These sites should be examined as possible salt-processing centres. The radiocarbon dates from the Colson Point sites provide a preliminary chronological framework for the site, suggesting that the processing there did not continue far into the eighth century, if at all. If similar dates for salt processing activities are documented elsewhere, the Belizean salt-processing phenomenon may reflect time-specific local responses to changing salt supplies elsewhere in the lowlands.

#### Early to Middle Postclassic Periods

Perhaps the most interesting period represented at Marco Gonzalez is a time span that extends from the Early to Middle Postclassic--what we have designated the Buk phase at Lamanai (Graham 1987b). Most of the structures at Marco Gonzalez were either built or modified during this period. It was clearly a time of intensive coastal activity that involved fishing and exchange of various sorts. A bat-effigy plumbate vessel similar to the vessel from Tomb 10 at Copan (Gordon 1925: Plate XII) was found at Marco Gonzalez in a burial in Structure II, sealed by units of construction with Buk-phase pottery. Plumbate sherds have also been found in some of the shell midden deposits at the site, but most of the pottery from the middens and structures is similar to pottery from Lamanai. The Lamanai forms are illustrated in Pendergast (1981; 1982a) and Graham (1987b). The Marco Gonzalez finds are reported in detail in Graham and Pendergast (1989). In addition to ceramics, we have also recovered carved jades, green and black obsidian and a large quantity of well-preserved faunal remains from the period.

The limited amount of excavation carried out at Marco Gonzalez does not allow us to distinguish whether the jade and obsidian were imported solely for internal circulation, or for redistribution on the mainland--at Lamanai, for example. Similarly, there is no direct evidence of export of marine products--such as the split little tuna vertebrae from Colson Point that suggest preparation for drying/smoking. Evidence for mass drying that far exceeded the estimated demands of the Marco Gonzalez community would be needed to infer export of marine products.



Sourcing, dating, and sampling studies of obsidian, such as those carried out for Wild Cane Cay (McKillop et al. 1988), will be essential in determining if, and in what ways, Marco Gonzalez served as a trade station for obsidian. For the jade, although we may be able to identify sources, it is uncertain as to whether or not we can determine how much, if any, jade made its way from Marco Gonzalez to the mainland. To date, the best evidence of a role for Marco Gonzalez in coastal trade--and specifically, ceramic trade--is the large sample of Buk phase pottery from the site (Graham and Pendergast 1989). The range of forms and the overall quantity suggest that what we have recovered far exceeds the requirements of a community of the size indicated by the structural and occupation remains. As yet, however, even this is an inference that remains to be tested.

#### The Late Postclassic and Beyond

There is good evidence in the form of structures similar to those found at Lamanai and Tipu that the Marco Gonzalez occupation continued into Late and Terminal Postclassic times. We have not yet fully investigated any of what we think are Late Postclassic buildings, but we have recovered pottery from caches dug into collapsed structures, and from the core of one building, that date to Terminal Postclassic times and possibly as late as the Historic Period. The pottery consists of bowls with applied human effigy decoration that are very similar to those we have found at Lamanai and Tipu in Terminal Postclassic and Historic Period contexts.

At the Colson Point sites, Early and Late Postclassic utilization is indicated by the presence of a small number of sherds and net sinkers (Graham 1983). Some of the earth platforms and associated pole and thatch structures may date to the Postclassic Period, but we have no primary deposits associated with the structures to enable us to date them. They simply represent the latest activity at the sites.

#### CONCLUSION

In this paper I have attempted to demonstrate some environmental factors that must be considered in reconstructions of the ancient Maya use of the Belizean coast for trade and other activities. I have argued that too often the coast is viewed as a uniform environmental zone, which can lead to simplistic interpretations of site use and trading activity. Data from the Colson Point sites and Placencia in the Stann

Creek District and Marco Gonzalez on Ambergris Cay provide a measure of the variability in coastal environment, the ecological changes introduced by ancient Maya coastal settlement, and the nature of coastal settlement.

1. The radiocarbon dates are as follows: 1435+/-135 years B.P. (GX-8527) and 1305+/-125 years B.P. (GX-8528). The age has been C-13 corrected, but not calibrated. It is estimated that the latter would add about 50 years to the mean dates. GX-8527 is from Watson's Island, lot X-282 or Operation 5E, level 5. The sample was wood that is believed to have been the debris of a pole and thatch structure once covered with clay daub. (Coconut Walk sherds come from this level, but are redeposited). This structure stood on a low earth platform that directly overlay the deposit from which the second sample came. GX-8528 is from lot S-288 or Operation 5E, level 8. This deposit consisted of large chunks of stucco from building collapse, shells (Chione sp. and Strombus pugilis), and sherds. It overlay a bed of charcoal, ash and a quantity of the same two shellfish species. Large numbers of well-preserved Coconut Walk sherds came from S-288 and from the charcoal bed. The ash-shell-stucco deposits are enigmatic, but appear to be the remains of intensive processing activities overlain by wall collapse that became mixed with sherd and shell refuse. The wood sample is believed to be structural and not related to the charcoal bed, but with crab (Cardisoma guanhumi) disturbance so extensive at the site, nothing is certain. For more details, see Graham (1983: 142-148).