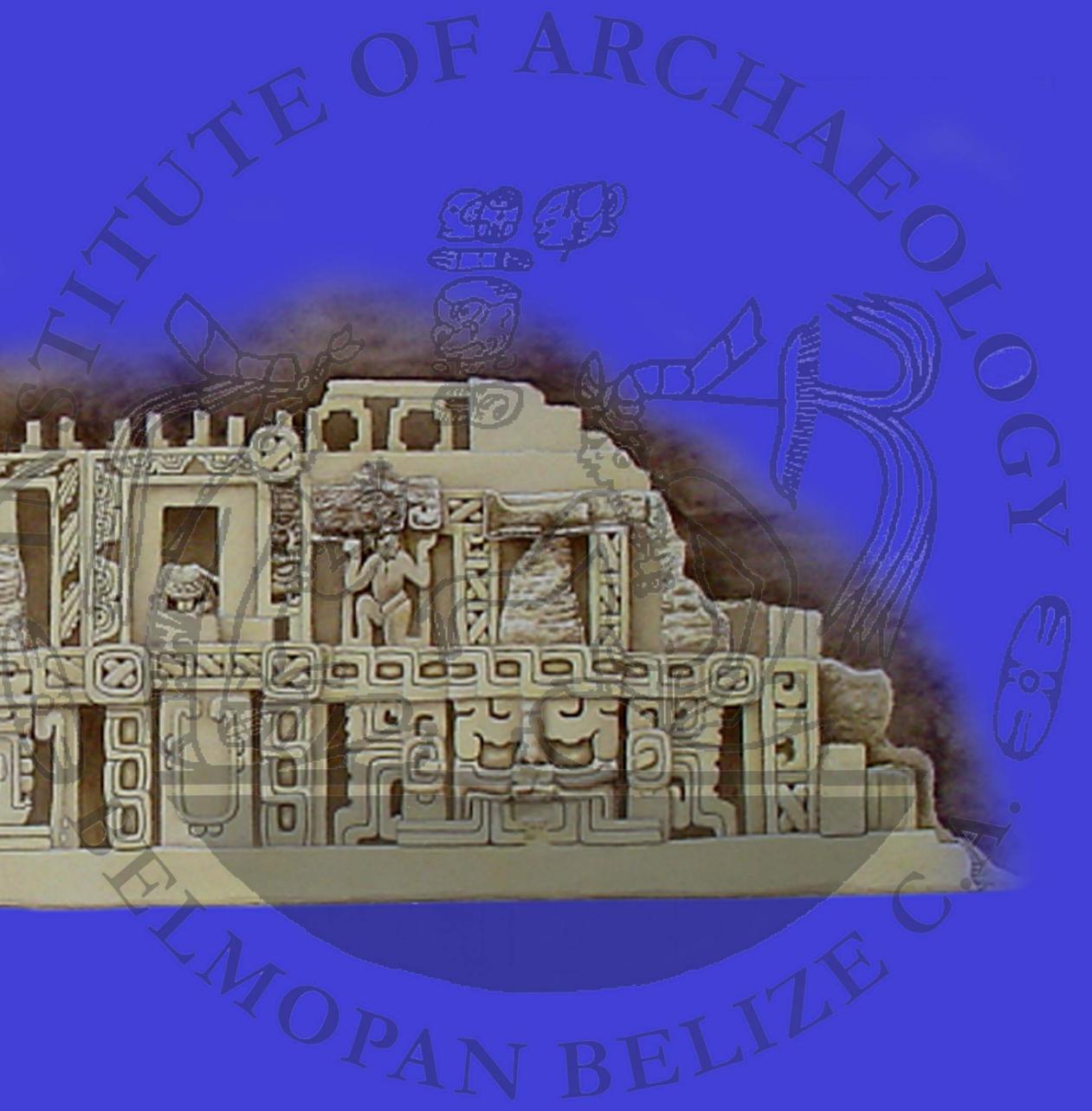
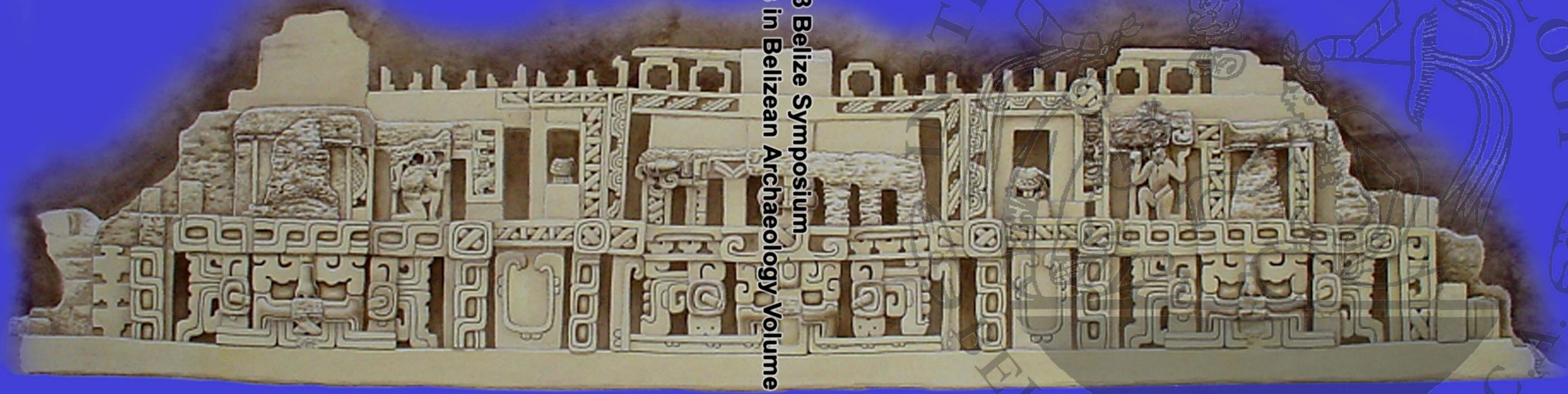


Awe
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Jones
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Archaeological Investigations in the Eastern
Maya Lowlands: Papers of the 2003
Belize Archaeology Symposium

Papers of the 2003 Belize Symposium
Research Reports in Belizean Archaeology Volume 1



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*Archaeological Investigations in the Eastern
Maya Lowlands: Papers of the 2003
Belize Archaeology Symposium*

Edited by Jaime Awe, John Morris and Sherilyne Jones



Institute of Archaeology
National Institute of Culture and History
Belmopan, Belize
2004

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In memory of

Harriot Topsey
Winnel Branche
Richard "Scotty" MacNeish

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We wish to express our sincerest gratitude to every individual who contributed to the success of our symposium, and to the subsequent publication of the scientific contributions that are contained in this first issue of the Research Reports in Belizean Archaeology.

We extend a special thank you to all our sponsors. To the staff and management of the Princess Casino and Hotel, thank you for all your assistance and for graciously hosting the 2003 symposium. We are grateful to the Belize Telecommunication Ltd, Bowen and Bowen Co. Ltd, Santiago Castillo Ltd, Del Oro Belize Ltd, Dolphin Productions, Celina's Super Store, Travellers Ltd, L & R Liquors, James Brodies & Company, Marie Sharp's Fine Foods, Shell Belize, and various other institutions that provided financial and logistical assistance.

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We are especially grateful to the Honourable Mark Espat, Minister of Tourism and Culture, whose vision and continuous support constantly encourage us to improve the professional capacity of our institution. Thank you to Mr. Yasser Musa, President of the National Institute of Culture and History, and to the Administrator and Board of Directors of NICH who provided considerable funding to ensure the success of our symposium and the subsequent publication of the volume.

Meetings of this scope are never possible without professional participation. We therefore thank all of our colleagues who took time from their busy schedules to attend and present papers in our symposium. The various themes of their papers serve to reflect the diversity of Belizean Archaeology, and provide a wealth of scientific information to the people of Belize.

Finally, it should be noted that our successes are a direct result of the tremendous effort expended by the entire staff of the Institute of Archaeology. Special thanks must be given to George Thompson under whose leadership, as Archaeological Commissioner, the Symposium became a reality. Thank you very much Melissa Badillo, Yashin Dujon, David Griffith, Reyna Gilharry, Joyce Tun, Wayne Moore, Therese Batty and Annette Waight. We are grateful for your patience, expertise and invaluable help. This first volume of the Research Reports in Belizean Archaeology is a testimony to your unflinching dedication and your ability to address the challenges of our fledgling institution.

Jaime Awe, Sherilyne Jones, John Morris and Brian Woodye.
Belmopan, Belize. February 2004

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INTRODUCTION AND SYNTHESIS OF THE 2003 BELIZEAN ARCHAEOLOGY SYMPOSIUM

John Morris, Jaime Awe and Sherilyne Jones

Introduction

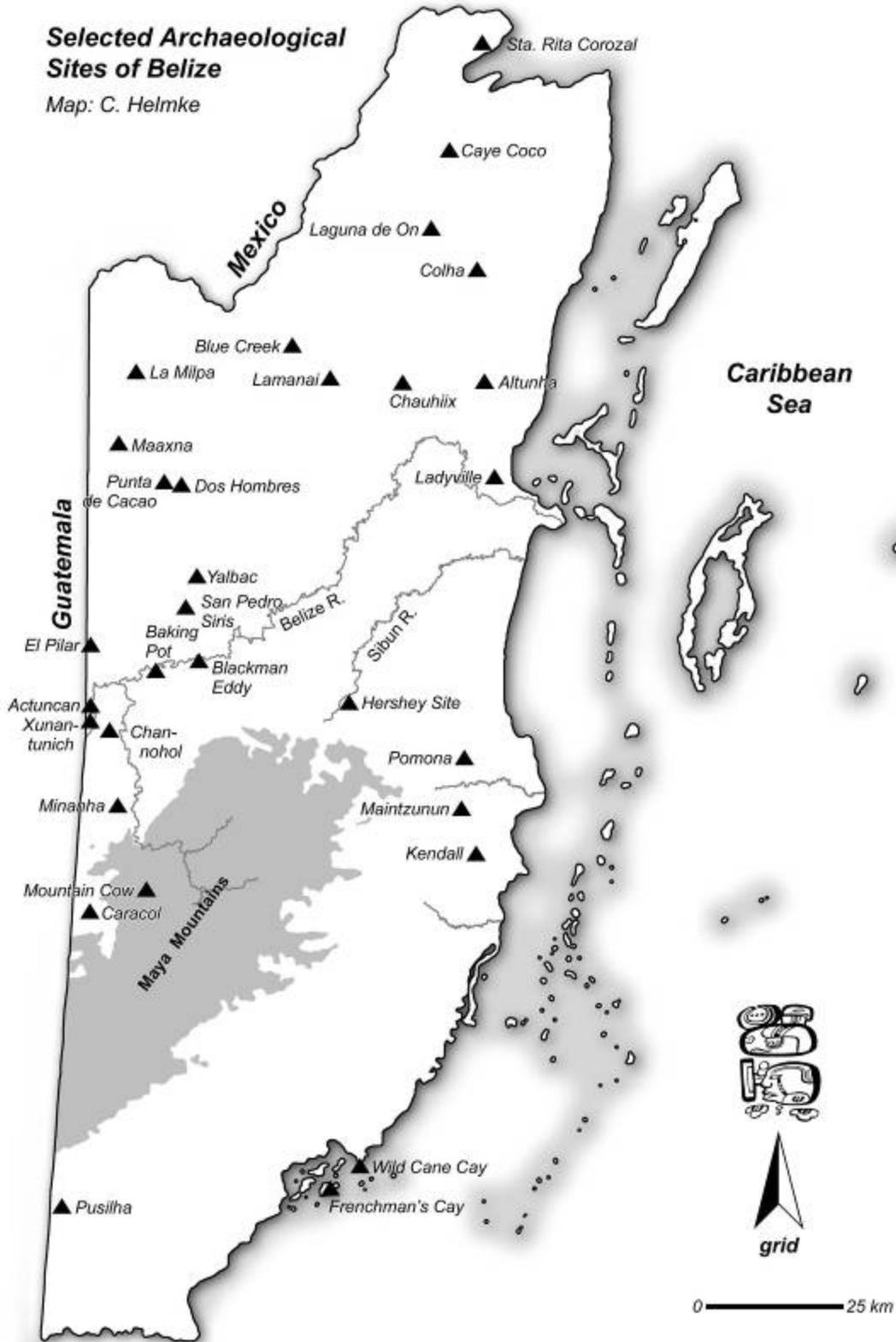
This volume marks the genesis of a spirited exchange of information derived from the many archaeological research endeavours on ancient Maya civilization in Belize. The papers presented herein by no means provide the definitive answer to all our queries on the what, when, how and why of archaeological issues in Belize. The reports were originally designed to address the concerns of the general public's demand for information regarding Belizean archaeology, given the sizable increase in tourism related activities in the country. The scope of the symposium was broadened considerably as the diversity of the submitted presentations encompassed both methodological and theoretical concerns of Maya archaeology. Therefore, as volume editors we were faced with the task of finding a degree of cohesiveness in order to give clarity and a sense of purpose to the varied papers. In an effort to achieve this goal we identified particular themes drawn out by the various contributors related to Maya economy, political organization and ideological factors that are the focus of initiatives seeking to articulate common principles that form the foundation of what we believe to have been ancient Maya civilization. For further clarity we also decided to divide the papers by region, and include sections on Western Belize, Northern Belize and Coastal and Southern Belize.

Section One: Western Belize

The Western Belize region is subdivided into the Belize Valley and the Chiquibul/Vaca sub-regions. This section has the largest concentration of presentations, which attest to the fact that currently the bulk of archaeological research conducted in the country is carried out in this area.

Belize Valley Sub-Region

For the Belize Valley we decided that the articles could best be presented in a culture-historical format. The volume starts with James Garber et al. paper, which introduces the Terminal Early Formative/Preclassic Kanocha Phase (1100-900 B.C) at Blackman Eddy. Garber and his colleagues note that a series of structures and features at the site principally date to the end of the Early Formative period and that they continue into the Middle Formative. Furthermore, ceramic remains at the site exhibit iconographic elements related to a pan-Mesoamerican Formative style. This symbolism appears on locally produced materials and reflects long distance interaction. The excavation data from Blackman Eddy provides a stratigraphic sequence from the end of the Early Formative onward, documenting changes and elaboration of architecture that reflect the rise of social complexity. Exotics recovered also provide further evidence for the emergence of social stratification.



The Lisa LeCount paper follows with a discussion of the elusive Early Classic. In her research at Actuncan she argues that during the Early Classic period (A.D. 250-500) ancient Maya rulers firmly established aristocracies and ruled over kingdoms that were sufficiently large and complex enough to qualify as states. But despite its anthropological significance, the Early Classic is one of the least understood archaeological periods in Maya prehistory. What archaeologists know about the Early Classic period is based predominately on excavations at large sites such as Tikal and Holmul. In the Belize valley, so few sites exhibit Early Classic material remains that researchers suggest a severe depopulation of the area and aggregation of the remaining populous into a few centres such as Actuncan. Actuncan is arguably the most architecturally impressive Late Formative (400 B.C. - A.D. 250) centre in the upper Belize valley and contains substantial deposits of Early Classic materials. The recent excavations at the site may clarify the organization of this relatively small Early Classic center and the role of pan-Maya styles in a regional ceramic complex.

Many of our archaeological debates tend to focus on monumental architecture and the activities of the elite. Cynthia Robin's survey of an agrarian community at Chan, located a few kilometres from the imposing centre of Xunantunich, provides a refreshing divergence from this pattern. Her paper documents that the site was occupied continuously from the Middle Preclassic to Early Postclassic periods (ca. 900 B.C. - A.D. 1250). The result of the initial season of a multi-year archaeological research project at Chan was presented. In 2002, her survey identified 491 mounds and 1137 agricultural terraces within a 2.88 sq km of settlement around Chan. The 2002 survey lays the foundation for a larger study of the history

and internal organization of the Chan site designed to explore the everyday lives of ordinary people in the past and determine how life in an ordinary community affected and was influenced by larger political-economic changes throughout Maya society during the Preclassic, Classic, and Postclassic periods.

The site of Baking Pot on the Belize River floodplain, initially investigated in the 1920's and 1960's by Ricketson's and Bullard's respectively, has seen renewed interest by researchers of the BVAR Project. Carolyn Audet and Jaime Awe current investigations at the site allows for a new interpretation of Baking Pot's role in the sociopolitical landscape of the Belize Valley. The investigations at Baking Pot have produced evidence of prehistoric Maya occupation that spans from the Preclassic to the Postclassic periods. During the Late Classic the site became one of the pre-eminent centres in the upper Belize River Valley. Cultural remains recovered in several burials suggest that the elite at this site had access to a variety of exotic materials that were obtained through regional and long distance exchange systems. Several grave goods further indicate possible ties with the larger regional centre of Naranjo to the west.

Even though the site of El Pilar is sometimes considered to be outside of the Belize Valley, its size and large settlement clearly must have influenced the other communities in the Belize Valley. Anabel Ford argues that hierarchical political structures of complex societies rely on the subsistence sector of society to underwrite their organizational requisites. The degree to which political power is consolidated and the level at which it is expressed is seen to correspond to the scale of the complex hierarchy. Her research at El Pilar appears to suggest that settlement patterns reflect the tiers of a hierarchy, and that community and

centre size are essential expressions of the levels of integration. This argument however, begs the question as to how the internal political integration of rural communities is balanced against external regional political relations? Using data derived from El Pilar Ford suggests that the production and distribution patterns of obsidian located at the Laton workshop exemplifies the complex hierarchical relationship of the ancient Maya in the central lowlands.

Lisa Lucero has further investigated a corollary of Ford's settlement studies at Yalbac and Saturday Creek under the Valley of Peace Archaeology project (VOPA). The long-term research goals of VOPA project is to address the question of how Classic Maya rulers acquired and maintained political power in the southern Maya lowlands (c. A.D. 250-850). The focus is on how replicating and expanding traditional rituals provided a means for aspiring Maya rulers to integrate people and acquire political power, defined here as the ability to exact tribute (surplus goods and labour). By documenting the replication and expansion of domestic rituals at the minor centre of Saturday Creek and comparing these with Yalbac, a major centre with six major temples, several range structures, a ball court, causeways, a possible *aguada*, three large plazas, and a royal acropolis over 20 meters tall, Lucero sought to address the role of ritual in the emergence of Maya rulership. Using data also from throughout the Maya lowlands, especially from Tikal, Lucero demonstrates that the political elite was also successful in funding large-scale events supplicating the gods and thereby maintaining their power. Additional data provided by Andrew Kinkella working under the same VOPA project but at Cara Blanca, north of the Belize River and northwest of Belmopan, suggests that there is some validity to the aforementioned argument. This area, which includes the

Classic Maya centre of Yalbac, is also home to a string of 22 freshwater pools that are in the process of being surveyed for archaeological data. So far three pools that have structures built immediately adjacent to the water's edge have been located, and one of them, the Cara Blanca Pool, has been investigated. The sociopolitical relationships between the pool sites and the surrounding area are still poorly understood, as is the function of these sites. The author suggests that Cara Blanca site is possibly a pilgrimage centre, and he explores the idea of the pools as sacred landscapes where rituals were conducted.

We conclude this section by a paper that attempts to bridge the gap between the ancient Maya and colonial Maya in Belize, aptly entitled "Maya Caste War Immigrants in Colonial British Honduras. Yaeger et al. paper discusses the results of four seasons of excavations at San Pedro Siris, the nineteenth-century village founded by San Pedro Maya immigrants near Yalbac. The immigration of these people during and immediately after the Caste War in Mexico's Yucatan Peninsula more than doubled the population of British Honduras between 1847 and 1855. The subsequent incorporation of these new settlers into the British settlement presented a challenge to the authorities, given their distinct cultures and lifeways, sheer numbers, and general unwillingness to submit completely to British rule. The result was a new colonial culture, quite distinct from that which had existed previously. Yaeger's investigations address how this group of immigrants became incorporated into the social and economic networks of colonial British Honduras.

Vaca Plateau and the Chiquibul Sub-Region

Within the Western Belize region, specifically in the Vaca Plateau and the Chiquibul sub-region, archaeological research

has also been conducted at the large metropolis of Caracol and within its hinterland. Arlen and Diane Chase argue for an administered economy at Caracol that encompasses and engulf several other centres in the region. This paper presents a summary of the archaeological data relating to Caracol's ancient economy. The Chase's posit that an archaeological understanding of ancient economic systems is difficult to achieve from both a theoretical and a practical standpoint especially since ancient economies rarely resembled the capitalist global system with which we are familiar today. And, the interpretation of the relations of production and distribution is difficult given the incomplete nature of archaeological data. Ongoing research at Caracol, Belize, however, has purposefully focused on attempting to understand the site's ancient economy in terms of relations of production and distribution. While distribution nodes, and possible marketplaces, have been previously identified within the Caracol settlement, systems of ancient production have been more difficult to define. However, investigations of over 100 of Caracol's estimated 9,000 residential groups provide some relevant information - as does excavation data from the site's more public architectural complexes. Recent field seasons at Caracol have specifically focused on looking for attached specialists and craft production residue, as well as the identification of locales that could have been used for the household, workshop, or industry production of goods.

John Morris' paper on the Mountain Cow complex located twelve kilometres northeast of Caracol, argues that what was once thought of as four distinct sites, Cahal Pichik, Hatzcap Ceel, Tzimin Kax and Cahal Cunil, are really one large centre connected by causeways. His research at the site furthermore sheds new light on the impact Caracol as a major metropolis has had on the

smaller centres in the region, particularly where issues of polity identity and cultural ethnicity are a concern. His discussion on how the "state" influences the creation, maintenance and durability of ethnic symbols brings a new focus on ancient Maya social and cultural organization.

In a similar fashion, Gyles Iannone research at Minanha complements the work at Caracol and Mountain Cow. As part of their long-term research goal, this Trent University project is conducting extensive excavation and reconnaissance within the epicentre and periphery of Minanha, once one of the largest ancient Maya centres in the north Vaca Plateau. These multifaceted investigations have produced a wide-range of information concerning the economic, social, political, and religious aspects of this ancient Maya community. Of particular importance are the insights that are emerging concerning Late Classic sociopolitical interaction. This paper summarizes the results of one season of excavations. In doing so, it provides a glimpse into the range of topics that are being explored in their efforts to shed light on Minanha's past, particularly the suggestion that Minanha served in the role of a "Gateway Community". Another topic that the Minanha research has been focusing on is the function of Maya monumental architecture. Jeffery Seibert paper seeks to explain the function of structure 12A at Minanha by examining the building's architectural morphology and its associated artefacts. Structure 12A is what Mayanist's refer to as a Passageway Range structure, meaning that it is a long multi-roomed structure that serves as a boundary building between a courtyard group and a public plaza. These structures have often been assigned an administrative function by scholars. In order to assess the function of this structure, 12A was compared to similar buildings, in similar configurations from the surrounding area such as at Caracol, Cahal Pech and

Buenavista. This comparison was facilitated through a discussion of the architectural makeup of these structures, and a brief summation of the artefacts found in association with them. The comparison allowed for a more informed interpretations concerning the role of these public edifices as a specific class of architecture at Lowland Maya sites.

Section Two: Northern Belize

The Northern Belize zone is also divided into two sections: 1) papers that address the research goals of the Programme for Belize Archaeological Project (PFBAP), and 2) papers that focus on Postclassic developments in Northern Belize.

Programme for Belize

The paper by Adams et al. provides a historical overview of the Programme for Belize Archaeological Project. It notes that the PFBAP initiated its first research season in 1992. The goals and interests of the project were to document settlement and landscape modifications across the Programme for Belize property known originally as the Rio Bravo Conservation and Management Area. A secondary but equally important goal is to establish, from a regional perspective, the economic, political and social structures of the ancient communities in the region. In an effort to expend the research goals and impact of the research, the PFBAP identified several areas of intensive research to be directed by qualified scholars. Thus, projects within the PFBAP such as Dos Barbaras, Maax Na, Dos Hombres, Betan Chinam and El Intruso, were separated as distinct research endeavours under the general goals of the PFBAP.

One of the significant contributions of the PFBAP is a regional perspective on the chronological ordering of events in the ancient Maya history of this region. Lauren Sullivan and Fred Valdez synthesize ceramic

data from the various archaeological projects in NW Belize where 12 years of continued research have produced much data to allow for discussion of a regional chronology, broad settlement patterns and general cultural trends. While site-specific events and/or dates may vary, the general ordering and events of the region are well founded from the many settlements and features investigated. Significant developments and characteristics of each major period are discussed as a background in support of separate chronological phases. The chronology of the region is presented from a ceramics perspective utilizing attributes, types, phases and complexes consistent with those already in Maya ceramic literature. In a study that specifically examines one of the sites in the Three Rivers Region, the Punta Cacao ruins, Hubert Robichaux argues that a more realistic and fruitful research with regard to the organization of Maya communities lies not with the concentric model as proposed by Folan (1983) and Haviland (1963) but in the utilization of the multi-nuclei urban model proposed by geographers (see Austin, Honey and Eagle 1987). His work at Punta Cacao demonstrates that the site may have served as an intermediary between the large sites of Rio Azul and La Milpa and the many smaller towns, villages and hamlets that dot the countryside. Punta Cacao is moderate in size and dates from the Late Preclassic to the Terminal Classic.

The site of Blue Creek, that lies to the north of PFB land is considered here by Jon Lohse et al. Recent research by the Blue Creek Regional Political Ecology Project in upper northwestern Belize has yielded abundant evidence for the dynamic nature of the period from ca. A.D. 550-850, the transition from the end of the Early Classic through the Late Classic. In this paper, Lohse et al. describes a model of Late Classic political organization that is intimately tied to

environmental differences conditioning the availability of arable land and other important resources such as labour. To chart the relationship among sites during the Early to Late Classic, the researchers consider the appearance of ball courts to be significant and use it as a measure of a community's status within the region's geopolitics. Lohse documents that during these three centuries we see changing fortunes at a number of sites in the area (Blue Creek and Ixno'ha) and others to the south in the Programme for Belize (La Milpa, Gran Cacao, Maax Na, and Dos Hombres) as well as in many others, due in part as a response to the changing environment and political climate across the broader Maya Lowlands. Much of their evidence comes not only from data collected at site centres, but also from surrounding hinterland settlements, thus providing a more accurate socio-political profile for the region.

Northern Sites in the Postclassic

Except for one paper, which addresses the archaic period, the second set of papers on Northwestern Belize deal primarily with issues related to the Postclassic period.

Elizabeth Graham discussion focuses on Lamanai in the Early Postclassic. She notes that David M. Pendergast of the Royal Ontario Museum directed investigations at Lamanai from 1974 to 1986, at which time the site was mapped, and excavations focused on a wide range of residential and monumental structures. A second phase of excavations that begun in 1998, and under her direction, was aimed at clarifying periods of transition that are little known at other sites, but well represented at Lamanai. These are: the transition from the Late Preclassic period to the beginning of Maya florescence in Classic times (400 B.C. to A.D. 250); the time of the Maya collapse, from about A.D. 800 to 1000; and the transition from Pre-Columbian occupation to the Spanish Colonial period (1450 to 1700). This

contribution presents a summary of recent investigations at the site, with special attention given to the buildings surrounding Plaza N10[3], also known as the Ottawa Group.

Further north Diane and Arlen Chase return to Santa Rita, twenty years later. When the Corozal Postclassic Project investigations were initiated at Santa Rita Corozal in 1979, the primary focus of most ongoing Maya research (with notable exceptions) was the Classic Period. This paper reviews the contributions of the Corozal Postclassic Project and considers archaeological data from Santa Rita Corozal in light of recent investigations on the Postclassic Period Maya and on current ideas and approaches in Maya Studies. These researchers argue for the use of a contextual approach when analysing data that combines history and archaeology in the reconstruction of ancient Maya social, political, ritual, and economic organization.

Another study of the Postclassic by Marilyn Masson also presents new data that describes the connections between Postclassic Maya and the Colonial Maya. Masson's research at Progreso Lagoon since 1998 reveals much settlement dating from the Terminal Classic, Postclassic, and Spanish Colonial Periods. Prior to the eighth century, the shores and islands of this lagoon were scarcely occupied. The research documents at Progreso the patterns of social, political, and economic organization in light of larger processes effecting the Maya lowlands, including; the political breakdown of Late Classic city states, correlating migrations, and response to the concurrent rise of Chichen Itza; the fall of Chichen Itza and the rise of Mayapan; and the transformation of Postclassic Maya societies in confrontation with the Spanish conquest. Essentially, Progreso sites provide a microcosmic perspective of long-term developments in late Maya history – they also illustrate important

patterns of disjunction and continuity around the lagoon itself.

A significant study that emerged from the research in this area is data that documents the archaic period. Robert Rosenswig work in conjunction with the Belize Postclassic Project has documented preceramic sites in the Freshwater Creek drainage, at Laguna de On, at Caye Coco, and at the site of Fred Smith. All these sites within the Progreso lagoon area provide examples of Maya occupants disturbing earlier preceramic deposits. The research should contribute to an understanding of the conditions under which settled life and ceramic use developed and why this transition took so long to occur in the Maya Lowlands relative to the rest of Mesoamerica

Section Three: Central, Coastal and Southern Belize

The next section includes work done on the coastal regions and in Southern Belize. Very little archaeological research has been carried out on the coast and in particular in the areas between Belmopan and Belize City, along both the Sibun and Belize river valleys. David Pendergast at Altun Ha, Ann Pyburn at Chau Hiix, and the late Richard “Scotty” MacNeish working on the archaic near Ladyville, are but a few examples. The papers presented here first deals with the central coastal areas. Palma Buttles revisits the importance of Colha in Belize’s register of archaeological sites. The site of Colha is located south of Orange Walk along the Old Northern Highway and has long been recognized as a centre where large scale-lithic craft specialization occurred for much of its prehistoric Maya occupation. Buttles’ charts the history of research at Colha that begun in the 1970’s and continues today through various material culture studies. She also presents a culture history summary that spans from pre-Maya occupation (ca. 3400 B.C.) through the Postclassic (A.D. 950-1400).

Except for Lamanai, few other sites in Belize have presented such a long culture history of almost continuous occupation. The “tourism value” of Colha is also highlighted in terms of useful information that may be presented to the general public.

Archaeological investigations along the Sibun River Valley have been sparse. Patricia McAnany et al. pioneering work (since 1997), under the auspices of the Xibun Archaeological Research Project (XARP) has located, surveyed, and mapped twenty-two ancient sites and eighteen caves along the Sibun River in central Belize. Material remains document occupation that includes late Archaic hunting, Preclassic pilgrimages to the sacred landscapes of the Sibun caverns, and Classic period settlements on the alluvial terraces of the valley. Data on the Terminal and Postclassic periods however remains spotty and undefined. But rich information regarding the Sibun Maya, in particular their efforts at resistance and maintaining a semblance of identity in the face of Spanish domination and the subsequent colonization during the British Colonial period, has been retrieved. This research has greatly enhanced our knowledge of the ancient settlements in the region and has led to the creation of a GIS database to effectively manage and analyse these data. The ultimate objective of the researchers is to assess whether sites interacted with each other as equals or whether political and economic hierarchies can be discerned in the settlement patterns.

Ben Thomas, also a member of XARP, utilizes the expanded database of the Sibun settlements to outline the relationships among the sites along the river, and to identify changes over time as reflected in the settlement patterns. His interest’s addresses whether the sites in the Sibun River valley interacted with each other as equals in a heterarchical relationship (Crumley 1995) or whether hierarchical models would better explain the political relationships in the Sibun

Valley. He notes that several large sites existed in the Sibun Valley with the Hershey site having greater influence in the Late Classic and probably influenced by events in the Belize Valley and the Peten. For the Terminal Classic he argues that downriver sites had greater influence on the events in the Sibun Valley, and that the Maya from the Yucatan probably influenced these communities.

At the site of Mayflower in the Stann Creek District, Stomper et al. survey and excavations have demonstrated that three groups, Mayflower, Maintzunun, and T'au Witz were not separate communities but three components of a single site that is centred on the Mayflower group which is more than 2 km². Initially Mayflower was thought to be a link in the coastal-inland trade network, but Stomper argues that its significance was more likely due to its strategic location at the entrance to a canyon and its access to fertile agricultural land in the foothills of the Maya mountains. Mayflower was occupied principally in the Late Classic and is located between two larger sites, Kendall and Pomona. Stomper suggests that Mayflower may have functioned as a type of suburb and may have been exploiting a local resource that contributed to its self-sufficiency. He notes that the Mayflower site shares similar characteristics with sites in the Southern Maya Mountains.

Investigation at the important site of Pusilha seeks to augment our knowledge of ancient Maya cultural development in the southernmost part of Belize. Geoffrey Braswell et al. work at Pusilha pursued the goals of developing a more complete understanding of the political history of the site through a thorough study of the site's hieroglyphic texts. They also investigated the economic consequences of these political events on both commoners and elites at Pusilha. Furthermore, hieroglyphic evidence was used to test opposing political models-

particularly Marcus's "Dynamic Model" and Martin and Grube's hegemonic "superstate" model. A re-analysis of the 46 carved monuments and monuments fragments have revealed that the site of Pusilha was not annexed by Copan as previously suggested. Rather it appears that the site maintained its independence, albeit with influences from a wide variety of sources that include the southeastern Lowlands, western Belize, and even the Petexbatun and Rio Pasion regions.

A long-time contributor to Belizean archaeology, Heather Mckillop continues her work in the cays of southern Belize. Her research at Frenchman's Cay in the Port Honduras of southern Belize revealed that there was a similar coastal architectural tradition as at the nearby trading port of Wild Cane Cay. Instead of the limestone or sandstone used as foundations for buildings of the mainland Maya, the coastal Maya on Frenchman's Cay and Wild Cane Cay used coral. Coral rock was quarried from the sea for use as foundations, with finger coral used as a sub-floor for structures built of perishable materials. Following the mainland Maya tradition, structures were rebuilt over time on the same location and they were used to inter-deceased family members.

Shirley Boteler Mock, continuing the traditions of research in the swampy areas southeast of Colha, examines from an economic standpoint Maya traders on the North-Central Belize Coast. These investigations (1987-2002) of the Northern Belize Coastal Project (NBCP) have located a number of previously unknown sites involved in salt-making by the process known as *sal cocida*. In addition to salt production the sites examined specialized in the production of shell tools, ornaments, blanks, and marine products such as salted fish for exchange with close-by interior sites or other coastal sites. Three different types of consumer/producer sites have been documented in the NBCP for the Late to Terminal Classic period: trans-

shipment sites, independent salt making sites and ephemeral workstations. Material culture evidence points to trans-shipment sites such as NRL and Saktunja as not only involved in producer/consumer relationships with interior sites but as key players in broader intra-regional exchange. Shared ceramic types of these larger sites discussed in this paper also support evidence of inland/coastal economic interdependence as well as geographic boundaries maintained by access to a common ideology. Mock argues that the archaeological evidence here suggests that leadership was embedded in a new managerial elite, with power bolstered by engineering skills, a consummate knowledge of the environment, mercantile expertise, and the appropriation of lineage connections during the Late to Terminal Classic period.

To conclude, as the majority of these authors in this volume underscore, Maya civilization was a complex, hierarchical society that survived for several hundred years and what we as archaeologists can deduce from the study of past material remains is but only a glimpse into the intricacies of their civilization. Archaeological research in Belize has reached a milestone where the Institute of Archaeology can now publish the findings of scholarly presentations in a scientific journal. Hopefully this volume, and the many more to come, will continue to provide knowledge not only for the Belizean public, but to all those interested in the past histories of ancient civilizations.

SECTION ONE: WESTERN BELIZE

Belize Valley Sub-Region

Vaca Plateau and Chiquibul Sub-Region



1 THE TERMINAL EARLY FORMATIVE KANOCHA PHASE (1100-900 B.C.) AT BLACKMAN EDDY

James Garber, M. Kathryn Brown, Jaime J. Awe and Christopher J. Hartman

Investigations at Blackman Eddy revealed a series of structures and features, which date to the end of Early Formative (Kanocha phase 1100 BC-900 BC) and continue into the Middle Formative. Ceramics at this site exhibit iconographic elements related to a pan-Mesoamerican Formative style. This symbolism appears on locally produced materials and reflects long distance interaction. Exotics recovered provide further evidence for long distance trade and indicate the emergence of social stratification. The excavation data from Blackman Eddy provides a stratigraphic sequence from the end of the Early Formative onward, documenting changes and elaboration of architecture that reflect the rise of social complexity.

Introduction

Archaeological investigations conducted in the upper Belize Valley at the site of Blackman Eddy have revealed a stratified sequence of occupations starting at the end of the Early Formative (ca. 1100 B.C.) and extending to the Late Classic Period (A.D. 900). Prior to the 1990s, the bulk of our knowledge of the Formative prehistory of the Belize Valley has derived almost exclusively from data collected by Willey's investigations at Barton Ramie in the 1950s (Willey et al. 1965). In the decades following Willey's investigations, numerous researchers have conducted investigations in the valley making it one of the most intensively studied regions in the Maya Lowlands. Most of these projects focused on questions pertaining to Classic Period (A.D. 300-A.D. 900) elite (Bullard and Bullard 1965), agriculture (Ball and Kelsay 1992; Fedick 1989), monumental architecture (Healy 1990, 1992), settlement patterns (Ashmore et al. 2000; Ford 1990), sociopolitical organization (Ball and Taschek 1991), ritual and cosmology (Garber et al. 1998), and Postclassic (A.D. 1000-A.D. 1500) occupation (Graham 1991; Jones 1989; Jones et al. 1986). Although these research efforts have made significant contributions to

our understanding of the Maya in this region, our understanding of the Formative occupants of the valley remained limited. Archaeological research seeking to unearth Formative deposits is compounded by the Mesoamerican tradition of building new structures on top of older ones. The earliest buildings are deeply buried under massive subsequent constructions. Due to the logistical problems of investigating deeply buried deposits our knowledge of the earliest constructions is limited at best (Culbert 1977:28; Hester et al. 1983:13).

The Southwest Texas State University Belize Valley Archaeology Project (BVAP) was initiated in 1990. The primary goal of the project was to assess the sociopolitical role of Blackman Eddy relative to the larger valley centers to the west (Figure 1). Unusual circumstances redirected the project objectives. Unauthorized bulldozing activity in the mid 1980s cut a structure in half, revealing a profile that illustrated a construction history spanning approximately 2000 years (Figures 2 and 3). Because of the damage and the danger of extensive collapse, the Belize Department of Archaeology decided in 1994 that the damage was too severe to repair and that the best solution was to initiate an intensive excavation program to

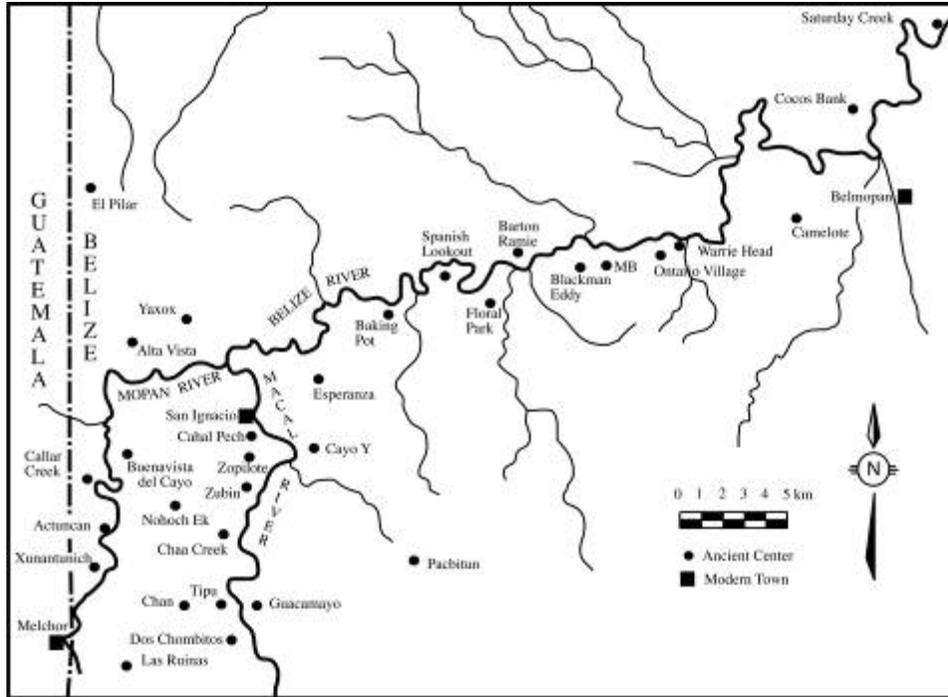


Figure 1. Map of the Belize River Valley.

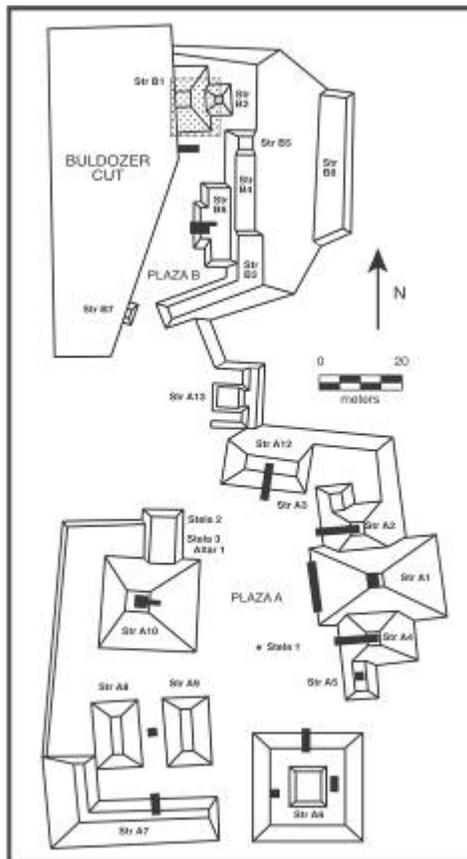


Figure 2. Blackman Eddy site core.

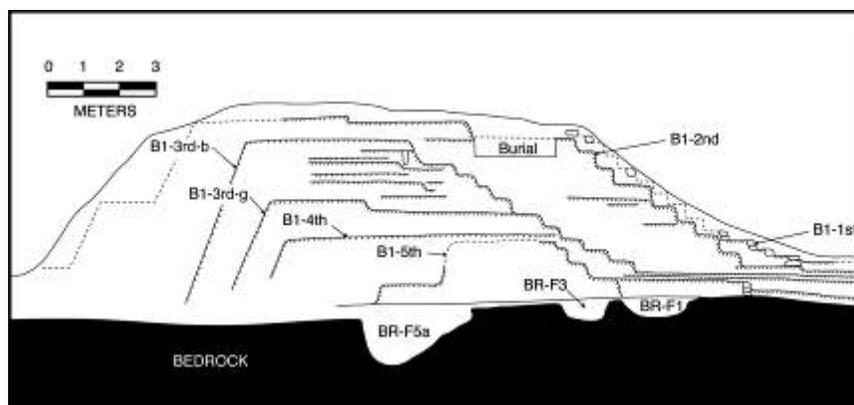


Figure 3. Profile of Structure B1, Blackman Eddy.

excavate the remaining portions of the structure. The focus of the project shifted in 1994 to fully document the construction history and thus provided a unique opportunity to conduct an extensive horizontal excavation on a series of Middle Formative constructions. As a result of these efforts, the investigations have revealed considerable information on the Formative prehistory of the valley. The sequence starts with a Formative bedrock-level occupation (ca. 1100 B.C.) overlain by plaster and masonry platforms of increasing size (see Table 1).¹

The Middle Formative remains were encountered within Structures B1 and B2 in a single horizontal block excavation covering an area of approximately 150 square meters. Thirteen distinct Middle Formative construction phases were revealed (five domestic, seven public), some of which had sub-phase modifications as well (Table 1). Extensive ritual deposits were associated with the buildings.

The Kanocha Phase (1100-900 B.C.)

The Kanocha phase represents the initial occupation of Blackman Eddy. Two ceramic wares are present in the Kanocha Complex; one utilitarian with calcite and quartzite temper and the other a dull-slipped ware characterized by ash temper. Major

vessel forms include; lugged and strap-handled jars with short necks, tecomates, colanders, bowls of various forms, and flat-bottom plates with out-curving sides and wide everted rims. Decoration techniques include applique fillets, post-slip incising, and differential firing techniques. The predominant utilitarian ware shows strong parallels to unslipped Jocote types of Jenney Creek and appears to be its developmental precursor. Some of the dull-slipped types show strong developmental ties to the succeeding Mars Orange group as well.

The closest stylistic parallel to the Kanocha ceramic material is from the southeast in Honduras. The Chotepe Phase (1100-900 BC) ceramic material from the site of Puerto Escondido in Honduras exhibits a coarse paste group and a fine-paste group with volcanic ash temper (Joyce and Henderson 2001). The fine-paste ceramic group has stylistic similarities to the Kanocha dull-slipped ware group both of which have incised and carved motifs on flat-bottom, flaring wall bowls, and also use differential firing techniques to produce dark fire clouding on cream or white slipped vessels.

Several aspects of these ceramics such as dating, origins, and relationship to subsequent complexes have been the subject of considerable discussion and debate. The radiocarbon dates from Blackman Eddy

(Table 2) support the proposed beginning date for the appearance of these ceramics at ca. 1100 B.C. and may have made their first appearance earlier. The same is true for the Cunil Complex at Cahal Pech (Awe 1992). Prior to these discoveries, the earliest deposits of the valley were those of early facet Jenney Creek at 800 B.C. (Gifford 1976) and thus, the Kanocha phase at Blackman Eddy and Cunil phase at Cahal Pech both predate Jenney Creek. These early ceramic types have also been recovered at Xunantunich (Strelow and LeCount 2001), Pacbitun (Powis, personal communication, 2000), and in the BVAP excavations at Floral Park (Brown et al. 1996).

The issue of origins is more complex. There are four basic possibilities: 1) these ceramics were developed in-situ with no, or little, outside influence; 2) the underlying concepts of ceramic production were introduced into the valley from Maya groups in adjoining regions; 3) ceramics and/or the underlying concepts of ceramic production were introduced into the valley from non-Maya groups in adjoining regions or beyond through interaction and; 4) this portion of the Maya Lowlands was settled by non-Maya groups, bringing with them the concepts of ceramic production.

The iconography and general quality of the Kanocha phase ceramics represent a well-developed technology and do not appear to be a first attempt at producing ceramics. There is no evidence for ceramic experimentation. The first possibility above can reasonably be ruled out on the basis of clear iconographic ties to other regions of Mesoamerica. Moreover, non-local exotics were encountered within the Kanocha phase at Blackman Eddy and the Cunil phase at Cahal Pech (Awe 1992) suggesting interaction with outside regions. With ceramic producing populations surrounding the Maya Lowlands it seems logical that the early inhabitants of the valley would have

had an understanding of ceramic technology. The fact that cultigens and associated technologies were spreading all over Mesoamerica is ample evidence of considerable interaction even at an early date.

The second possibility, that the underlying concepts of ceramic production were introduced into the valley from Maya groups in adjoining areas, flows from “conventional wisdom” among Mayanists that if something occurs in the Maya Lowlands it must be Maya. We would expect to find preceramic deposits in the valley indicating an earlier lifeway more dependent on wild resources. Such finds are present, but scarce, and the density and significance of these Archaic valley populations has not been determined. Compelling evidence that the early settled villagers were well adapted to the local environment of the valley lends support to this possibility.

Distinct external influences on the Classic, Postclassic, and Historic periods are well documented and thus the third and fourth possibilities, both of which involve non-Maya groups, should be given careful consideration. Ball and Taschek (2000, 2003) present an intriguing reassessment of the Middle Formative ceramics of the valley that may shed some light on this issue. They suggest that the earliest permanent settlers of the valley were not Maya or at least not the Maya of the Classic period. Furthermore, they suggest that the ceramics in use between 950-500 B.C. of the valley are not of a single complex, the result of a “closed-system”, but rather represent multi-system composites.

While the Kanluk [Cahal Pech Jenney Creek] and Jenney Creek ceramic complexes as defined are based on stratigraphic depositional associations, they do not represent one-to-one equivalents of local Middle Preclassic production-consumption assemblages but depositional composites made up of locally manufactured and used pottery plus additions resulting from local exchange, long-distance trade, possible

gifting, the curation of heirlooms or antique vessels, and other processes. The evidence for some of these processes is easily recognized, that for others is not. However, what should be realized is that the compositional character of a Middle Preclassic complex like Jenney Creek or Kanluk really is no different from that of a central lowlands Terminal Classic complex that includes fine orange, plumbate, or thin-slate ceramics, or a northern lowlands Late Complex with inclusions of Palmar or Petkanche group polychromes or fine-paste wares from outside the immediate region of archaeological discovery. [Ball and Taschek 2000:6].

According to their argument, what has been regarded as a single complex may actually be made up of two distinct production systems; one Maya, the other non-Maya. The ceramic groups that make up these complexes appear to be a part of a “generic Middle Preclassic” ceramic tradition with a wide distribution that extends across the isthmus as opposed to a “Maya Middle Preclassic” tradition. This pattern would be analogous to the situation in the Copan Valley where the earliest ceramics (Rayo and Gordon complexes) have been linked to complexes of Chalchuapa (Demarest 1987; Fash 1991), and Xe ceramics linked to Mixe-Zoque groups most likely from eastern Chiapas or the northern highlands of Guatemala (Andrews 1990). In these models, the Mixe-Zoque groups were absorbed or replaced by Maya groups expanding from Mamom based ceramic systems, which had developed out of Peten or Swasey pre-Mamom roots. The validity of this model for the Belize Valley ultimately rests on a comprehensive analysis of the ceramic material coupled with a thorough comparison to neighboring areas and beyond. Such an analysis is currently in progress (Joseph Ball, personal communication, 2001).

In the initial description of the Cunil phase at Cahal Pech, Awe (1992) describes a set of motifs and elements of the incised

types as well as those on greenstone artifacts of the same phase. Subsequently, these motifs were the subject of a more detailed analysis (Cheetham 1998). The *kan* cross and avian-serpent have been identified on the Kanocha phase ceramics at Blackman Eddy. Both are part of a widespread generic Middle Formative system found in several regions of Mesoamerica including; Chiapas, Pacific Coast, Gulf Coast, El Salvador, Morelos, Valley of Mexico, and Oaxaca. The Kanocha (Figure 4) and Cunil phase figurines are stylistically similar to examples from the Northern Guatemalan highlands, Western El Salvador, and Central Chiapas and are quite unlike those from the Gulf Coast and the Southeastern Pacific Coast (Awe 1992; Cheetham 1998).

The distribution of these motifs indicates that the iconographic representations were not Maya in origin but rather was a part of a larger pan-Mesoamerican Middle Formative symbol system. These symbols are not a part of the Swasey Complex in Northern Belize (Kosakowski 1987; Kosakowski and Pring 1998). Furthermore, they are not a part of Jenney Creek at Barton Ramie or Blackman Eddy, Kanluk (Jenney Creek at Cahal Pech), Mamom, or Bolay. Cheetham (1998) believes these pan-Mesoamerican motifs were adopted by the resident Maya population of the valley. Although we do not reject this hypothesis, we leave open the possibility that the earliest settlers of the valley (Maya or other) arrived with these iconographic concepts as a part of their cultural traditions. Given the reassessment by Ball and Taschek (2003) and the possible problems with our current understanding of who the earliest settlers of the valley were, where they might have come from, and what groups they may have been influenced by, we reserve judgment on the possible explanations for the origin of the early ceramics of the valley pending further

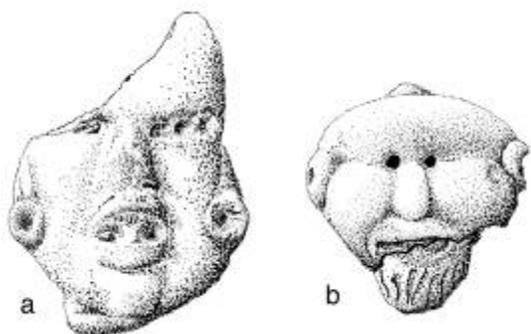


Figure 4. Kanocha phase artifacts; (a) figurine fragment; (b) ocarina fragment.

analysis and excavation.

Kanocha Data

Kanocha artifacts include, retouched flakes, scrapers, drills, burins, chert macroblades, hammerstones, quartzite and granite manos, tecomate stone bowls, polished greenstones, marine and freshwater shell disk beads, bone needles, bone rings, stingray spines, stone pendants, ceramic ocarinas, and molded ceramic figurine fragments. From the establishment of their initial settlement, the Terminal Early Formative and early Middle Formative inhabitants of the valley were involved in long distance trade. Exotic goods include greenstone, obsidian, and marine shell. The presence of greenstone from the Blackman Eddy Kanocha phase and Cahal Pech Cunil phase (Awe 1992) is one of the earliest uses of greenstone in the Maya Lowlands. The marine shells are predominantly *Strombus*, available on the Caribbean coast. The early occurrence and diverse origins of these exotic goods imply that an extensive system of long distance trade and exchange had been established in the Maya Lowlands by the beginning of the first millennia B.C.

The initial Terminal Early Formative / early Middle Formative sequence at Blackman Eddy consists of a bedrock level occupation evidenced by a series of postholes

cut into bedrock and low apsidal tamped-earth platforms that supported pole and thatch buildings. These are designated Structure B1-8th through 13th (Figure 5). All appear to be circular or apsidal in outline. A piece of pole-impressed daub plaster with a trace of a red hematite stripe was recovered in the excavations. A Cunil phase building at Cahal Pech, B4 10c-sub, was decorated in a similar manner (Awe 1992). The function of the Blackman Eddy pole and thatch buildings appears to be domestic and represents the earliest occupation of the site. These first occupants modified bedrock by leveling and filling in low areas. In some areas bedrock was used as a living surface. Midden material associated with what was probably the final phase of the postholes, contained lithic debris, ceramics, and numerous freshwater shells.

Although the construction sequence of Structures B1-8th through 13th could not be determined with absolute certainty, B1-10th through 13th probably preceded the construction of B1-8th and 9th both of which are elevated platforms representing a relatively higher input of labor. B1-10th through 12th are bedrock level buildings (Figure 5). Structures B1-8th and 9th are probably contemporaneous. Both platforms are circular or apsidal in outline approximately 6.0 to 8.0 m in diameter and up to 0.45 m in height. The platform edges consisted of roughly trimmed limestone blocks in marl. The fill of the platform was composed of untrimmed limestone chunks, marl, and soil and the surfaces were composed of tamped marl. As can be seen in Figure 5, the excavations only revealed a portion of these platforms and thus overall size and function could not be determined. B1-8th has a series of posthole patterns representing two successive pole and thatch buildings. No postholes were observed on Structure B1-9th but only a portion of the platform was exposed in the excavation. Like

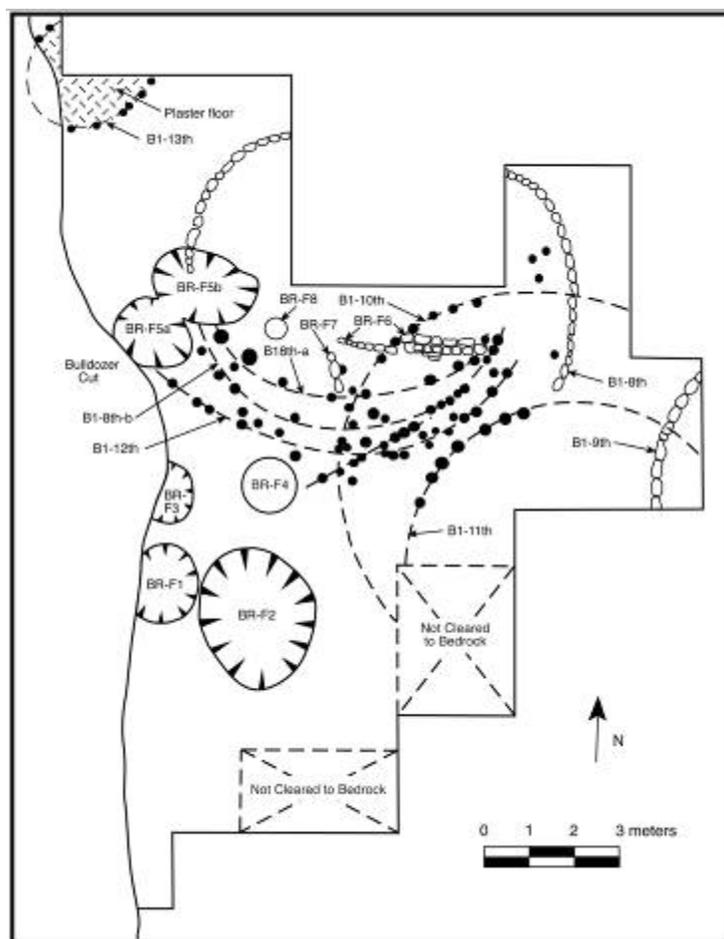


Figure 5. Plan map of bedrock features.

B1-8th, it too probably supported a pole and thatch building.

Similar early deposits have been found at Cuello, Colha, Nakbe, and Cahal Pech (Awe 1992; Powis 1996) and Pacbitun (Hohmann et al. 1999; Hohmann and Powis 1999). At Cuello, the initial occupation is marked by cultural debris mixed and impacted into the old ground surface associated with postholes excavated into bedrock (Gerhardt and Hammond 1991). The earliest architectural features found at Nakbe consist of hard packed earthen floors overlying a buried paleosol level (Hansen 1998). Postholes carved into bedrock were also associated with these early constructions.

Like the initial occupation at Blackman Eddy, these constructions were built directly on the ground surface. In the case of Blackman Eddy, low areas of the ground surface were filled in. Radiocarbon samples from the initial occupation at Nakbe consistently range between 1400 B.C.-1000 B.C. calibrated (Hansen 1998). These dates are consistent with the radiocarbon data from Blackman Eddy (Table 2).

A two-chamber chultun had been dug into the soft bedrock (BR-F5a and F5b Figure 5). This was probably associated with Structure B1-9th, 10th, or 11th and could not have been associated with B1-8th or B1-12th as can be seen Figure 5. Each chamber

measures approximately 1.5 m north/south by 2.5 m east/west and 1.2 m deep. A complete colander vessel (Figure 6) was found nestled in a depression at the base of the chultun. The interior basal surface of the vessel in and around the area of the drain holes was encrusted with a layer of white lime. Colanders probably functioned as containers to rinse off lime soaked corn in the preparation of maize gruel or to soften maize prior to grinding. The original function of the chultun is not clear but it may have been dug to catch and store water. Laminated fine slits and clays were present in the bottom as a result of sediment settling out of water that had collected in the chultun. Other artifacts from the lower levels of the chultun include bone needles, manos, marine shell beads and detritus, chert drills, a stone tecomate, and a possible nutting stone. Two radiocarbon dates were obtained from the chultun (Beta-162573 and Beta-159142 Table 2).

Kanocha Phase Summary

The initial architectural constructions at Blackman Eddy are quite modest. It is a hilltop settlement overlooking the floodplain below. These early constructions consisted of simple pole and thatch buildings at or slightly above ground level. Subsequent Kanocha phase buildings consisted of low stone-edged tamped marl platforms upon which perishable buildings were constructed. These buildings were clustered and had associated tamped earth patio surfaces. Immediately following this phase, lime plaster floors and simple stone masonry make their appearance. Some residents had access to exotic materials such as obsidian, greenstone, and marine shell. The increased complexity of architecture and the associated increased labor investment coupled with the presence of exotics and the ceramic vessels that carry iconographic information are indicative of the emergence of social

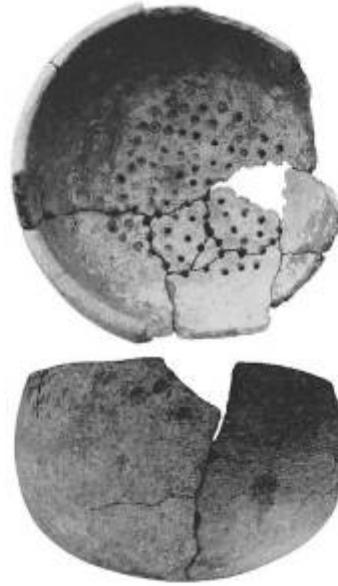


Figure 6. Kanocha phase ceramic colander vessel.

differentiation towards the end of the Kanocha phase.

Artifacts include a wide range of chipped stone tools and a variety of ceramic vessel forms including jars, bowls, and plates. The presence of grinding tools and colanders indicate the use of maize. The evidence of feasting suggests communal ritual activities possibly functioning as integrative activities to form social bonds, and allow redistribution of goods through local gift-giving and exchange networks. A rich faunal assemblage demonstrates the use of a wide range of animal foods as well. Exotics include obsidian, marine shell, and greenstone, indicating that these early settled groups were a part of an extensive system of exchange. The iconographic motifs indicate participation in a pan-Mesoamerican symbol system. The collection of new data as well as continuing analysis of existing data should prove productive in answering questions

Table 1. Construction Phases of Structure B1 at Blackman Eddy.

STRUCTURE	PERIOD	CERAMIC PHASE	DATE
B1-1st	Late Classic	Tiger Run	600 A.D.-900 A.D.
B1-2nd-a	Early Classic	Hermitage	300 A.D.-600 A.D.
B1-2nd-b	Early Classic	Hermitage	300 A.D.-600 A.D.
B1-3rd-a	Late Preclassic	Barton Creek	350 B.C.-300 A.D.
B1-3rd-b	Late Preclassic	Barton Creek	350 B.C.-300 A.D.
B1-3rd-c	Late Preclassic	Barton Creek	350 B.C.-300 A.D.
B1-3rd-d	Late Preclassic	Barton Creek	350 B.C.-300 A.D.
B1-3rd-e	Middle Formative(late)	LJC	700 B.C.-350 B.C.
B1-3rd-f	Middle Formative(late)	LJC	700 B.C.-350 B.C.
B1-3rd-g	Middle Formative (late)	LJC	700 B.C.-350 B.C.
B1-4th	Middle Formative (late)	LJC	700 B.C.-350 B.C.
B1-5th	Middle Formative (early)	EJC	900 B.C.-700 B.C.
B1-6th	Middle Formative (early)	EJC	900 B.C.-700 B.C.
B1-7th	Middle Formative (early)	EJC	900 B.C.-700 B.C.
B1-8th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.
B1-9th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.
B1-10th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.
B1-11th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.
B1-12th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.
B1-13th	Middle Formative (early)	Kanocha	1100 B.C.-900 B.C.

EJC = Early Jenney Creek, LJC = Late Jenney Creek

All samples are wood charcoal. Dates in parentheses indicate calibration curve intercepts.
EJC=early facet Jenney Creek. LJC=late facet Jenney Creek.

Table 2. Radiocarbon dates from Blackman Eddy.

Location	Phase	Beta #	Radiocarbon age - B.P.	Radiocarbon age - B.C.	Calibrated 1 sigma - B.C.	Calibrated 2 sigma - B.C.
BR-F3	Kanocha	122281	2990+/-60	1040+/-60	1295-1120	1395 (1215)1015
BR-F5b	Kanocha	162573	2800+/-40	850+/-40	1000-900	1030 (930) 840
BR-F5a	Kanocha	159142	2750+/-40	800+/-40	920-830	990 (900) 820
Bedrock	Kanocha	122282	2730+/-50	780+/-50	910-820	980 (845) 805
BR-F2	EJC	162571	2420+/-40	470+/-40	740-710 and 530-410	760-620 and 590 (420) 400
BR-F1	EJC	162570	2460+/-40	510+/-40	760-620 and 590-420	780 (740, 710, 530)410
BR-F4	EJC	159144	2450+/-40	500+/-40	760-640 and 560-420	780 (520)400
B1-7th	EJC	162572	2340+/-60	390+/-60	410-380	740-710 and 530 (400)360 and 290-230
B1-6th	EJC	159146	2430+/-40	480+/-40	750-700 and 540-410	770 (500, 460, 430)400
B1-5th	EJC	122279	2500+/-50	550+/-50	780-515	795 (760, 635, 560) 410
B1-5th	EJC	103956	2440+/-60	490+/-60	760-635 and 560-405	785 (505) 390
B1-4th	LJC	103959	2480+/-50	530+/-50	775-485 and 465-425	790 (755, 685, 540) 405
B1-3rd	LJC	159141	2290+/-40	340+/-40	390-370	400 (380) 350 and 300-220
B1-3rd	LJC	159145	2240+/-40	290+/-40	380-350 and 310-210	390 (360) 190
B1-3rd	LJC	159147	2190+/-40	240+/-40	360-280 and 240-190	380 (340, 320, 310)160

about the origins and inter-regional relationships of this early period as well as the role of these villagers in shaping subsequent phases.

Conclusion

Primary objectives in the recent investigations at Blackman Eddy were to augment the emerging Formative period database of the upper Belize Valley region, in particular at the site of Cahal Pech (Awe 1992). Prior to these initiatives, what was known of Formative occupation of the area was essentially what Willey and his colleagues (1965) had discovered in the 1950s. More recently, Ball and Taschek (1986), Ford (1990), Ford and Fedick (1992), and Healy (1990) recorded evidence of Formative occupation at Buenavista del Cayo, Pachitun, and the area to the northwest of the Belize River.

Prior to the excavations at Blackman Eddy (Brown and Garber 1998) and Cahal Pech (Awe 1992; Cheetham 1995, 1996) there were no data on securely dated Jenney Creek phase architecture, no evidence for settlements or construction prior to 800 B.C., and no monumental architecture dating to the Formative period recorded at Barton Ramie or other neighboring sites. Data regarding interaction spheres or the procurement of exotic goods were limited as well. The earliest occurrence of obsidian had been dated to the late Jenney Creek phase. Jade or greenstone first appeared in the later Barton Creek phase (Willey et al. 1965). In part due to this limited database, Willey et al. (1965), Gifford (1970) and Sharer and Gifford (1970) initially suggested that sociopolitical complexity did not develop in the upper Belize Valley until the terminal Late Formative, and they argued that this development was probably sparked by outside highland influence.

The excavations at Blackman Eddy have revealed a developmental sequence of architectural construction initiated at approximately 1100 B.C. with the construction of pole and thatch domestic buildings built on and slightly above bedrock. Through time, the buildings increased in complexity. By the beginning of the early Jenney Creek phase (900 B.C.), the inhabitants of the valley were constructing lime-plastered, cut masonry, monumental public architecture. Participation in a far-reaching interaction sphere has been documented for these earliest settled groups. Evidence for the importation of exotic goods from the Guatemalan highlands, the Motagua Valley, and the Caribbean coast predate the late Middle Formative record for these activities at Barton Ramie (Willey et al. 1965).

The presence of dedication and termination offerings, feasting debris, figurines, carved greenstone, and the incised elements and motifs of the early ceramics, indicate the importance of symbolism and ritual ideology at an early date in the Maya Lowlands. The iconographic motifs of the Kanocha phase at Blackman Eddy indicate that the earliest settled groups of the Belize Valley participated in a pan-Mesoamerican symbol system. This is evident in the Cunil phase at Cahal Pech as well (Awe 1992; Cheetham 1998).

The investigations at Blackman Eddy have revealed Jenney Creek phase material in sealed stratigraphic context. The associated radiocarbon dates for these remains confirm the early Middle Formative date (900 B.C.-700 B.C.) for early Jenney Creek ceramic remains (Table 2). Stratigraphically beneath, and thus pre-dating, these remains at Blackman Eddy are deposits of the Kanocha phase in place by at least 1100 B.C. and possibly beginning earlier. There are several important questions about this phase that

remain unanswered. These concern the origins of the ceramic types, their developmental relationships to Jenney Creek, and their relationship to the early ceramics of the Peten and northern Belize.

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Note

1. The numbering of Structure B1 architecture presented here differs from and supercedes earlier presentations of these data.

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2 ***LOOKING FOR A NEEDLE IN A HAYSTACK: THE EARLY CLASSIC PERIOD AT ACTUNCAN, CAYO DISTRICT***

Lisa J. LeCount

During the Early Classic period (A.D. 250-500) some ancient Maya rulers firmly established aristocracies and ruled over kingdoms that were sufficiently large and complex enough to qualify as states. But despite its anthropological significance, the Early Classic is one of the least understood archaeological periods in Maya prehistory. What archaeologists know about the Early Classic period is based predominately on excavations at large sites such as Tikal and Holmul. In the Belize valley, so few sites exhibit Early Classic material remains that researchers suggest a severe depopulation of the area and aggregation of the remaining populace into a few centers such as Actuncan. Actuncan is arguably the most architecturally impressive Late Formative (400 B.C. - A.D. 250) center in the upper Belize valley and contains substantial deposits of Early Classic materials. Recent excavations at the site may clarify the organization of a relatively small Early Classic center and the role of pan-Maya styles in a regional ceramic complex.

Introduction

The Early Classic is that time period between A.D. 250 to 500 when some lowland Maya polities were sufficiently large and complex to qualify as archaic states. During this time, leaders formalized their positions as rulers and reigned over autonomous kingdoms where innovations in monumental architecture, hieroglyphic writing, and decorative arts flourished. How leaders institutionalized their positions as rulers however, is a source of debate.

Despite the anthropological significance of this debate, the Early Classic is one of the least understood archaeological time periods in the Maya lowlands. Currently, much of our understanding of this critical time period is based on the tomb and temple excavations at a few large sites, such as Tikal (Jones 1991; Jones and Satterthwaite 1982), Uaxactun (Ricketson and Ricketson 1937; A.L. Smith 1950), Holmul (Merwin and Vaillant 1932) and Copan (Sharer 2003). From hieroglyphic monuments found in these sites, researchers have reconstructed political histories of a

few Early Classic kings complete with detailed information concerning their marriages and military campaigns. As invaluable as these data are, they present a “top down” view of political relations that took place at a few large centers, rather than an understanding of the developmental processes that lead to the institutionalization of kingship and political hierarchies.

In many areas outside the central Peten or northern Belize, where centers are small and lack extensive documentary information, even less is known about the formation of kingship. Here, so few sites exhibit civic architecture dated to this period that researchers (Awe 1992; Demarest 1992; Ford 1991; Lincoln 1985) suggest a severe depopulation of hinterland areas and aggregation of the remaining populace into a few large sites. Although this is a plausible explanation for the lack of Early Classic site components, it is also possible that we have yet to fully recognize the material indicators of this time period. Archaeologists working outside the central Peten have relied predominately on elite pottery styles, many

of which were first identified at Uaxactun and Holmul, to recognize Early Classic material remains in small centers (Lincoln 1985). These elite types, however, are found in very small frequencies in hinterland sites (Adams 1971; Ball 1977; Gifford 1976; Sabloff 1975). When diagnostic types are found, they generally come from cave and tomb contexts, or possibly civic architecture, but rarely are they found in households. Evidently, archaeologists can identify the Early Classic ritual complex, but have a more difficult time recognizing the domestic assemblage. This pattern has led some researchers (Awe 1992; Demarest 1992; Ford 1991; Lincoln 1985) to suggest that Early Classic assemblages contain mostly long-lived Formative pottery types and regional styles not identified in seminal ceramic reports. If this is indeed the case, our current typological scheme artificially inflates the number of Late Formative sites and falsely exaggerates the decline in Early Classic sites.

To understand the Early Classic period, archaeologists need to do two tasks. First, we need to develop models for the rise of kingship. Second, we must engage in chronology building in order to test these models. My research at Actuncan seeks to clarify the ceramic sequence in the Belize valley, and address socio-political and economic underpinnings of early kingship in a hinterland polity.

Parameters for Understanding the Rise of Kingship

Many Mayanists favor a model that emphasizes the role of ritual and public display as the initial source of kingly power (Demarest 1992; Freidel 1992; Freidel and Schele 1988). In a recent article, Patricia McNany (2001) elaborates on the importance of cosmology for the institutionalization of kingship in the Maya region, but also considers a set of non-

ideational factors for the rise of the political authority. She proposes a set of seven factors critical to the rise of kingship in the Maya lowlands: 1) hierarchical organization of kin groups, 2) interactive peer-polities, 3) a military tradition, 4) presence of writing, 5) exclusive access to supernaturals, 6) ancestor worship, and 7) wealth accumulation. Although these parameters were originally advanced by K. C. Chang for understanding the rise of Chinese states, McNany applies them to the ancient Maya since these two societies share similar underlying societal structures. At this juncture, I want to stress that this is not a universal explanation for the emergence of rulers. Clearly, the Inka state developed without the use of writing. Nonetheless, these precepts illustrate how control over knowledge, manpower, and wealth could be used to transform an existing ranked organization into a state.

To understand how Early Classic kings institutionalized their authority, archaeologists must investigate the Late Formative period (400 B.C. - A.D. 250), since it is during this time period that leaders began to consolidate their powers. In this paper, I will use the general designation "Late Formative" to refer to that time span which encompasses both the Late and Terminal Formative periods since these underlying conditions were not confined to the Terminal Formative period. Actuncan is an excellent site to view the institutionalization of Maya kingship since it contains both Late Formative and Early Classic deposits. Below, I discuss five out of the seven characteristics with information from the site of Actuncan in the Upper Belize Valley. I will not focus on a military tradition and writing, since I have not found evidence of these characteristics at Actuncan; however, I do think they played a role in the rise of state level society in the area.

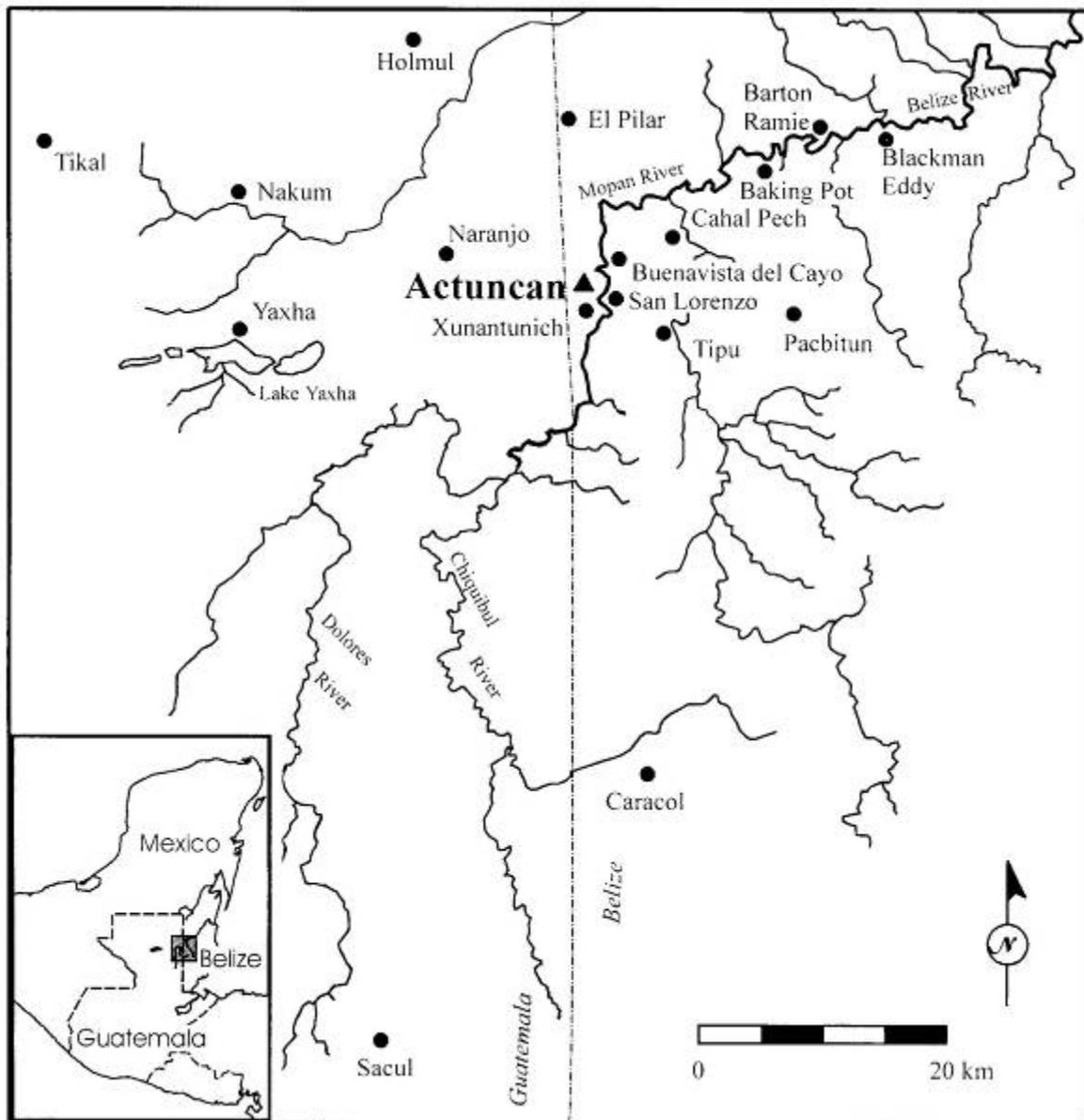


Figure 1. Sites in the Upper Belize Valley.

Actuncan

During the Late Formative periods, a strong and vibrant population occupied the Belize valley, and many people lived in large towns such as Cahal Pech, Blackman Eddy, Pacbitun, Floral Park, and Actuncan (Figure 1). The extensive distribution of Chicanel ceramics, with their typical red to orange

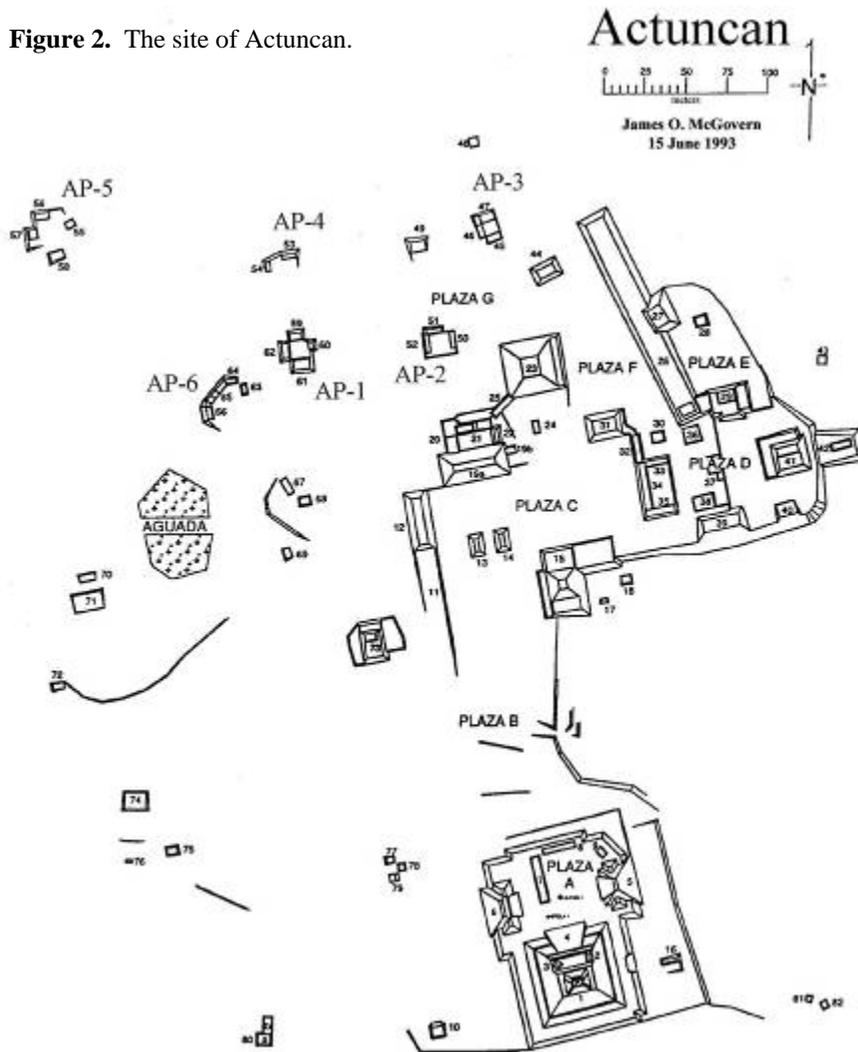
waxy surface treatment, across the lowlands can be used as evidence for extensive interactions between sites. Actuncan is arguably the most architecturally impressive Late Formative site in the upper Belize valley. The center is situated on a long, low ridge overlooking the Mopan river valley and is considered the ancestral shrine of the Late

Classic capital of Xunantunich (Ashmore and Leventhal 1993). Excavations at the site by James McGovern (1992, 1993, 1994) greatly expanded our knowledge of this important site.

McGovern documented two main zones of architecture (Figure 2). Actuncan South is dominated by a Formative triadic temple complex. The complex rests on a person-made platform that is 72 by 120 m in size, and the primary pyramid rises 32 m above the surrounding terrain. Most of this platform and temple complex was built from

the Middle to Late Formative, but modifications to the structures were made throughout the Classic period. The Formative center was connected to the northern portion of the site by a wide causeway that opens into Plaza C. This area contains a ball court, range structures, and pyramids. To the east are smaller plazas defined by civic buildings and possibly elite residential compounds. House mounds are located to the extreme north and west of the civic center, three of which I tested in 2001.

Figure 2. The site of Actuncan.



McGovern placed 44 test pits into eight civic structures in Actuncan North and examined extensive looters trenches in the southern pyramidal complex. Using construction volumetrics, he determined that one-half of the northern civic architecture was built during the Late Formative, and one-quarter was built during the Early Classic (McGovern, personal communication 2003). Although none of the eight civic structures tested by McGovern appear to have been built entirely in the Early Classic, four out of eight structures were substantially modified during this time and the other four were built on Early Classic surfaces or middens. Based on this sample, I can safely say that Actuncan was a burgeoning center during the Early Classic period. Although the site was occupied in the Late Classic, very little (about 15%) civic construction occurred during this time, when presumably labor was devoted to the construction of Xunantunich, about 2 km to the south of the site.

Hierarchical Kin Groups

Archaeologists reconstruct social rank based on differences in the dimensions of house mounds. My sample size is too small to understand the range of house mound sizes at Actuncan, but it is apparent that some commoner households were large and long-lived by the Late Formative. *Plazuela* 1 (AP-1) is a multi-mound group with four platforms, one on each side of a central patio. It measures 26.5 m north/south and 25.5 m east/west, and has a maximum height above ground surface of 2.5 m, making it the largest *plazuela* on the ridge top. Two out of the three plaza floors date to the Late Formative, and one to the Late Classic. In the two smaller *plazuelas* (AP-2 and AP-3), basal occupation layers contain Early Classic materials, but not substantial architecture. Only at the largest *plazuela* is there evidence of a deeply stratified sequence.

These data may support the current idea that the Belize valley experienced a population decline during the Early Classic. No domestic middens or architecture were found that date to this time span, and even in the largest and most long-lived household there appears to have been a serious disruption in the plaza building sequence. The number of people who resided at the Early Classic site may have been fairly small, even though there were significant civic building projects occurring at this time. Fred Valdez suggests that populations who built Early Classic civic architecture might have lived in dispersed farmsteads, yet to be detected by archaeologists. But it could also be argued that the vast majority of Early Classic domestic structures at Actuncan have yet to be found or recognized as such since houses might have been made of perishable materials and their residents may not have owned fancy pottery.

Ancestor Worship

McAnany (2001:132) suggests that the Formative period Maya were organized into what Levi-Strauss called “houses” whose members worshiped their apical ancestors. From ethnographic research on ancestor veneration among modern Africa, Asia and Mayan groups, it is clear that only specific individuals become ancestors, most likely the founder of the lineage. Therefore, when archaeologists find burials of single adult males richly adorned in tombs below house floors, they assume these individuals were founders or important lineal descendants of the house. Since the body or relic represents lineage ancestry, ancestor worship serves to entrench the principles of authority and rights to lineage property.

The largest household at Actuncan, AP-1, contains two burial crypts cut into the Terminal Formative period floor. The crypts’ capstones were not plastered over indicating that the contents could be exposed for

ancestor rituals during the Early Classic period. I excavated only the southern most crypt, in which I found a single adult laying face down with its head to the south. A small brown ware effigy vessel in the shape of a bird rested “mouth-up” on top of the individual’s toes (Figure 3). Similar plain effigy covers have been found at Holmul (Merwin and Vaillant 1932:plates 26a and 27 a-c), Uaxactun (Smith 1955: Figure 29d-I), and Tikal (Culbert 1993: Figure 16c), where they were associated with the initial phases of the Early Classic period.



Figure 3. Brown ware effigy lid.

Exclusive Access to Supernaturals

Freidel and Schele (1988) reconstruct early kingship as a shamanistic position. By performing sacred ceremonies of renewal and

fertility, the shaman transformed his or her religious role within the community to one that included political influence. The position became synonymous with the concept of *ajaw*, a sacred ruler endowed with supernatural powers and the ability to communicate with divine ancestors. Awe-inspiring rituals convinced less privileged households and small communities to pledge loyalty and labor to the *ajaw*. During the Early Classic period, Maya kingship was transformed into a stable political institution by the adoption of genealogical principles of succession and the standardization of ritual practices. This shift marks a fundamental change in the ideological underpinning of power from corporate to exclusive authority.

Much evidence has been marshalled to support this model. At Cerros, Freidel and Schele (1988; also Schele and Freidel 1990) suggests that a Late Formative pyramid decorated with stucco panels along the terrace façade depicts celestial agents. The structure acted as a stage where the shaman leader placed himself in a mediating position between the community and the four cycling cosmological powers which ensured agricultural fertility and the continuation of the cosmos. Early stelae also depict rulers as manipulators of the supernatural. For instance the Hauberg stela dated to A.D. 199 illustrates a king with the supernaturals he has materialized by shedding blood. During the Late Classic period, pyramids lacked stucco masks portraying supernaturals, and functioned predominately as funerary shrines for rulers. Late Classic stelae focus on the deeds of kings and queens, their royal parentage, and historical events (Marcus 1992). Classic period religious and political power; therefore, focused on the exclusive power and privilege of rulership.

At Actuncan, Stela 1 was erected in front of the largest structure in Plaza A sometime between 400 BC and AD 100. Nikolai Grube (Grube and McGovern 1995)

interprets the carved image as representing a dancing individual who holds a feathered staff, probably in connection with autosacrifice. In the Early Classic, modification to the terraced and sloped façade included the addition of painted stucco masks similar in style to those found at the royal acropolis at Tikal. These monuments mirror the shifting focus of ritual described by Friedel and Schele.

Wealth Accumulation

My interest in portable wealth items focuses on their role as exchange items for funding political ambitions. Leaders must reward loyal followers, support appointees, and fund projects using some type of staple or wealth finance (D'Altroy and Earle 1985). Staple finance generally involves tribute payments in kind to the central authority in the form of subsistence goods. Wealth finance involves the manufacture and procurement of special products that are used as a means of payment. Control over staple or wealth items was a prerequisite for funding political projects and personnel.

This discussion brings us back to the question of Early Classic pottery. Why is it so rare in small domestic structures? What can be suggested from the work at Actuncan is that Early Classic household assemblages look different than those found in civic contexts. I proposed that the production and distribution of polychrome painted or elaborately carved Early Classic vessels were tightly controlled by elites. Unlike the vast majority of Late Classic polychrome pottery, decorated Early Classic vessels may have functioned as true status symbols displaying information critical to political position. As inalienable wealth, basal flange bowls and tripod vases may have played an important role in the accession to leadership, and therefore, these items were buried with their owners. Here, Friedel and Schele's model appears to fit the data. Early Classic elites

may have controlled ritual paraphernalia critical for performing ceremonies that legitimized their positions as kings. However, if Early Classic diagnostics can be found in commoner contexts, then archaeologists must consider the role these vessels played in lineage life-cycle rituals.

Discussion and Conclusion

Up to this point, I have focused on some of the pre-existing practices that made the rise of Maya kingship possible. But how did leaders use these practices as resources to institutionalize the position of kingship and transform relatively small chiefdom-level societies into larger states? I view this transformation as essentially a political process, but not one in which leaders tightly controlled all aspect of society. Rather, I propose that the institutionalization of the office of kingship required leaders to delegate decisions and authority in order to expand power. If hierarchy is the key characteristic of state-level societies (Marcus and Feinman 1998), then one of the important differences between chiefdoms and states is the creation of new positions within a growing government. People who filled these offices would have had some modicum of power. At Actuncan, where should I look for evidence of newly created hierarchies? Identifying Early Classic civic architecture, such as a royal residence or a standard two-room temple, is important since these structures represent the office of kings and priests.

But households should also hold a key to understanding the institutionalization of kingship. According to Marcus (1998), part of the process by which emerging Maya rulers institutionalized their elevated positions involved serving the bonds of kinship that had once linked leaders to community members. This process resulted in a two class-endogamous society and a well-developed ideology of stratification in which upper-stratum nobles claimed separate

descent from lower-stratum commoners. Many large households, especially those associated with founding families, therefore had the most to lose in the political and social transformations associated with kingship. If kings attempted to instigate strategies that effectively excluded kin-based leaders from overarching control of social interactions, economic resources, and political appointments, then founding families might have lost long-term control over labor, land, and wealth. In other words, their influence contracted rather than expanded. On the other hand, newly founded Early Classic households might have gained status and wealth as emerging officer holders and supporters of the state. If this is the case, then Early Classic households that appear larger than expected given normal developmental cycles may have benefited from recently acquired wealth and status gained as favors from the king for their loyal support in the face of kin-based authority. To conclude, the difference between leaders and rulers might hinge upon their ability to delegate power and privilege to non-kin officers. The archaeological evidence for these processes will be written not in the concentration of power in older institutions, but in the promotion and proliferation of new titles, new offices, and new wealth.

In conclusion, Actuncan is an excellent location to study the institutionalization of kingship since its occupation spans the Late Formative and Early Classic periods, when the processes that led to the institutionalization of kingship and the creation of a hierarchy of political offices likely occurred in the Upper Belize Valley. My preliminary investigations confirm that the Early Classic period was indeed a time of significant shifts in settlement, but more research is required to better understand the nature of socio-political organization at the site and the extent to which early leaders controlled access to

economic resources such as agricultural and craft products.

Future fieldwork at Actuncan has three objectives: 1) to determine the distribution of staple versus wealth goods by excavating elite and commoner contexts, 2) to reconstruct the layout of the Early Classic center by testing civic architecture, and 3) to clarify the chronology by collecting radiocarbon and pottery samples from stratified deposits. Determining the distribution of domestic goods, agricultural products and exotic items across house mounds allows archaeologists to infer how tightly elites regulated production and consumption of goods in the Early Classic period. Reconstructing the layout of the civic center in terms of the kinds of civic buildings occupied during this period is an index for the size and complexity of the political hierarchy. Clarifying the chronology will help archaeologists understand how rapidly Maya leaders consolidated their power.

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3 SURVEYING AN AGRARIAN COMMUNITY: THE 2002 SEASON AT THE CHAN SITE, BELIZE

Cynthia Robin, William D. Middleton, Santiago Juarez and Mary K. Morrison

The Chan site is an ancient Maya agrarian community in west-central Belize, which was occupied continuously from the Middle Preclassic to Early Postclassic periods (ca. 900 B.C. - A.D. 1250). This article presents the results of the initial season of a multi-year archaeological research project at Chan. In 2002 we completed a survey of 2.88 sq km of settlement around Chan and identified 491 mounds and 1137 agricultural terraces. The 2002 survey lays the foundation for a larger study of the history and internal organization of the Chan site designed to explore the everyday lives of ordinary people in the past and determine how life in an ordinary community affected and was affected by larger political-economic changes throughout Maya society during the Preclassic, Classic, and Postclassic periods.

Introduction

This article introduces archaeology at the Chan site in Belize. Chan is an ancient Maya agrarian community, which was continuously occupied from the Middle Preclassic to Early Postclassic periods (ca. 900 B.C. - A.D. 1250). Research at the Chan site was first permitted in 2002 by the Belize Institute of Archaeology to investigate the long-term history of an ancient agrarian community. Archaeology at Chan was designed to explore the complexities of the daily lives of ordinary Maya people in the past and investigate the important roles that ordinary people and places may have played throughout the course of Maya history.

The first stage of archaeological research needed to understand this agrarian community was the completion of a full-coverage survey of the Chan area to locate and map all human constructions (buildings, agricultural terraces, etc.) and determine the cultural, natural, and historical constitution of the site. In 2002 we completed an archaeological survey of 2.88 sq km of the Chan site and the results of the 2002 survey are presented here. Additional survey and excavation work is ongoing in 2003 at the

writing of this article and proposed for four subsequent seasons (2004-2007). In introducing archaeology at Chan this article will discuss the broader research goals and questions of the Chan project and present the preliminary results of the 2002 settlement survey.

The Chan Site

The Chan site is located in west-central Belize in an interfluvial area of undulating limestone uplands between the Mopan and Macal branches of the Belize river in a region of high, rounded hills (peaks >160m; Smith 1997). Across Chan's hilly terrain its ancient inhabitants constructed and utilized a productive agricultural landscape of hill-slope and cross-channel terraces. In the 2.88 sq km of the Chan site currently surveyed there are on average 395 agricultural terraces per sq km. This density of terraces is higher than that reported from settlement surveys conducted in the region surrounding the Chan site which have documented densities of between 164 and 227 terraces per sq km (see Ashmore et al. 1994; Neff et al. 1995; Yaeger and Connell 1993). Thus it appears that Chan's rounded limestone hills may

have been particularly well suited or particularly well adapted for terrace agriculture (Juarez in Robin et al. 2002: 21-23).

The agrarian community of Chan is situated at the center-point between larger civic-centers located 4 to 6 km to the north, south, east, and west (Figure 1). To the west lies Xunantunich and Actuncan, to the north, Nohoch Ek, Buenavista, and Cahal Pech, to the east Dos Chombitos and Guacamayo, and to the south, Las Ruinas de Arenal. From the Chan site the imposing temple-pyramids of Xunantunich and Dos Chombitos are still visible in the distance as they would have been in the past. Although Chan lacks the larger temple-pyramids, which mark neighboring centers, the 2003 excavations at Chan's central platform group have documented a ca. 2150 year sequence of local ceremony and residence at the center of the site (Blackmore in prep. in Robin 2003; Latsch in prep. in Robin 2003).

This agrarian community was named Chan after the landowners Ismael and Deric Chan of San José Soccutz, Belize. While Chan has been long known to the local community of Soccutz, it was not identified by archaeologists until 1994 when the Xunantunich Settlement Survey, directed by Wendy Ashmore, extended a 400-meter wide archaeological survey transect from the center of Xunantunich on the Mopan river to the center of Dos Chombitos on the Macal river (Figure 2; Ashmore 1994; Ashmore et al. 1994). Chan was identified along the 1994 survey transect as a discrete settlement cluster surrounding three centrally located platform groups. The Chan settlement cluster is both intuitively visible along the survey transect and statistically identifiable based upon nearest neighbor and stem-and-leaf analysis (Vandenbosch in Ashmore et al. 1994).

Chan Project Research Goals

Studies of ordinary agricultural producers, such as the inhabitants of the Chan site, are critical for understanding ancient complex societies. This is particularly the case in agrarian-based complex societies like the ancient Maya, where agricultural producers make up the bulk of society (e.g., Fedick 1996). While archaeology around the world may have initially focused on temples, tombs, and kings, archaeologists are now emphasizing that ordinary people and ordinary communities be made the 'focal point' rather than the periphery of archaeological research (e.g., Brumfiel 1992; McAnany 1995; Pyburn 1998; Sheets 2002).

The Chan site was selected for study, not because of any imposing monumental architectural remains, but for the ordinariness of the site. In many ways the Chan site is similar to other small agricultural centers throughout the Maya area. Research at Chan affords us the opportunity to study the importance of daily life in an ordinary community. The long history of occupation at Chan provides the time depth necessary to understand the relationship between agrarian life and larger political-economic changes throughout Maya society during the Preclassic, Classic, and Postclassic periods. Because many of the larger civic-centers surrounding the Chan site have been well studied by previous and current archaeological researchers in Belize, research at Chan will be able to directly examine how agrarian life related to the changing political fortunes of neighboring civic-centers. Given the long history of occupation at Chan, its agrarian residents would have interacted, both directly and indirectly, with residents of a number of neighboring centers at different

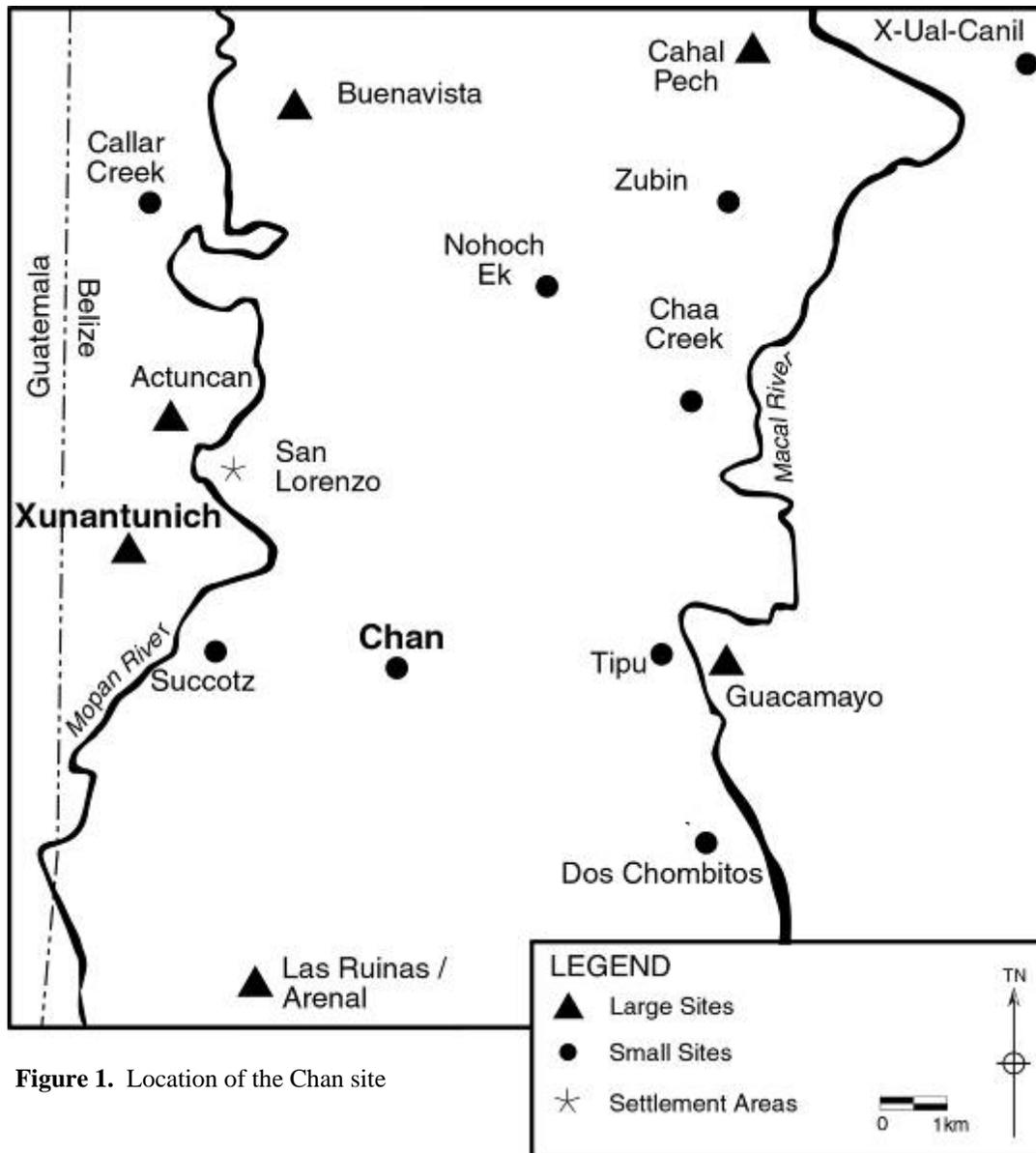


Figure 1. Location of the Chan site

points in time, for example, with Cahal Pech residents in the Preclassic, Actuncan in the Early Classic, Buenavista in the early Late Classic, and Xunantunich in the late Late Classic. The extensive nature of previous research at centers in the upper Belize river area makes it possible for new archaeological research at Chan to now examine the relationship between life in an agrarian community and life in major centers (e.g., Awe 1992; Taschek and Ball

1992; LeCount this volume; Leventhal and Ashmore n.d.).

The research goals of the Chan project can be summarized as three straightforward objectives: (1) to document the 2150 year history of ordinary life in an agrarian community; (2) to understand how agrarian life is transformed through interactions with larger centers, and (3) to understand how larger centers may have had to accommodate to life in agrarian communities.

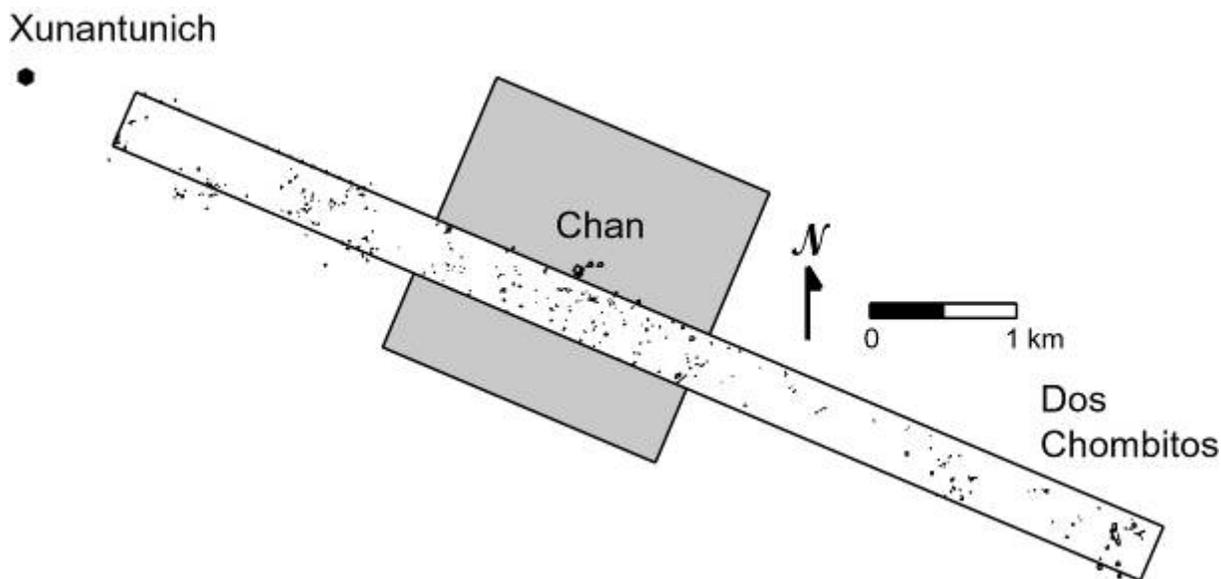


Figure 2. 400-meter wide survey transect from Xunantunich to Dos Chombitos, which located the Chan site in 1994.

In relationship to the multiple civic-centers in the upper Belize river area who's power waxed and waned at different times during the Preclassic, Classic, and Postclassic periods, the relationship between Chan and Xunantunich appears to have been particularly transformative based on current survey data. As discussed in the 2002 Chan survey results below, Chan's settlement occupation remains relatively low throughout the initial 1570 years of its history. Chan's settlement occupation increases dramatically in the latter half of the Late Classic period (A.D. 670-780), coeval to Xunantunich's political florescence. During the short-lived period of Xunantunich polity expansion in the late facet of the Late Classic, Chan's occupation also increases dramatically. At this time Chan residents were probably part of Xunantunich polity economic networks, such as those by which Mount Maloney black pottery was distributed. Mount Maloney black pottery is the most common pottery found at Chan and throughout the

Xunantunich polity (LeCount et al. 2002; Robin 1999). Alongside the decline and abandonment of Xunantunich the long-lived community of Chan declines and is abandoned. The parallel trajectories of Chan's settlement expansion and Xunantunich's political florescence suggest a relationship between the local dynamics of agrarian life at Chan and the changing political-economic system centered at Xunantunich.

By way of contrast, Jennifer Ehret's (1995) test pitting research around the small center of Callar Creek located to the north of Xunantunich, approximately one kilometer from the center of Buenavista (see Figure 1) documented that Callar Creek's primary period of settlement expansion took place in the early Late Classic (A.D. 600-670) parallel with Buenavista's major period of political expansion. Parallels in the timing of local settlement expansion, such as that seen at Chan and Callar Creek, contextualized in relationship to political developments at nearby centers such as

Xunantunich and Buenavista suggest specific inter-relationships between local settlements and major centers, and micro-level movements of local populations within the upper Belize river area as major centers waxed and waned. Figure 3 shows El Castillo (Str. A-6), the central temple-pyramid, at Xunantunich as seen from the Chan site. Similarly the late Late Classic residents of Chan would have been able to see Xunantunich each day as they worked in their fields and lived in their homes. As they viewed this temple-pyramid, Chan residents would have had a constant



Figure 3. El Castillo at Xunantunich (above, upper left corner) as seen from Chan.

reminder of the broader society in which they were participants. This distant image of monumental construction, which was unlike any construction at Chan, may also have reminded residents of the limits of their social world and the social differences that existed in their society.

Just as Xunantunich is visible from Chan, Chan is also visible, albeit only partially, from Xunantunich as seen in

Figure 4. From the top of the El Castillo, the Chan site looks today, like a homogeneous mass of trees. Just as the trees at Chan today as seen from El Castillo appear homogeneous, the diversity and complexity of everyday life at Chan is obscured from an archaeological perspective taken from the center looking out. The goal of the Chan project is to promote a change in perspective on Maya society by focusing on the diversity of everyday life in an ordinary community and turning our archaeological perspective from the center looking out (Figure 3) to that of the ordinary

Figure 4. Chan (below, marked by the white arrow) as seen from Xunantunich



community looking in (Figure 4).

Chan Survey Research Results 2002

Before a broader understanding of everyday life at Chan can be reached, the first step of archaeological research, a full-coverage survey of the Chan site had to be conducted. In 2002 2.88 sq km of the Chan site was surveyed and our survey work is ongoing in 2003 (Wyatt and Kalosky in prep. in Robin 2003). The Chan survey was

designed to document the natural environment of the community and identify traces of human settlement and sort these on chronological, functional, and socio-economic dimensions. The full-coverage Chan survey utilizes three techniques adapted from Ashmore's transect-coverage settlement survey methodology (Ashmore 1994, 1995): (1) topographic mapping, (2) archaeological reconnaissance, and (3) surface collections and test pits. Data collected on the survey provides information on natural features (land formations, vegetation, environment), cultural features (architecture, agricultural fields, other human constructions), and chronology (relative dating of archaeological features through ceramic analysis). The precise location of archaeological and topographic features are recorded in the field using a Topcon GTS 605 Total Station and imported into Visual Cadd, Surfer, and GIS software to produce accurate and geo-referenced settlement survey maps. Computerized spatial data from the Chan survey maps are linked to quantitative and qualitative data recorded on all identified archaeological features in relational databases. The specific procedures of the Chan survey are detailed in *The Chan Project: 2002 Survey Season* (Robin et al. 2002) and this article focuses on the results of the survey research.

Survey Results

Figure 5 shows the distribution of mounds within the 2002 Chan survey area (mounds are the remains of ancient structures, often houses). Across this 2.88 sq km area a total of 491 mounds and 1137 terraces have been identified at densities of 171 mounds per sq km and 395 terraces per sq km. Due to the quantity of terraces identified at Chan they cannot be shown at the scale of Figure 5. Figure 6 shows a northern segment of the survey area at a

larger scale with terraces and mounds illustrated.

As seen in Figures 5 and 6 settlement and agriculture at Chan is influenced by the topography of the site. Settlement is often located on hill or ridge tops or along medial steps with the largest mounds typically located at the tops of the highest hills. Hill-slope and cross-channel terraces line the slopes and channels of the site.

Mounds and other archaeological features identified at Chan (such as aguadas or ramps) can be grouped into 'mound groups,' groups of mounds and other archaeological features in which individual features are ≤ 25 m distant from one another and all other features are > 25 meters distant. The mound group most likely represents the social unit of the ancient household at the Chan site (Robin et al. 2002: 10). There are 242 mound groups at the Chan site surrounded by agricultural terraces. Within this largely agrarian landscape one lithic production site and two limestone quarry sites are also associated with mound groups (see Figure 5). The lithic production and quarry sites indicate that a range of household-level non-agricultural production was also ongoing at the Chan site. The productive activities of an agrarian community were not just restricted to agricultural production, but also included a range of non-agricultural productive activities as well.

Mound groups at Chan can be classified into seven types (Table 1). Roughly 80% of all mound groups at Chan are fairly insubstantial in size with all mounds in the group being less than one meter in height (Table 2). Seven of these small mound groups were previously excavated by Robin (e.g., 1999, 2002) and identified as small farmstead household. Only one mound group at Chan, the central platform group, has mounds as high as five

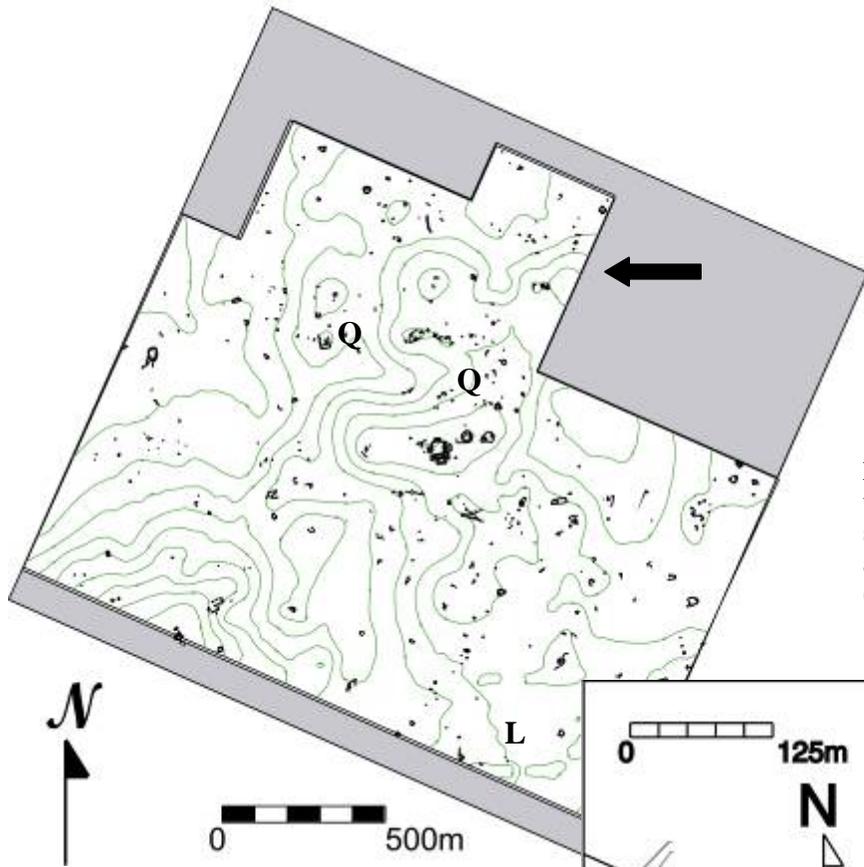
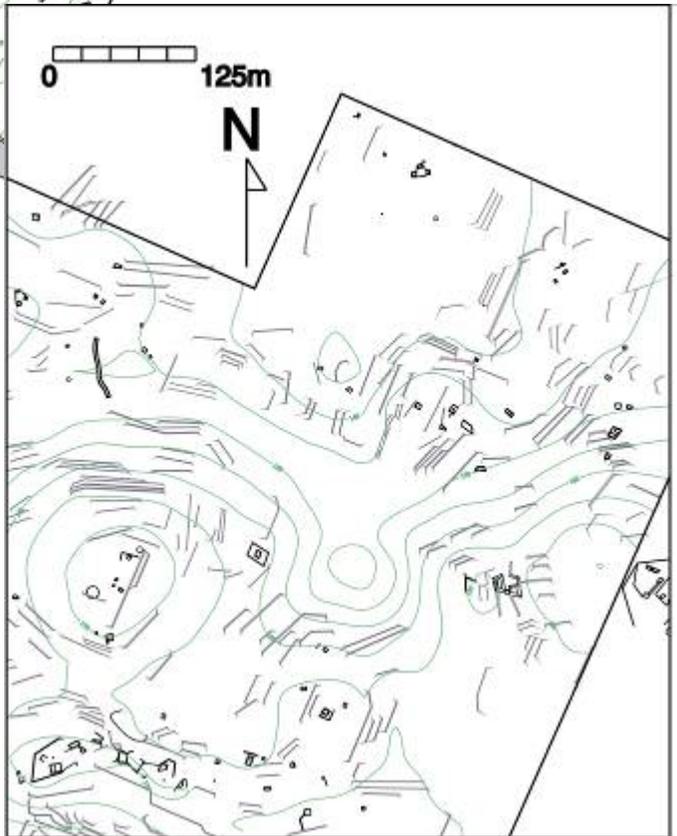


Figure 5. Chan settlement survey area 2002 (above). 'L' marks the location of the lithic production site and 'Q' marks the location of the quarry sites. The black arrow shows the location of Figure 6.

Figure 6. Northern portion of the 2002 Chan survey area showing the location of agricultural terraces and mounds (below).



Type 1	1 mound, 0 platforms, <1 m in height, no focus
Type 2	>2 mounds, 0 platforms, <1 m in height, no focus, informal layout
Type 3	>2 mounds, 0 platforms, <1 m in height, no focus, formal layout
Type 4	>2 mounds, platforms, 1-2 m in height, mound focus, mixed layout
Type 5	>4 mounds, platforms, 1-2 m in height, mound focus, formal layout
Type 6	>4 mounds, platforms, 2-5 m in height, mound focus, formal layout
Type 7	>4 mounds, platforms, >5 m in height, mound focus, formal layout

Table 1. Mound Group Types at Chan.

Type	1	2	3	4	5	6	7	Total
#	117	51	35	27	9	2	1	242
%	48%	21%	15%	11%	4%	1%	0%	100%

Table 2. Percentages of Mound Group Types at Chan.

meters tall (Figure 7). The layout of the central group in terms of formality and directionality is comparable, albeit at a smaller scale, with that seen at larger centers across the Maya area (compare Ashmore 1991). The northern mound, under excavation in 2003, is a typical residential construction, presumably the residence of the leaders of the Chan site (Latsch in prep. in Robin 2003). To the east and west lie five-meter high pyramidal structures, which may have had ceremonial functions based on surface form and size. Future excavations will test the postulated ceremonial functions of east and west structures. Currently 2003 excavations have identified a sequence of ritual deposits spanning the Middle Preclassic to Early Postclassic periods in the center of the plaza within this group (Blackmore in prep. in Robin 2003). The east to west focus of the central group may relate to the Preclassic founding of the site or to Chan's agrarian focus and the ritual association between the agricultural cycle and the east-west cycle of the sun in Maya cosmology.

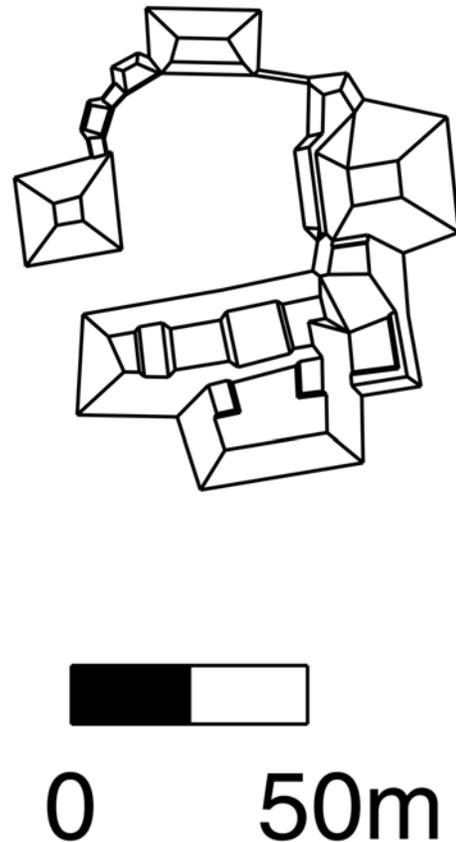


Figure 7. Central platform group at Chan.

Chronology of Occupation at Chan

Temporally diagnostic ceramics were collected at 100 (41%) of mound groups identified in the 2002 survey area. The dates given below for temporal periods at the Chan site are approximate and based upon relative ceramic dating with the exception of the early Late Classic (A.D. 600-670), late Late Classic (A.D. 670-780), and Terminal Classic (A.D. 780-890) dates. Dates for these three temporal periods are absolute dates based on radiometric research conducted by LeCount et al. 2002 at Xunantunich and throughout Xunantunich polity settlement.

Based on surface collection and test pit data occupation begins at the Chan site in the Middle Preclassic period (ca. 900 - 600 B.C.) when 22% of mound groups were initially occupied. Occupation subsequently appears to decrease slightly in the Late Preclassic/Protoclassic (ca. 600 B.C. - A.D. 250) and Early Classic (ca. A.D. 250-600) periods when 10% and 18% of mound groups, respectively, were occupied. As noted above, there is a dramatic increase to 89% occupation of sites in the Late Classic period (A.D. 600-780) with Chan's settlement peak occurring in the late Late Classic period (A.D. 660-780) coeval with the rise of political authority at Xunantunich. Following Chan's rapid expansion, occupation decreases equally dramatically to 17% in the Terminal Classic period (A.D. 780-890), leading to abandonment in the Early Postclassic period where only one mound group surveyed to date has revealed evidence of Early Postclassic ceramics. In addition unexpected evidence of Early Postclassic activity was encountered during the 2003 excavations at Chan's central platform group (Blackmore in prep. in Robin 2003, Latsch in prep. in Robin 2003). Chan's late Late Classic 'boom-or-bust' (sensu strictu de Montmollin 1995) settlement pattern

calls our attention to questions of how life at Chan changes through time in relation to larger political dynamics of Maya society in general, and Xunantunich in particular.

Conclusions

2002 was the first season of archaeological research at the Chan site in Belize. We initiated research by beginning a full-coverage survey of this agrarian community. By the end of the 2002 season 2.88 sq km of the site had been surveyed and this work is continuing in 2003. Across the 2.88 sq km currently surveyed a total of 491 mounds and 1137 terraces at densities of 171 mounds per sq km and 395 terraces per sq km have been identified. The density and areal coverage of terraces at Chan is higher than that observed elsewhere in the region pointing to Chan's importance in the realm of terrace agriculture production. Amidst this largely agrarian landscape, one lithic production and two quarry sites indicate that a range of non-agricultural productive activities were ongoing within the agrarian community.

Chronological research from survey surface collections and test pits shows the broad outlines of the foundation, development, and demise of an agrarian community. Initially founded in the Middle Preclassic period, Chan did not remain static through time but changed alongside the ebbs and flows of changes throughout Maya society. Occupation at Chan remains relatively low throughout the Middle Preclassic to Early Classic periods and then increases, quite dramatically, in the Late Classic period parallel with the rapid rise to political power of Xunantunich. Then, alongside the decline and abandonment of Xunantunich, the long-lived community declines and is abandoned in the Terminal Classic to Early Post Classic periods.

Across the course of its history Chan's residents would have interacted,

directly and indirectly, through social, political, and economic networks, with residents of numerous neighboring civic-centers in the upper Belize river area. The late Late Classic correlation of settlement growth and agricultural potential at Chan and political assertion at Xunantunich suggests a specific interrelationship between the local dynamics of agricultural life at Chan and the regional political-economic system at Xunantunich. As the Chan project progresses in future years, studies of household and agricultural contexts across Chan's Preclassic, Classic, and Postclassic occupations will allow us to answer questions about the history and internal organization of the community. How did life in the community affect and how was it affected by larger political-economic changes in Maya society? Documenting the organization of community life at Chan through time will allow us to answer critical questions about the relationship between settlement and agriculture and the timing of the construction and use of terrace agriculture at Chan. Was terrace agriculture a long-term productive technique of Chan residents or was it a newly developing Late Classic agricultural technique innovated or enforced due to population pressure and/or tribute demands? What was the relationship between agricultural and non-agricultural production within this community and how was the community autonomous and integrated within Maya society? To answer these questions subsequent seasons of research at the Chan site will complete the full-coverage survey of the site and implement an excavation program, which will examine agrarian and non-agrarian households of differing status as well as agricultural areas.

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4 **WHAT'S COOKING AT BAKING POT: A REPORT OF THE 2001 TO 2003 SEASONS**

Carolyn M. Audet and Jaime J. Awe

Archaeological investigations at Baking Pot have produced evidence of prehistoric Maya occupation that spans from the Preclassic to the Postclassic periods. During the Late Classic the site became one of the preeminent centers in the upper Belize River Valley. Cultural remains recovered in several burials suggest that the elite had access to a variety of exotic materials that were obtained through regional and long distance exchange systems. Several grave goods further indicate possible ties with the larger regional center of Naranjo to the west. This paper discusses the cultural history of Baking Pot, its participation in local and long distance trade, and the site's role within the upper Belize River Valley region.

Introduction

The ancient Maya site of Baking Pot is located on the southern bank of the Belize River, 8 kilometers northeast of San Ignacio town and 7 kilometers upstream of Barton Ramie (Figure 1). The site core (Figure 2) is comprised of two main groups connected by a 250 meters long causeway. Group 1, located 120 meters from the river, contains two large temple structures, two ballcourts, and several range buildings. Group 2 is located 250 meters south of Group 1 and contains two temples, one ballcourt, and several range structures. These groups are surrounded by hundreds of isolated house mounds, several formal and informal *plazuela* groups, and a few solitary non-domestic structures.

The first investigations of Baking Pot were conducted in 1924 by Oliver Ricketson of the Carnegie Institution of Washington. During this time Ricketson (1931) mapped Group 1 and conducted test excavations in Structures B, E, G, I, J, and M. Of the six mounds tested, Mound G was the focal point of the brief Carnegie project.

In 1949 Belize's first Archaeological Commissioner, A.H. Anderson, conducted salvage operations on Structure A of Group 2.



Figure 1. Map of the Maya Area.

Anderson's investigations were in response to the bull-dozing of part of the structure by the Public Works Department who were quarrying fill for a nearby road project.

Between 1954 and 1956, as part of his Belize River Valley settlement survey, Gordon Willey from Harvard University conducted a series of test excavations in Plaza 1 of Group 1 and on four house mounds just west of Group 1. Following Willey's (1965) work, William and Mary Bullard (1965) of the Royal Ontario Museum conducted a single season of research in Group 2. Their excavations focused on Structures A and D, (the ballcourt), and on the western flank of Structure A.

at several peripheral settlement clusters around the site core.

Investigations by BVAR at Baking Pot focus on several research questions: 1) what were the temporal patterns of occupation at the site? 2) what were the primary functions of causeway related architecture? 3) what was the economic base that supported the rise and affluence of the center? and 4) what role did Baking Pot play in the settlement hierarchy and socio-political landscape of the Belize Valley?

To achieve these goals, excavations have been conducted at two temples and a range structure in Group 1, three temples outside the site core, two ballcourts, three formal patio groups, and seven single household structures. This work, combined with the previous excavations conducted by Ricketson (1931), Bullard and Bullard (1965), and Willey et al. (1965) are beginning to provide us with a clearer understanding of the development, apogee and decline of the ancient Maya polity of Baking Pot.

Temporal Patterns of Construction at Baking Pot

The temporal patterns of human activity at Baking Pot are similar to Barton Ramie with the inclusion of a Late Postclassic phase of occupation. We believe that the site was occupied continuously from at least the Late Preclassic to the Terminal Classic (Table 1). This is followed by an apparent period of depopulation in the Early Postclassic followed by a phase of limited re-occupation during the Late Postclassic.

Unlike the nearby communities of Blackman Eddy and Cahal Pech, no Middle Preclassic construction phases have yet been located at Baking Pot. It should be noted, however, that middle Preclassic pottery has been recovered in mixed deposits, thus it is possible that deeply buried Middle Preclassic platforms could be present.

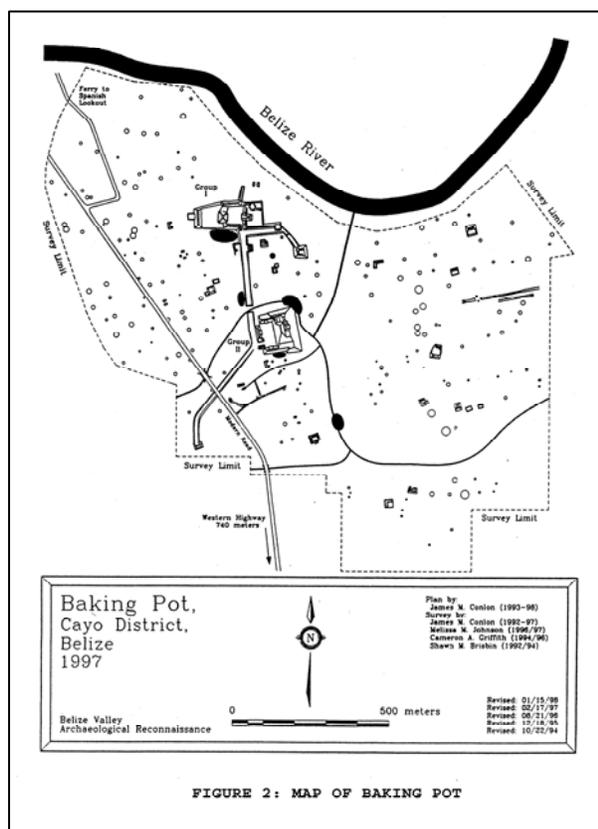


Figure 2. Map of Baking Pot.

After Bullard's 1961 work at Group 2 no archaeological research was carried out at the site until the Belize Valley Archaeological Reconnaissance Project began investigations in 1992 (cf. Conlon 1993). Since then, BVAR archaeologists have conducted excavations in Group 1 and

Regional Ceramic Chronologies and Intersite Dating (sequences based on diagnostic ceramics)

Dates	Phases	Xunan-tunich	Baking Pot	Cahal Pech				
AD 1100	Early Postclassic		New Town	?				
AD 1000				-----	Jirones			
AD 900	Late Classic	-----	Spanish ^{LF}	Sacbalam				
AD 800		-----		Lookout ^{EF}	Paloverde			
AD 700		-----	Tiger Run	Mills				
AD 600		-----		Gadsen				
AD 500	Early Classic	BV II	Hermitage	Ahcabnal				
AD 400	Term. Formative		Floral Park	Madrugada	LF			
AD 300								
AD 200								
AD 100	Late Formative		Mount Hope	Xakal				
BC / AD			Barton Creek					
100 BC								
200 BC					EF			
300 BC		BV Ib		Umbral				

Table by Christophe Helmke for WBRCP 2001.
Based on data obtained by the BVAR, MMTAP, TUPP and WBRCP Projects.

Evidence for Late Preclassic period occupation has been recorded at several patio clusters and solitary structures at the site. The former include the Bedran Group, and the Yaxtun Group (Colas et al. 2002; Audet and Awe 1999). Willey et al. (1965) also discovered Late Preclassic material in Plaza 1 of Group 1, possibly suggesting that there was initial construction of the site core during this early phase.

Defining Early Classic occupation at Baking Pot, like the rest of the Belize Valley, has proven challenging. Although we have uncovered diagnostic basal flanged dishes at the site, this pottery often occurs in the same context with Late Preclassic material. At Cahal Pech, Awe (1992) previously suggested that the reason for this may be that Late Preclassic types continued to be produced well into the Early Classic period and that diagnostic Tzakol type ceramics were predominantly used as special offerings or status objects. Attempts to identify Early Classic period contexts based on the presence of Petén-centric ceramic types may have therefore skewed previous analyses or impeded our recognition of Classic period phases of occupation. Despite this problem, we have clearly identified several Early Classic architectural phases at the site, and we have collected data, which indicate that Baking Pot was rapidly developing as a major center during this time.

The Bedran Group, a formal patio cluster that is located two kilometers west of the site core, provides us with an excellent example of Early Classic period developments (Powis 1993, Conlon et al. 1993, Conlon et al. 1994, Colas et al. 2002). Excavations on the eastern shrine of the plazuela revealed several phases of construction. The earliest phase was represented by a circular platform reminiscent of those recorded for the Late Preclassic at Cahal Pech and Barton Ramie. The second phase of construction contained a

burial dating to the Early Classic period. The grave goods of this burial included a Lucha Incised bowl and a Teotihuacan style tripod vase that were both decorated with an early version of the Primary Standard Sequence (Figures 3a and b).

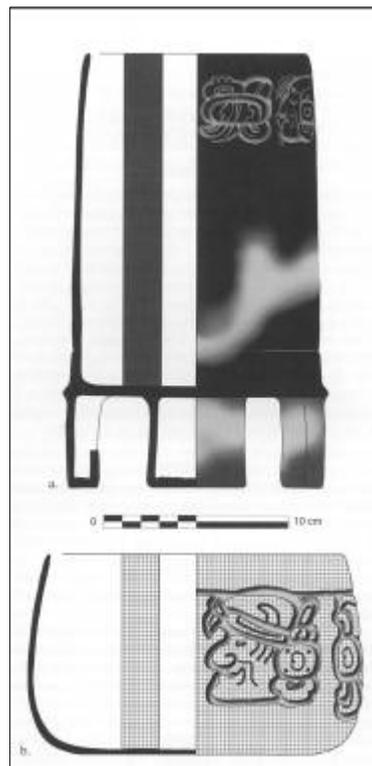


Figure 3. Glyph inscribed Early Classic vessels from the Bedran patio group.

The Late Classic presently represents the period of greatest architectural activity at Baking Pot. There may be, however, slight temporal differences between the construction of monumental architecture in Group 1 and 2. In Group 1, the most massive construction phases date to the Tiger Run phase, while Bullard dated those in Group 2 to the Spanish Lookout Phase. Outside the site core, most of the structures that we have tested also reflect construction activity during the Tiger Run period (580-680 A.D.) with subsequent modification and occupation extending into the Spanish Lookout phase (see Table 1).

Additionally, four of the six elite burials found during the 2002 season date to the Tiger Run phase. Two of these burials were discovered in the eastern temple of Group 1. Combined, they contained several hundred pieces of jade (pendants, pectorals, beads, mosaic mask, inlays), 17 ceramic vessels (Sotero red-brown, Mountain Pine Red, Saturday Creek Polychrome), over a dozen carved shells, and a stucco object that either represents fragments of a codex, gourd, or wooden bowl (Figures 4a, b, c, d). Other grave goods included hundreds of obsidian and chert flakes. Two additional burials were located in a small temple that is connected to the main causeway. These burials contained 10 vessels, two four barreled flutes, four jade earflares, four jade beads, two pyrite inlaid earflares, and 20 bone weaving tools or hair pins.

During the Spanish Lookout phase, many of the temples and domestic platforms were modified, and it appears that several new household structures were constructed. Two of several elite burials found by the BVAR project also date to the Late-Terminal Classic period. One of the burials was discovered in a large temple located in Group 1. This burial contained the remains of 10 polychrome and bichrome vessels and a single greenstone pendant carved in the image of the Maize God (Figure 5). The second burial was located in the small temple adjacent to the main causeway and contained 9 monochrome vessels, two greenstone earflares, an obsidian blade, and a greenstone molar.

Near the end of the Terminal Classic Period it appears that the site core was abandoned. We have noted that the temple adjacent to the causeway was not reconstructed after the interment of a Spanish Lookout phase burial, suggesting that the site fell into disrepair before the Early Postclassic period began. Willey et al. (1965) previously suggested that there were likely some

scattered settlement during the Early Postclassic period at Barton Ramie, but we have yet to find conclusive evidence of construction or occupation debris that dates between A.D. 900 to 1000 at Baking Pot.

This situation eventually changes in the Middle to Late Postclassic period when it appears that the northeastern quadrant of the site is re-occupied. This is particularly evident in settlements designated as North Caracol Farms, about 2 km east of the site core. Survey and surface collection of this area by Ehret and Conlon (2001) noted that the majority of the sherds collected dated to the Late Postclassic period.

In the immediate periphery of Baking Pot, evidence of Postclassic occupation and architectural construction has also been noted at the Yaxtun Group. The architecture of Structure 198, for example, was modified considerably during the Middle to Late Postclassic period, and adjacent to the platform we uncovered a large midden of coeval date (Audet 2000, 2002; Audet and Awe 2000). Associated cultural remains included a ceramic mask, crystal beads, three copper bells, as well as dishes with both scroll and hour glass supports. Other mounds in the site core, including Structure 209, have yielded the remains of small, notched obsidian and chert arrow points dating to the Late Postclassic. The construction of Postclassic platforms at the Yaxtun Group also appear to have relied on the reuse of cut-stones that were scavenged from earlier, Late Classic period buildings.

Internal Organization and Function of Architecture

We have excavated two non-domestic structures that are directly linked with the causeways at Baking Pot. The first, Structure 209, is located 20 m south of Group 1 on the eastern side of the main causeway linking Groups 1 and 2. This mound was nicknamed

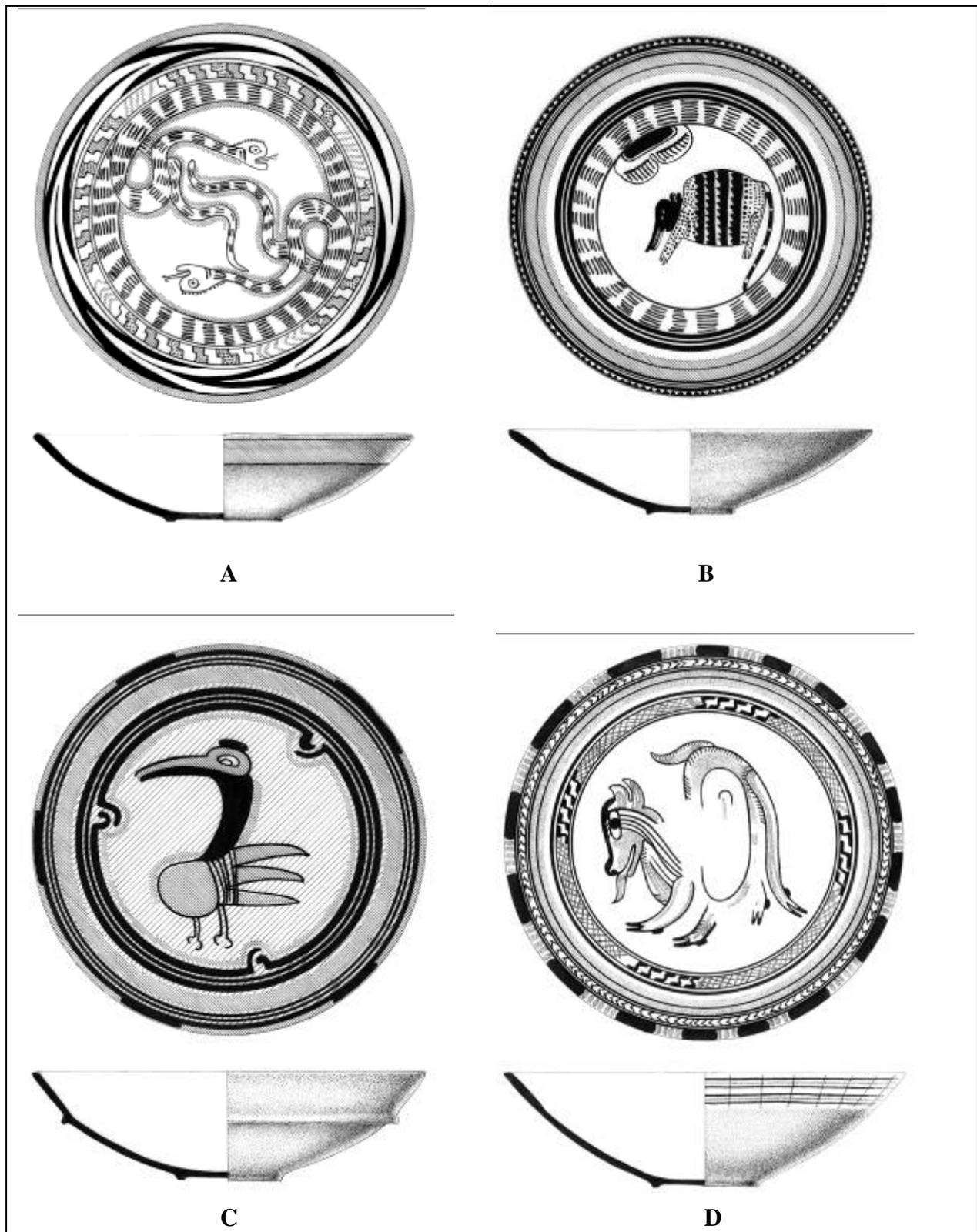


Figure 4. Saturday Creek Polychrome Dishes (20%).

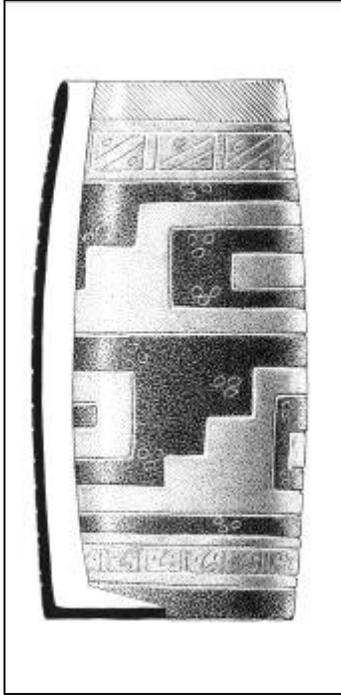


Figure 5. Polychrome Vase.

the Ticket booth, because of its location at the end of the causeway, just before the access into Group 1. The second, Structure 190, is located at the end of a second causeway, southwest of Group 2. Excavations included a complete strip of the terminal phase architecture and several penetrating excavations along the central axes of both structures.

Structure 209, the “Ticket booth,” was excavated during the 2002 season. This platform is architecturally unique from other structures at Baking Pot. The lower platform terraces are apsidal in shape while the upper section of the platform is constructed in the typical rectangular form. A central outset staircase is located on the western side of the platform, leading directly onto the causeway.

Fragments of a stela and two altars were discovered during our excavations. The stela fragments included what appears to be the top and some of the middle sections of the monument. The butt of the stela was never located. One of the altars was buried at the

base of the staircase while the second was located in the fill above a cyst burial.

Four individuals were found interred inside Structure 209 in three burials. Two date to the Tiger Run phase while the third dates to the Spanish Lookout phase. All of these burials contained the remains of elite individuals accompanied by a variety of high status grave goods of both local and foreign origins.

We believe that Structure 209 likely functioned as a temple or shrine for the following reasons. 1) There was no evidence of domestic refuse around the building. 2) The stela fragments and two altars that were discovered along the central axis of the mound are not cultural remains that are typically found in domestic architecture. 3) The grave goods recovered in the burials within the structure strongly indicate that the individuals interred within were of high status. 4) The unusual form of the architecture suggests that it was a special function structure. 5) The location of the structure adjacent to the main causeway that leads through the ballcourt into Group 1 is indicative of a ritual rather than a domestic or economic function.

Structure 190, the causeway terminus, was recently completely cleared in June and July of 2003. Our excavations exposed a 3 meters high platform topped with a two room, masonry superstructure. All of the platform and superstructure walls were constructed of small cut limestone blocks that were likely mortared together and covered with lime plaster. Along the primary axis of the structure, facing the causeway to the north, we discovered the butt of a stela in situ. The stela was placed in an outset stair block, directly in front of the first terrace. The top section of the stela was broken into several pieces that were located at the base of the structure. Around the base of the outset staircase we encountered a large deposit (80 buckets) of broken ceramic dishes, vases,

bowls and censers. The pottery dates to the Spanish Lookout phase and predominantly includes types affiliated to the Belize Ceramic Group. Very few jar fragments or black slipped vessels were discovered, and there were no animal remains, chert flakes or manos and metates. One dozen partially complete or complete obsidian blades were also located in the deposit. We believe that this feature was ritual in nature due to its location around the base of the stela, the uniformity of the ceramic types within the deposit, and the lack of domestic debris.

A second stela was discovered in a small room on the western side of the structure. At the base of the stela were the remains of at least 7 modeled censers. These incensarios have out-flaring rims and a flat base. All have a single face, including eyes, nose, and teeth. Flanges are located on the sides of the vessels and typically have two modeled circles impressed into them. Fifteen fragmented pieces of polished jade beads were recovered just above the ceramics. In addition, fragments from red slipped dishes and an unslipped miniature olla were uncovered. The deposit appears to date to either the Late Preclassic or Early Classic period, however further analysis of the pottery is necessary.

Four burials were discovered within the structure, including the remains of two adult skulls, an infant, and an adult individual who was missing its head. The latter individual was buried with two unslipped bowls that were placed in a lip-to-lip formation. The infant was located in association with several partially complete Mountain Pine Red dishes and a large fragment of figurine head.

A large altar, 134 cm in diameter and over 60 cm high was discovered in association with the first construction of Structure 190. The altar was constructed with cut limestone blocks that lined both the outer face of the monument and an inner circle

within it. The inner section was filled with limestone rocks and alluvial soil. Under the floor the altar rested on we discovered the remains of 186 ceramic vessels, over one thousand broken fragments of jade, and several jade beads. The majority of these ceramic vessels were miniature bowls and ollas that were placed upside down. However, a few bowls and dishes were also recovered. Preliminary assessment of these ceramics suggests that they date to the Early Classic period.

Excavations inside the altar yielded the remains of 26 miniature bowls, including nine placed in a lip-to-lip orientation. At least one dozen complete sets of finger bones were found in the matrix of the altar, the majority inside the lip-to-lip pairs. The rest were found throughout the fill, at the same level as the ceramic finger bowls.

We believe that Structure 190 likely functioned as a shrine for the following reasons. First, the structure is physically connected via the causeway to Ballcourt 3, and to one of only two access points into Group 2. Second, the presence of a stela at the base of the structure, and the relative quality of the architecture (compared with other platforms at the site) indicate a higher level of investment in its construction. 3) The discovery of two skulls and the human finger bones in the fill of the building suggests that there may have been some dedicatory caching of human remains in the fill, something that we do not often find in residential platforms, and 4) the large quantity of ceramics around the stela and base of the structure reflects a practice commonly associated with ritual termination of special function buildings.

The Economy and Wealth of Baking Pot

One of the primary indicators of wealth considered by archaeologists is the presence or absence of exotic or high status objects in burials (Ricketson 1925). At

Baking Pot we have noted that, despite the medium size of the settlement, the absence of massive monumental architecture, and the relative absence of inscribed monuments, the graves that have been excavated to date are comparable in material wealth to many of the larger polities such as Tikal, Copan, and Palenque.

Six burials were discovered during the 2002 season that yielded large quantities of exotic objects obtained through long distance trade networks. In the eastern shrine of Group 1, we discovered the tombs of two Late Classic elite individuals. In one of the tombs we uncovered 260 pieces of greenstone, including 54 beads, 3 pectorals, an earflare and a mosaic mask. Ten ceramic vessels, numerous carved shells, and 10 chert eccentrics were also located in the tomb.

The second Eastern group burial contained numerous ceramic dishes and vases, a small number of jade beads, and 12 carved spondylus shell artifacts. One of the shell objects is in the form of a profile face, while the second has what may be the image of a fox on one side and the image of a crocodile on the other. Two other carved shells are in shapes reminiscent of the Mundo Maya logo, and others have shapes of profile faces, and geometric designs.

A third burial was located in Structure B, a large temple on the western side of Plaza 2 in Group 1. This burial contained the remains of several polychrome vases and dishes, several of which are painted in the Cabrito Cream style of Naranjo pottery, and possibly imported from the latter site. We are currently doing neutron activation analysis on the ceramics to determine if they are indeed imports or copies. A jade pendant carved in the form of the Maize god was also discovered in this burial.

Additional trade material from the burials of elite individuals was found in a small shrine, Structure 209, located just south of Group 1 and abutting the site core

causeway. In these burials, which are discussed below, two four barreled flutes, that are identical to specimens that were discovered as far away as Veracruz, were found.

While we cannot conclusively provide reasons for Baking Pot's apparent wealth, Willey et al 1965 and others have suggested that the Belize Valley may have been a major cacao producing location during the Classic period. The sites location on the Belize River, which served as a major avenue for trade and exchange between the coast and the interior, also placed Baking Pot in an advantageous position to participate and perhaps control Late Classic riverine exchange systems in the region.

Political Organization in the Belize Valley

Several Mayanists have argued that although a segmentary state model best describes the political organization of the Maya lowlands, there were times in the Classic period when some larger polities extended their sphere of influence and control over smaller regional centers. Inscribed monuments at Pacbitun, Actuncan and Blackman Eddy indicate that during the Early Classic period most Belize Valley sites apparently enjoyed a high degree of autonomy. In contrast, it has been argued that during the Late Classic, Baking Pot, Buena Vista, Cahal Pech and Xunantunich were likely under the control of Naranjo (Ashmore 1998; Ball 1993; LeCount et al. 2002; Reents-Budet 1994). The latter conclusion is based on data that derives from the analysis of various artifact classes, particularly ceramics (Ball 1993 and Reents-Budet 1994), from the hieroglyphic record (LeCount et al. 2002), as well as similarities in architectural style and site planning (LeCount et al. 2002).

At Baking Pot evidence for Late to Terminal Classic relationship with Naranjo is suggested by ceramic artifacts that were

discovered in a burial located in Structure B and from pottery found in a burial from the Bedran Group. The burial in Structure B contained the remains of nine polychrome vessels and one bichrome dish. Four of the vessels are stylistically similar to vessels from Naranjo. One of these is decorated in the Holmul Dancer style, and another miniature vase looks like a drinking vessel similar to types found in the eastern Peten. The latter vase has the titular glyph *Sak Chuwen* (lit. "White Artisan"), a title held only by members of the Naranjo dynasty (Christophe Helmke personal communication 2003).

Conclusion

In conclusion, ongoing investigations at Baking Pot suggest that the center may have played a dynamic role in the economic and socio-political landscape of the ancient Belize River valley region. During its greatest period of fluorescence, the Late Classic, Baking Pot apparently developed and maintained close ties with the larger regional polity of Naranjo. Following the latter's decline, Baking Pot continued to prosper, but subsequently wanes in the Terminal Classic period. In the middle to late Postclassic period the site was reoccupied and these later inhabitants continued to exploit the rich soils and strategic location of the site along the Belize River. We are certain that future investigations will eventually shed more light on what was undoubtedly one of the most vibrant communities in the upper Belize Valley.

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5 **MAYA SUBSISTENCE, SETTLEMENT PATTERNS AND THE INFLUENCE OF OBSIDIAN IN THE POLITICAL ECONOMY AROUND EL PILAR, BELIZE**

Anabel Ford

Hierarchical political structures of complex societies rely on the subsistence sector of society to underwrite their organizational requisites. The degree to which political power is consolidated and the level at which it is expressed is seen to correspond to the scale of the complex hierarchy. Settlement patterns reflect the tiers of a hierarchy and community and center size are essential expressions of the levels of integration. Yet, how is the internal political integration of rural communities balanced against external regional political relations? Examination of the complex hierarchical relationships of the ancient Maya of the central lowlands helps to discern regional to local settlement distribution based on subsistence priorities and local to regional relations based on production and distribution patterns of the exotic, obsidian.

Introduction

Early civilizations and complex societies depended on hierarchical political structures to organize and integrate their constituent populations and to mobilize productive resources from the subsistence sector. From an archaeological standpoint, this is manifest in the distribution and location of regional centers, the variability of local communities, and the arrangement of individual settlements. At the regional level, the functions of and interactions among major administrative centers provide significant clues to the nature and dynamics of the political economy. The diversity among major centers, however, relates more to the local resource base and level of integration than it does to regional interactions. The complexity of integration at the local level, in turn, is dependent on the extent of community diversity. While the scale of production and consumption at the community level is based on the quantity of immediately available resources, settlement densities and residential compositions will also be tied to the general quality of local resources, which is the basis of their subsistence economy.

The degree to which power is consolidated and the political level at which it is expressed—community, center, or region—directly corresponds to the scale of support within the hierarchy. The size and elaboration of administrative centers give an indication of their population catchment; that is, their ability to integrate rural communities. The degree of internal political integration of local communities typically is balanced against external political relations at the regional level. Communities and their composite households form the foundation of the hierarchy and that aspect is firmly planted in the subsistence sector of the society.

A hierarchy of regional centers, local communities, and individual settlements is generally accepted for complex societies. The Maya are no exception. The expression of this hierarchy is readily identifiable spatially, as seen in the Maya lowlands (see Ashmore 1981). What is more difficult to identify, however, are the links that bind together the distinct levels of the hierarchy. This is the question that will be explored here.

For early civilizations, such as the Maya, the basis of support was derived from agriculture. Because agriculture is a

fundamental component of such economies, it is crucial to emphasize the manner in which the subsistence base was manipulated to support development of hierarchies in early complex civilizations. Archaeological examples of complex societies provide an excellent testing ground for identifying the household, community, and regional mechanisms of social and political organization and integration. This is so because wealth in these societies must ultimately be tied to the productive potential

distribution patterns from the Belize River Area are used to define this tension.

Subsistence Economy in the Tropics

Tropical forests offer distinct environmental conditions that undoubtedly impacted evolutionary events (Meggers 1954). The organizational solutions achieved by the ancient Maya, however, have obvious parallels with other complex civilizations. Political leaders, military strategists, divine priests, and noble kings all need resources to



Figure 1. The Central Maya Lowlands with major sites indicated.

of land and control of labor. This paper examines the complex hierarchical relations of the ancient Maya in the central Maya lowlands using data from El Pilar (Figure 1) in an effort to discern how regional patterns and local variations, as determined by the fundamental aspects of resources, were expressions of both the subsistence and political economies. Seemingly at odds, the dispersed resources of the Maya forest environment shape the subsistence economy of the ancient Maya, yet the requirements of centralized organization shape the political economy. Maya obsidian production and

underwrite their exploits. Resource distribution is at the crux of the system. The land resources of the Maya lowlands are distributed over the region in a mosaic pattern (Fedick and Ford 1990; Graham 1987; Sanders 1977; Turner 1978). The discontinuous nature of agricultural resources acted as a dispersive force on settlement, thereby presenting unique organizational and managerial problems which could frustrate hierarchical controls. Given that the Maya civilization flourished and prospered for centuries across a substantial territory (Hammond 1982; Harrison and Henderson

1981; Morley et al. 1983; Turner 1978), it is clear that the elite bureaucracy developed a successful and effective management system for dealing with the diversity. This raises the question of exactly how the organizational hierarchy of complex societies facilitated social integration, given the significant variations in resource distribution.

The ancient Maya hierarchy focused on control of the primary subsistence resource of the region--the well-drained ridgeland dispersed in the hills and ridges of the area. Although there was potential for self-sufficiency and assertion of independence at the community level due to the scattered distribution of the primary resources, the effectiveness of successive hierarchical controls had to have depended on the degree to which interdependence was, or at least perceived to be, a requisite. To understand communities, and the relationship between communities and the central hierarchy of complex societies, it is necessary to identify relationships among communities at the local level and the potential links between communities and the central hierarchy. This paper initially examines available resources across the central Maya lowlands. This review demonstrates the regional importance of productive agricultural land in the expression of power at centers. Then, on the basis of this understanding of resource distribution, a comparison is made between the central Peten area around Tikal and the Belize River area, 50 km away in the eastern periphery. This aspect brings into focus the underlying similarities of ancient Maya settlement patterns and community organization. Finally, a more in-depth examination of community patterns in the Belize River area hypothesizes the political links between the community and the central hierarchy based on the production and distribution of obsidian. Through these analyses, a dynamic picture of Maya society emerges which takes

into account subsistence base of settlement patterns, the political foundation of community integration, and fragile basis of regional interactions.

Regional Resources and Settlement of the Ancient Maya

The central Maya lowlands are situated over a shelf of Cretaceous to Eocene limestones. Soils form directly over the limestone bedrock today, much as they did in prehistory. This base supports a deciduous hardwood forest whose natural canopy ranges from under 10 to over 50 meters. Annual rainfall in the region varies from as little as 1000 mm to as much as 3000 mm, the majority of which occurs from June to January. The drought-like dry season runs from January to June, with little or no rainfall expected in April. Local activities are impacted by this wet/dry sequence.

Broadly speaking, there are four basic land resources that together form the range of variation in the central Maya lowlands (Fedick and Ford 1990; see also Fedick 1996, Ford 1991a) and the resource mosaic that was utilized by both the ancient and modern populations. These are:

1. *Well-Drained Ridgeland: Primary Agricultural Resources*
2. *Slow-Drained Lowlands: Secondary Agricultural Resources*
3. *Riverine-Associated Swamps: Secondary Agricultural Resources*
4. *Closed Depression Swamps: Non-Agricultural Resources*

The relative proportions of these basic lowland resources all contribute to the subsistence potential of local areas. But, the distribution of the primary agricultural resources—the well-drained ridgeland—was the fundamental component of the Maya regional economic landscape. The primary

agricultural resources were the basis of their hierarchy of control.

While the composite mosaic of land resources is important at the local level, the key to regional distinctions in the Maya area is related to the proportion of ridgeland, which are the primary agricultural resources. Ridgeland dominates the rolling limestone hills and ridges of the region (Turner 1978). They are characterized by fertile, but shallow, soils. Yet, these soils are atypical of the majority of tropical soils. Rather than weathered, leached, and low in fertility, these soils are qualitatively excellent. They are, however, only representative of 1% of the world's tropics. These are the same lands that are preferred today by local farmers. It is understandable why the pioneering Maya selected them.

These well-drained ridgeland most preferred by the Maya for farming are, nonetheless, not evenly distributed in the lowland Maya region (Fedick and Ford 1990). They comprise less than one-sixth of the area of Northern Belize, but nearly half of the interior central Peten area around Tikal. The proportion of well-drained ridgeland is associated with variability within the Maya lowlands. There is a distinct relationship between the availability of ridgeland, settlement density, and the regional Maya hierarchy. Northern Belize, with only 15% ridgeland, had settlement densities of 79 str/km sq. in the ridgeland and the large center of Nohmul covered merely 13 Ha (Figure 2).

The Belize River area, with 39% ridgeland, supported an average of 150 str/km sq. in the ridgeland and the major center of El Pilar covers some 50 Ha. By contrast, the interior Peten, with 49% ridgeland, supported settlement densities of 200 str/km sq. and the exceptionally large center of Tikal covered more than 150 Ha. These comparisons demonstrate that regional settlement distribution and density are

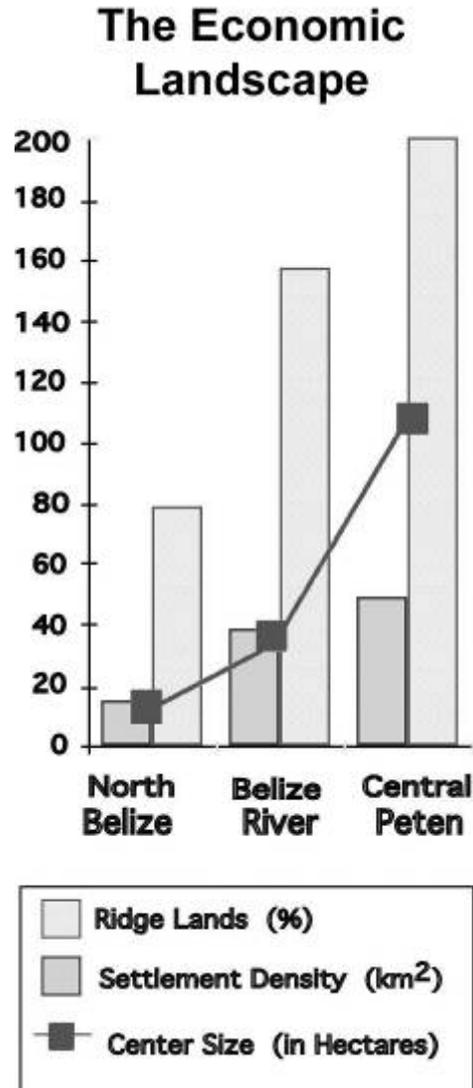


Figure 2. The Economic Landscape of the Central Maya Lowlands.

interconnected with the proportion of available primary agricultural lands. Simultaneously, the scale of monumental public architecture at administrative centers appears to be directly related to settlement densities and corresponding labor potential.

Local Community Patterns in the Maya Lowlands

Just as regional patterns of settlement in the Maya lowlands were strongly

influenced by the availability of primary agricultural resources, local distributions of settlements were similarly affected by the same base. The important agricultural resources of the Maya lowlands are not concentrated in any contiguous zone and are unlike those in the river valleys of coastal Peru, the Nile of Egypt, and the Indus of South Asia. Instead, they are distributed in patches throughout the region. The dispersed nature of the primary agricultural resources of the well-drained ridgeland acted as a centrifugal force on farming populations. The small and large patches of ridgeland spread Maya farmers out into correspondingly sized communities over the landscape.

Given these factors, how were the dispersed farming communities integrated into the larger centralized system? Settlement data from the region provide some clues to answer this question. For example, in the central Peten area between the centers of Tikal and Yaxha, settlement data mirror the regional pattern at the local level (Figures 3 and 4). These data present a system of dispersed settlements, which were hierarchically arranged in association with the available primary agricultural resources. Variations in the size of residential structures and in the distribution of large, elite residential compounds were related to the

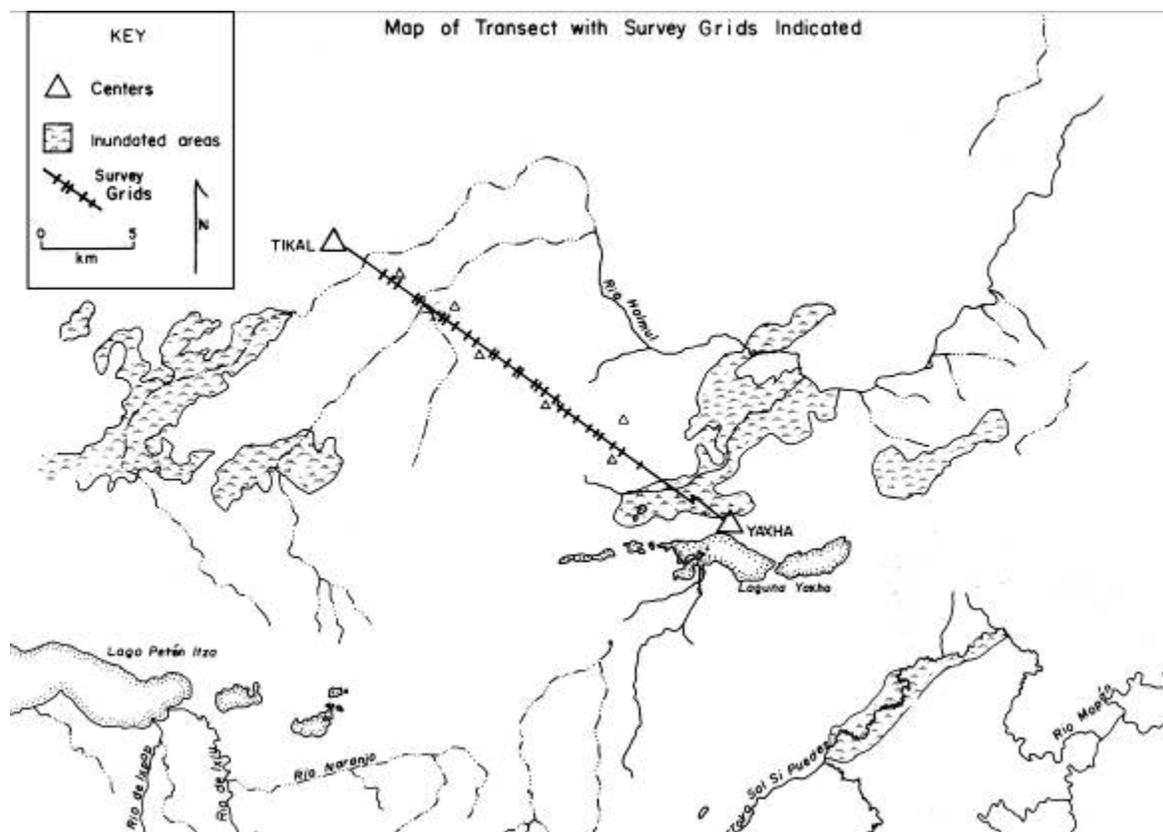


Figure 3. The Tikal-Yaxha Survey in the Central Peten Area.

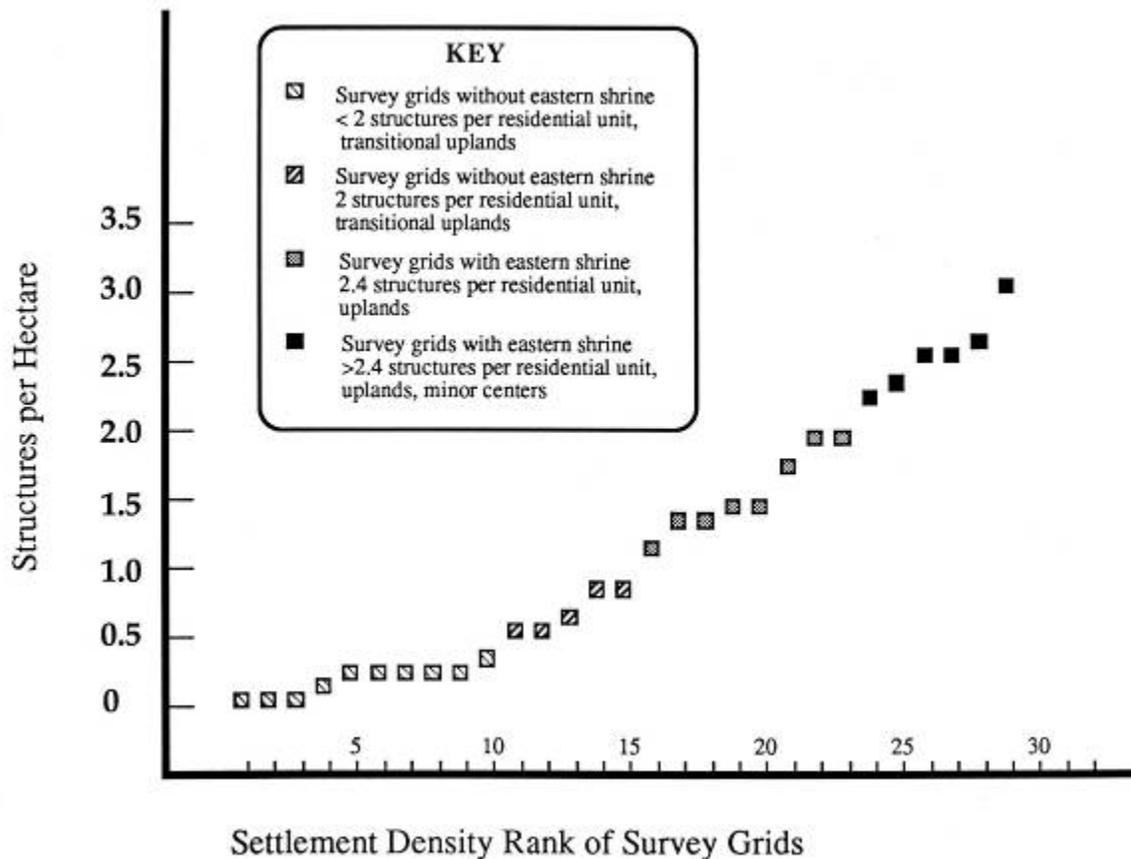


Figure 4. Settlement Density Ranks of Survey Grids in the Tikal-Yaxha area

nature of the resource base (Ford 1986, 1996).

Elite residential units were present in all these primary resources zones, regardless of the size of the area. Small patches of primary resources had settlement densities from 100-200 str/sq. km. None of these small areas were directly connected with centers and the largest elite residential units were half the size of comparable units in areas of centers (Ford 1986:85-87, 1990). Large patches of primary resources were all associated with centers. Settlement densities were relatively high, over 200 str/sq. km, however, the largest elite residential units of these rural administrative centers were only half the size of largest elite residential units at Tikal. Of the largest “patches” of primary

resources in the central Maya lowlands (Ford 1991b), the zone around the major center of Tikal is particularly noteworthy. The zone around Tikal had settlement densities above 200 str/sq. km and supported the largest elite residential units of the entire region (Ford 1986:85-87, see also Arnold and Ford 1980).

The Belize River area (Figure 5), located 50 km east of Tikal, has 80% of the proportion of primary resources found in the central Peten area (see Fedick and Ford 1990, Ford 1990, 1991b). Consequently, the local Belize River area supported somewhat lower overall settlement densities, and had smaller centers in comparison to the central Peten area. As with the central Peten area, zones of primary resources have settlement densities greater than 100 str/sq. km. These primary

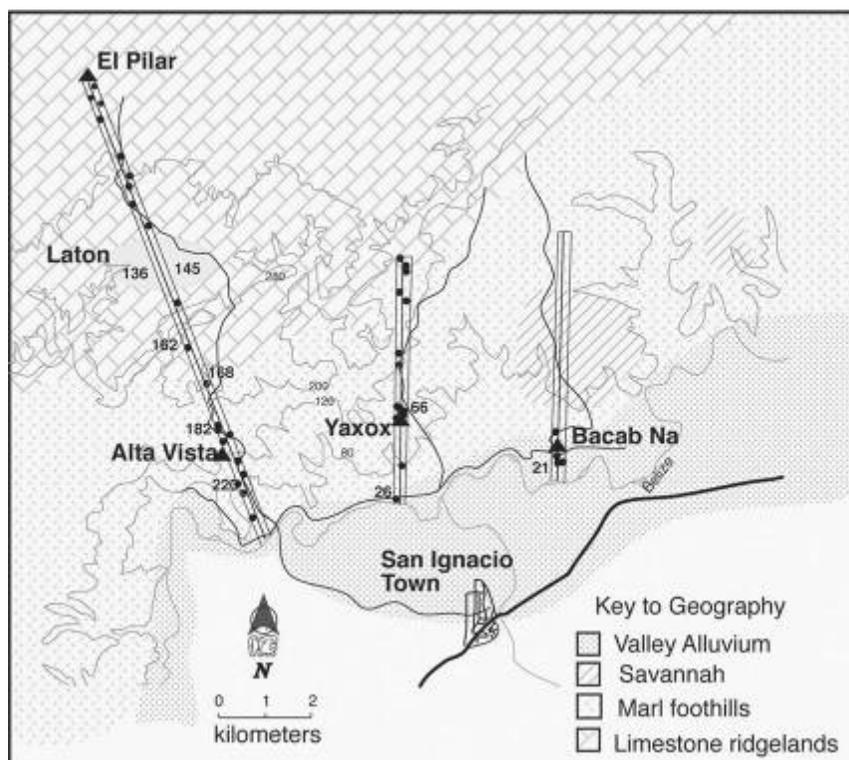


Figure 5. The Belize River Area with BRASS with resource zones Indicated.

resource zones are located in the alluvial valley and western ridgeland, composing 39% of the local area resources. The secondary resource zones, dominating the foothills that rise from the valley to the ridges, composed 61% of the local area with settlement densities under 50 str/sq. Km.

Similar to the settlement of central Peten area, the proportion and distribution pattern of primary resources in the Belize river area played a major role in the dispersion of settlements and communities (Fedick 1988, 1989, 1995, Fedick and Ford 1990, Ford and Fedick 1992). The greatest proportion of primary agricultural resources of the Belize river area are located in the ridgeland. They compose 34% of the resources in local area, of which fully 75% are primary resources for farming. Small and large pockets of the primary resources

supported high settlement densities, equivalent to the central Peten area (c. 200 str/sq. Km), and have elite residences in their midst. As in the central Peten area, the community and settlement hierarchy is consistent with the distribution of agricultural resources. The largest center in the area, El Pilar, is located within a substantial concentration of primary resources. Settlement density and composition compare to centers in the central Peten area, although the largest residential units around El Pilar were only half the size of those around Tikal (Ford 1990). Communities located in small patches of primary resources were found throughout the El Pilar ridgeland. One recorded example was the settlement concentration labelled the community of Laton, 4.5 km south of El Pilar (Figure 6). This ancient Maya community included the

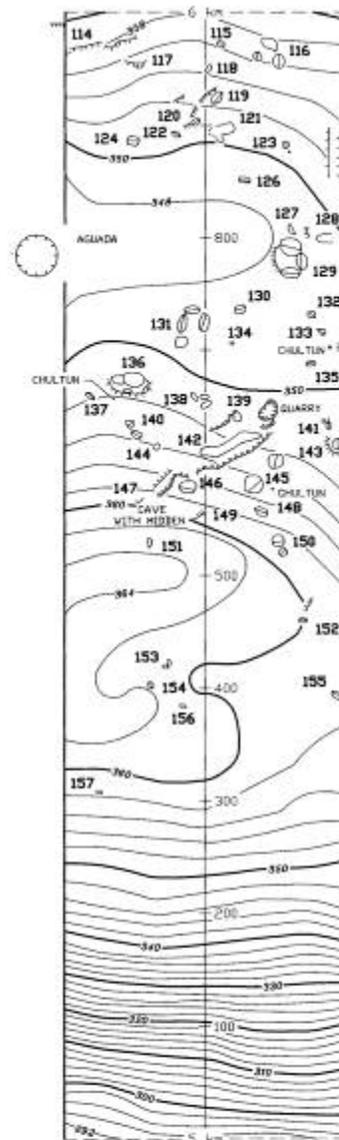
entire range of residential units from small, single structures to large imposing groups, nearly identical to the community patterns recognized in the central Peten area. Indeed, at Laton, there is a small “temple” that probably served administrative and ceremonial functions for the community (Figure 7). Laton is the location of the obsidian production site.

Implications for Maya Community Patterns

Despite the scattering effect produced by the dispersed primary agricultural resources in the Maya lowlands, there are important connections among the scattered settlements and communities. Among the distinct resource zones, there is an evident pattern of structure density coupled with residential unit size and composition. The more complex residential units and more diverse communities were located in zones of greater access to primary agricultural resources. Where resources were lacking, settlements were predictably simple and homogeneous.

This pattern suggests that connections among communities and settlements were accomplished through both direct and indirect means. Clues to the links are found in the interpretation of the administrative hierarchy as reflected in the distribution of large, and presumably elite, residential units (for example Freidel 1981). These can be taken as an indication of the importance of an area for management and integration. In the patterns of settlement distribution and aggregated communities, there were tiers to the administrative presence. This hierarchy was associated with the presence and availability of primary agricultural resources.

Consistently, all areas of primary resources exhibit an elite presence in the form of large, complex, and imposing residential units. There was, however, some differentiation among the elite. The small,



EL PILAR
TRANSECT

272

M N

0 40 80
meters

5-6 km

North of River

Figure 6. The Laton Community on the El Pilar Transect.

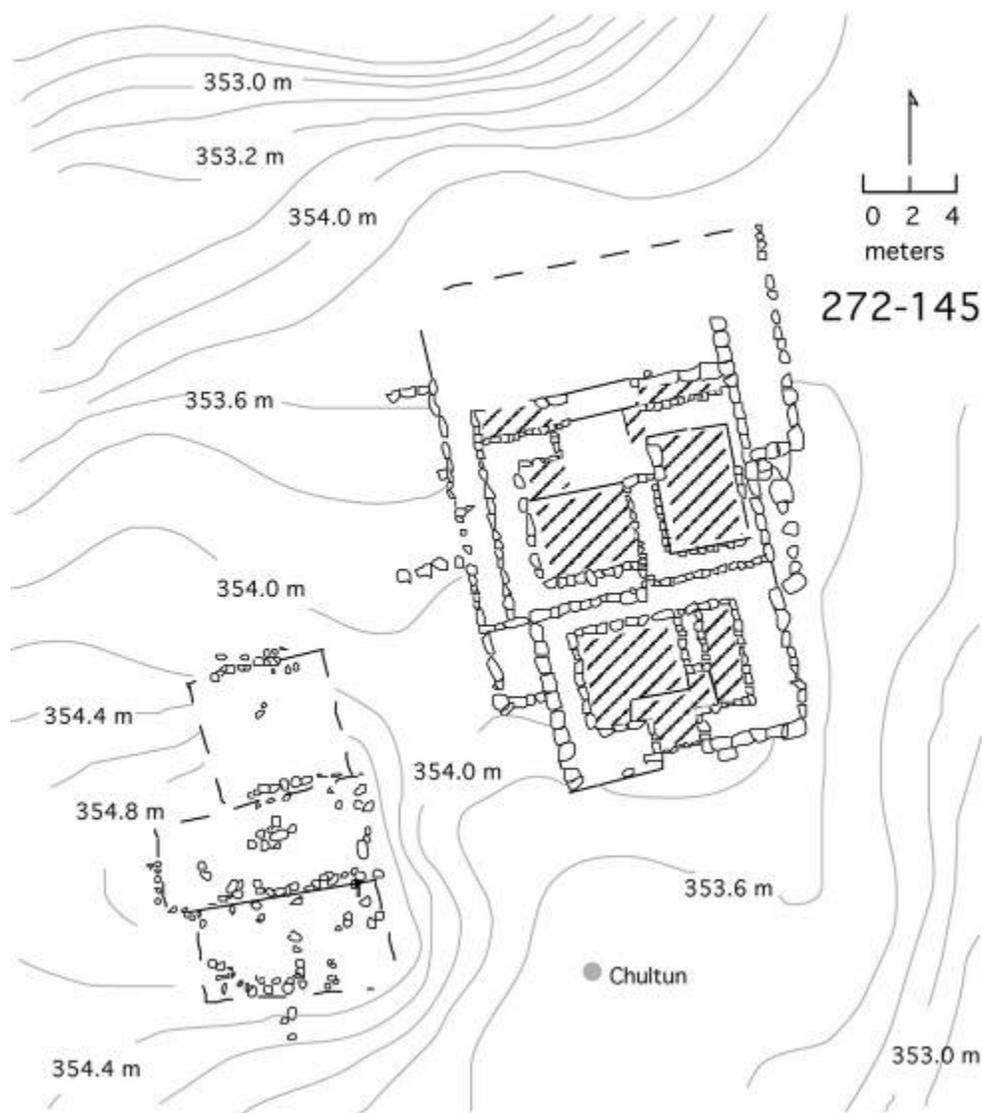


Figure 7. The elite administrative residential unit at Laton.

patches of primary resources, with 100 to 200 str/sq. km, form rural communities with at least one large, elite residence that could have served as the administrative focal point for the community. The elite residences of rural communities were, on average, smaller than those at centers. Larger patches of primary resources have correspondingly larger areas for settlement and support higher settlement densities. Greater variation was found in the nature of these settlements. In addition to the

presence of elite residential units, there were often formal centers.

Invariably, areas with low settlement densities were spread out in secondary agricultural resource zones. Such areas did not achieve sufficiently large aggregates to warrant direct organizational integration as communities. Furthermore, resident elite apparently did not directly monitor these zones. Such dispersed settlements probably

were linked indirectly to more formal communities, where elites were present.

In essence, the relationship between settlement and resources observed for the Maya Lowland region as a whole, consistently points to the importance of primary agricultural resources. This pattern of association between settlement and environment is seen at the regional scale, with settlement density and size of major centers, and at the local scale, in terms of settlement density and composition. Thus, the pattern found at the regional level is equally apparent at the local level. The centralization process involved the mobilization of community farming production by resident elite administrators, organized hierarchically with respect to each other and their community resource base. The highest-level elite logically resided at centers in largest areas of primary resource zones; whereas the lowest level elite were relegated to manage small areas of primary resources. This left the secondary resource zones, with their few settlements, outside the direct control of the hierarchy.

Community Integration and Centralization among the Maya

As an agrarian civilization founded on the productive capacity of land, resource control at the community level was important and the direct management of community production was critical. Recognizing the pattern of the lowland Maya economic landscape as a mosaic patchwork that forced farmers away from centers puts the subsistence economy in apparent opposition to the political economy. Local resident elite, however, would have forged and maintained the key links for the administrative hierarchy. Household production at the community level and community integration at the local level would be built upon the relationship of local elite to a central power. Local elite who negotiated community production within the

context of their political economy would manage the subsistence production of the individual communities.

Alliances built in this fashion are tenuous and constructed on the shifting and fragile basis of prestige and power. While the settlement pattern hierarchy demonstrates evidence of the tiered links from the centers down to individual communities, it is as yet unclear exactly what the ties were from communities up to the centers.

A detailed example of the kind of links that may have existed between communities and centers comes from the small ridgeland community of Laton of the Belize River area (see Figure 6). Ridgeland communities, as a whole, exhibit a significant amount of heterogeneity and diversity, largely due to the fact that the majority of the settlement of the Belize River area is found in this zone. This concentration of settlement presents the contrast between the haves and have-nots, the administrative units vs. farming households, and established homes vs. temporary field houses.

Households involved in subsistence production overwhelmingly characterized the area. Agriculture was obviously an important economic activity for local inhabitants, the fertile ridgeland being the cornucopia of the area. Additionally, multiple service and production specialties were coordinated and supported by the elite at the community level (cf. Brumfiel and Earle 1987). The presence of special services and products provided a means whereby local community elite could demonstrate their ability and distinction, as well as their relationship to the high central elite powers.

At major centers, such as El Pilar or Tikal, the public monuments (stelae, temples, ball courts, acropolis) themselves symbolize control and power. There, resident elite used monumental symbols as an ample demonstration of resource and population control. In contrast, smaller communities,

with much more limited administrative components typically lacking major public monuments, were left with a visual void so that subtler forms of power connections needed to be invoked. This void is where control of exotic commodities, such as obsidian, may have come into play.

While the overall quantities of obsidian recovered at lowland Maya sites are not voluminous, the procurement, production, and distribution of this material has been the focus of significant investigative attention (Ford et al. 1997; Hammond 1981; Moholy-Nagy et al. 1984; Nelson 1989; Rice 1984; Rice et al. 1985; Sidrys 1976). This is primarily because, in the case for the lowland Maya region, this material comes from no less than 300 air km away, and is found most commonly in the form of prismatic blades. Obsidian prismatic blade production would have required specialized training and ability (Clark 1988; Clark and Bryant 1997; Hinzman 1997; Crabtree 1968; Sheets 1975; Torrance 1986). Nevertheless, the blades are ubiquitous in that they occur in almost every context from private residential middens to public ceremonial caches. Even with its almost universal distribution among the Maya, the obsidian prismatic blade is found in significantly greater quantities among elite residences and centers and minimal quantities at small residential units.

Because of the differential distribution of obsidian prismatic blades, they have been taken as an indicator of wealth, even though the presence of obsidian at the most humble houses seemingly suggests a utilitarian function (see Smith 1987). Remarkably, given the wide distribution based on the volumes of excavations that have been conducted throughout the Maya lowlands over the past century, principally focused at centers and their residential units, no definitive production loci have been identified. Moreover, obsidian production by-products (debitage and cores) have been

regularly recovered under the most ritualized situations at centers (Olson 1994:42; e.g., Tikal, Coe 1959, 1961, 1965, 1990; Moholy-Nagy p.c.1976, 1997, Moholy-Nagy et al. 1984; Belize centers, Pendergast p.c., 1979, 1981). Although prismatic blades enjoyed a wide distribution among the Maya, the by-products of obsidian blade production was restricted. Both obsidian debitage and cores were deposited in special dedicatory contexts at centers, including building and stair foundations, sub-stela caches, and burials (see Olson 1994). Certainly, the presence of actual debitage and cores at centers indicates that production occurred somewhere, perhaps locally. But locating any production loci had remained elusive. Other than the highly ritualized deposits of obsidian by-products, this lack of production loci has impeded efforts to understand fully the place of obsidian in the ancient Maya world.

Investigations in 1984 by the Belize River Archaeological Settlement Survey (BRASS) of residential units of the rural community of Laton, surprisingly revealed that one of the large, elite residential units (272-136) was heavily involved in an obsidian prismatic blade production industry. This residential unit was composed of three structures surrounding an open courtyard with a terrace at one side (Figure 8). Full-scale excavations within this unit in 1992 focused on defined open areas of plazas, terraces, and platforms in an effort to identify the nature and scope of the obsidian production activities. The excavations revealed heretofore-unseen concentrations of obsidian production by-products in all areas of the residential unit.

No excavation area at the residential unit yielded less than 3,000 obsidian pieces/m³. One small terrace deposit of blade debitage contained over 23,000 pieces of obsidian; a density equal to 1.7 million pieces of obsidians/m³ (Area A Figure 8, and Figure 9). Another deposit behind a structure wall

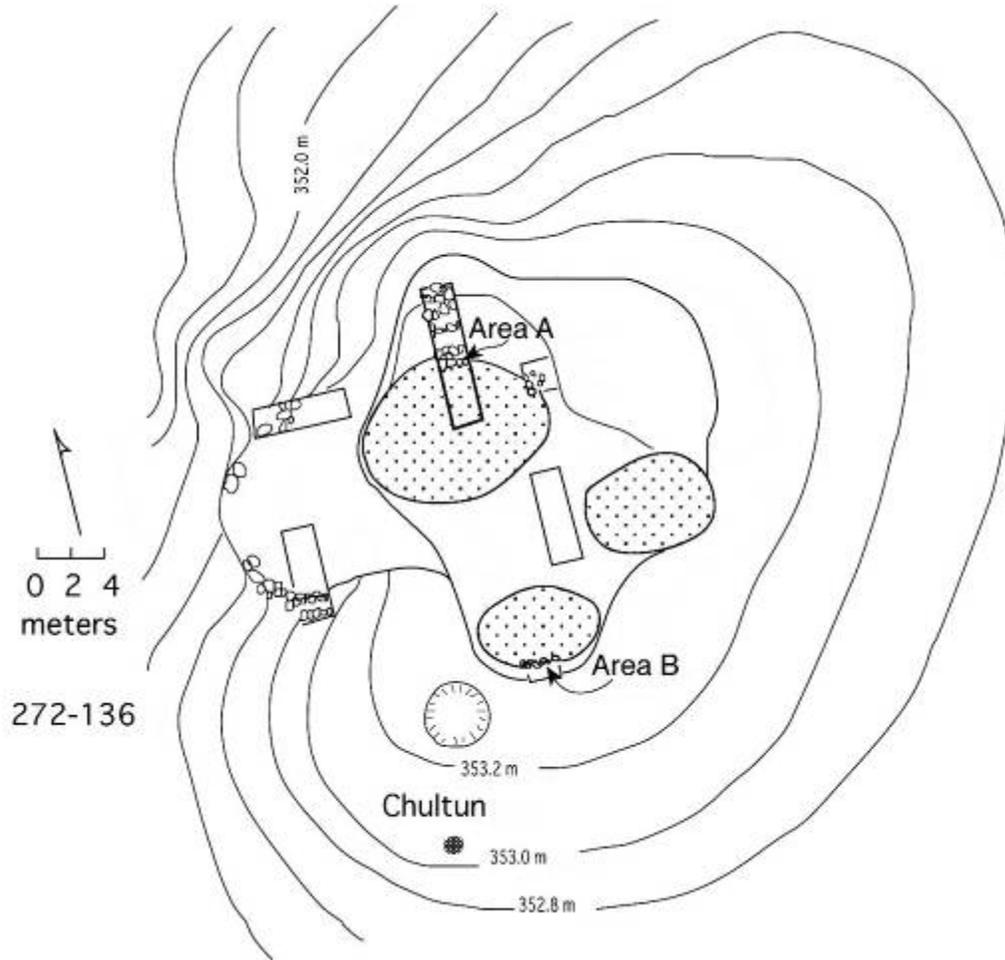


Figure 8. The Obsidian (production residential unit with excavation areas indicated).

contained 39 complete, but exhausted, prismatic blade cores (Area B Figure 8, and Figure 10). These two deposits suggest provisional discard areas were used to stage, or “stash,” obsidian by-products for future use (Olson 1994). In light of the distinct distribution of such debitage at major centers, it seems very likely that these obsidian “stashes” were destined for special purposes, and one such possibility is ritual deposits at centers.

The obsidian assemblage from this rural Laton community residential unit is

unique because no such collections have been reported from any other lowland Maya household context. In fact, this is the first obsidian production site uncovered to date from the central Maya lowlands. The only concentrations of materials similar to those recovered at the Laton production site have been found in highly ritualized contexts at centers—caches and burials (Olson 1994). These are clearly specialty deposits, representing production debris unrelated to production loci. Production loci are distinct in assemblage composition (Clark p.c. 1987).



Figure 9. Debitage from the “stash” at 272-136.



Figure 10. Cores from the collections at 272-136.

Moreover, the debitage and other obsidian by-products collected at the Laton community production site are equivalent to production debris assemblages from sites observed much closer to obsidian sources in highland Guatemala and Mexico (Santley 1984; Clark 1986; Healan 1995; see also Gaxiola and Clark 1989).

While *procurement* of obsidian into the Maya region may have been centralized, obsidian *production* apparently was not. While obsidian procurement may have been in elite hands, that of production was decentralized. The example of Laton suggests that the elite of dispersed communities were strategic in this political-economic endeavor. If centers were the hub of resources for the local area and trade nodes for the region, then the centralized leadership was in the position of primary distributors of imports, such as obsidian. One possibility is that the elite leadership at centers, as distributors of exotic commodities and wealth goods and redistributors of local products, apportioned various resources as a means for consolidating the allegiance of the dispersed communities in the local area. Exotics would be particularly useful as such a commodity because of their known scarcity.

Obsidian is a conspicuous exotic (Rathje 1971, Tourtellot and Sabloff 1972, P. Rice 1984, Gaxiola and Clark 1989; Sidrys 1976). Elites from dispersed communities around centers could use obsidian as a visible display to rural peasant constituents of their political connections. Control of obsidian prismatic blade production would also allow community-level elites to demonstrate their link to aristocratic hierarchy at major centers while simultaneously accruing local power with community constituents by distributing valued obsidian prismatic blades.

This interpretation views the community as the basic social component of the ancient Maya hierarchy. The distribution

of agricultural resources forced farmers into dispersed locales, creating a centrifugal force against centralization. Elites focused on the control of the primary agricultural resources independent of community size. But to resolve the problem of integration without nucleation, communities, both rural and central, would be subject to coordination by a hierarchy of elite management and administration. This is reflected locally, as well as regionally, in the settlement patterns of the lowlands. Beyond primary agricultural resources, elites would have focused on several key arenas: control of production and distribution of exotics (as with obsidian, but possibly other resources such as jade), maintenance of ceremonial sites, administration at the community and local levels, and interaction at the regional level.

The critical organizational links between the rural peasant farmers and the major centers are hinged on community leadership. Many of the dispersed communities of the ancient Maya in the central Peten area, as well as in the Belize River area, had the potential for self-sufficiency in the realm of the subsistence economy. This would have enabled them to challenge cohesion by exerting independence. But such autonomy appears to have been forsaken for hierarchical coexistence with the major regional centers. This suggests the existence of a balance of power between rural community leadership and centralized area leadership that operated exclusively within the political economy. Visible control of production of exotic luxuries, such as obsidian at Laton, could be just the type of dual-purpose "currency" that would have been useful in reinforcing daily political activities at the community level while cementing ties to regional centers.

Interpretation

The regional settlement patterns examined here demonstrate most dramatically the dimensional importance of agriculture for the Maya. This is reflected in settlement density and scale of public architecture. That is, the larger the proportions of primary agricultural resources, the higher settlement densities, and the more extensive the public centers. In essence, the more people you have, the more labor can be directed towards public works—whether in the form of open plazas for all to see or inaccessible private regal domains. That same relationship between settlement and resources exhibited at the regional scale is repeated, on a smaller scale, at the local and community levels. Local community diversity and the degree of investment in elite and public architecture is proportionate to the local resources (cf. Stone 1991; Wilk 1989).

Hence, the variable distribution of centers and the hierarchical distribution of elite across the Maya landscape. Elite at the major centers with the greatest resource base were able to garner more labor for their private ends. They exhibit larger residential units than rural community elite. Elite of the rural areas, with direct control over the immediate resources of the community, would not have equivalent labor availability when compared with the elite of large centers. Consequently, their residences appear smaller than those of higher-level elite, but nonetheless imposing by local community standards. This tiered settlement pattern is not dissimilar to Bullard's (1960, 1964) view of ancient Maya settlement pattern where his hamlets would be the rural communities, his districts would be equivalent to local centers, and his zones would be the major regional centers.

This pattern of settlement distribution also demonstrates that a tiered settlement hierarchy existed in part to distribute elite

administrators across the rural agricultural zones. The presence of a hierarchy of settlements particularly reveals how the administrative process linked centers to dispersed communities. It does not, however, address how the administrative process links from communities to centers. Rather, this process is reflected in household activities at the community level, and more specifically the activities patronized by the elite. Self-sufficiency in terms of the subsistence economy may have been an option for dispersed communities of the Maya lowlands. These rural communities were the closest to subsistence production. Consequently, the activation of the hierarchical links among rural elite depended primarily upon interdependence within the political economy.

The links within the political economy would necessarily fall outside of the utilitarian or subsistence realm and into the realm of exotics and luxuries (Brumfiel and Earle 1987). These would not be a requisite to sustain life, but would be requisite for full participation in the elite political economy of the ancient Maya. Many restricted items could fall into this category and most would be derived from long-distance exchange. Obsidian has long been recognized as an enigmatic product in the Maya lowlands (see Tourtellot and Sabloff 1972). Curiously, production of obsidian has remained one of the real mysteries of the Maya. Data show that by-products of obsidian production occurred in only flamboyantly ritualized deposits at centers. And, despite all the excavations, production by-products had never been recovered in a situation ostensibly related to production in either ceremonial precincts or residences at centers.

Examination of settlement and community patterns of the Belize River area finally yielded the first major obsidian production site in the central Maya lowlands. Interestingly, this production site was located

within a rural community where little imposing public architecture was present. This would be precisely the type of area where conspicuous production could be fully appreciated. These peripheral, rural, low-level elite could employ devices, such as conspicuous obsidian production, to bolster their image within the rural community as part of the larger network of the elite political economy (see Vogt 1970). These same rural elite could control the production by-products, which were highly restricted, to forge their political links with higher-level elites at centers. In conserving and curating obsidian production debris, these elite could literally spend this “political capital” in important elite sponsored events at centers, thus participating in prominent funerals and ground breakings for buildings or stela. Through these methods, the administrative hierarchy of the ancient Maya was able to mobilize dispersed community production and expand the range of community integration. From this analysis, a striking picture of the Maya elite hierarchy, manifest in the settlement patterns of the region, begins to emerge. The settlements are concentrated in the most productive agricultural zones, though the zones are widely distributed across the landscape. Despite obvious obstacles to centralization, Maya civilization flourished, demonstrating the flexibility of an essentially fixed hierarchically organized administrative system. This was true, at least, until the period of collapse.

The archaeological research of the Maya area has developed a considerable database identifying the hierarchy of the household, the community, and the administrative center. This appears to be clear and sufficient evidence of the tiers of administration, and the long span of prehistory in the Maya area demonstrates the effectiveness of their administration. Still, the mechanisms linking together the tiers in

the hierarchy are not well understood. To understand the relationships between communities and centers, research needs to be oriented more to the signatures of the political economy, where substantial power resides. Therein lies the basis for the mobilization of subsistence production at the community level and the integration of communities at the local level. Resource mobilization and community integration provided the fundamental building block and the wherewithal to negotiate regional interaction.

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6 **EXPLORING CLASSIC MAYA POLITICS: YALBAC, CENTRAL BELIZE**

Lisa J. Lucero

The long-term research goals of the Valley of Peace Archaeology (VOPA) project are to address the question of how Classic Maya rulers acquired and maintained political power in the southern Maya lowlands (c. A.D. 250-850). The focus is on how replicating and expanding traditional rituals provided a means for aspiring Maya rulers to integrate people and acquire political power, defined here as the ability to exact tribute (surplus goods and labor). I explore this process at Saturday Creek and Yalbac. In this paper, however, the focus is largely on Yalbac. Yalbac is a major center with six major temples, several range structures, a ball court, causeways, a possible aguada, three large plazas, and a royal acropolis over 20 meters tall. Results from the 2002 season are described based on the excavations of two residences on the outskirts of Yalbac.

Introduction

In this paper, I summarize results from the 2001 and 2002 field seasons at Yalbac in central Belize. After permission was granted by the Belize Department of Archaeology in 2001, we spent 15 days mapping core features, testing two of the three major plazas, and conducting a preliminary survey of hinterland settlement (most of the 2001 season was spent at the minor river center of Saturday Creek) (Lucero 2002a). In 2002, we excavated two small residences, cleaned and profiled two looters trenches, continued mapping core features, conducted survey north of Yalbac to the Cara Blanca pools, recorded more looters trenches (for a total of 28), and tied Yalbac into a regional archaeology map thanks to Dr. William Poe (Lucero 2003). Before presenting results of the 2001 and 2002 seasons, I briefly summarize a model on the emergence of Maya rulership, which data from Yalbac will eventually test.

The Emergence of Rulership

My long-term research goals are to address the question of how Classic Maya rulers acquired and maintained political power in the southern Maya lowlands (c.

A.D. 250-850). I argue that replicating and expanding traditional rituals provided a means for aspiring Maya rulers to integrate people and acquire political power, defined here as the ability to exact tribute (surplus goods and labor) (Lucero 2003). Emerging Maya rulers expanded family-scale rites, particularly dedication, ancestor veneration and termination (e.g., Coe 1990; Garber 1986; McAnany 1995), into larger communal ceremonies that drew labor from farmsteads to civic-ceremonial centers. This process was gradual and incremental, and rulers conducted rites in progressively larger social settings (cf. Cohen 1974:37-39). Ambitious political agents began to expand rituals during the Late Preclassic (c. 300 B.C. - A.D. 250), and continued to do so, culminating in large-scale royal rites in the Early Classic (c. A.D. 250-550). By the Late Classic (c. A.D. 550-850), rulers could associate royal families with the divine.

The scale and degree to which Maya rulers and elites used ritual at minor, secondary, and regional civic-ceremonial centers were largely conditioned by the distribution of agricultural land, settlement patterns, scale of water systems, and seasonal water availability (Lucero 2002b).

Rulers of Tikal, Caracol, Calakmul, and other regional centers located in areas with large patches of fertile land without lakes or rivers, built artificial reservoirs next to temples and other monumental architecture to attract dispersed farmers during the annual six-month dry season (Lucero 1999). They became responsible for providing potable water during seasonal water shortages through maintaining reservoirs and performing key rites to propitiate deities such as Chac, the rain god (e.g., Scarborough 1998). In contrast, the regional centers of Palenque and Copan are located along rivers with concentrated alluvium surrounded by densely settled farmers. Rulers, however, also relied on water systems as a means to acquire tribute—reservoirs at Copan and aqueducts at Palenque—as well as large-scale public rituals.

Rulers at secondary centers, typically located along rivers, did not attain as much political power because they could not control completely access to dispersed pockets of agricultural land and small-scale water systems, and scattered farmers (e.g., Yalbac, Seibal, Yaxchilan, Piedras Negras, Xunantunich, Bonampak). Rulers, however, conducted public ceremonies to acquire what tribute they could. Elites at minor centers along major rivers relied on their wealth, as landowners, for example, to procure prestige goods and organize local ceremonies (e.g., Saturday Creek, Barton Ramie). A major factor preventing elites from acquiring political power was their

inability to restrict access to extensive alluvium and integrate dispersed farmers. Nor did they use water systems because water was plentiful and farmers relied on the annual rising and subsiding of rivers for agriculture (e.g., recession agriculture).

To document the replication and expansion of domestic rituals, I have been collecting detailed chronological, stratigraphic, and contextual information on ritual deposits from houses, elite compounds, palaces, and temples with long occupation histories before, during, and after the advent of rulership (c. 400 B.C.-A.D. 950) (Lucero and Brown 2002; Lucero et al. 2002a, 2002b; Jeakle 2002; Jeakle et al. 2002). In 2001 we focused our efforts at commoner and elite residences and a temple ball court at the minor river center of Saturday Creek, 19 km southeast of Yalbac (funded by a National Science Foundation grant) (Lucero 2003). I will compare these data with published ritual data from throughout the southern Maya lowlands.

Data from Saturday Creek and Tikal indicate support for this model, which is discussed in greater detail in Lucero (2003). Saturday Creek, which exhibits an occupation from at least c. 600 B.C. through A.D. 1500, has a long ritual history, though no rulers. There is clear evidence for dedication, ancestor veneration, and termination rites throughout its entire occupation. At the most powerful and largest Classic Maya center of Tikal, small residences show the same ritual history, from c. 900 B.C. to A.D. 900 when the center was largely abandoned. Royal monumental architecture, however, tells the same ritual story, albeit on a much grander and more expensive scale. Commoners, elites, and royals all conducted the same traditional rites, just at a different scale in different arenas (domestic v. public). In addition, there was a difference in the quantity, quality, and diversity of offerings. Public plazas and temples became domestic

arenas writ large so rulers could incorporate and integrate more people. They could also demonstrate to their subjects their success as supplicating ancestors and the gods in such a manner where everyone benefited (when everyone had plenty food to eat and water to drink). When rulers disappeared in the Terminal Classic (c. A.D. 850-950), Maya farmers, wealthy and poor, continued to conduct the same traditional rites they always had before, during, and after the advent of rulership.

Since Saturday Creek is a minor river center without rulers and Tikal was home to some of the most powerful Classic Maya rulers, we need more research on secondary centers such as Yalbac in order to test the model of the emergence of Maya rulership. We also need more ritual data from commoner and elite contexts rather than from royal ones. We hope to accomplish this goal in the coming years at Yalbac. In the following section I present preliminary results from the 2002 season at Yalbac.

Yalbac

The major center of Yalbac is located in the uplands near pockets of good agricultural land along a perennial stream, Yalbac Creek, in central Belize. Yalbac translates either as 'small bone' or 'small egret' (Weldon Lamb, pers. comm. 2002). While the exact history of the name is currently unknown, loggers named a logging camp nearby Yalbac Camp, and several historic villages also went by the name of Yalbac (Leventhal et al. 2000). At present, the site is on protected, private property owned by Yalbac Cattle and Ranch Company. The land south of Yalbac Creek is owned by the Government of Belize, on which lies the village of Yalbac, which at present is inhabited by about 20 families.

Yalbac consists of five major temples, several range structures, a ball court, causeways, a possible *aguada*, three large

plazas, and a royal acropolis over 20 meters tall (Figure 1) (Graebner 2002; Lucero et al. in press). The excavated 1 x 2 m test pits in the centers of Plazas 2 and 3 both had 13 natural levels, or at least six construction phases (plaster floors and cobble ballasts) with ceramics dating from c. 300 B.C. to A.D. 900 (Conlon and Ehret 2002).

Plaza 2 is c. 70 x 49 m, around which are seven monumental structures, two of which comprise a temple ball court (Structures 2B and 2C). Plaza 3 is c. 52 x 48 m, around which are six large buildings. Plaza 1 is the smallest (37 x 35 m), and is ringed by five structures, one of which is the royal acropolis (1A). The acropolis is c. 57 x 52 m and is over 20 m in height. It has four sunken plazas surrounded by 19 structures. One of the looters trenches (LT 1) on the highest structure has exposed two rooms, one with an intact and well-preserved corbel arch and red-plastered walls, as well as a possible roof comb. Another (LT 2) has exposed a bench (throne) that overlooks Plaza 1.

In 2001 we conducted a preliminary survey of the area peripheral to the core using compass and pace (Graebner 2002). Survey crews walked 1000 m transects, east and west, at 50 m intervals using an all weather, roughly north-south road as a baseline. Over 150 hinterland structures were mapped in an area roughly 5 km². The majority of sites mapped are solitary mounds. Crews also mapped groups of three to six structures; all constructed with cut or faced stone. Surface ceramics were collected from 78 structures, which predominantly date to c. A.D. 700-900, but range from c. A.D. 400 to 1150-1500. The highest density of structures are located northwest of Yalbac in hilly areas with good agricultural soils.

Yalbac Residential Excavations

Site 94E22N-14

Site 14 is located southeast of Plaza 3 at a bearing of 133° and distance of 154

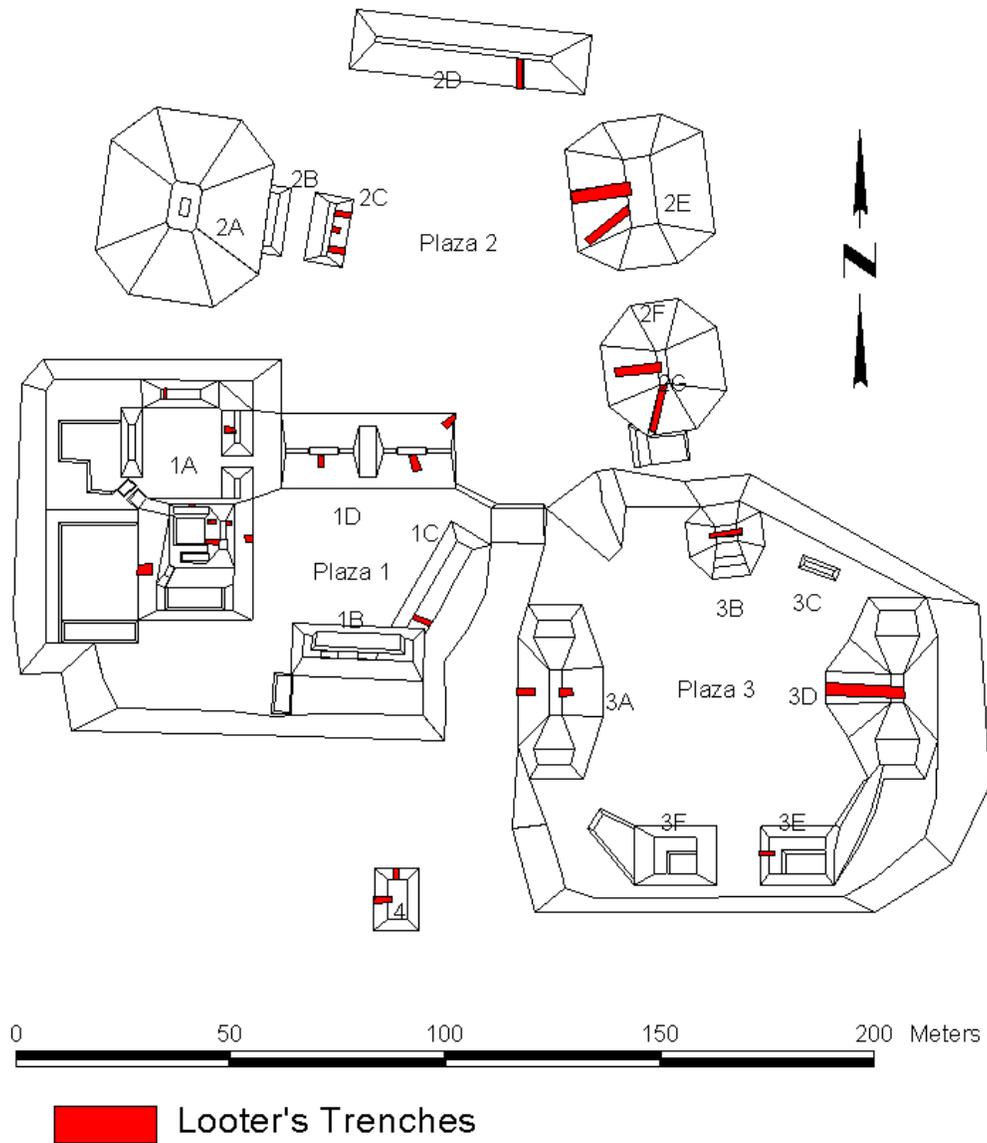


Figure 1. Yalbac.

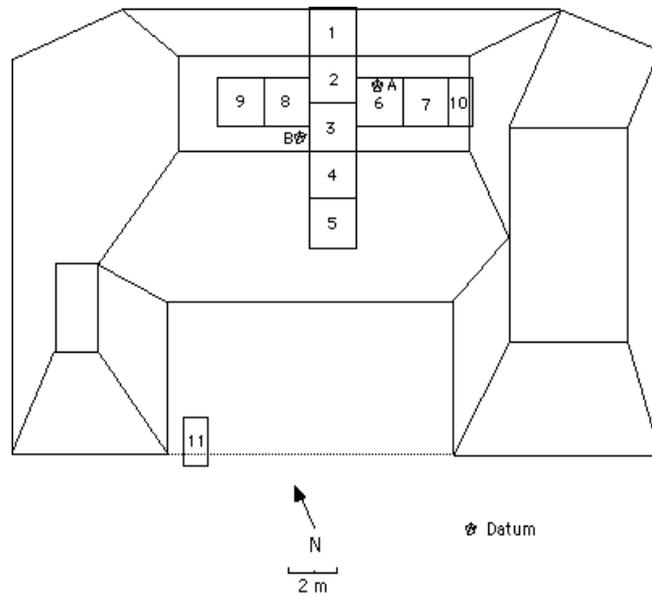


Figure 2. Site 14 plan.

meters. It is a U-shaped structure, likely residential, oriented east-west that measures 28.5 x 18 meters and is approximately from 1.7 (north side) to 3 (south side) meters in height (Figure 2). The raised platform occupies the northern portion of the structure, while the two lower arms extend south from the eastern and western ends of the platform (Graebner and Lucero 2003). It appears to have been built entirely in the Late Classic.

Site 14 was comprised of several construction episodes consisting of a series of standing walls, faced limestone steps, plaster floors, ballasts, and cobble fill. Large cut stone was noted throughout the mound, especially in the southeastern area of the platform, likely resulting from the collapse of a superstructure. Ceramics were the most predominant artifact class recovered, though in general artifact density is relatively low.

Site 14 began as a small structure with a hardened living surface, perhaps originally plastered (142). The plaster floor was then lengthened and expanded westwards, and built up in different stages. As the structure increased in height and expanded west, a faced wall (146) was constructed with cobble

fill (156), the latter topped with plaster floors (145, 136), creating a platform consisting of a lower and upper floor (Figures 3 and 4). The height of this structure was increased by another faced wall (150) with cobble fill (151) surfaced by plaster floor (141). Floor 141 was the most extensive floor of the site; the Maya had added a 2-meter thick fill (143) west of the western most wall (146), creating a level platform across the entire structure in an east-west orientation. The top of the structure/platform was covered by a possible bench (3.6 x 1.15 m) enclosed by walls 109, 104, 119, and 120 in a series of stages. On top of floor 141 within the bench walls was floor 127, upon which a fill (124) was added, after which another floor (117) was laid. Finally, floor 103 (and its ballast) was added, level with the tops of walls 104, 109, 119, and 120.

The primary axis (north-south) trench exposed a frontal staircase consisting of four plastered steps (106, 106a/b, 107, and 108), the top most of which (108) abutted plaster floor (141), as well as abutted and ran under the bottom of the foundation of the faced walls (104, 109, 109a) or substructure that

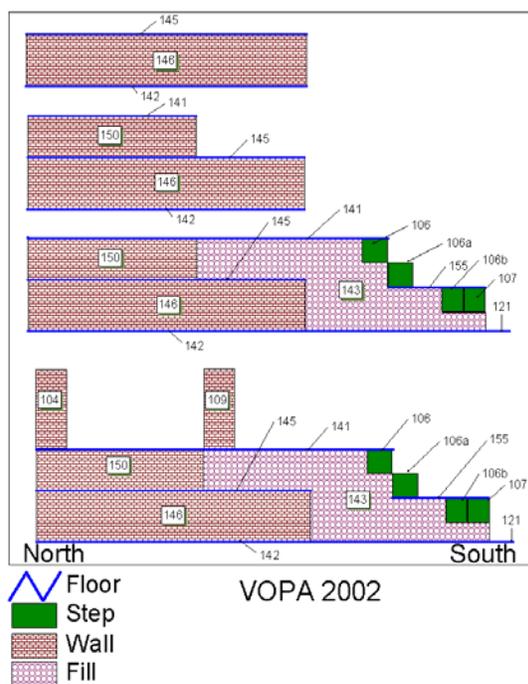


Figure 3. East wall schematic profile of Site 14.

during occupation or after abandonment of site 14 is unknown—the presence of a noticeable amount of historic artifacts (17 glass, metal, and ceramic objects) might indicate historic period destruction (Kinkella 2003).

While we were able to expose the earliest western section of Site 14, rain prevented us from revealing as much in the eastern section, where we had begun to expose a complex series of walls, floors, and fill including what might be the north edge of a bench (157) (1.3 x 0.4 m), which had been heavily charred. To the north of the possible bench is a semi-circular wall (158) that surrounds floor 159. The Maya dug a pit into floor 159 (and likely fill 160) and deposited a Benque Viejo polychrome vessel. The bench and semi-circular structure likely were built after living surface 142, but definitely comprise some of the earliest construction episodes. The next phase consisted of a

supported the most recent and primary structure. The remains of a collapsed superstructure could be seen in the profiles. Whether or not the superstructure collapsed room/structure with a single coursed-wall (153) with stones faced on the inside and a floor (152), both of which lie above a cobble fill/ballast (161).

While we did not recover any burials, we found evidence for possible dedication and termination rites (some mentioned above). For example, at the base of the south side of the structure steps (107) likely is a dedicatory offering consisting of a partial peccary, as well as metate fragments, a figurine fragment, marine shell, burned ceramics, and a chert blade. Other possible dedication caches include notched and un-notched obsidian blades and chert blades and cores (e.g., fills 112, 114, 143 and floor 113), marine shell (e.g., fills 124, 143), ceramic clusters without rims (e.g., fill 131), and a celt (wall 150). Evidence for termination rites consisted of burnt floors, which were noted on nearly every plaster floor (e.g., 113, 117, 118, 123a, 127, 128, 141, 145), as well as ceramic clusters without rims (e.g., top of floor 123a). For example, a large burned area of approximately 60 x 30 cm was found on top of a plaster floor (145). We also noted metate fragments on burned surfaces (e.g., step 106, floor 113), a spherical chert nodule on top of the burned surface of step 107 (Figure 4), obsidian pieces, and smashed vessels on top of burned surfaces (and some burned themselves) (e.g., floor 123a, step 108).

Site 94E22N-18

Site 18 is located east of 2F at a bearing of 89° and a distance of 320 meters. It is a square-shaped residential structure oriented north-south that measures 9.5 x 9.5 m and is approximately from 0.62 (north side) to 1.5 (south side) m in height (Figure 5) (Lucero and Graebner 2003). Site 18 is



Figure 4. Site 14 staircase with metate and chert nodule.

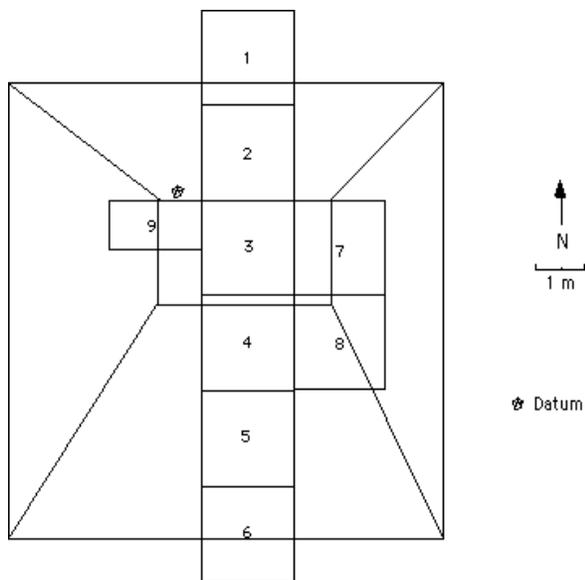


Figure 5. Site 18 plan.

Associated with at least two other structures, located north and northwest that may be part of a small residential group. Artifacts consisted primarily of ceramic sherds, lithics (chert cores, flakes, bifaces, and a few blades), shell, and obsidian. It likely served a domestic function, perhaps for a family of farmers. It was built slightly earlier than Site

14, with deposits dating from Early Classic through Late Classic.

We exposed what appears to be a single room structure with a porch on the south side. Other than plaster floors, architectural remains were limited to a prominent 4-7 coursed faced walls (102, 103) on the south side that abutted a plastered step (108). The northern units did not expose comparable walls, though there may have been a rough wall of some sort. Nor does it appear that there were walls on the east side.

The plaster floor (104) north and inside of the faced wall was very compact and well preserved (1+ cm thick). The plaster floor did not appear to extend east or west and was isolated in the center of the platform indicating that the most recent structure was relatively small. It also was replastered (floor 110) and extended to the south, upon which the step (108 and fill 109) and walls (102 and 103) were placed. Although boulder-sized stones were removed during excavation, there is no definite evidence that this structure had a stone superstructure other than walls 102 and 103. However, it is clear that the substructure and foundation were constructed with boulders and cobbles (e.g., fills 106, 111, 105). Continued excavation east and southeast of the platform center uncovered earlier plaster floors (112, 116, 118) indicating that as the platform increased in height, it decreased in surface area.

Possible evidence for dedication activities include chert and obsidian blades (e.g., fills 111, 117, wall 103) and marine shell (e.g., fills 111, 117). Fill 107, above the uppermost floor (104), yielded a notched ceramic sherd and a Pachuca obsidian flake. Evidence for termination rites consist of burned artifacts and floors. For example, ceramics (usually burned) were found on top of floors (e.g., 104, 112), as well as ceramic

clusters (e.g., floor 110). In addition, burned plaster, cobbles, and other materials were found in nearly every stratum. Finally, while excavating floor 116 southeast of the steps, a possible chamber or chultun was exposed. Floor 116 actually might consist of a seal for the chamber/chultun; it was much thicker (5-7 cm) and softer than a typical plaster floor. Although unexpected rainfall prevented further investigation into the contents of this feature, we did see ceramic vessels inside (possible broken jars) that might indicate ritual activity or storage.

Concluding Remarks

While I had hoped to recover evidence for Preclassic through Late Classic rituals at Yalbac residences, the data at least demonstrate that the Maya continued to perform rituals in their homes during the height of Classic rulership at Yalbac. In other words, rulers at Yalbac and other Maya Centers did not expropriate or restrict the traditional rites they appropriated. I would expect that the majority of elite and commoner ritual deposits are largely similar to those at Saturday Creek. Rites at monumental architecture, however, likely would be quite different—they would be more expensive and diverse. Temple rituals likely were conducted for audiences from all walks of life, whereas some ceremonies conducted in the acropolis might have been more restricted, for just a few (royals and their elite underlings). Rulers likely owned land in the immediate vicinity from which they could generate enough wealth to maintain a royal lifestyle. Farmers in the immediate area many have worked royal land in exchange for a portion of the crop. Rulers also acquired power through their participation, and likely monopolization of, prestige-goods exchange. They never acquired the degree of power as that seen at centers such as Tikal and Caracol because they did not have much means to draw in

farmers from beyond the center core and immediate environs.

Notes

1. I thank Dr. Jaime Awe and Carolyn Audet for taking time from their busy schedules to provide ceramic dates.
2. Numbers represent matrix stratum designations.

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7 **THE POOLS AT CARA BLANCA: ARCHAEOLOGY IN THE VALLEY OF PEACE ABOVE AND BELOW THE WATER**

Andrew Kinkella

Since 1997, the Valley of Peace Archaeological Project (VOPA) has been conducting investigations in an area north of the Belize River and northwest of Belmopan. This area, which includes the Classic Maya center of Yalbac, is also home to a string of 22 freshwater pools, which are in the process of being surveyed for archaeological data. So far, we have found three pools that have structures built immediately adjacent to the water's edge. Underwater investigations have been undertaken at one of the pools (named Cara Blanca), and future dives are scheduled at some of the other pools. The sociopolitical relationships between the pool sites and the surrounding area are still poorly understood, as is the function of these sites. We believe that the Cara Blanca site is possibly a pilgrimage center, and explore the idea of the pools as sacred sites for ritual.

Introduction

The Valley of Peace Archaeological Project (VOPA) began in 1997 with a preliminary survey of archaeological sites within a 200 square kilometer area centered on Valley of Peace Village (Figure 1). Our plan was to test the location of these sites using Scott Fedick's settlement model, which predicts settlement location and distribution based upon soil qualities (Fedick 1996). This model worked well, as the sites we found were almost always in the areas where the soil was the best for farming. Efforts in 1998 expanded to study minor ceremonial centers in the area and their relation to water ritual and political organization.

The 1999 field season was largely devoted to developing a chronological history of the area, with efforts centered at the river site of Saturday Creek and at the poolside site of Cara Blanca (Lucero 1999b; Kinkella 1999a). In 2001 we focused our efforts at Saturday Creek and Yalbac, and 2002 was centered at Yalbac (Figure 2).

In 2003, we continued at Yalbac, and have renewed our efforts towards the settlement survey that we initiated in 1997, concentrating on the area between Yalbac and the pools, as well as the area around the pools

themselves. We have recorded sites around two of the newly explored pools, as well as recording numerous new housemounds in the Yalbac vicinity. We are just now beginning to get a sense of the extent of the Yalbac settlement area.

Cara Blanca

Included in the peripheral settlement area of Yalbac is the site of Cara Blanca, a small Late Classic site on the edge of one of the 22 pools that run along the northern edge of the project area at the foot of the Yalbac Hills (Figure 3). It is seven kilometers distant from Yalbac, and nine kilometers from San Jose. As the first pool side settlement that we explored in 1997-1999, Cara Blanca is a small site composed of seven mounds ranging in height from three meters to under a meter. The pool is fed by an extensive underground water system in the area which roughly follows the course of Laboring Creek.

This uncommon location brings up issues of Maya water ritual, as any opening in the earth (including pools) was seen as a portal to the underworld (Bassie-Sweet 1996). The site also happens to be built upon very poor soils for farming, which may

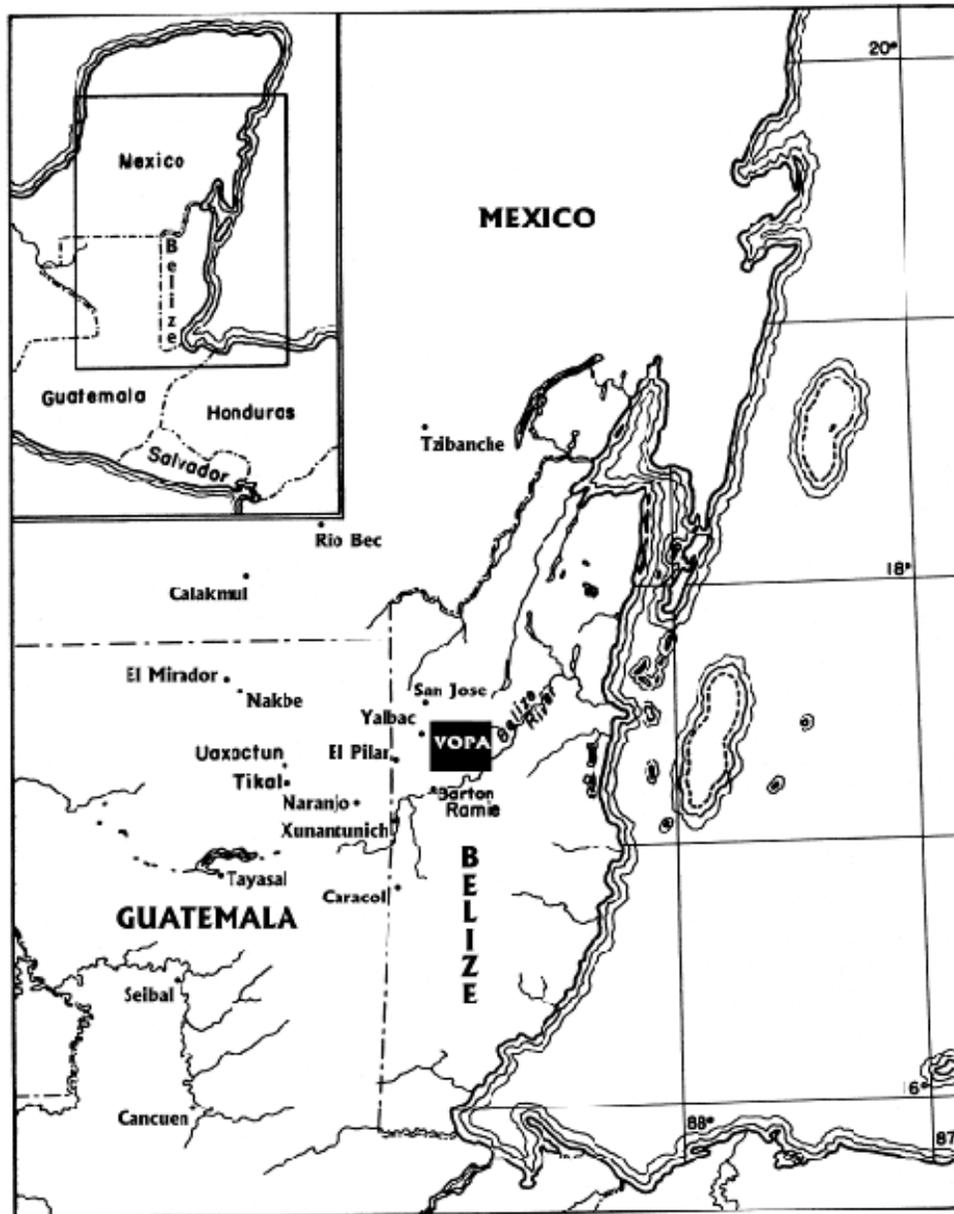


Figure 1. The Maya area with the VOPA area demarcated (after Willey et al 1965).

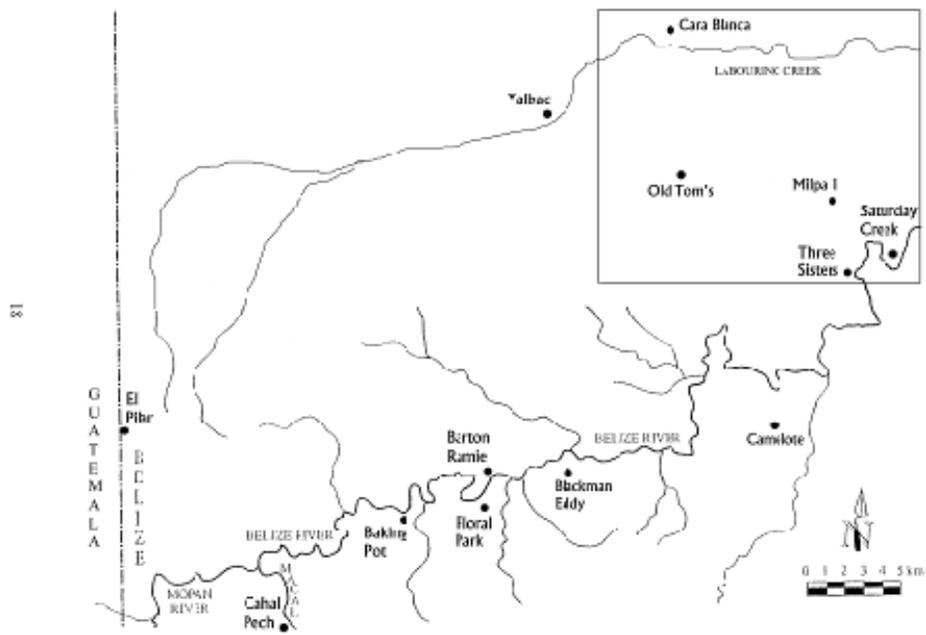


Figure 2. The Belize Valley and the Valley of Peace (after a map by Gyles Iannone).

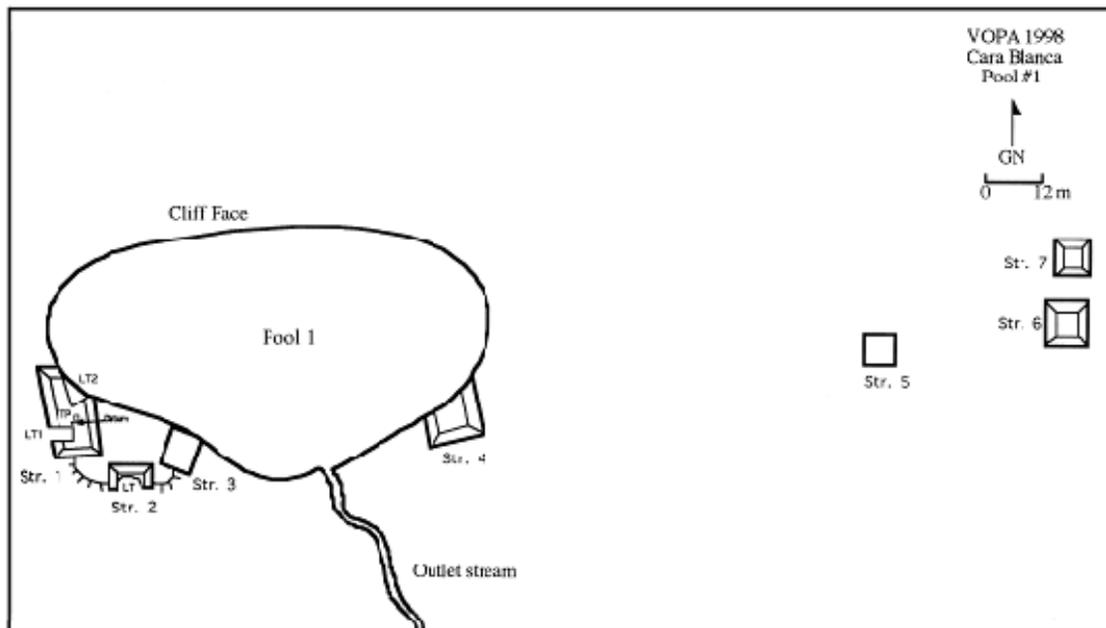


Figure 3. Cara Blanca.

indicate that its function was something other than basic subsistence (soils suitable for cultivation do exist 1-2 kilometers away, however) (Fedick 1996; Lucero and Fedick 1998). The isolation of this small site and its relative equidistance between larger centers (Yalbac, San Jose, Mun Diego) may also earmark it as something different; classifications of Cara Blanca as a pilgrimage center, elite compound, or other function (e.g., trade outpost) cannot be ruled out.

Research Goals

Besides understanding the soil characteristics of the area, we also wanted to get an idea of the building chronology of the Cara Blanca structures (Fedick 1996, Lucero 1999c; Lucero and Fedick 1998; Kinkella 1999a). This was done mainly in 1998 by clearly exposing the looters' trench sidewalls, and excavating a 1x1 meter test pit at the top of the largest structure. The information gleaned from the looters' trenches and the test pit provided a better understanding of floor and wall orientation as well as providing a sample of sherds that could be used to determine occupation history.

The final goal was to search for ritual offerings by scuba diving Pool 1. This would enable us to locate any visible Maya offerings on the pool floor, make preliminary measurements of the pool, and get a general overview of the underwater environment to ascertain the feasibility of later, more elaborate dive strategies.

Structure 1

Structure 1 is the largest structure at Cara Blanca. It appears to be a range building consisting of six rooms, three on a side, radiating out from a central spine wall. In 1998, a 1x1 meter test pit was placed at the top of Structure 1, between Looter's Trench 1 and Looter's Trench 2. Artifacts excavated

include 38 diagnostic sherds, almost all of which were identified as Late Classic (A.D. 700 - 900). There are six other structures at the site that were mapped but not explored.

Water and Ritual at Pool 1 and Beyond

Many of our ideas concerning the ritual implications of Cara Blanca's poolside location stem from previous work done at cenotes, such as the famous "Cenote of Sacrifice" located at the Postclassic Maya center of Chichen Itza. Since Edward H. Thompson began a simple steel bucket dredge of the cenote in 1904, there have been a plethora of offerings recovered from the cenote at Chichen Itza, including figurines, masks, bells, cups, human bone, ritually "killed" (broken) objects, representations of the long-nosed Chac water deity, and rare metalwork of gold and copper (Andrews and Corletta 1995, Sharer 1994:719).

Chichen Itza's cenote has one small structure associated with it located on the edge of the south rim, somewhat similar to Cara Blanca (Coggins and Shane 1984). But while trade goods from all over Central America have been found at Chichen Itza, Cara Blanca's interaction sphere seems relatively localized. Also, virtually all of the offerings at Chichen Itza date from between A.D. 700 - 1250 (Coggins and Shane 1984, Andrews and Corletta 1995:101). The dates of the objects found at Cara Blanca are from an earlier period of time (A.D. 600 - 900).

There are a few other sites with associated cenotes throughout the Maya zone, and most contain offerings. Dzibilchaltun is one such site, and the ceramics found in its cenote (called Xlakah) date from the Late and Terminal Classic, the same as the ceramics at Cara Blanca (Andrews and Corletta 1995:104). Andrews and Corletta believe that at this time there were "area-wide water cults, which included pilgrimages to 'sacred'

water localities, and ritual offerings of elite goods and human victims to water and other deities” (Andrews and Corletta 1995:112). If this is so, Cara Blanca would be an excellent location to engage in such activities.

In an attempt to find underwater evidence for ritual activities akin to Chichen Itza and Dzibilchaltun, preliminary exploration of Pool 1 was conducted by scuba diving to a depth of about 20 meters. A sounding of the pool undertaken earlier gave its deepest depth at about 40 meters, but the dive crew was not able to explore that far down, as our limited light source was not able to illuminate the surroundings below about 20 meters. We were hoping to find a shelf underwater where offerings may have landed on their way down, but all indications point to any artifacts being located at the very bottom (40 meters down), as the sides of the pool were extremely steep. Two sherds were found on separate tiny rock outcroppings at about a 10 meter depth, but the outcroppings were immediately under Looters’ Trench 2 of Structure 1. This indicates that the sherds were probably from looters’ debris, and not a part of any offering made in prehistory.

We explored five additional pools in the Cara Blanca region in 1998 via surface survey only, and none of the five had any evidence of ancient Maya settlement. For 2003, an additional seven pools were surveyed, and two new pools with settlement were found (pools 7 and 9), both a few kilometers west of Cara Blanca. I swam in pool seven to check depth, and it was quite shallow for most of its area (under six feet deep). The water was also very warm (approximately 90 degrees) and the visibility was terrible (one meter). Pool nine has a much better possibility of yielding underwater archaeological material, and is the next pool to be explored. Both new pool sites are composed of several small range structures, and I assume that the sites will

date to the same period as Cara Blanca (Late Classic).

The immediate pool area is not the only location where we suspect ritual use in relation to water and the underworld. Several kilometers south of the pools a three-meter tall mound perched at the top of a six meter tall sheer cliff was found. The cliff has a crack in the center, which goes underneath the front of the mound and is large enough for a person to fit into. The crack is about 1.5 meters wide and five to six meters deep. This natural fissure into the earth may have had ritual significance as the structure immediately above it may attest to. Much of the surrounding area is full of limestone with fissures and cracks in it, especially in the northeastern project area. With these fissures so numerous and many with water at the bottom, it seems to be a good place to look for caves and the water ritual that may go with them.

Ceramic Analysis

It is known that many sites within the Belize Valley have a fairly long occupation history, dating from the Middle Preclassic (c. 1000 BC) until the Late Classic (A.D. 900) and even into the early Post Classic (Willey et al. 1965). The site of Saturday Creek in our project area follows this general pattern. However, the Valley of Peace site excavated as a salvage project by Jaime Awe (located at the center of Valley of Peace village) had a much narrower chronology, centered upon the later Classic period (A.D. 400 - 900) (Morris 1984). It was imperative to know where the Cara Blanca site fit within this continuum, and the ceramic collection from the site provided strong evidence that Cara Blanca dated much more similarly to the Valley of Peace site than to Saturday Creek. Each of the 38 diagnostic sherds collected in 1999 was measured for rim diameter and neck diameter (if applicable). They were also measured for height, length, and width, and

drawn at a 1:1 scale in cross section. Sherds were catalogued using Gifford's Pottery Analysis of Barton Ramie (Gifford 1976), and all chronological interpretations stem from his categorizations. At the Cara Blanca site, there were a total of 22 diagnostic jar rims, 7 plate rims, 5 bowl rims, and 1 censor rim. This gives us an overall percentage of 63% jars, 20% plates, 14% bowls, and 3% censors (Table 1). The ceramics recovered at Valley of Peace were only analyzed for chronology and form, but the excavators did make note of the general ratios of pottery types that they saw. They found bowls to be most prevalent, followed by jars at a close second (Awe 1984). Given this information, we would expect the Cara Blanca site to roughly equal the Valley of Peace site in ratios of bowls and jars, but this is not the case. The severe lack of bowls at Cara Blanca in comparison to Valley of Peace may point to differences in site usage. Indeed, the high percentages of jars inside Cara Blanca's Structure 1 may indicate relationships with water and cave ritual (Chase and Chase 1998:325).

In terms of chronology, the sherds provide overwhelming evidence that Cara Blanca was almost exclusively a Late Classic site (A.D. 600 - 900) (Table 1). Most (79%) of the sherds are from the Spanish Lookout phase (A.D. 700 - 900), while 13% are from the Tiger Run phase (A.D. 600 - 700), and only a maximum possible 8% belong to the Hermitage phase (A.D. 300 - 600). These dates are very similar to the dates from the Valley of Peace site (A.D. 400 - 900).

From the chronological interpretations of the potsherds, it appears that settlement at the Cara Blanca site began during the Middle Classic (A.D. 600), or possibly a little earlier. Habitation continued into the Late Classic and Terminal Classic (A.D. 900), at which point the site was abandoned along with most sites in the Belize Valley. Cara Blanca most likely had strong ties to the major centers in

the area, including Yalbac, located just 7 kilometers to the southwest, and San Jose, located 9 kilometers to the northwest. In fact, San Jose's Structure C5 displays many architectural similarities to Cara Blanca's Structure 1.

Concluding Remarks

Cara Blanca's location immediately adjacent to a sizable natural spring mirrors other water ritual sites such as the cenotes at Chichen Itza and Dzibilchaltun (Andrews and Corletta 1995). Because of this similarity we have speculated that Cara Blanca may have been used as a ritual pilgrimage center during prehistory. The Maya viewed anything pertaining to the underworld as sacred (Bassie-Sweet 1996), and the underground water source at Cara Blanca may have been seen as a portal to that world. Natural pools of water such as the ones in the Cara Blanca area often contain ritual offerings and the presence of multiple pools in this area along with several sites may earmark it as a special location, although nothing conclusive has as yet been found on this front. With an extremely reliable supply of fresh water and fairly good soil (Class II and III) only a short distance away, the relative lack of settlement in the overall area is surprising. This tends to favor the classification of Cara Blanca as a ritual pilgrimage center or even as a private elite compound, where plentiful resources were restricted due to the relative ease of control. Since the primary water source is a pool and not a river, the entire water source could have been delineated for the elite, while the commoners were forced to share nearby Labouring Creek.

Considering the settlement characteristics in the immediate area encompassing the Cara Blanca site (settlement on poor soil) and the relatively good soil characteristics (Class II and III) of the surrounding uninhabited area, it can appear at first glance as though Fedick's

model of good soil correlating to increased settlement is not viable. But if we look more closely, it becomes clear that the model works. Although the Cara Blanca settlement is built upon Class V soil, which is the very worst in the Maya area, the good Class II and III soils are located one kilometer away. It appears as though the Maya could be getting the most out of their available resources by building their dwellings upon poor soils that are adjacent to good soils and water, so as to be close to water with good farm land just a short distance away.

Future archaeological work at the pools will consist of obtaining a ceramics sample from the two new pool sites to see if they are temporally consistent with the Cara Blanca site. A second diving expedition will also be mounted to study the contents of the new pools, and the settlement survey will be expanded. Further study will increase our understanding of the relationship between the pools and the surrounding communities, as well as explore the possibilities of the pools as pilgrimage destinations of ritual importance.

Table 1. Ceramics from Cara Blanca.

Ceramic Types: Structure 1, LT 1:

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

Ceramic Types: Structure 1, LT2:

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

Ceramic Types: Structure 1, Testpit 1, Level 2

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

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

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

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

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8 **MAYA CASTE WAR IMMIGRANTS IN COLONIAL BRITISH HONDURAS: THE SAN PEDRO MAYA PROJECT, 2000-2003**

Jason Yaeger, Minette C. Church, Richard M. Leventhal, and Jennifer Dornan

One of the most important historical events in Belize's history was the immigration of people of Maya and Mestizo heritage who entered and more than doubled the population of British Honduras between 1847 and 1855, during and immediately after the Caste War in Mexico's Yucatán Peninsula. From the British perspective, the incorporation of these new settlers into the British settlement presented a challenge, given their distinct cultures and lifeways, sheer numbers, and general unwillingness to submit completely to British rule. The eventual synthesis was a new colonial culture, quite distinct from that which had existed previously. This paper discusses the results of four seasons of excavations at San Pedro Siris, the nineteenth-century village founded by San Pedro Maya immigrants near Yalbac. We use the resulting excavation and artifact data to address how this group of immigrants became incorporated into the social and economic networks of colonial British Honduras.

Introduction

The San Pedro Maya Project (SPMP) is a multidisciplinary research project that combines archaeological data, documents, and oral histories to study the San Pedro Maya, a group of Yucatec-speaking Maya who came to Belize in the 1850s in the aftermath of the Caste War in Mexico's Yucatán. We are especially interested in the processes by which these people were ultimately incorporated into British Honduras, now Belize and how perceptions of ethnicity affected that process of incorporation. Three completed seasons of research have convinced us this kind of multi-disciplinary approach has great potential to contribute to new perspectives on the recent social and cultural history of the Maya of Belize and the origins of the Belizean nation. In this article, we provide the reader with a broad outline of the project's historical context and a general discussion of the results of the 2000 through 2003 field seasons.

Historical Context

The southeastern part of the Yucatán Peninsula was conquered by the Spanish in what was an especially bloody episode in the

larger drama of the conquest of Yucatán in the 1540s (Jones 1989). Both the relative lack of colonial oversight in the region following the conquest and the proximity of the independent Itza Maya polity contributed to a rebellion by which the Dzuluinicob Maya of this area ended a century of colonialism by forcing the Spanish from the entire region (Jones 1990). Following the reconquest of the area, including the Itza kingdom, in 1697, colonial officials relocated Maya villages to new sites around Lake Peten-Itza in what is now Guatemala, leaving a very sparsely-populated band along the Caribbean coast (Jones 1998).

The Spanish abandonment of this area created an opportunity for the British privateers and logwood cutters, who had begun settling along the Caribbean illegally as early as 1671 (Serrano Mangas 1985). The pace of settlement increased during the eighteenth century, resulting in the growth of the Bay Colony that would become British Honduras and later Belize. The Bay Colony was a small settlement focused almost exclusively on the rivers and coastal areas (Caiger 1951). Perhaps in part because the British settlers came after the Spanish

relocation of the Maya, many have come to believe the myth that few or no Maya people inhabited the land at the time of British settlement, although O. Nigel Bolland (1992) has convincingly demonstrated that there were in fact some Maya people living in and around the settlement.

Most Maya groups lived beyond the boundaries of British control, however, and they were not incorporated or integrated into the colony. Thus, in terms of its social structure, the settlement was essentially a slave society until the mid-nineteenth century, and it remained so even after legal emancipation in 1834 (Bolland 1988, 1994). Slaves and their descendants formed the majority of the settlement, which was ruled by an elite Anglo minority. This situation changed dramatically with the advent of the Caste War in Mexico's Yucatán state. The resulting large-scale population reorganization and mobility irrevocably changed the Bay settlement's ethnic composition and entire social fabric (Bolland 1977; Shoman 2000). During the Caste War, beginning in 1847, Maya armies seeking independence came close to conquering the Yucatan. Within a year, however, Mexican troops had begun to push the Maya into the southeastern part of the Yucatán, and the Caste War quieted down to a decades-long stalemate punctuated by periodic fighting (Dumond 1997; Reed 2001; Sullivan 1989). The several groups of Maya rebels who relocated into the southeast part of the peninsula were often divided by factionalism (Dumond 1977). The Santa Cruz or Cruzob Maya followed the Talking Cross and allied themselves with the British in their on-going struggle for independence from Mexico (Reed 2001). In contrast, the Chichanha and Icaiche Maya were more traditional Catholics, and their recognition of Mexico's sovereignty – albeit limited – earned them the name of the *pacíficos del sur*. The group of Maya under study here, known as the San

Pedro Maya, were an offshoot of the *pacíficos* who left Icaiche and moved into Belize around 1857 (Jones 1977).

Immigration of San Pedro Maya as well as other Maya groups and mestizos increased the population of British Honduras from 9,809 in 1845 to 25,635 in 1861. Despite the fact that this influx reduced the Anglo settlers to a mere 1.5 percent of the population, the British welcomed the Maya refugees in part because they represented manpower in a settlement that was chronically short of labor (Cal 1983). Furthermore, they saw the San Pedro as a potential buffer between the coastal settlements and the more hostile Maya groups further north. Maya from Icaiche kidnapped 80 people at Qualm Hill in 1866 and demanded \$3000.00 ransom. As a result of that episode, the British agreed to requests for arms by the Maya of San Pedro, so that they could defend themselves and the British (Jones 1977). The settlement's authorities also gave the San Pedro Maya leader, Asunción Ek, official government recognition (Jones 1977; also Bolland 1987). On the other hand, the influx of Maya to San Pedro worried the colonial authorities and settlers, who were wary of the "Indians" who had nearly won the Caste War in the Yucatan. Raids on British logging outposts by Maya militias from Icaiche and allied villages between 1848 and 1872 also tended to reinforce for many the threatening aspect of British stereotypes of the Maya (Dumond 1997; Jones 1977).

For these reasons the British apparently did not completely trust in the loyalty of the San Pedro Maya, and upon hearing rumors in 1866 – perhaps contrived by loggers working in the area – that the people of San Pedro were going to join Icaiche in attacks on British settlements, the Lieutenant Governor sent troops from the 4th West India Regiment to the village. Allied Maya forces from San Pedro and other

villages to the north routed the regiment, leading to a fear of a Maya uprising so strong among the British that the Lieutenant-Governor fled the settlement (Jones 1977). The following year, the regiment with reinforcements from Jamaica took San Pedro, San José, and nearby settlements and put them to the torch, apparently ending San Pedro Maya military activities. The Maya villagers moved back into the villages within a short time, and for the remainder of the nineteenth century there was an uneasy but non-violent stalemate during which the Maya made annual forays into Belize City to buy goods; otherwise the British seemed content to leave the San Pedro Maya to their own devices in the remote northwestern jungles of the settlement.

This relative isolation ended in the 1920s, when the introduction of railways and tractors made almost all of the northern part of the colony accessible to logging (Dobson 1973; also Finamore 1994). British-owned companies purchased large tracts of interior forest, and these concessions included areas where the San Pedro Maya lived. Conflicts between Maya and British increased again, and the inhabitants of the major village of San Pedro abandoned their homes sometime probably in the late 1920s. Because they were said to be destroying mahogany trees with their milpas, the population of San José Yalbac was forcibly evicted and relocated to San José Palmar and their village burned in 1936. As Sir J. Eric S. Thompson (1939, 1963), who had employed San José villagers in his archaeological excavations, noted, these events closely paralleled earlier Spanish policies of *reducciones*. This action spelled the end of the San Pedro Maya and 75 years of semi-autonomous existence, living within the territorial borders of the British colony, but remaining in some ways stubbornly outside of the colonial system.

Project History

Like most presentations of Belize's colonial history, the historical outline just presented relies heavily on British colonial documents. Our research seeks out archaeological data and oral narratives that will complement the available documents and thus enrich our understanding of the period between 1850 and 1936, and ultimately, of the birth of the modern Belizean nation. One of the first tasks of our research is to answer some fundamental questions about the location, size, demography, layout, and internal organization of the San Pedro Maya villages. These basic facts are largely missing from British reports and letters. A second important set of questions revolves around the social and economic links between the San Pedro Maya and the British colony: to what extent and by what avenues did the San Pedro Maya villages become part of the British colonial economy? Finally, the research program examines the issues of ethnic identity and identity politics in colonial British Honduras. We are examining the ways in which British colonists represented the Maya and Maya ethnicity in the colonial context. Maya perspectives and their role in the production of colonial society remain largely unstudied, and in the course of research we hope to discover more about their voice and role in nineteenth- and early twentieth-century Belizean ethnic politics. We anticipate that information from the oral narratives will be quite helpful in this regard, while the archaeological data allows us to address some of the everyday customs and practices of the San Pedro Maya through which they intentionally and unintentionally distinguished themselves from other ethnic groups in the colony.

Archaeological Fieldwork

Our fieldwork began with reconnaissance efforts to locate some of the San Pedro Maya village sites identified by

Grant Jones in historical documents in the Belize archives. Finding the archaeological remains of Historic villages in the Maya Lowlands is quite difficult (Pendergast et al. 1993). The majority of the buildings were perishable, wattle-and-daub structures that did not sit on substantial building platforms. In tropical humid climates, this kind of architecture leaves very few obvious settlement traces in the archaeological record. Furthermore, the thick carpet of leaf litter in tropical forest settings tends to obscure the abundant surface artifact scatters generally found on later Historic sites. The San Pedro Maya villages were abandoned in the early decades of the 1900s, and they have become covered in jungle vegetation in the last 75 years. We were fortunate, however, that there is a substantial body of oral historical knowledge about the general locations of sites. We found that the best strategy for locating these sites is to ask two groups of people about them. The first group is the older generation of Belizeans who either lived in those villages, or who later traveled through them while there was still visible evidence of the habitations. The second group is younger Belizeans whose occupations, generally as hunters or timber workers, take them into the region once inhabited by the San Pedro Maya. By asking these people if they know of any places with the names of the sites and if they have encountered any dense concentrations of bottles, plates, machetes, and other historic artifacts, we located two of the San Pedro Maya sites that Jones (1977) lists: San Pedro Siris and San José Yalbac (Figure 1). Our archaeological fieldwork and our many conversations with Belizeans in the area make us confident that we have located and properly identified the remains of these two villages, which were the central villages of

the San Pedro and San José village clusters that Jones postulated in 1977.

We have focused our excavations at San Pedro. Archival research by Grant Jones (1977) indicates that San Pedro was one of the larger San Pedro Maya villages, home to some 300 or 400 people. Furthermore, it was the head village for this group of Maya, with a large church and fiesta house, as well as a court, jail, and a barracks for the village militia. The village is located in a relatively large, flat area nestled among low hills. A creek runs through the village and was probably the inhabitants' primary source of water. Although it is in an area of rapid agricultural expansion, the landowner has not yet employed any mechanized equipment to farm the area occupied by the site, and the sub-surface archaeological deposits are surprisingly intact, despite being buried by only 5-10 cm of topsoil.

In 2000, we conducted an initial reconnaissance of the site, identifying two spatially discrete components named San Pedro West and San Pedro East, separated by the stream (Leventhal et al. 2001). San Pedro West is the smaller of the two components of the site, measuring roughly 125 m by 60 m (Figure 2). It is a surface scatter of artifacts that extends along the base of a low, gentle ridge, and we completed a 100 percent surface collection of this portion of the site using a 5 m collection grid. Because we could not identify any surface indications of architecture, we tried using soil probes, a systematic program of 102 post-hole tests, and 10 larger test excavation units to find sub-surface architectural traces such as white marl or *sascab* floors or wall lines, but all yielded negative results. In contrast to the discouraging excavation units, the state of preservation of the thousands of artifacts we found was notable, given the tropical environment, and their analysis has yielded

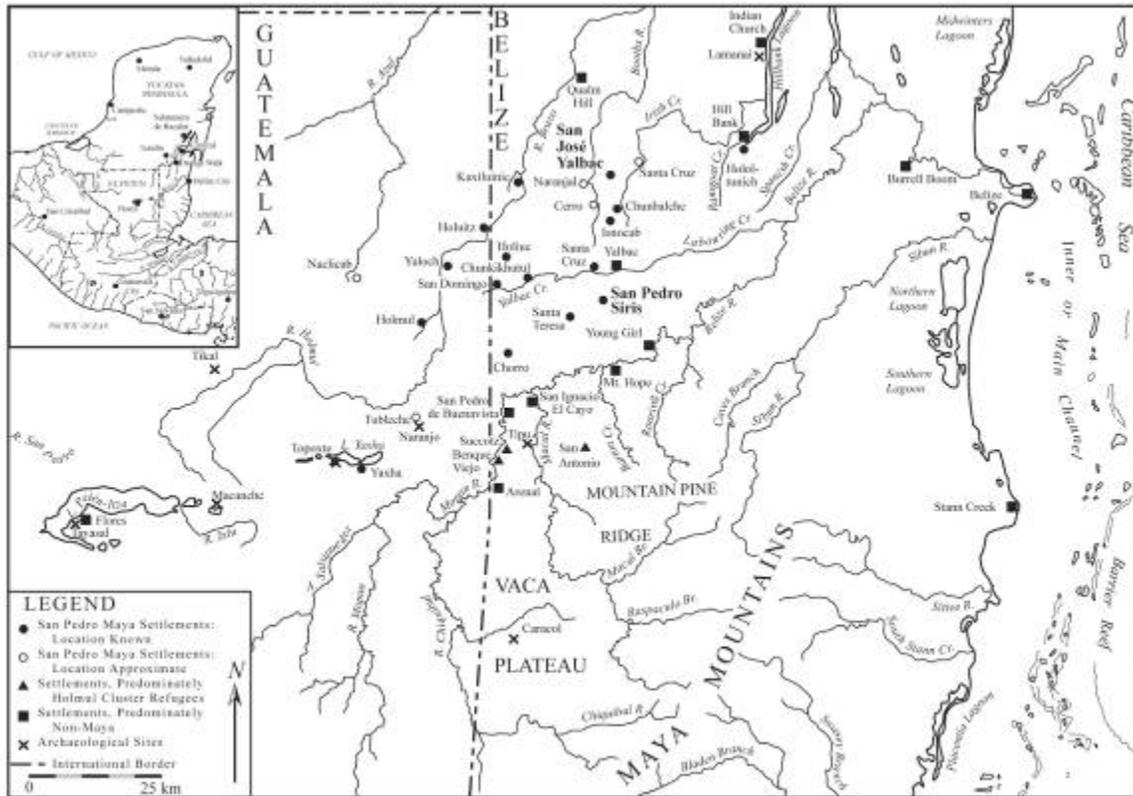


Figure 1: Central Belize and adjacent areas in the 19th century (after Jones 1977).

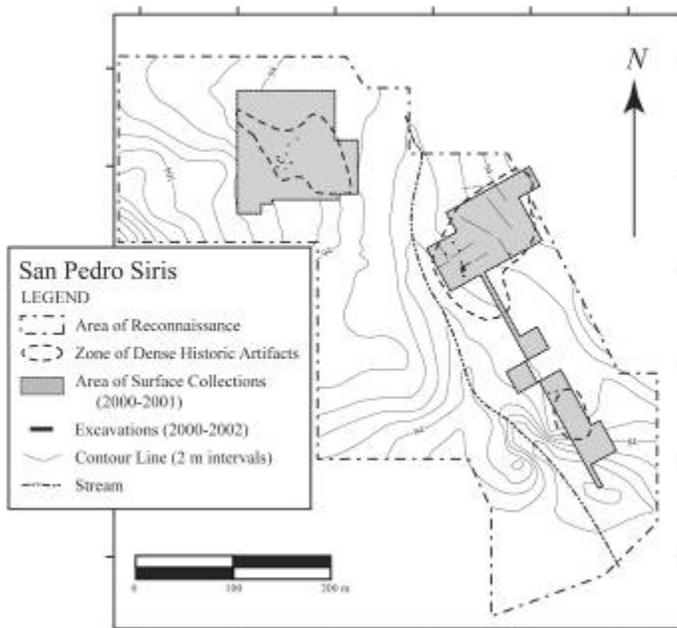


Figure 2: San Pedro Siris.

interesting results (Church et al. 2001), discussed below.

In 2001, we returned to San Pedro Siris for a month of fieldwork, during which we shifted the focus of our investigations to San Pedro East (Leventhal et al. 2002). San Pedro East is larger than San Pedro West (Figure 2). The densest concentration area of imported historical artifacts measures some 150 m by 75 m and forms the northern zone of San Pedro East, while a smaller and less dense concentration is located on a small knoll in the southern zone.

We continued systematic surface collections, changing our strategy to use a 2.5 m collection grid. Although we were unable to complete the surface collection of the entire site, we did complete our collections from the majority of the site, covering an area of approximately 13,250 m². We also initiated a soil chemistry study, collecting samples from every 2.5 m grid square and completing an ethnoarchaeological study of soil chemistry and activity areas in the adjacent Montalbán homestead, in order to see if we could correlate the spatial layout and activity areas with chemical signatures in the soils (Eichmann and Yaeger 2002; Yaeger 2002).

Because we had no success finding buried architecture in our test excavations in San Pedro West, we decided to change excavation strategies in San Pedro East, implementing broader clearing excavations. We chose a sector of the site characterized by a high density of artifacts on the ground surface and a bedrock metate, the only clearly in situ feature visible at the site. The excavation of 17 contiguous units in a zone with clear evidence of occupation revealed significant sub-surface artifact concentrations, but no clear architectural or non-architectural features. We also placed several units on the hillock on the southern end of San Pedro East in an area with several

large pieces of limestone that appeared to be masonry, plausibly the remains of one of the large public structures attested to by historical documents. These excavations revealed no evidence of buried features of any kind, however.

Finally, we placed another unit in San Pedro East to remove a whole bottle found eroding out of a hole left by a decomposed cohune palm. As is often the case, this opportunistically placed unit – dug in the last week of the season – proved to be the most interesting excavation of the season. Two rock alignments divided the unit into three areas; the alignments are probably the bases of walls, while a thin sandy layer, located north of one alignment, is probably a floor. The different artifacts found in these different zones seem to reflect distinct areas of interior and exterior activity.

Heartened by the discovery of discernable architectural features, we returned to San Pedro in 2002 to carry out another four-week field season. We dedicated the 2002 season to a more extensive program to locate buried architecture in San Pedro East, and to our ongoing artifact analyses (Yaeger et al. 2003). We eschewed test pits and instead shifted strategies to trenching, excavating 11 long strip-trenches, each 50 cm wide and ranging in length from 14 m to 40 m.

The trenches provided a good sub-surface sample of the northern sector of San Pedro West, and they proved much more successful in finding buried features than isolated test units. We discovered over two dozen different cultural features, including lines of cobbles; shallow pits lined with fire-grayed rocks and filled with charcoal, that were probably roasting pits; sheet middens; and several activity surfaces. The latter are 5-cm thick lenses with fire-grayed rocks and charcoal and a slightly greater density of artifacts, all in a distinct stratum at between

10 and 20 cm below the ground surface. The features recovered in our strip trenches and the surface artifact densities suggest the existence of two discrete residential areas of this portion of the village, separated by a topographic break of exposed limestone and an area of low artifact density. North of these two areas, in a zone of very few artifacts, we found two burial pits excavated into the limestone bedrock. The proximity of the two burials and their presence in a zone of distinctive stratigraphy – characterized by an old ground surface buried by a layer of re-deposited marl and limestone scrap – suggest this area was the village cemetery.

Our 2002 excavations demonstrated that the domestic activity surfaces and buildings at San Pedro Siris, although ephemeral, are amenable to extensive horizontal clearing. Although the archaeological deposits suffer from the bioturbation that is common in the Maya lowlands – gopher burrows, ant nests, tree roots, etc. – the buried strata and features at San Pedro Siris are remarkably well preserved. Thus in 2003, we returned to San Pedro East to implement extensive stripping excavations to expose at least one residential zone. Although the season is not yet complete at the time we write this report, we have exposed more than 125 m² of domestic space. We have been surprised at the preservation of deposits only 10 cm under the modern ground surface and the possibility of identifying subtle but consistent differences in stratigraphy. Of the features we have exposed so far, the most interesting are a cobble floor that might be a house or building platform, two piles of large cobbles associated with large or whole artifacts, several possible postholes, and two activity surfaces associated with trash scatters. In the remainder of the 2003 season, we hope to contextualize these features so as to be able to talk much more concretely about the

organization of domestic space and activities in the village.

Material Culture Analyses

Although the excavation and architectural data look more promising than ever, our interpretations of San Pedro to date derive primarily from the analysis of artifacts we recovered during surface collection. The resulting data provide important information about the San Pedro Maya and their evolving place in the British colony (Church 2002). Of special interest is the cuisine of the San Pedro Maya and evidence of their interaction with the British economic system, as well as more indirect suggestions about Maya resistance to Colonial rule (Church et al. 2001).

Guns and machetes are well represented across the site, as expected at a village known to have engaged in active resistance to and negotiation with British authorities. Guns, although certainly used for hunting, were also used by the San Pedro Maya in their storied rout of the 4th West India Regiment. Gun barrels and other parts are common on the site, and in quite a few cases it appears that the end of the barrel was crimped so as to be non-functional. It is possible that after the British pacification of the region in 1867, the British decommissioned many of the Maya's old muzzle-loading guns rather than confiscate them and haul them out of the jungle.

The function of machetes is more ambiguous, as they are used for slash and burn agriculture and any number of peaceful purposes. But it is worth noting that many Caste War heroes immortalized in statuary in the Yucatán are pictured with one in hand, making it an explicit symbol of warfare and resistance. However, even when used for slash and burn agriculture, the machete can arguably be thought of as a tool of resistance. The overt policy of the Belize Estate and Produce Company, which came to claim the

land occupied by the San Pedro Maya, was to create a more dependent and therefore malleable labor force by limiting agriculture and self-sufficiency on the part of its potential labor pool. The company had an ally in Governor Austin, who decreed in 1867 that "No Indian will be at liberty to reside upon or occupy, or cultivate any land without previous payment or engagement to pay rent whether to the Crown or the owner of the land" (28 February 1867, Belize Archives, R. 96). Maya milpa agriculture impeded the system of dependency and debt peonage favored by both the company and the colonial powers and made the Maya unsuitable employees, at least in the early period of occupation.

The materials found on the site suggest that the San Pedro Maya were relatively agriculturally independent. Furthermore, there are materials that speak strongly to participation in a cash or barter economy of some sort. This participation resulted archaeologically in diverse domestic debris, such as kerosene lamp chimney glass and scissors, and in recreational items, especially alcohol bottles. The alcohol bottles, in combination with the presence of Flow Blue ceramics which throughout their period of manufacture remained more expensive than other plain wares (Snyder 1996), indicates that some people had disposable income or surplus to barter for imported goods. It is probable that the San Pedro Maya acquired such items during annual journeys to Belize City to purchase supplies and merchandise. Furthermore, it is very possible that the San Pedro Maya, in addition to acquiring goods for their own consumption, also got things to trade to other non-British groups, such as the Lacandon of western Guatemala. The San Pedro artifact assemblage is strikingly similar to that found by Joel Palka in Guatemalan village sites of the nineteenth century, (Palka 1996, 1998), and it may reflect a global colonial trade

network that reached west from San Pedro into the Peten and Mexico.

The fact that imported materials at San Pedro Siris are so plentiful and so diverse is testimony to the fullness of Maya participation in the larger national and international economy. Some items speak to resistance to colonial rule and British expectations, overt and passive, conscious and perhaps unconscious. Furthermore, the degree to which these Maya villagers participated in the national and international market in manufactured goods indicates that they participated actively in the colonial economy. However, the artifact patterns testify to the fact that they participated on their own terms in ways to suit their own needs.

Perhaps the clearest example of this phenomenon is the maintenance of a Yucatec Maya cuisine at San Pedro. Although the residents of the village ate from imported willowware and sponge-decorated china, they had a clear preference for bowls and tureens over other vessel forms. Fragments of bowls or tureens make up some 2/3 of the assemblage. These kinds of vessels are ideal for serving stewed beans, chilmole, escabeche, and other soups and stews. Conversely, pieces of plates make up less than 10 percent. There are also very few pieces of flatware; the San Pedro Maya probably preferred to scoop their food using tortillas. This pattern is not at all what we would expect to see in an Anglo occupation. While seventeenth- and early eighteenth-century British and Americans would eat more communally out of bowls or wooden trenchers, by the nineteenth century they were buying dishes in complete place settings, including individual settings of flatware (Deetz 1996). Furthermore, during the period of the San Pedro occupation, plain whitewares were becoming increasingly preferred over most decorated wares in the United States and Britain. So the strong

prevalence of decorated ware in the San Pedro collection may indicate Maya preference as well, although it may also indicate dumping on colonial markets of decorated wares that were less popular in Britain (Deetz 1996).

The San Pedro Maya prepared some food in tin enamel ware vessels and footed cast-iron bake ovens. The latter would be ideally suited to preparing meat '*pibil*' style by burying it underground, and the numerous roasting pits and pig jaws found at the site suggests that *cochinito pibil* was on the San Pedro menu. There are also many fragments of locally produced ceramic vessels. These traditional ceramics include large bowls and jars, some with orange slip and others with a gray wash. They are sometimes decorated with a wide, thumb-impressed fillet. Among the fragments of bottle glass there are a few that are worked into expedient tools. The clearest examples of these are from thicker pieces of dark olive and "black" glass. We have not yet completed a formal analysis of these classes of material culture, but clearly there were mechanisms for producing important components of the domestic assemblage independent of the colonial economic networks, as well as turning colonial mass produced goods to familiar purposes.

Taken together, the preliminary findings at the San Pedro site relate to several of the research questions we developed for the project. First, the material evidence supports historical models of San Pedro Maya autonomy in the early decades of the settlement and their readiness to perpetuate and defend that autonomy with the tools they had available. However, the same kinds of evidence indicate that in spite of their apparent political autonomy, the settlers at San Pedro Siris had strong ties to colonial economic networks. The high numbers of alcohol and patent medicine bottles, as well as imported ceramics, showed that people in

the village had significant disposable income or surplus to barter to obtain these items. Indeed, at the beginning of our research, the extent to which our data indicated that the San Pedro Maya participation in the wider market economy of British Honduras surprised us.

It is important to emphasize that the San Pedro Maya were selective about how they incorporated these British goods and technologies into their everyday lives. Despite evidence of active Maya participation in British economic networks, our data belie any simple models of Maya assimilation. Perhaps owing to their relative autonomy, the San Pedro Maya were able to pick and choose how they incorporated new goods and technologies, choosing those which allowed them to pursue traditional subsistence activities like milpa agriculture, as well as traditional foodways (Church et al. 2001). Our data suggest that they had a fair degree of autonomy in dictating their participation in the economy and interactions with outsiders, especially during the initial decades of the settlement's history.

Conclusions

The research that we have completed to date has demonstrated the importance of historical archaeology for enriching our understanding of nineteenth-century Belize, and potentially its relationship to twentieth-century Belize. As this project is very much on-going, we would like to conclude by looking forward. Although we have been able to collect significant archaeological data from San Pedro Siris, it is clear that neither the material data, nor the historical documents, nor oral narratives, taken individually, provide a complete and unambiguous window into the life of nineteenth-century Maya villagers. It is through the combination of these three kinds of data that we begin to plumb the

complexities of these people and the role they played in the emergence of modern Belize.

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9 **EXPLORING ANCIENT ECONOMIC RELATIONSHIPS AT CARACOL, BELIZE**

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An archaeological understanding of ancient economic systems is difficult to achieve from both a theoretical and a practical standpoint. Ancient economies rarely resembled the capitalist global system with which we are familiar today. And, the interpretation of the relations of production and distribution is difficult given the incomplete nature of archaeological data. Ongoing research at Caracol, Belize, however, has purposefully focused on attempting to understand the site's ancient economy in terms of relations of production and distribution. While distribution nodes, or marketplaces, have been previously identified within the Caracol settlement, systems of ancient production have been more difficult to define. However, investigations of over 100 of Caracol's estimated 9,000 residential groups provide some relevant information - as does excavation data from the site's more public architectural complexes. Recent field seasons at Caracol have specifically focused on looking for attached specialists and craft production residue, as well as the identification of locales that could have been used for the household, workshop, or industry production of goods. This paper presents a summary of the archaeological data relating to Caracol's ancient economy.

Introduction

Archaeologists traditionally attempt to define ancient economies and trade systems. Artifacts are studied in terms of their physical distribution, their standardization, their distance from known sources, and – if possible – their production. Although long considered to be one of the archaeological areas that can be reconstructed with relative ease (e.g. Hawkes 1954:161), in truth the analysis of ancient economic systems is something of a quagmire. Nowhere is this more noticeable than in the Maya area, where sampling and levels of analysis vary from site to site and where considerations of economy are usually dependent on conceptions of societal organization, making overarching interpretations difficult.

Since its inception in 1983, the Caracol Archaeological Project has been concerned with understanding that site's ancient economy. Towards this end, we have carried out a program of mapping that has resulted in the recording of approximately 23

square kilometers of settlement and in the recovery of a dendritic system of causeways that bind the various parts of Caracol into a single socio-political and economic whole (Figure 1; A. Chase and D. Chase 2001a); as Earle (1991:5) has noted, the “development of formal roadways . . . is to solve new needs of larger scale political integration.” We have tested some 107 residential groups located outside of the site epicenter in an attempt not only to date the occupation of these groups but also to understand the site's social composition through contextually recovered artifact distributions (D. Chase and A. Chase 1998, 2002). We have also excavated specific building types to try to understand function (A. Chase and D. Chase 2001b) and to look for areas of production. As a result of this work, we have been able to begin to define the economy of ancient Caracol (A. Chase 1998) and to examine changes to that economy over time. This paper seeks to provide an overview of Caracol's ancient economic system.

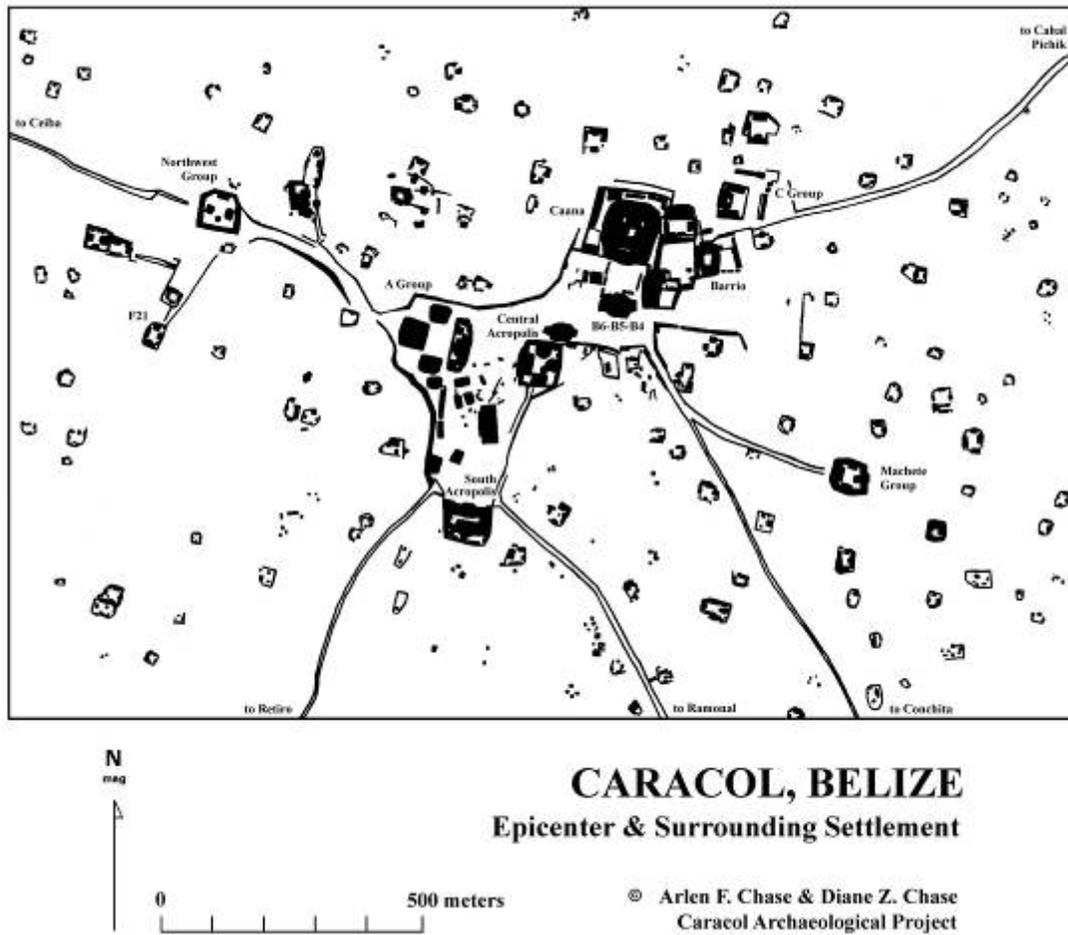


Figure 1. Epicentral map of Caracol.

Economic Models in the Maya Area

A full gamut of opinions on how complex the ancient Maya were and what kind of economic systems they employed currently exist (e.g. Fox et al. 1996). Many of the existing models of Maya economy do not consider temporal changes or the broader integration of the Maya into “world systems.” There is also confusion over terminology used to define economic systems and integrative measures. With regard to considerations of ancient and modern economies, Dalton (1975:113) explicitly noted that there is a “need to be consciously aware of the meanings of the words we use if we are avoid using concepts which inhibit the construction of theories capable of deep

explanation of the real-world processes we analyze.”

Lack of precision in the use of terms has led to confusion among commonly used terms like “prestige” and “luxury goods” as well as a lack of consideration of the multiple networks that may have once existed within an economic system. For instance, while prestige items may have been exchanged or perhaps even gifted among certain parts of society, this does not mean that a prestige-goods economy characterized the entire economic system (Smith and Berdan 2003:9). Likewise, while the Late Classic Maya may have “feasted” (see Dietler and Hayden 2001), this concept also does not substitute for an entire economic system which surely

also included bulk goods and luxury items. Feasting and gifting are integrative measures that establish networks, but not necessarily economies (Smith and Berdan 2003:9). In our opinion, such terms may be appropriate for some early Maya communities. Thus, while feasting may have served as a redistribution mechanism during the Middle and Late Preclassic eras at Blackman Eddy (Garber et al. in press) or for the coastal plains of southern Guatemala and Mexico (Clark and Blake 1994), this is not really an appropriate expectation for the Late Classic Maya of Caracol. Their economy had already evolved into a system in which there was greater commercial exchange of luxury and bulk-good items and articulation of various kinds of networks.

Intimately tied to any consideration of economics are the presence or absence of markets. Maya scholars are divided on this issue. Part of this disagreement revolves around terminology and the notion of the market as being identified with “commercialism,” “free exchange,” and the existence of a “single price.” However, the modern concept of commercialism has been entering into literature on Postclassic Mesoamerica (Berdan et al. 2003) and is now being pointed to as one of the major differences between the Classic and Postclassic eras (e.g., Smith and Berdan 2003:12). Commercial exchange and “commercialism” are not necessarily equivalent. As defined in economic literature, the existence of commercialism implies the use of money and markets without state control. Yet, many see “money” *per se* as quite different from the use of feathers, *spondylus* shells, cacao beans, and textiles as equivalencies in exchange - as forms of what Freidel (1981, 1986; Freidel et al. 2003:42) has called “currencies” or “fungible commodities . . . which can be exchanged broadly for other things.” We doubt that true commercialism without any

institutional control of markets existed in the Precolumbian Maya world. The Aztecs rigorously controlled their markets and taxed transactions that occurred through systems of barter; tribute was expected from conquered territories and, although tribute items may have entered the market domain, strictly speaking tribute existed apart from markets (Hassig 1985; Hicks 1986). This kind of controlled distribution system has been called an “administered market economy” (Evans 1980; Smith 1979, 1997). It is this type of system that we interpret for Classic Period Caracol.

Caracol, Belize and its Exchange Locales

As we have previously noted (A. Chase 1998; A. Chase and D. Chase 2001a; A. Chase et al. 2001), Caracol’s economy was closely intertwined with its political and social fabric. As a primate center, Caracol incorporated many of its inhabitants into a sprawling urban center that covered approximately 177 square kilometers. Its settlement, however, was not loosely organized. Rather, it was integrated by an elaborate road system that linked secondary architectural nodes directly to the site epicenter. All known secondary nodes functioned as causeway termini. These termini were embedded in Caracol’s landscape in two rings. An outer ring of termini, some 5 to 8 kilometers distant from the site epicenter, was composed of pre-existing sites that were engulfed in Caracol’s suburban sprawl. An inner ring of causeway termini, all some 3 kilometers distant from the site epicenter, represented large plazas that were purposefully established in Caracol’s landscape at the beginning of the Late Classic Period.

All termini were directly linked to the site epicenter only and not to each other. Each of the known termini also contains a broad open plaza that was once lined by low, long linear buildings on their edges. This is a

type of building that has been associated with markets at other sites, such as Tikal (Becker 2003:265-266). While the broad plazas articulate with other architecture at Caracol's outer ring of termini, the inner ring of the site's causeway termini consists exclusively of broad plazas with low linear buildings. The outer ring of engulfed termini revealed that such plazas were added into or inserted in front of the pre-existing center. Excavations into both the plazas and buildings that comprise the causeway termini reveal that both plazas and structures are largely lacking in artifactual remains and that neither locale yields the burials and caches so common in Caracol's residential groups.

The existence of true "markets" is still debated within Maya Studies. The ethnohistoric evidence for Maya markets has been called into question. Roys (1957:17, 51-52) suggested that markets existed in certain contact-era towns in the Northern lowlands and that they were physically associated with broad plazas and stone buildings. However, Farriss (1984:122-123) argued that any markets that may have existed in the Northern lowlands did not serve local needs, but rather only international trade. Archaeologists have tentatively identified markets: at Coba (Folan 1983:49-64) and Sayil (Tourtellot and Sabloff 1994:88-90) in the Northern lowlands; at Tikal (Coe 1967:73; Jones 2003:213-215; Moholy-Nagy 2003:108), Yaxha (Jones 1996:86-87), Nohmul (McAnany 1986:289) and Calakmul (Folan et al. 2001) in the Southern Lowlands; and at both Copan (Becker 2003:266) and Quirigua (Jones et al. 1983:10) to the far southeast. Because distributional studies of artifactual remains – of the kind called for by Hirth (1998) – have rarely been undertaken, the question as to whether or where markets existed is difficult to answer unequivocally with archaeology. However, the distributional data to demonstrate the existence of markets,

following Hirth's (1998) model, have been archaeologically collected from Tikal (Moholy-Nagy 2003) and from Caracol (see below). We have further inferred that the broad plazas that characterized the ends of the causeway termini at Caracol functioned as markets or, minimally, as exchange locales for the distribution of goods at the site (A. Chase 1998).

Household Production, Attached Specialists, and Artifact Distribution at Caracol

Any economy may be characterized in terms of production and distribution. Because of the extensive long-term excavations at Caracol that have focused on both epicentral architecture and residential settlement, it is possible to identify areas of production in the site's landscape and to also look at the distribution of specific artifacts in the site's residential groups.

Production at Caracol was undertaken within households. Each household had the capacity to produce different goods. No evidence for concentrated "barrio"-style production exists at Caracol (as can be inferred for central Mexico; e.g, McCafferty and McCafferty 2000; Nichols et al. 2000). McAnany (1993:71) has discussed "two kinds of specialists: elite specialists operating out of royal and non-royal households, and 'supplemental' specialists whose production is organized under the umbrella of large, economically and socially heterogeneous households;" elsewhere, she (1993:81) further notes that elite specialists could be thought of as being "attached to a household." Webster (1989) has argued for the existence of these "attached specialists" at Copan. In most cases, however, craft production was viewed as supplemental to agrarian production, meaning that it was centered in households. It is important to note, however, that household production

does not preclude participation in complex economic systems (Smith 1976).

Workshop or production areas are in evidence both within the palaces and residential groups of Caracol. In Caracol's epicentral palaces, bone was worked (Teeter 2001), *oliva* shell was worked, and cloth was spun and, presumably, woven. In the site's outlying residential groups, evidence of production exists for bone, lithics, *strombus* and *spondylus* shell, and indirectly for cloth and wood. These workshop areas are associated with specific households that were widely scattered over the landscape. Intriguingly, although *spondylus* is consistently associated in the literature as an "elite" and highly fungible item, the only known locale of suggested production (based on its occurrence in fill and non-ritual contexts) is a nondescript residential group 1.5 kilometers south of the epicenter. Four outlying residential groups may be associated with the production of *strombus gigas*; all are between 1 and 2 kilometers distant from the epicenter. This kind of shell was imported as whole specimens to Caracol and then subsequently worked through the use of chert and slate drills (Cobos 1994; Pope 1994). Evidence of *oliva* shell being worked has been recovered in the Terminal Classic "Barrio" palace.

Areas of intensive lithic production have been recovered for only two locales. One locale is immediately south of the site epicenter in a building minimally used, if not occupied, by specialists associated with the downtown area. The other locale in which intensive lithic production was found is a residential group 4 kilometers northwest of the site core. There, densely concentrated surface lithic debris was found without the need of excavation, the only instance of this so far delimited at Caracol.

Six other residential groups can be identified as loci of specialized production based on the occurrence of specialized lithic

tools that were most likely utilized on perishable materials, presumably wood (Pope 1994:156). A similar set of lithic tools was found located in an area under Altar 16 in the front stairway terrace of Structure B19, perhaps indicating that wood may also have been worked in this epicentral complex.

Spinning and the production of cloth was clearly important at Caracol (Figure 2). A total of 57 spindle whorls have been recovered from the site (A. Chase et al. in press), a large total when compared with other excavated locales in the Southern lowlands (the next largest sample comes from Tikal, which has a reported 51 spindle whorls [Moholy-Nagy 2004]). While ceramic spindle whorls from the floors of Caracol's downtown palaces indicate that spinning was carried out in these structures during the Terminal Classic Period, 38 stone spindles have been recovered in 20 burials at Caracol. These burials include both 6 epicentral tombs and interments in 14 different outlying residential groups. This widespread distribution of spindle whorls is not reported from other sites in the Southern lowlands and emphasizes the importance of spinning to Caracol's economy. Bone needles are not as common as spindle whorls, but also have a fairly widespread distribution. It is possible that one of the crops grown on Caracol's agricultural terraces was cotton.

Investigations during the 2000 and 2003 field seasons at Caracol were specifically designed to test the existence of craft specialization within the vicinity of the Caracol site epicenter. The 2000 investigations, coupled with previous season's work in the eastern walled area just south of the site epicenter, succeeded in identifying production locales for lithics and bone. It is suspected that cloth production may have also been undertaken in these walled areas. In contrast, investigations during the 2003 field season in the *plazuela* groups attached to the southern side of the

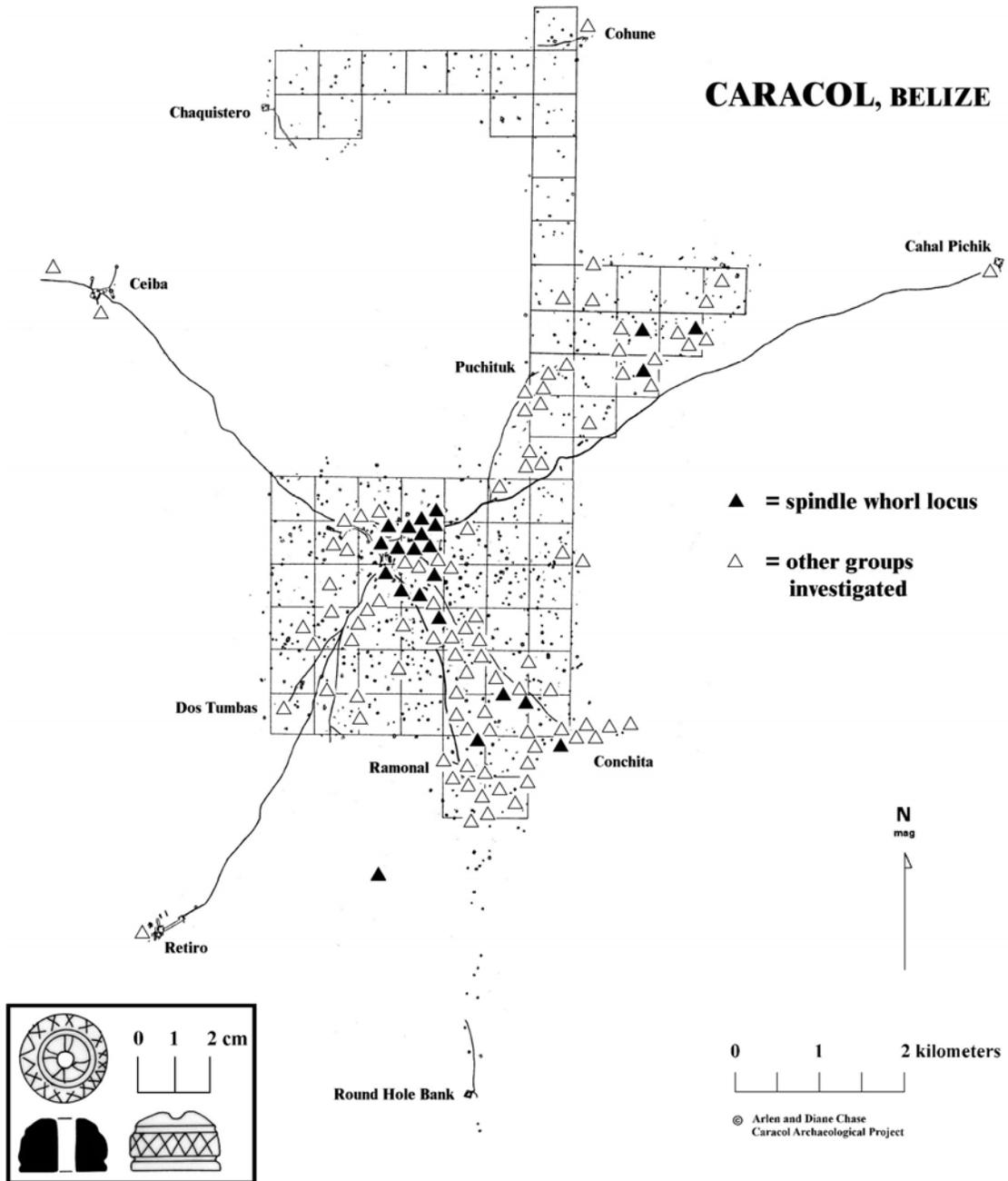


Figure 1. Distribution of archaeologically recovered spindle whorls by residential group at Caracol, Belize. The majority of the spindle whorls come from interment contexts.

South Acropolis suggest no craft specialization was present. The individuals living here, however, were not of the highest status and may have provided other sorts of services for the epicentral elite.

It is evident that production at Caracol was localized in households and generally existed without state control, with a possible exception being craft production locales located immediate adjacent to the epicenter and alongside the Conchita causeway. However, artifact distributions suggest exchange of luxury items through Caracol in a manner conforming with Hirth's (1998) projections for markets and market exchange. Obsidian is an imported good that was used for its cutting edge throughout the Maya area; some have even suggested its potential use as "money" (Freidel 1986; see also Rice 1987). While obsidian is relatively rare at some sites, such as Calakmul (Braswell et al. 1998), it is ubiquitous at Caracol. Almost all excavations at the site produced some obsidian and it is noted for all 107 residential groups investigated. Thus, obsidian was widely available to Caracol's population. Similarly, jadeite is not restricted to elite contexts, but occurs with almost equal frequency in epicentral and residential contexts. The same is true of polychrome vases. These, too, enjoy a wide distribution within Caracol's residential groups and are more likely to occur in such groups than in epicentral contexts. Ritual objects, in the form of fairly standardized cache vessels, have also been recovered from a majority of excavated households. Thus, these goods appear to have been widely and easily available to Caracol's inhabitants. These artifact distributions, in fact, accord well with similar arguments made by Hirth (1998) for Xochicalco, where he posited that the broad spatial distribution of artifacts produced by craft specialists from locally available and imported raw material was a hallmark of the market exchange of domestic goods.

We believe that the loci for exchange at Caracol were the broad plazas at the ends of the Caracol termini, based on several measures. First, they are architecturally and archaeologically distinct from both residential groups and from most epicentral architecture. Second, they constitute the only easily accessible open spaces that can be found in the Caracol landscape. Most of Caracol's landscape is dominated by residential groups and agricultural terraces (A. Chase and D. Chase 1998). When combined with the karstic nature of the Vaca Plateau, these embedded plazas would constitute areas of attraction for assembly and activity. Third, the density of population at Caracol – estimated at between 115,000 and 140,000 people at A.D. 675 – was such that it would have necessitated specific areas for the distribution and/or exchange of goods. One-on-one or "down-the-line" exchange (Renfrew 1975) is simply not feasible. Following Smith (1976:334), "markets exist in virtually all large hierarchical systems because, after a certain size is reached, the elite and their retainers (themselves hierarchically organized) must be fed by a system more efficient than direct exchange or tribute collections." Given that Hassig (1991:25) has noted that roads "create points where the polity can exercise control," the only areas within the Caracol landscape that could have served as easily accessed and controlled exchange locales were the broad plazas that constituted the site's causeway termini. The ascription of market function to Caracol's large termini plazas is completely consistent with the on-the-ground recognition of the site as a primate center, for primate centers have administrative and economic hierarchies that are isomorphic (Blanton 1976:255; Smith 1974:173-175).

Dietary Considerations and Population Dispersement at Caracol

One other finding of the Caracol Archaeological Project is significant in terms of economic production and settlement distribution. Drs. Christine White and Fred Longstaffe of Western Ontario University have undertaken stable isotope analysis on a sample of 85 individuals from interments at Caracol. The values obtained from these analyses are not randomly distributed at the site, but rather are patterned. We have used these data to infer the existence of minimally 3 distinct diets at Caracol, all of which surely have economic implications. The best diet, one that is rich in both protein and maize, is that which is concentrated in the epicentral royal palaces and in elite residences attached to the causeway termini (A. Chase and D. Chase 2001b). A second diet, consisting of a good mix of protein and maize, is found in the residential groups scattered throughout the extensive agricultural terraces (A. Chase et al. 2001; D. Chase et al. 1998). A third diet occurs in groups just outside the site epicenter and in non-elite residential groups in the vicinity of the causeway termini; this diet is generally characterized as low in maize and extremely variable in terms of protein. At least for the structures and residential groups immediately outside of the Caracol epicenter, individuals exhibiting this third variable diet appear to have been engaged in the production of cloth as well as in the production of bone and lithic artifacts. Thus, an encircling ring of lower status craft specialists and service-oriented individuals is currently envisioned as having utilized constructions in a ring localized around the site epicenter. What this means is that the economic make-up of Caracol is to some degree reflective of the true Burgess (1923) concentric model for a modern city, where the poor (at least in terms of diet) cluster around the city center and wealthy live further afield. This is an empirical

archaeological rejection of Landa's (Tozzer 1941) model of a Maya center (see also Marcus 1983 and D. Chase 1986).

Conclusion

In dealing with economic considerations, archaeologists have been somewhat paralyzed by modern economic theory and debates over its relevance to ancient societies. There is no agreement over which viewpoint is appropriate: economic formalists believe that modern economic theory can be applied to any society; economic substantivists feel that modern economic theory can only be applied to modern capitalist societies; economic Marxists are more focused on exploitation and class relations. Attempting to work around these problems, Brumfiel and Earle (1987; see also Claessen and van de Velde 1991:6 for a critique) presented three different approaches or models for analyzing early state economies from an archaeological perspective: a commercial development model; an adaptationist model; and a political model. Political leaders actively interfere in the latter two models, but not the first. Part of the difficulty in dealing with ancient economies comes from the use of terminology that has specific modern meanings. Thus, commercialization has become almost synonymous with a "free market" economy. We would concur with Hassig's (1985) description of the Aztec economy as an administered market economy. It is also unlikely that the economy of Late Classic Caracol is neatly mirrored by any of the idealized approaches that characterize economic theory. In our view, the ancient Maya elite at Caracol maintained administrative control of distribution at market locales and also collected tribute from conquered groups (much like the later Aztec). While "penny capitalism" (Tax 1953) may have existed among the population and even led to the

accumulation of some wealth, exchange was carried out at specific locales, or markets, and was taxed by the central administration. Thus, as Rathje (1972) noted long ago, the Maya elite controlled the means of distribution but not the means of production. Recognizing the independence of production by agrarian smallholders in conjunction with administrative control of distribution is the first step toward a broader understanding of the development of alternative economies in the ancient Maya world.

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10 **MOUNTAIN COW: SURVEY, EXCAVATIONS AND INTERPRETATIONS**

John Morris

This paper presents new data on the Mountain Cow sites that demonstrate that what was once considered four distinct sites is one complex connected by causeways. Data also indicates that the site of Caracol influenced socio cultural development in the region, but that other centers, which were engulfed, did not necessarily accept all the imposition of Caracol's emerging ethnic identity and in fact merged local and regional symbols creating their own cultural traditions.

Introduction

This paper synthesizes data from excavated mound groups and assemblages at the site of Mountain Cow where synchronic and diachronic excavations were conducted in both residential and elite complexes, along causeways and agricultural terraces. The data of the architectural layout and construction of the various groups, their occupational history, internal spatial organization of activities, and inferred social composition will also be presented. Data that is acquired from epigraphic research conducted at both Caracol and Mountain Cow will also be discussed along with observations on the relationship between the Mountain Cow sites and Caracol particularly as it relates to questions of identity and ethnicity.

Settlement Survey: Site Size and Composition

The Mountain Cow sites are located in an area of upland plateau in the Maya Mountains that dominates the southwestern Cayo District (Figure 1). The site is located at latitude 16° 47' North and Longitude 89° 00' West, 12 kilometers east of Caracol and 22 kilometers from the Belize-Guatemala border and is situated on the Macal River drainage, on the highland watershed between the Macal and the Rio Chiquibul, the eastern tributary of the Mopan River. Mountain Cow

consists of four groups that are relatively in close proximity to each other, and have been designated names such as Tzimin Kax, Cahal Cunil, Cahal Pichik, and Hatzcap Ceel. Since all the groups are close together, the entire area was given the name Mountain Cow, which is the English translation of the Mayan word Tzimin Kax (Thompson 1931:238-248). Recent research and survey has indicated that all four groups are part of one major site herein referred to as the Mountain Cow sites. When reference to the entire site is made the term Mountain Cow sites will be used. Where reference to a particular group within the site is made I will retain Thompson's designation for each of the groups located within.

The Mountain Cow sites were first reported by J. Eric Thompson and he described the four groups as consisting of two ceremonial centers, Hatzcap Ceel and Cahal Pichik, and two domestic residential groups, Tzimin Kax and Cahal Cunil (Rice 1974). The area being described is roughly a zone 3.5 kilometer by 5 kilometers area (Figure 2). Thompson (1931) defined the first two groups as ceremonial based on the existence of pyramids, platforms, a possible ball court, and stelae. Six of the nine unsculptured stelae found at the Mountain Cow sites were located at Cahal Pichik, and it appears that

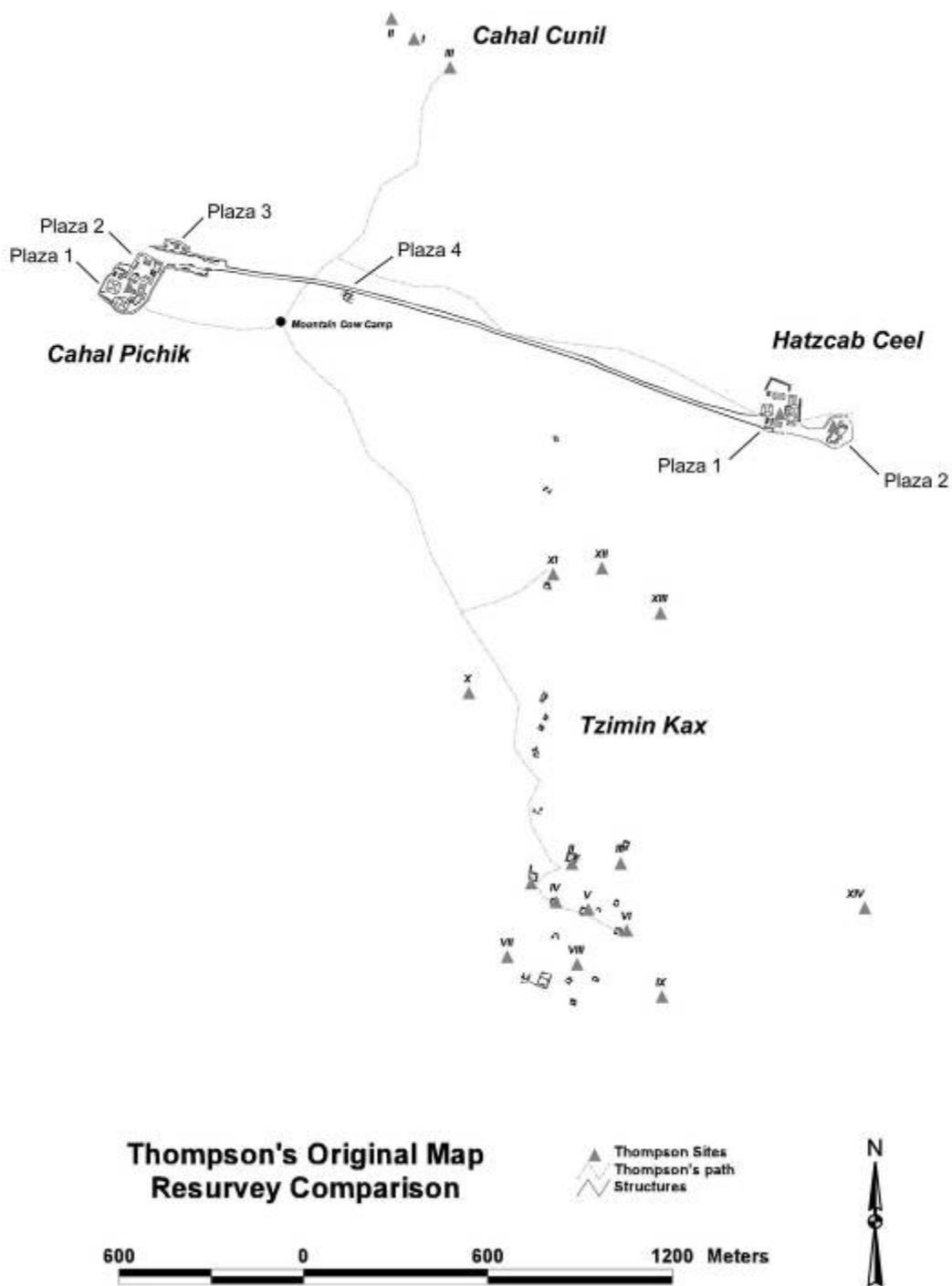


Figure 2. Map of Mountain Cow showing Thompson's original map and recent resurvey.

functional, and socio-economic dimensions. The survey utilized several techniques: These included: (1) topographic mapping, (2) archaeological reconnaissance, and (3) surface collections and test pits. The precise location of archeological and topographic features were recorded in the field using Topcon GTS 605n Total Station and imported into Visual Cadd, Surfer, and GIS software to produce accurate and geo-referenced settlement survey maps. Computerized spatial data from the Mountain Cow survey maps are linked to quantitative and qualitative data recorded on all identifiable archaeological features in relational databases. Settlement area survey also focused on data that relate to elite residences and public architecture. These were collected for comparison with data from the site center of Mountain Cow and Caracol.

This recently new survey has amplified the site parameters. Whereby Thompson (1931) had described that there were four sites, two ceremonial centers, Hatzcap Ceel and Cahal Pichik, and two domestic residential groups, Tzimin Kax and Cahal Cunil the survey has demonstrated that all four groups are part of one large center with two major ritual/administrative complex connected by a causeway (Figure 3). The group of Cahal Pichik is an elite residential / ritual acropolis that is connected to Hatzcap Ceel by a ten-meter wide, 1800 meter long causeway. The unmapped features encompassed both public and private architecture, including pyramidal structures of varying sizes, range-type structures with possible administrative functions, secondary and tertiary residences, and one major causeway. Several other courtyards were mapped and a small causeway or "Via" identified. The following is a description of the Mountain Cow sites as recorded in our recent survey.

Cahal Pichik ("Emerald Toucanet Town")

The group that is known as Cahal Pichik is an elite residential/ ritual acropolis, which connects to another group Hatzcap Ceel by a twelve-meter wide, 1.9 kilometers long causeway (see Figure 3). Cahal Pichik is approximately 550 meters west of the Mountain Cow Water Hole (*aguada*). At the point where the causeway commences at Cahal Pichik there are two parallel parapets and on the raised platform that extends thirty meters out, a residential *plazuela* group was located. The site epicenter consists of a raised elite residential ritual acropolis on the southern end that comprises of eleven structures, including an E-Group complex (CP-Plaza 1). This plaza extends 65 meters east to west and 57 meters north to south. Outside the epicenter, but still within the site core is CP-Plaza II that is situated to the north and five meters above CP-Plaza I which comprises of seven structures, a series of residential and administrative buildings, of which pyramid Q was excavated by Thompson (1931). The newly surveyed CP-Plaza III (Figure 3) is located about 30 meters east from Plaza II and forms part of the causeway. CP-Plaza III comprises of a large eastern pyramid (11m high), with two smaller buildings (5m and 6 m) on the north and south side. The western building is a small three-meter high structure. Approximately 7 meters east is a solitary range-type building. In addition, approximately 500 meters along the causeway is another courtyard group located on the south side of the causeway (CP-Plaza IV; Figure 3). In this area settlement extends southward towards the Tzimin Kax courtyards.

A causeway not recorded by Thompson connects Caracol to Cahal Pichik (A. Chase and D. Chase 2001). This causeway, 7.6 km long enters from the northwestern end of the main complex and runs through an elaborate courtyard. The Caracol causeway also connects to the

Hatzcap Ceel causeway near the Cahal Pichik ball court. Another small formally constructed roadway (via) connects Cahal Pichik to the residential courtyard groups of Cahal Cunil that lies to the north. This roadway has not been systematically surveyed to define the degree of settlement or the actual parameters of the “Via”.

At Cahal Pichik Thompson (1931) recorded the existence of pyramids, platforms, a ball court, and stelae. Seven of the nine un-sculptured stelae found at the Mountain Cow sites were located at Cahal Pichik, the most important plaza for the group in the Late Classic. Five of the plain stelae flanked Pyramid A and two were placed on a small platform labeled G that fronts the E-Group complex in the site epicenter. The survey has identified all locations. About halfway along the causeway, settlement extends southward towards the Tzimin Kax courtyards. Where this main causeway enters the raised platform on which the Hatzcap Ceel complex is located, there are several structures that Thompson did not document, through which the central courtyard at Hatzcap Ceel is entered.

Hatzcap Ceel (“Cold Dawn”)

This complex is located 1.9 kilometer in a south-southeasterly direction from Cahal Pichik and connected to it by an intra-site causeway. The main causeway enters the raised platform on which the Hatzcap Ceel complex is located near the ball court (Figure 4). Hatzcap Ceel comprises of ritual, administrative and residential components. Twelve mounds are built around a large ceremonial plaza (HC-Plaza 1). A flight of steps is situated on the northwest corner of the terraced pyramid A, which at one time supported a stone superstructure on the west side of the plaza. The stairway at the back of this building leads down to an *aguada*. A small platform B is attached to the southwestern end of Pyramid A. This small

annex was added to this building at a later date.

A 4.25-meter high substructure H occupies the north side of the plaza. On the western side of H is a smaller platform building that runs parallel to it. On the eastern side of the plaza is a long platform that contains substructure F with a single chamber superstructure, and pyramid E which, sits on the south end of the platform, forming the eastern building of the site’s E-Group complex. In a formation similar to that of the main plaza at Cahal Pichik, pyramid F is flanked to the west by low platform G, in front of which stood two plain stelae and three rectangular plain altars.

On the southern border of the plaza are three structures. Structure D, which faces north, combines with Structure C to form Hatzcap Ceel ball court. A small annex D1 was added in the Late Classic to form this ball court. Behind Structure D and C lies Structure L, which was built in the Late Classic to complement the ball court and also to restrict access to the main plaza. Of the five altars found at Hatzcap Ceel two are carved, which date to A.D. 810 and A.D. 835 (Morley 1937-38: 218; Grube 1994; Martin and Grube 2000). These altars are significant because they contain information on Lord K’an III (*Tum Ohl K’inich*), the same ruler depicted on Caracol Stela 17.

Approximately 125 meters to the southeast of Hatzcap Ceel main ceremonial complex is a small acropolis of five mounds upon a low natural hilltop. These mounds form two *plazuela* groups (designated Group 11 in Thompson 1931). The first plaza comprises of one pyramid on the east side, Mound M; a low-lying platform, labeled O to the west, and a 4 meter high structure, Mound N, on the south. The second plaza comprises of a terraced pyramid Q and a small two meter by two meters long square platform mound. This second plaza is separated from the first by a rectangular platform on the

Figure 3. Plan of Cahal Pichik.

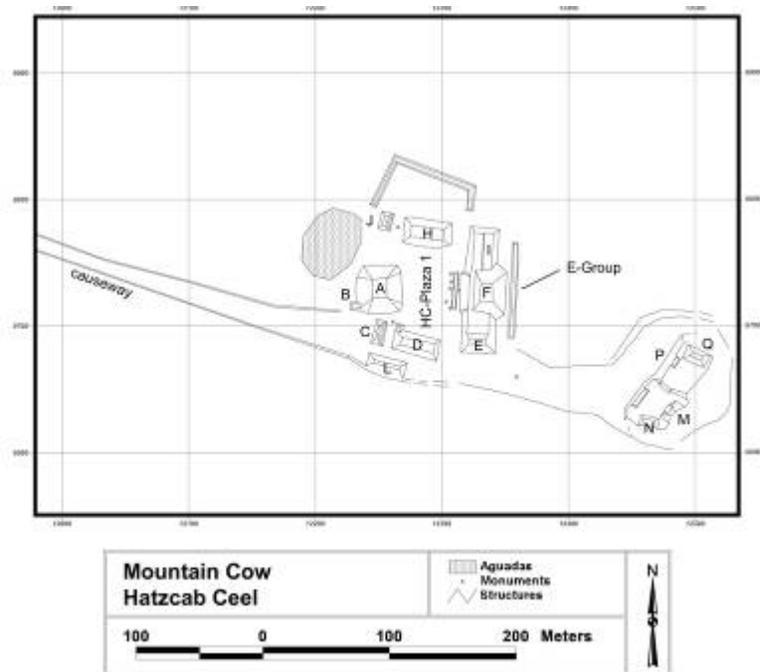
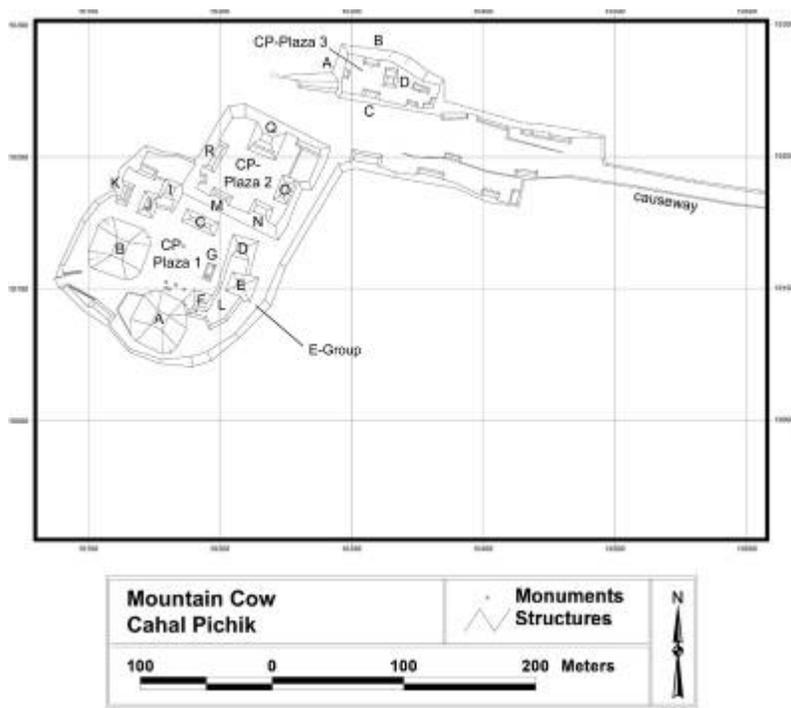


Figure 4. Plan of Hatzcab Ceel.

south side that had a stairway, which allowed for access (Figure 4).

Tzimin Kax (“Mountain Cow”)

The mounds and courtyards that Thompson designated as Tzimin Kax are a series of courtyards all located in a continuous and dense settlement along terraces and hilltops. He identified thirteen courtyards but there are over thirty although in no instances are any tall pyramids located on any of these courtyards comparable to the site center at Cahal Pichik (Figure 2). The *plazuela* groups range in size from as few as two to as many as six buildings arranged around a single, central plaza. Seventy-eight (78%) percent of the groups have between 3 and six structures. The terraces at Tzimin Kax were used for intensive agriculture rather than for settlement defense. The terraces were integrated with the residential settlement. These terraces are readily identified by retaining walls ranging from 0.4 meters to approximately 1.50 meters tall. The Tzimin Kax group reveals the widespread distribution of burials in *plazuela* groups, which varied in size and complexity. The majority of the *plazuela* groups were built and occupied between A.D. 550 and A.D. 700, although there is significant evidence of Late Preclassic occupation. This confirms well with an increased population posited by A. Chase and D. Chase (1987, 1994) that documents a rapid 325 % increase in population of Caracol, 150 years after Caracol defeated the city of Tikal in A.D 562. Many of the terraces and courtyards at Tzimin Kax were built during this time and exhibit burial and ritual activities similar to Caracol.

Cahal Cunil (“Oven Town”)

This residential area was named after one of the workmen on Thompson’s 1930 field season. Cahal Cunil is smaller than Tzimin Kax but was occupied the earliest by

the Maya. Thompson (1931:290) dates several caches and burials he located here to the Middle and Late Preclassic (Pring 2003). In addition, a corbelled vault burial chamber as well as other deposits, revealed tetrapod bowls, pot stands, “chocolate pots”, Aguacate ceramic group, and Orange polychrome, all indicative of a Protoclassic ceramic phase.

The area comprises of eight courtyards ranging from two to five buildings surrounding a plaza area. Unlike the Tzimin Kax settlement, at Cahal Cunil there are many single, isolated mounds and paired mound groups. These mounds are not uniformly dispersed throughout the area and no settlement pattern could be discerned except for the fact that they tend to be located near the top of the ridges. Unfortunately, our block survey has not been completed in this area to determine the density of these isolated mounds and paired mound groups. Test excavations reveal Late Preclassic to Early Classic middens as well as a Late Classic period of occupation.

Architecture and Monuments: E-Groups, Ball Courts and Altars

E-Groups

There are two E-Groups at the Mountain Cow sites. The E-Group at Cahal Pichik is located in CP-Plaza I at the site’s epicenter. It is characterized by an eastern platform structure (L) oriented north-south that is 3 meters tall, and divided into three parts; a central pyramid (E) is 9.7 meters high, flanked by two lateral platform constructions, Structure D on the north end of the platform and a smaller Structure F (2.5 meters) that flanks the southern end, but faces to the east (Figure 5). The western pyramidal structure that encloses the E-Group is 13.5 meters high and had an eastern stairway and rounded corners. The southern structure pyramid A is 12 meters tall. Structure G, a small building in front of the eastern platform, had two plain stelae erected on it.

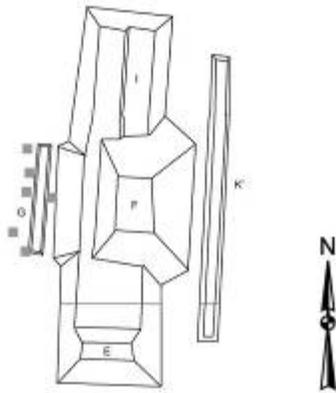
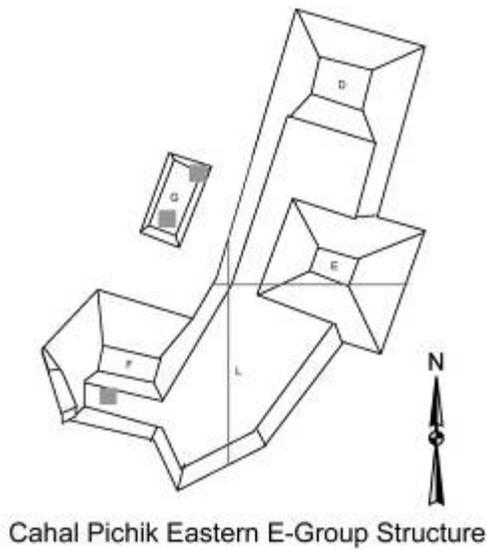


Figure 5. Comparison between eastern tripartite structures of E-Groups at Cahal Pichik and Hatzcab Ceel.

The E-Group at Hatzcab Ceel is located in the main plaza HC-1. The center of the eastern configuration of this E-Group is a long platform on the eastern side of the central precinct, surmounted with a large pyramidal building Structure F that was 10 meters tall (Figure 5). On the north end of this platform a long range-type Structure I is located and flanking the F structure on the southern end is another pyramidal type building Structure E, 6.3 meters tall. In front

of this long eastern platform is a small building G, similar to the one at Cahal Pichik on which several altars were placed. A long terrace/platform (K) runs the entire length of the eastern platform at the back. The western structure (A) that encloses the plaza is a 10.3 meters high pyramid.

Mountain Cow Sites Ball Courts

There are two ball courts at the Mountain Cow sites. The first one is located on the northwestern edge of CP-Plaza I at the central acropolis of Cahal Pichik (see Figure 3). This feature is composed of two structures, designated K and J by Thompson (1931), with structure K forming the western extent and structure J, the eastern side. The ball court was constructed to enclose a courtyard which includes structure I, and structure K-11 (newly discovered building). Structure J of the ball court was constructed and attached to Structure I. This ball court was not elaborate and was built in a single episode. Our investigations revealed the characteristic sloping aprons and veneer stones typical of Maya ball courts. The ball court marker discovered here was not carved and the lack of cache deposits reinforces the relative modesty of this architectural feature, probably built in the Late Classic.

The second ball court is at Hatzcab Ceel located on the western end of HC-Plaza 1 (see Figure 4). Structure C is the western extent and structure D the eastern extent. Structure D was modified by the addition of D1 so that the ball court buildings were equal in length. Altar 2 was located in front of this ball court. The causeway from Cahal Pichik is accessed from this ball court. It is possible that the ball court was a later addition, constructed after the causeway.

Altars and Inscribed objects

Mountain Cow Altar 1 was discovered with Altar 2 close to Hatzcab Ceel (Thompson 1931:261; Plate XXVIII). The

text of the Altar gives a date of 10.0.5.0.0, February 13, 835 (Beetz 1981; A. Chase, Grube and D. Chase 1994; Martin and Grube 2000). Altar 1 bears the name of the king that observed the rites for the period ending. This king, who bears the same name as at least three of his Caracol predecessors, Lord K'an III (*Tum Ohl K'inich*), is mentioned for the first time on this altar (Figure 6). A few years later he is recorded on a Caracol monument, Stela 17 (A.D. 849, April 14), which portrays the Caracol king and a secondary lord, *K'awil Ajaw*. While royal monuments were previously erected in the center of the city, Caracol's penultimate king K'an III set Stela 17 and its associated Altar 10 in an outlying residential group. The earliest monument of his reign then was even further away, at Mountain Cow's Hatzcap Ceel (A. Chase, N. Grube and D. Chase 1992). One of the protagonists of Caracol's Altar 10, the central figure, is the same monarch as the one who placed Mountain Cow Altar 1.

Mountain Cow Altar 2 (Figure 6) was also found at Hatzcap Ceel between Mounds D and C (Thompson 1931:263). The altar is all glyphic and the inscriptions contain an initial series which gives a Long Count date of 9.19.0.0.0 or June 24, 810 (Grube 1994; A. Chase and D. Chase 1996). The altar text contains no historical information, not even the name of the person who commissioned it. The monument was erected at the same time as Caracol's Altar 22 (A. Chase, N. Grube and D. Chase 1991). These two altars share not only the size, but also the fact that the rulers are not named. Given its location Thompson (1931:264) suggests that it originally may have served as a ball court marker.

A highly polished celt made from hard green and black diorite found by Thompson (1931) in Cache 1 from Hatzcap Ceel reveals interesting information (Figure 7). The celt is carved with a hieroglyphic

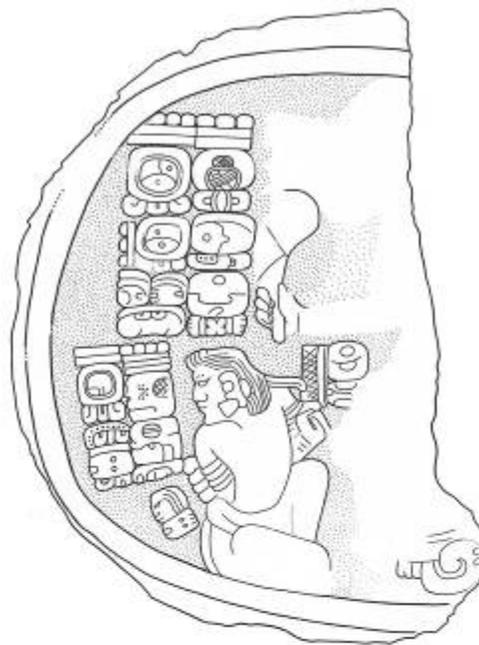
inscription and was broken into three pieces so that it could be inserted into the tall cylindrical cache vessel. The cache was found in Pyramid Q of Group 11 at Hatzcap Ceel below five floors that showed no sign of the floors having been broken to allow the insertion of the cache (Thompson 1931:270). Thompson suggested a tentative Terminal Classic date for the inscription based on the fact that the other dated monuments from Mountain Cow are from the Terminal Classic.

But based on the style of the hieroglyphs, the inscription can be attributed to the earlier Preclassic period (Nikolai Grube personal communication). Characteristic features of the inscriptions from the Late Preclassic and Early Classic periods are single column texts, the use of depictive signs as main signs, the small number of affixes and therefore, an absence of grammatical representation, and an odd spacing of signs (Coe 1976; Houston 1989). The use of polished celts as a medium for inscriptions is also widespread in the Late Preclassic (Schele and Miller 1986:83). The left column ends with the *y-ak-il* "his tongue", a compound, which is found often in bloodletting contexts. This glyph is fairly common in final position of Late Preclassic and Early Classic hieroglyphic inscriptions (Schele and Miller 1986:120). The celt is a typical example of a Late Preclassic portable object, which was probably used as a kind of elite currency with an inscription referring to the donor and the ritualistic use of the object. Hatzcap Ceel, where the celt was found, had an important occupation in the Late Preclassic period. West of Group 11 Thompson excavated Hatzcap Ceel E-Group, which seems to date into the same time as the inscribed celt (A. Chase and D. Chase 1995:93).

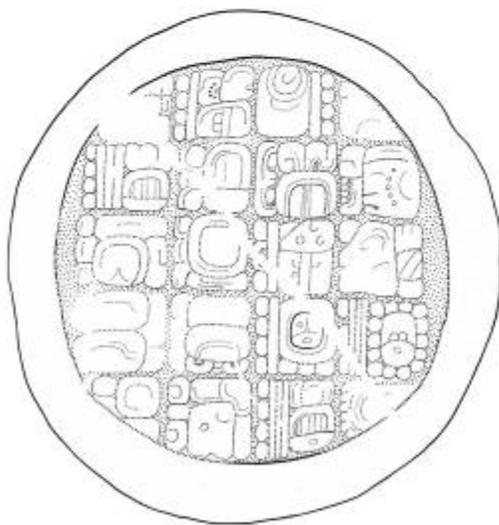
In summary, monuments and hieroglyphic inscriptions at both sites reflect political affiliations and shared traditions with regional entities, but most importantly



Altar 1, Hatzcap Ceel
Silverprint: J. E. S. Thompson 1931:Plate 28.



Drawing: Courtesy of Nikolai Grube.



Altar 2, Hatzcap Ceel
Drawing: Nikolai Grube



Silverprint: J. E. S. Thompson 1931: Plate 29.

Figure 6. The carved altars of Hatzcab Ceel.



Figure 7. Glyph-inscribed celt from Hatzcab Ceel Cache 1. Silverprint from Thompson 1931:Plate 33, drawing by Nikolai Grube.

their temporal placement indicate Caracol's political hegemony. At sites surrounding Caracol, several had un-carved monuments, and in some instances, one or two sites possess Giant Ajaw Altars, similar to the ones found at Caracol thereby signifying a closer affiliation. In the case of Mountain Cow, stelae and altars that date to the Late Classic were placed there to honor specifically Caracol.

Chronology of Mountain Cow: A culture-historical representation

The excavations Thompson conducted at the Mountain Cow site revealed simple burial patterns in the residential centers such as chultuns, cist, and funeral chambers. Funerary offerings are described as devoid of wealth and quality ceramics. An important

element in the artifactual assemblage, however, is the presence of pottery that date to the Late Preclassic or Holmul 1 Phase (400 B.C to A.D. 250). A corbelled vault burial chamber at Cahal Cunil as well as ceramics that date to the Early Classic (A.D. 250- A.D. 350) present evidence of continuity and a continuous population into the Classic period at these domestic centers as evidenced by ceramics of the Tepeu period (A.D. 600- A.D. 900) accompanying burials. Thompson also noted that the ceremonial centers at Cahal Pichik and Hatzcap Ceel indicate much later ceramic phases. No evidence exists for Early Preclassic remains at these two ceremonial centers. Thompson (1931) has posited that the sites of Mountain Cow date from the Late Preclassic and as population increased and expansion occurred, the site in the Early Classic functioned as a unit with domestic and civic components. This was evidenced by ceramic materials and supported by carved altar inscriptions.

A modified chronological time frame for the Mountain Cow sites indicates that occupation commenced sometime in the Middle Preclassic at the Cahal Cunil and Hatzcap Ceel groups (Table 1; after Pring 2000). Ceramic evidence at both locations however, suggests that Mountain Cow saw its first large-scale occupation during the Terminal Preclassic period (ca., 100-250 A.D.). But, the presence of Middle Preclassic sherds (ca. 900-400 BC) in the construction fill from later contexts does support an earlier date for the initial occupation of the area. Late Preclassic types of ceramics are: Sierra Red, Polvero Black, Sapote Striated, and Society Hall Red waxy surfaces. Sierra Red is the most common type with a high percentage (68%) of sherds recovered (Gifford 1976). A variety of forms dominate, such as shallow flaring-walled dishes, plates with wide everted and thickened rims, and spouted vessels. In the so called Protoclassic and the Terminal Late Preclassic ceramic

Period			Barton Ramie*	Benque Viejo**	Mountain Cow	
P O S T C L A S S I C	Late	1400	New Town			
		1300				
		1200				
		1100				
		1000				
C L A S S I C	Late	900	Spanish Lookout	BV IV	Mountain Cow V	
		800		BV IIIb	Mountain Cow IV	
		700	Tiger Run	BV IIIa		
		600	Hermitage	BV II		Mountain Cow III
		500			Mountain Cow II	
400						
P R E C L A S S I C	Proto-Classic	300	Floral Park			
		200				
	Late	A.D./B.C.	Mount Hope	BV Ib	Mountain Cow I	
		100	Barton Creek			
	Middle		200	Jenny Creek	BV Ia	
			300			
			400			
			500			
			600			
			700			
800						
900						
1000						

* J. C. Gifford 1976

** J.E.S. Thompson 1940

Table 1. Ceramic Sequences for the Upper Belize River Valley and the Mountain Cow Sites.

assemblages include mammiform supports bowls, spout and vessels, basal flange bowls, ring base jars, and basal angle bowls (Brady et al. 1998). The Protoclassic presence at Mountain Cow however, consists solely of grave goods or caches.

In terms of construction styles, thick plastered architecture with squared corners and edges and no rounded corners are in contrast to Late Preclassic architecture at Caracol, where rounded corners are prevalent. With regards to stone tools, lithics

such as large oval bifaces, tranchet tools, and stemmed macrobaldes are plentiful in the Late Preclassic / Early Classic period, clearly part of the widespread trade and interregional communication networking throughout the Maya Lowlands.

In the Late Classic, when population was increasing and the site was annexed by Caracol, the administrative / ceremonial complex of Cahal Pichik was completed and connected by the causeway. The E-Group here was modified and Structure F was built to seal off the space between Structure A and the Eastern buildings. Structure H was also constructed to control access to the Cahal Pichik main plaza from the causeway. The dense settlement that includes Tzimin Kax was mostly built during the Late Classic. Over 65% of Tzimin Kax ceramics date to the Late Classic. Likewise, the evidence at Cahal Pichik shows that 70% of stone tools, such as utility bifaces and stemmed macroblades, date to the Late Classic. Ceramic types at both locations are Tinaja Red, Garbutt Creek Red, Achote Black, Cubeta incised, Encanto striated, Palmar Orange polychrome, and Cayo unslipped. Vessel forms are bolstered rim bowls; large thick walled jars, and beveled lip flutes (plates). From the hieroglyphic and ceramic evidence, settlement at the site probably ended sometime in the Late Terminal Classic.

Discussion: Observations and Comparisons

The major research questions posited were based on the internal dynamics of Mountain Cow social and cultural organization. Who were the Mountain Cow residents and were they part of the “so called Pan-Maya” culture or were they a different ethnic group? What was the impact on the Mountain Cow community by the presence nearby of the large metropolis of Caracol? Were settlement and community growth at Mountain Cow sites the product of intra-site

developments, inter-settlement pressures, or extra-regional influences? How were these sites integrated into the political and economic sphere of this area? There is significant evidence that Caracol hegemony and expansion as a state included control over the Mountain Cow site for a period in the Late Classic. And most importantly, how did these factors affect ethnic formation (Brass 1985; Starr 1992) and its durability (Scott 1985; Williams 1989) among the Mountain Cow residents?

Identifying different ethnic groups in the Chiquibul region however, poses a particular problem principally because one community (site) is taken over by another (Doyle 1986; Stanish et al. 1993). The Caracol state not only took over politically but also embarked on a program of creating a regional identity for itself and attempted to impose this identity on its dependent polities (A. Chase and D. Chase 1998; R. Hassig; A. D. Smith 1981; Webster 1997). Therefore, our analysis has to take into account issues such as the intensity of ethnic affiliation and repertoire of ethnic markers to signal ethnicity especially if we are dealing with a multi-ethnic complex society (Barth 1969; Brumfiel 1994; A. Cohen 1974; Lincoln 1990). But, if we pursue the notion that Maya society was mono-ethnic (Webster 1997; Willey 1987) or was gravitating towards a single monolithic social entity (Martin and Grube 2000), since Caracol appeared to be forging a unified group, then in our analysis a marked degree of homogeneity should be more evident even in the local area of the Chiquibul region (see McGuire 1982). So in a sense, there appears to be centrifugal ideological forces competing in the creation and maintenance of identity (Conner 1978; Eriksen 1991; Hodder 1982; Sollers 1989; Sewell 1984). My research at the Mountain Cow sites sought to pinpoint these forces of changing ideology. Comparing the ebb and flow of the

interaction between Mountain Cow and Caracol over time allowed us to address the many issues discussed above.

The material remains from the two sites reveal considerable variation between different contexts, which is currently ignored due to the constraints of the overarching model of a “Mayaness” with its emphasis on homogeneity and gradual change (Culbert 1991; Coe 1993; Freidel 1992; Henderson 1996; Sharer 1994). The heterogeneity, which is manifested in the material culture from the two sites considered and other sites in different regions of the Maya world, can be more convincingly explained in the context of a theory of ethnicity developed here than through the traditional concept of the aforementioned “bounded” homogenous Maya. Just as ecological homogeneity in Maya studies (Rice 1993; Sanders 1977) has been discarded, the idea of the “homogenous Maya as a cultural and systemic all encompassing unit can also be significantly revised. Through detailed analysis of material culture we can detect affiliations and connections that can be used to assist in our identification of ethnic development. In particular, the analysis of architectural features and techniques, artifact styles, and the form and content of ritual deposits reflects symbols that are keys to such determinants (Hodder 1982; McGuire 1982; Jones 1997; Sackett 1990; Shennan 1989; Stanish et al 1993; Weissner 1990). A brief analysis of data and interpretation follows.

Temporally diagnostic ceramics were collected at (60%) of mound groups identified in the 1999-survey area. The dates given below for temporal periods at Mountain Cow are approximate and based upon relative dating with the exception of the early Late Classic (A.D. 600-700) and late Late Classic (A.D.700-800, and Terminal Classic (A.D. 780-890). Dates from these three temporal periods are absolute based on radiometric research conducted by A. Chase and D.

Chase (1987, 1994) at Caracol. Vessels or sherds possessing characteristics of the Floral Park Horizon at Mountain Cow are similar to those found at Nohmul, Barton Ramie, Holmul, Altar de Sacrificios, El Pozito, Kichpanha, and the Upper Belize Valley. As Pring (2003) has noted, these eastern sites possess evidence of Holmul 1 style ceramics, whilst in the Peten and Pasion river drainage, the reverse is true, with the Holmul style virtually excluded.

Early Classic residential settlements at the site do not generally have the same east-structure focus as occurs throughout Caracol during the Late Classic. Only the Tzimin Kax area demonstrates the same pattern although to a lesser degree than at Caracol. Late Classic burials at Mountain Cow show more utilitarian ceramics and not “prestige” types. This pattern of utilitarian types used in elite contexts in the Late Classic is a pattern not observed in the Early Classic and significantly it appears to be distributed across a number of different contexts (i.e., not just elite) in the region ranging from small rural sites, to ritual use in large centers (see A. Chase 1994 and D. Chase 1988; King and Potter 1994; Lecount 1999).

It is interesting to note that at Tzimin Kax, houses or temples that stood on top were not for the common people, for the amount of labor involved in building the *plazuela* and the richly painted potsherds point to occupants of wealth and rank. This is evidenced by mounds that are of a pyramidal type and where in a number of cases burials were found either in these mounds or below the plaza floor directly in front of them. These mounds are most frequently situated on the east side of the plaza. At Mountain Cow this pattern is not visible in the Early Classic, as the north building is the central focus. In the Late Classic, however, in domestic residences that are nearby the Cahal Pichik pyramidal temples, the pattern of east focused buildings

is found. At the same time in domestic residences away from the site center or core, the pattern of north building focus continues.

Based on surface collection and test pit data, occupation begins at the Mountain Cow sites in the Middle Preclassic period (ca. 900-600 B.C.) when 20 % of mound groups were initially occupied. Occupation increases substantially in the Late Preclassic / Protoclassic (ca. 600-B.C.-A.D. 250) and Early Classic (ca. A.D. 250-600) periods when 50-60% of mound groups, respectively, were occupied. There is a dramatic increase to 90% occupation in the early Late Classic period (A.D. 600-670) coeval with the rise of political authority at Caracol and with a leveling off to 75% in the late facet of the Late Classic period. A sharp decline occurs in the Terminal Classic period (A.D. 780-890) to about 40%, leading to abandonment during this period. With regards to settlement, the distribution of groups show a sparsely settled area between Cahal Pichik and Hatzcap Ceel, but this might be an impression based on the survey and not necessarily a real representation of the settlement distribution. I surmise that the causeway built in the period just around 600 A.D. reflects a transformation of the area seat of administration from Hatzcap Ceel to Cahal Pichik. Although the placement of the carved stelae suggests that the ruling elite still resided at Hatzcap Ceel.

In the Late Preclassic the sites of Mountain Cow were autonomous and the main public ceremonial center was at Hatzcap Ceel; settlements at Cahal Cunil and at Tzimin Kax were dispersed. During the Late Preclassic and moving into the Protoclassic, Mountain Cow sites experienced a marked increase in populations as well as cultural, social, ideological, economic and settlement complexity characterized by monumental constructions such as temples, E-Group structures, ball courts, and trade in exotics such as jade, obsidian, and shells. These communities became part of a complex

ideological system fully integrated with that seen throughout the Maya area (Coe 1993; Freidel 1992; Pring 2000; Thompson 1931; Coe 1993). In the Late Classic, the site autonomy was eclipsed by Caracol as evidenced by the placing of an altar that commemorates a Caracol ruler at Hatzcap Ceel (Grube 1994). It was also during this period that the causeways at Mountain Cow were built, and Cahal Pichik was expanded from a minor plazuela group to the largest public/ritual center. Likewise, at this time, the residential areas of Tzimin Kax were also expanded by the burgeoning population who built their homes near the agricultural terraces or on hilltops overlooking these terraces. In the Terminal Classic to Early Postclassic, with the waning of power at Caracol, the site central public administration reverted back to Hatzcap Ceel, with Group 11 being the most important structures. We can surmise that given the social conflicts and chaos in the Maya world, Group 11 location on a natural hilltop accentuated its defensive capacities.

Not surprisingly the parallel trajectory that Caracol's history undertook with regard to its neighbor Mountain Cow is illustrative. The site's original occupation was also in the Late Preclassic and the developments that took place here are similar to Mountain Cow. At the end of the Early Classic however, Caracol became the dominant group in the area and in terms of grandeur it far surpassed any of the local polities in its surrounding neighborhood (A. Chase and D. Chase 1987; D. Chase and A. Chase 1994). At the onset of the Late Classic Caracol involved itself in a series of successful war events, ostensibly for tribute, and the site's population swelled. Road building intensified to integrate the population for military, administrative, and economic purposes. It was at this period that Caracol gained formal economic dominance over the region through purposeful establishment of new roads and causeway termini. A. Chase (1998) argues that these

specially established plaza areas served as the administrative focal points of a centralized bureaucracy. These areas also presumably served as loci for the transmission of ritual items, thus serving to integrate Caracol's population into a common ideological framework (A. Chase 1998; A. Chase and D. Chase 2001).

The long history of occupation at Mountain Cow also provides the time depth necessary to understand the relationship between Mountain Cow sites and Caracol amidst the major political-economic changes that occurred throughout Maya society during the Preclassic, Classic, and Terminal Classic periods. The residents of Mountain Cow would have interacted, both directly and indirectly, with residents of a number of neighboring centers at different points in time, for example with Caracol, Caledonia, and Camp Six, and at a much earlier date with sites in the Belize Valley (see ceramic sequence Table 1.2). For instance, the Late Classic at Mountain Cow reveals that multiple affluent families resided there similar to the data coming out of Caracol (D. Chase and A. Chase 1994; A. Chase and D. Chase 1996). But, significant variability particularly in the domestic context may reflect cultural differences in promoting identity (Dietler and Herbich 1998; McGuire 1982). For example, when we examine the pottery assemblages from Mountain Cow and note the mixed Caracol and Belize Valley types, it reflects interactions the communities of Mountain Cow maintained in exchange and production networks with the older Belize Valley (Peten/Southern) guard while also adopting technologies and styles associated with the expansionary state of Caracol in the Late Classic, that was emphasizing its own identity derived from local and Northern Maya Lowlands signatures (A. Chase and D. Chase 2001:279; Drennan 1984; Rathge 1972).

Comparisons

It is illuminating to compare Mountain Cow's two main plazas, Cahal Pichik and Hatzcap Ceel, with Caracol's Plaza A (Figure 8). Plaza 1 at Hatzcap Ceel and Plaza A at Caracol resemble one another, which is not surprising given the fact that both have their origins in the Late Preclassic/Early Classic. At Cahal Pichik, which was mostly built in the Late Classic (A.D. 675-810), CH-Plaza 1 does not look like Plaza A at Caracol in its Late Classic form, yet in some respects they share some similarities. Structure B at Cahal Pichik is similar to Caracol's western structure A-2. Both plazas share the same similarities whereby altars are situated in front of the eastern structure and plain stelae were erected up on the summit of the western structures. At Hatzcap Ceel, which looks like Plaza A at Caracol, stelae were found on the summit of the eastern structure (G) (Thompson 1931:239-248) and ceramics that date to Late Preclassic were located. This is in direct contrast to Cahal Pichik main plaza where the only Early Classic material is from a trash midden behind Structure Q. Hatzcap Ceel plaza group more approximates that of the Peten region, just as the Early Classic Caracol Plaza A, whereas Cahal Pichik reflects styles reminiscent of Caracol Plaza A in the Late Classic. Despite the temporal placement of Cahal Pichik Plaza A in the Late Classic, the construction of a small platform in front of the eastern structure mirrors that of Hatzcap Ceel. It is apparent then that the architectural orientation of the plazas at Mountain Cow reflects both Caracol and the Peten regional influences (von Faulkenhausen 1986).

The presence or absence of architectural styles can also be used to infer alliances and affiliations (Ashmore 1992). Caracol exhibits a preference for the use of rounded corners on temple substructures (A. Chase and D. Chase 1994:7), but sites affiliated with Naranja (Caracol's nemesis in

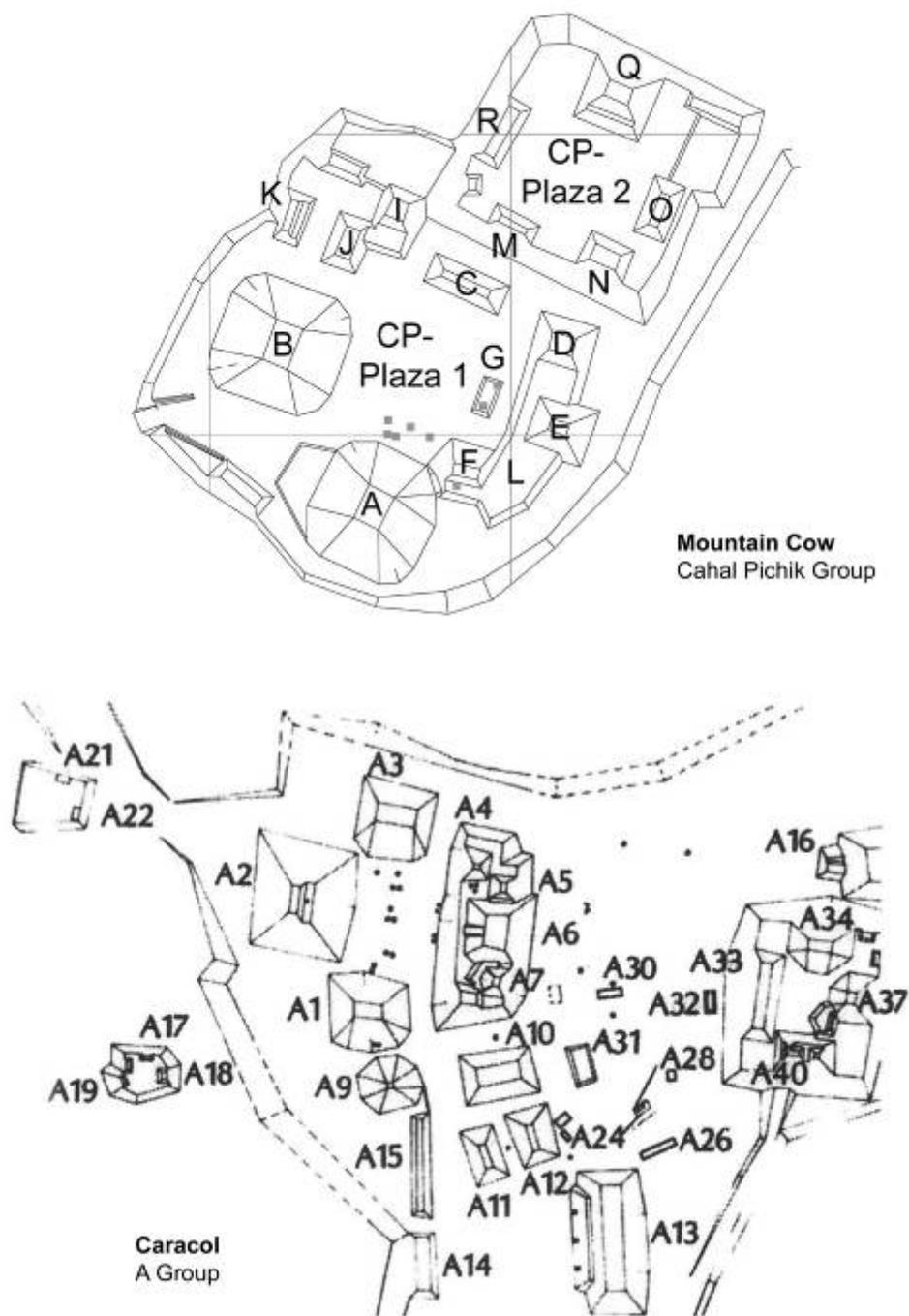


Figure 8. Comparison of the layout and configuration of the main group of Cahal Pichik and Group A of Caracol.

war) often employed Peten style veneer construction (Ball 1993:154). At Mountain Cow there were no buildings with rounded corners, except for one structure at Cahal Pichik constructed during the Late Classic, when Caracol established its hegemony over the site (see also Iannone et al. 2001). Pyramid F, which contained a Late Classic cache that was deposited in a cylindrical urn with an everted lip vessel inside is similar to Caracol's caching style, yet the building style and design is unlike Caracol architectural type. The ball courts at both sites however, demonstrate significant connections. The ball courts at Caracol are all situated within the central area, likewise at Mountain Cow. Altars commemorating important events were placed near these ball courts at both sites, although at Mountain Cow only one marker per ball court was placed. In fact, both ball court markers at Mountain Cow were placed in the Late Classic and relate to events at Caracol. Apart from suggesting affiliations, these similarities also point to the fact that the ballgame was a significant event at community and regional levels across Mesoamerica, as it offered a means for local elites to exemplify their status to community members while also providing a mechanism for political contact between neighboring communities (Scarborough and Wilcox 1991).

As a point of interest, at Mountain Cow Late Classic construction shows a strong divergence from earlier themes of ritual expression and community-wide incorporation, such as the E-Groups, when Hatzcap Ceel was the main center for ritual and administration. Given the data from Tzimin Kax and Cahal Pichik in the late Late Classic, it appears that much effort was invested in constructing private elite residences, and transforming previously public areas into ones of controlled access similar to that seen at Caracol. Modifications at Hatzcap Ceel, for instance at Group 11,

and the placement of Structure L, indicate that the once public oriented plaza was somewhat restricted in the Late Classic.

Perhaps the most significant differences in ceramics between the two sites are the Late Preclassic to Early Classic assemblages. The Mountain Cow sites exhibit many Protoclassic forms that were found in burial chambers beneath plaza floors and burials within vaulted chambers (Thompson 1931, 1939; Pring 2000). At Caracol, the few Late to Terminal Preclassic caches that have been found were in a chultun burial belonging to the same period, and in an outlying group that contained Late Preclassic vessels (A. Chase 1994:163). In the Late Classic, although stylistically variant, the domestic sub-complexes from both sites are similar and contain un-slipped ollas and red slipped footed bowls. Even the lithic assemblages mirror each other. The cylindrical Classic censers from Caracol that focus on modeled deity faces, which do not resemble humans, is also reproduced at Mountain Cow, as well as effigy censers found in Late Classic (675-810 A.D.) context.

In essence, burial data suggests that Early Classic occupants at Mountain Cow and Caracol practiced a common ideology, maintained a sense of community, and participated in a system of regional exchange. This is evidence by the behavior of caching which is known for this early period and marks the use of a ceramic vessel as a cache containment unit. Religious practice at both sites in the Classic period was centered in the site epicenter through the use of tall temples, carved stone monuments, and more elaborate caches with contents that had cosmological meaning (Ashmore 1992; Freidel and Schele 1988). In the Late Classic, however, the widespread use of face, finger, and ceramic urn caches was part of a uniform Caracol practice, and these were also undertaken in households as they honored their own ancestors D. Chase and A. Chase 1998). The

omnipresent ancestor cult, uniform at Caracol in the Early Classic, was gone. At Mountain Cow however, particularly at Cahal Cunil and Hatzcap Ceel, caches and burials continue to be deposited within pyramidal structures and beneath plaza floors, honoring their communal ancestral ties and keeping the ancestor cult intact (McAnany 1995).

Overview and Summary

The expansion of Maya polities, through economic, political or warfare strategies no doubt resulted in the creation of new forms of social interaction and social relationships, through which the basis of power, status, and identity was reproduced and transformed (Doyle 1986; Giddens and Held 1982; Held 1989; Mann 1986; Marcus and Feinman 1998; Willis 1994:143-4). The data at both sites point to major similarities after Caracol took over Mountain Cow. The residents of Mountain Cow invariably accepted their fate and part of Caracol's cultural manifestations. But, I argue that changes in material culture must, in part at least, reflect the articulation of cultural identities of the past (Williams 1989). New manifestations of ethnicity (Caracol's) almost inevitably must have been created, subsuming pre-existing configurations of culture and identity (Mountain Cow's) in some although possibly not all, social domains (Hobsbawm 1983; Ranger 1983; Sollers 1989). And variation in material culture recovered at these sites may well be connected with such processes.

For instance, the formation of states (Caracol) allows for a political system where technology and capital also engender an economic surplus, which is then redistributed (Aldenderfer 1993; Brumfiel 1994). Concomitant with such redistribution are other associated social categories such as class (Pollard 1994; Skocpol 1984; Wells 1992). The Chases argue that a functioning middle class permeates Caracol society based

on significant distributions of wealth items in residential locales (A. Chase and D. Chase 1996b). This societal phenomenon is not substantially reproduced at Mountain Cow. When we examine the Late Preclassic to Early Classic Mountain Cow social hierarchy, the rigid two-class structure of elites and non-elites posited for the Maya at this time period seems to be prevalent (Fash 1991). In the Late Classic however, the distribution of wealth at the residential sectors of Tzimin Kax appear to mirror Caracol residential areas, whereby a substantial portion of the populace participated in an administered economic exchange system approximating modern concept of the "middle class". The argument for a middle class no doubt requires for more data, hence, it is my opinion that the residents at Tzimin Kax locale in the Late Classic were instead beneficiaries of elites that had the capacity to bestow wealth, privilege and power to some subordinates who then assist in maintaining the status quo of the ruling elite (Doyle 1986; Wells 1992).

Finally, the implications of these activities in the Late Classic are significant for our understanding of Maya society in general. We see an array of responses at multiple levels of society to changing conditions that were political in nature because upon the disruption of Early Classic lowland political economies, more productive resource bases allowed certain local populations to enjoy a degree of relative autonomy in many facets of daily life, leading to political decentralization in some areas and centralization in other facets of society (Ball and Taschek 1991; Hammond 1991; Marcus 1993). Caracol through political strategizing and warfare became a major political force. The emergence of a strong centralized primary center for the first time in the history of the Chiquibul region impacted on every community in the region. The far-reaching implications of such an event forced the local residents to objectify and reevaluate their

cultural traditions and as previously autonomous entities, Mountain Cow communities had sought to distinguish themselves from others through expressions of ethnicity and through worship of their own patron deities, but now Caracol's emerging ethnic identity had to be incorporated, complex negotiations that resulted in a "re-invention" of the cultural traditions in the Chiquibul region (Abercrombie 1980; Hobsbawn 1983; Ranger 1983; Wells 1992).

In effect, the examples presented above demonstrate processes of two types of ethnicity that is manifested, the state categorizing ethnic groups (Starr 1992), and the less powerful communities emphasizing or manipulating ethnicity for economic and political interest (Cohen 1974). In systems where each polity strives for its own salient identity the variability in the archaeological record may suggest many symbolic markers as each polity defines itself in opposition to each other (Shennan 1988). Within a regional state system, homogeneity in forms as dictated by the state may preclude us from being able to infer different ethnic groups, however, at the boundaries of these regional states interaction that occurs may leave evidence of different ethnic groups competing (Schortman 1986; Schortman and Nakamura 1991; Willis 1994). In addition, if we accept that the Maya were a multi-ethnic society evidence does exist to demonstrate how different competing groups within attempted to become the voice of the polity or those that chose to retain their own local identity tried to manipulate the system for economic and political affiliations (Williams 1989; Scott 1986).

To conclude, data recovered from these excavations were compared with data from Caracol. Similarities and differences were analyzed and also compared with the wider social field of the ancient Maya. Modest interpretations of these findings was presented and I attempted to relate the

variability encountered between Mountain Cow and Caracol to ethnicity and identity formation in the Chiquibul region which, ultimately will allow us to gain some insights into the cultural identities of the inhabitants of both Maya centers.

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11 THE 2002 RESEARCH SEASON AT MINANHA, BELIZE

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As part of a long-term research project, Trent University has conducted extensive excavation and reconnaissance within the epicenter and periphery of Minanha, once one of the largest ancient Maya centers in the north Vaca Plateau. These multifaceted investigations have produced a wide-range of information concerning the economic, social, political, and religious aspects of this ancient Maya community. Of particular importance are the insights that are emerging concerning Late Classic sociopolitical interaction. This paper summarizes the results of one season of excavations. In doing so, it provides a glimpse into the range of topics that are being explored in our efforts to shed light on Minanha's past.

Introduction

Situated approximately 25 kilometers north of Caracol, and 15 kilometers south of Xunantunich, the ancient Maya center of Minanha is one of the key Late Classic communities in Belize's North Vaca Plateau (Figure 1). Comparable in size and complexity to Xunantunich and El Pilar, and medially positioned between the antagonistic polities of Caracol and Naranjo, Minanha was likely a strategic borderland community during the eighth century. For the past five years, Trent University has been conducting archaeological excavations in both the epicenter and periphery of Minanha. These investigations are aimed at addressing a series of nested research questions. From its inception, the research program at Minanha has striven to examine the dynamic quality of ancient Maya states. Specifically, our investigations have focused on charting periods of decentralization and centralization on the regional scale, and elucidating the reasons for fluctuations in sociopolitical integration. As this paper outlines, collateral investigations are exploring the nature of ancient Maya royal courts, the character of administrative architecture, and similarities and differences in ritual behavior across

sociopolitical and socioeconomic strata. Broader settlement studies continue to examine lower level settlements, defensive systems, agricultural terraces and cave usage.

Minanha itself is located at the junction of three major valley passes. The site epicenter consists of a royal residential acropolis, and a more publicly oriented series of plazas and courtyards containing the full range of building types found in centers of this size and complexity (Figure 2). Although our settlement program is not yet complete, to date we have mapped over 140 buildings in the epicenter and the one-kilometer zone surrounding it. Ceramic evidence suggests that Minanha saw its first large-scale occupation during the Terminal Preclassic period (ca. A.D. 100 – 250 AD). However, the presence of Middle Preclassic sherds (ca. 900-400 BC) in the construction fill from later contexts does support an earlier date for the initial occupation of the area. The period of florescence at Minanha, which is discussed here, dates to the Late Classic/LC II period (ca. A.D. 675 – 810). At this time a full-fledged royal court was established at the site. The royal court, whose presence is exemplified by an elevated, restricted access royal residential courtyard, seems to have

prospered for roughly a century, after which the courtyard and its buildings were buried, and an impoverished group of low-lying building platforms

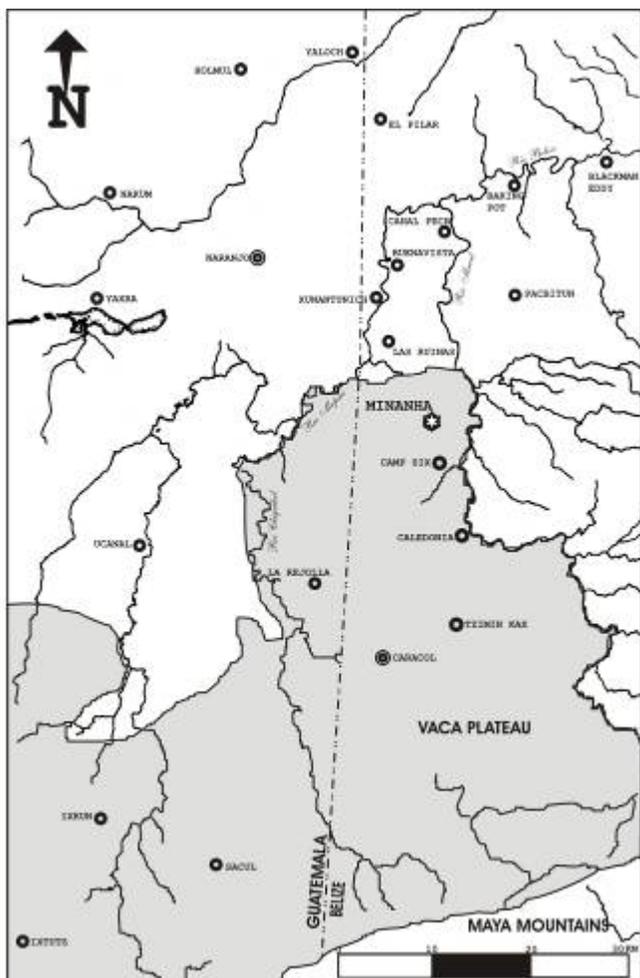


Figure 1. Map of West Central Belize showing Vaca Plateau and location of Minanha

with perishable superstructures was erected in its place. This event signifies the decline of Minanha's royal court, and the site in general. Many of the current archaeological excavations are aimed at examining the local and regional significance of the rise and fall of this Late Classic royal court.

Results of the Group J Excavations

During the 2002 field season, excavations were undertaken in Structure 37J-2nd as part of our continuing investigations of Minanha's buried royal residential courtyard. These excavations exposed a vaulted royal throne room that had been filled in from the inside and capped by a much smaller building platform, 37J-1st (Figure 3), sometime near the beginning of the Terminal Classic period (ca. A.D. 800). Excavations revealed remnants of red and blue plaster on the walls of the room, as well as a throne style bench with masonry side arms. This throne was located directly opposite the central access door for the building. Thus, this throne would have been visible from the courtyard, as would have the official that sat on it. This throne was flanked on either side by two tiers of secondary benches. The presence of such thrones has been identified as a marker of courtly activity, as these benches served as the "seat of office" for royal officials (Harrison 2001:74). As such, the throne located in 37J-2nd was clearly a symbol that was important to the royal court and the power that it maintained at Minanha during the eighth century.

During the 2002 season, extensive excavations were also conducted in association with Structure 38J, located in the northeast corner of Group J, directly adjacent to Structure 37J (Figure 4). Excavations in Structure 38J were originally conducted by members of the British Museum Expedition in 1927, although they only published vague descriptions of their findings (Joyce et al. 1927). Investigation of this building was initiated by Trent University in 2001. These excavations revealed that during the Late Classic period a large pyramidal structure stood at this location and that during the courtyard in-filling event the top three meters of the pyramid were reused as part of the

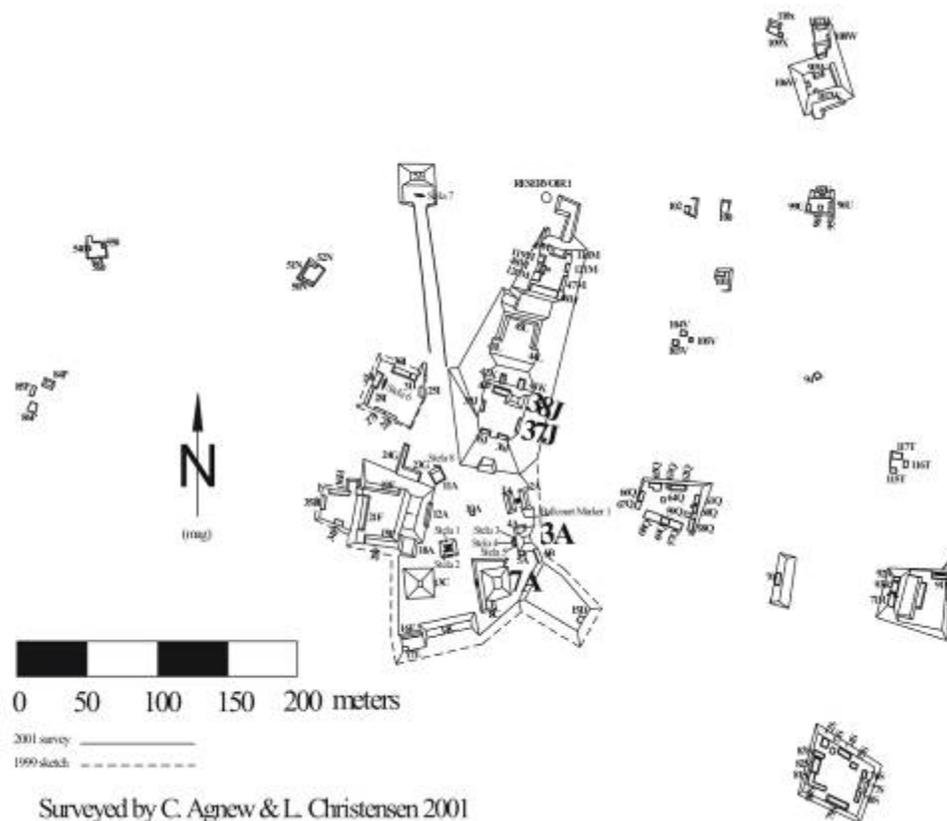


Figure 2. Rectified, isometric plan of Minanha site core

impoverished Terminal Classic (ca. A.D. 810-900) courtyard. Investigations of the buried portion of the temple continued during the 2002 field season, with the aim of exposing larger portions of architecture, and to gain an understanding of the chronology of the building and in-filling event.

Excavations in association with Structure 38J uncovered three distinct occupation phases. The earliest two, 38J-3rd and 38J-2nd, correspond to the Late Classic period and are separated by a dedicatory offering strewn across the construction stairs of 38J-2nd. The materials found within this cache deposit include many broken serving vessels, a large number of faunal remains from a myriad of mammal, bird and fish species, some of which were fire charred, and at least one small bowl containing human

finger bones, all interspersed within a dark, ashy matrix. This deposit, which extended beyond the confines of the excavation unit, appears to represent the remains of a large feast that was held upon the completion of the construction of the heart of the building, but prior to the application of backing masonry, facing stones, and plaster. The resulting building comprised a roughly nine meter high pyramidal structure with an outset stair and rounded sides which dominated the Late Classic royal residential compound.

Given the evidence from Group J, it appears as if over the period of one century, the Minanha royal court underwent a cycle of boom and bust. As a royal court, Minanha appears to have peaked during the 8th century. This is significant, because the onset of the eighth century marks the beginning of a

period of declining regional influence on the part of both Naranjo and Caracol (Martin and

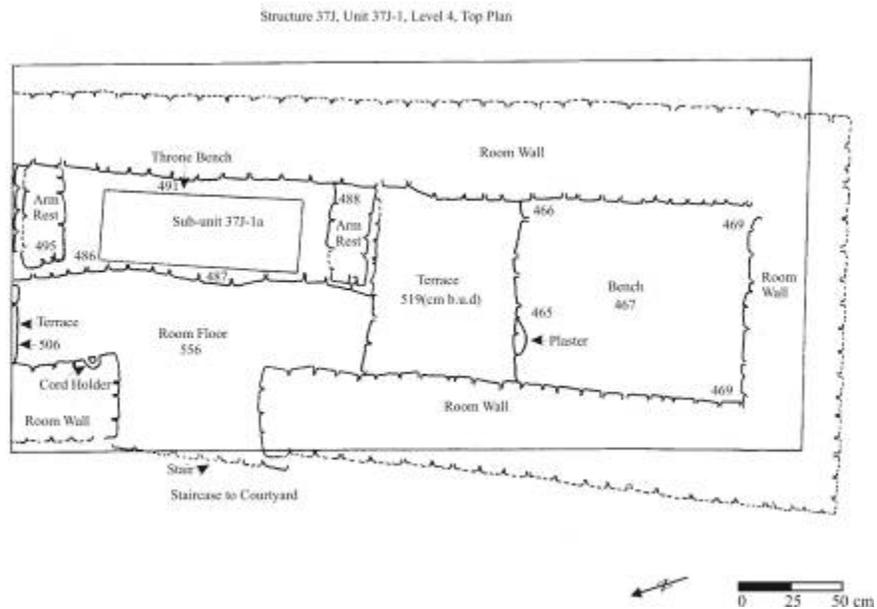


Figure 3. Plan of 37J-1st Throne Room

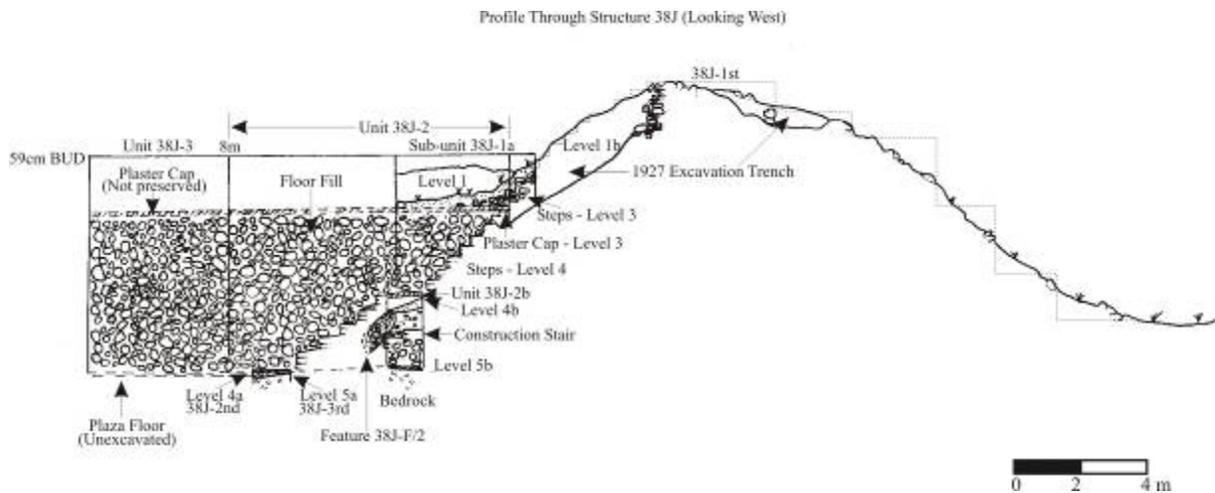


Figure 4. Profile of Structure 38J pyramidal structure

Grube 2000). Minanha may have been able to take advantage of this political climate to enhance its own standing. Significantly, the act of burying the royal residential compound reveals an event of sociopolitical and

socioeconomic disruption. Interestingly, Minanha's political decline at the onset of the Terminal Classic (ca. 800) corresponds to Caracol and Naranjo's re-emergence as belligerent polities with renewed territorial

aspirations. Thus, regional dynamics may ultimately hold the key to Minanha's rapid Late Classic growth, as well as its equally swift Terminal Classic demise.

Results of the Group K Excavations

Other excavations have provided additional information concerning Minanha's royal court. Group K is located to the immediate north of the Group J royal residential courtyard. The specific goals for the 2002 research in group K were to assess the function and chronology of this patio group, as well as to gain a more in-depth understanding of socioeconomic and sociopolitical organization of ancient Maya royal courts.

Two 8 x 8 m units were used to expose large portions of the two structures making up this group (41K and 42K), and the areas in front and behind them. The terminal architecture consisted of two low building platforms, with perishable superstructures, reflecting typical Maya vernacular architecture. A termination cache and partial cist burial were found in the alleyway adjacent to Structure 42K. The terminal architecture of both buildings was found to be associated with the buried royal residential features of Group J, because of the shared plaza level which supports the walls of 41K and 42K and the rear walls of 40J and 38J.

Prior to excavation it was thought that this group may have functioned as a servant's residence and/or cooking area, given its small size and proximity to the royal residence. Thus far, the architectural and artifactual characteristics are consistent with this hypothesis; however, further investigations are needed before it can be verified with confidence.

Results of the Group A Excavations

Between 2000 and 2002, extensive excavations were also conducted in association with Structure 12A, located on the west side of Plaza A (Figure 5). Structure 12A is what Mayanists refer to as a range structure, meaning that it is a long, multi-roomed building. Structure 12A is 6.47 m high, roughly 40 m long and 20 m wide. To the east of 12A is Plaza A, the main plaza at the site. To its west is courtyard F, of which 12A forms the eastern boundary (see Seibert, this volume).

Excavations in 12A were carried out in order to examine its function. Scholars have ascribed numerous functions to range structures depending largely on their location in relation to other buildings. Range structures not found in association with palace groups have often been ascribed an administrative function. Kowalski (1987: 85) has suggested the presence of benches or thrones, an orientation towards a public plaza and the presence of an accessible staircase as indicators of an administrative function for these structures. Range structures that face into public plazas, adjoin courtyard groups, and have passageways connecting these spaces, are referred to as either "*audiencias*" (Ball and Taschek: 2001) or "Passageway Range Structures" (Harrison 1999). In these cases the structures were assumed to have played an administrative role.

Excavations in the 2000 season focused on determining if a central passageway linking Plaza A and Courtyard F was present in Structure 12A. Excavations revealed that there was indeed a central passageway in 12A, which was constructed of masonry and vaulted in antiquity, and which had a plaster floor and plastered walls.

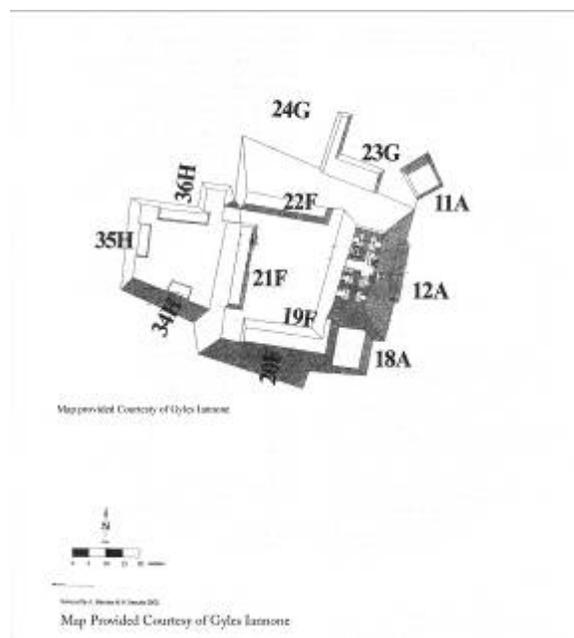


Figure 5 Rectified isometric plan of Structure 12A.

Excavations also revealed that the structure was divided along its transverse axis by a spinewall, and exposed a staircase connecting the passage with Courtyard F. The 2001 excavations focused on examining the rooms located on either side of the spinewall. Excavations revealed that both sides of the structure were comprised of a series of rooms. The rooms uncovered contained plastered benches and evidence of vaulting, and faced outwards from the spinewall.

Excavations in 2002 focused on seeing how the rooms discussed above connected with the central passageway. It was discovered that the rooms in the ‘public’ side of the structure articulated directly with the central passageway and that the bench in the southern room also served as a bench in the passage. A wall pier, which presumably supported the vaulted masonry room discussed above, was found in the southeast section of this room, and a bench, which faced both into this room and the central passage, was uncovered. Based on excavations in the 2000 field season, it seems likely that a similar configuration existed to the south of the central passageway.

If this was indeed true, it would make the central passageway a ‘T’ shaped, as opposed to linear space. The rooms on the Courtyard F side of the structure were separated from the passageway by a masonry wall. This suggests different degrees of integration between these rooms and the central passage, implying a division between public and private space.

In addition to these excavations, we examined the staircase in the front of the structure. It was determined that in its terminal phase of use, 12A was accessed from the front by a large staircase. An earlier staircase, partially dismantled in antiquity, was found beneath the terminal stair. Two earlier construction phases were revealed through excavations in the terrace in front of the stair, for a total of four separate construction phases. The lowest floor was made of tamped earth, as opposed to plaster, making it similar to floors uncovered both in the site’s ballcourt (Seibert 1999) and in front of Structure 3A, the main structure in the site’s E-Group (Schwake 2000). Analysis of ceramics recovered from 12A suggests that the structure was constructed entirely in the Late Classic, although the similarities between the earth floor mentioned above and the floor from 3A might suggest an earlier Terminal Preclassic (ca. 100-250 AD) component (see Schwake 2000).

The Second Terrace Operations- Group S Excavations

The 2002 field season also saw the initiation of excavations within Group S, specifically, within Structure 77S, a pyramidal structure on the eastern edge of the courtyard. The focus of these investigations was to establish the chronological framework for the construction of edifices within the Group S plaza, to determine the use history of the structures, and to reveal patterns of ritual deposition within Structure 77S. This analysis was undertaken as part of the ‘ritual’ sub-program of excavations at the site, which

have previously been completed in Group A, the main civic-ceremonial plaza in the site epicenter (see Schwake 2000). Group S is arranged in a quadrilateral pattern around a central courtyard, with four structures on the north, three structures in the form of an E-group on the east, a long, low range structure on the south, and a cluster of four structures on the west side of the plaza. On the surface, the group is one of the larger *plazuela* groups within the tier of settlement immediately adjacent to the site epicenter (within a range of about 500 meters). Unit 77S-1, a 2 x 4 m unit, was set along the primary axis of Structure 77S, at the base portion of the stairway. It was hoped that this placement would reveal ritual deposits that were associated with the structure.

An axially aligned, simple crypt burial was located just to the west of the central stair of 77S, beneath the terminal plaza floor (Figure 6). The north-south oriented crypt was capped with a series of large, limestone capstones, and one slate capstone. The interment housed the disarticulated remains of at least four individuals. The grave goods that were recovered included items of personal adornment, including a conch shell pendant and a jadeite bead. The lack of associated grave goods, and the low relative quality of the interment chamber, implies that these individuals may themselves have been offerings to the more powerful individuals buried within the structure itself. An elaborate crypt burial, oriented north-south, was revealed within the structural fill of 77S. The chamber was large and rectangular in shape, measuring approximately 2.3 m x 1.2 m x 0.7 m. In the northeast corner of the chamber an entryway slanted upwards to the north, with a large capstone that may have served as the portal into the crypt at its northern extent. The remains of five individuals were interred within the chamber as well as several relatively elaborate grave goods. Nine complete, or mostly complete,

Late Classic/LC II (ca. 625- 810 AD) vessels were found within the chamber. These included three olla-type vessels or jars, three plates, two ceramic pigment holders, and one painted polychrome cylinder vase. One of the pigment holders had an elaborately decorated human face on its front and pseudo-glyph inscriptions on its sides, similar to vessels found at the sites of Copan, El Cerén, Uaxactun and Aguateca (Reents-Budet 1994:68, 214-215). The vase was identified as a Zacatel Cream polychrome. The locus of production for these vessels is the Northern Petén Lowlands of Guatemala, near Nakbé (Reents-Budet 1994:328). In addition, there was a worked conch shell pigment holder and a worked central element of a conch shell that may have served in the application of pigment. Taken together, these shell artifacts and the presence of the pigment vessels could indicate a scribal function for some of the individuals interred within the chamber.

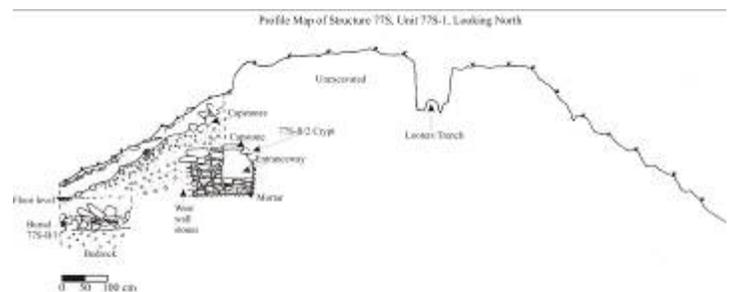


Figure 6. Profile of Structure 77S, showing location of Burials 77S-B/1 and 77S-B/2.

These ritual deposits are complex to interpret, as they seem to comprise unique combinations of artifacts and deposition patterns, but are also extremely similar to patterns observed elsewhere. What this means is that the people of Minanha were not strictly following a prescribed set of ritual practices, either from within political and social structural entities at the site, or outside of it. The implicit nature of the ritual event underlies how the material deposits we find

relate to social, political and economic relations and affiliations, and these will be the focus of future investigations.

Excavations in Group T

The 2002 field season also saw the initiation of excavations in Group T, a small residential patio group located near the Minanha epicenter. The group is comprised of three structures surrounding a central patio: Structures 117T, 116T, and 115T. All structures consisted of a limestone boulder platform and a probable perishable superstructure. The group is similar in construction and organization to numerous residential groups in the Maya area, including Type 1 residential groups at Copan, Honduras (Webster and Gonlin 1988).

The large, rectangular surface area, two floor levels, and diverse artifact assemblage (including numerous ceramic utilitarian vessels, biface chert/chalcedony tools, and metates) identify Structure 117T as the principal dwelling, based on common characteristics of Maya dwellings as outlined by Ashmore (1981:47-48) and Tourtellot (1988:101). Structure 116T is a smaller structure in terms of surface area, although it is the tallest of the group, with a similar floor plan to 117T. The considerably smaller and less diverse artifact assemblage of 116T and its location on the eastern side of the group may indicate a ritual function, based on descriptions of ritual structures by Leventhal (1983:57). However, a dwelling function is also plausible. Structure 115T revealed a different architectural plan from the other two structures, including a rear patio, and a large artifact assemblage including utilitarian ceramic vessels and stone tools possibly used in agricultural or woodworking activities. This building may have functioned as a kitchen or storage area within Group T, with a rear patio serving as an additional activity area. Ceramic evidence dates the construction

and occupation of Group T to the Late Classic/LC II period (675-810 AD).

The Site Periphery: Fortification, Terrace and Cave Investigations

During the 2002 field season a preliminary reconnaissance of Minanha's defensive features was conducted in an attempt to identify evidence for Classic Period (250-900 A.D.) warfare. The underlying impetus for this survey was to evaluate Minanha's potential as a borderland center and to determine whether it demonstrates evidence of the volatile history characteristic of frontier zones (Hassig 1992; Webster 1998). Archaeological indicators include material remains from past battles, restricted or differential access to the epicenter, formal defensive works including walls, ditches or ramparts, the use of natural topography to discourage attack and to defend resources such as water (Demarest 1997).

The organization of the Minanha epicenter seems to restrict access except at certain strategic points such as the main causeway. While no formal defensive features were discovered, the location of the site atop the largest hill in the vicinity, the incorporation of the natural topography into the construction of larger settlements and the proximity of a large water source, suggest a concern for security in a frontier area that very likely experienced considerable conflict.

The 2002 field season also saw the inception of investigations into the extensive terrace network surrounding Minanha. In the valleys to the south of Minanha both weir terraces and more commonly box (or embankment) terraces were observed. Their presence attests to the fact that the ancient Maya used these areas for intensive agriculture. However, it remains to be confirmed which crops were grown in these fields. In order to address this issue, potential agricultural soils were collected from

terraces, while control soils were sampled from steep, rocky areas.

Preliminary results show that the carbon isotope signatures from the surface of the control and terrace soils reflect the native vegetation, even for soils currently planted with maize. Enrichment in carbon isotopes, signifying pre-Hispanic maize agriculture, was recognized to be doubled in the deeper terrace soils compared to that of the control samples. However, the maize isotopic signal is weak and not present in all of the terraces.

Finally, in the 2002 field season reconnaissance was conducted in four known caves located around Minanha. Approximate dimensions of each cave, initial observations of cultural remains, and GPS co-ordinates were taken. Three of the caves investigated, Actun Suku'un, Actun Chan, and Actun Isabella, contained a variety of ceramics, as well as many architectural walls in various states of preservation. The fourth cave (Actun Lu'ubul) is a sinkhole with an approximate depth of 4.5 m. The difficult access to the main chamber of this cave necessitates future exploration with the aid of specialized equipment. However, ceramics were recorded from the sinkhole during past explorations. All of the caves indicate use by Maya communities, and all are also considered to be at high risk of disturbance due to both looting and environmental erosion.

Conclusions

In conclusion, the archaeological research conducted at Minanha during the 2002 field season was multifaceted in nature. Many questions were answered, but many more emerged as a result of our findings. Future research will hopefully provide further insights into the rise and fall of this strategic center, and the role that it played in broader political and economic interaction.

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12 A FUNCTIONAL ANALYSIS OF STRUCTURE 12A, MINANHA BELIZE

Jeffery Seibert

This paper examines the function of structure 12A, Minanha, Belize, by examining the architectural makeup of the structure, as well as associated artifacts. Structure 12A is what Mayanists refer to as a Passageway Range structure, meaning that it is a long multi roomed structure that serves as a boundary building between a courtyard group and a public plaza. These structures have often been assigned an administrative function by scholars. In order to assess the function of this structure, 12A will be compared to similar buildings, in similar configurations from the surrounding area. This comparison will be facilitated through a discussion of the architectural makeup of these structures, and a brief summation of the artifacts found in association with them. It is believed that this comparison will allow for more informed interpretations concerning the role of these public edifices as a class of architecture, and in particular structure 12A to be made.

Introduction

In recent years a great deal of research has been conducted regarding the nature of Ancient Maya political organization and in particular, the idea of royal courts and noble houses among the Classic Maya (see Inomata and Houston 2001; Gillespie 2000). Central to these discussions is the concept that the built environment utilized by these noble houses and royal courts can yield useful insights into the nature and composition of authority, power and political organization among the ancient Maya (Flannery 1998; Webster 2001; Martin 2001). Recent analyses of structure 12A at Minanha, Belize have focused on the relationship between a particular aspect of courtly activity, administration, and the architecture of the structure itself. This paper seeks to examine this relationship, and explore the similarities and differences between the relationship at 12A and other similar structures and groups in the surrounding area.

Structure 12A

Structure 12A is what Mayanists refer to as a range structure, meaning that it is a long, multi-roomed structure. The term range structure is, in many ways, interchangeable

with the term ‘palace structure’ although the term range structure is preferred for the purposes of this paper because of its functional neutrality (see Coe 1967 and Harrison 1970 for further discussions of the merit of the term range structure). Structure 12A is located at the western end of Plaza A, in the Minanha epicenter (Figure 1). This structure is one of the larger edifices in the Minanha site epicenter, being approximately 6.5 m high

Structure 12A is comprised of 2 ranges of rooms that run parallel to a central spinewall, and is bisected by a central passageway (Figure 2). The structure itself was constructed of dressed stone with a masonry roof and vaulted ceiling, as is evidenced by the number of vault and capstones recovered from excavations. The floors, walls and presumably the ceiling of the structure were all plastered, as is evidenced by extant patches of plaster on the walls and benches, and the well preserved plaster floors from the structure. Behind the structure is a courtyard group, and the passageway mentioned above serves as a liminal space between the plaza ‘in front’ of the range structure and the courtyard ‘behind’ it. The passageway appears to have been

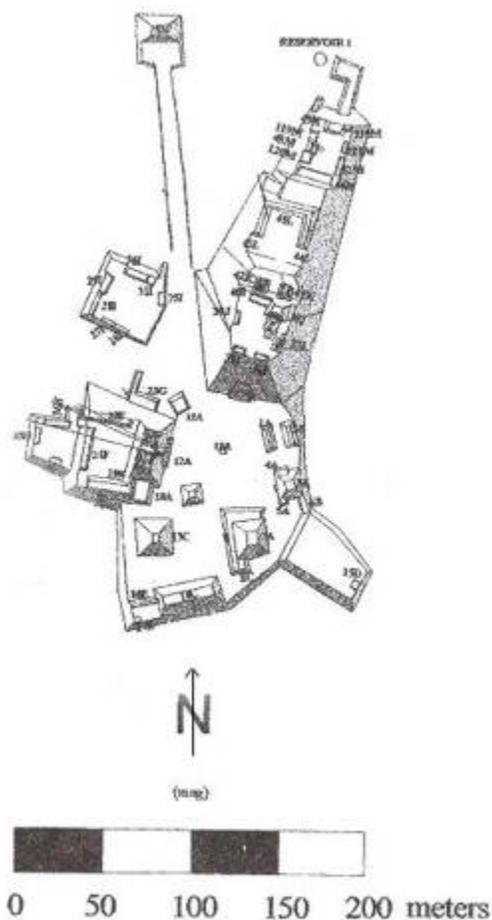


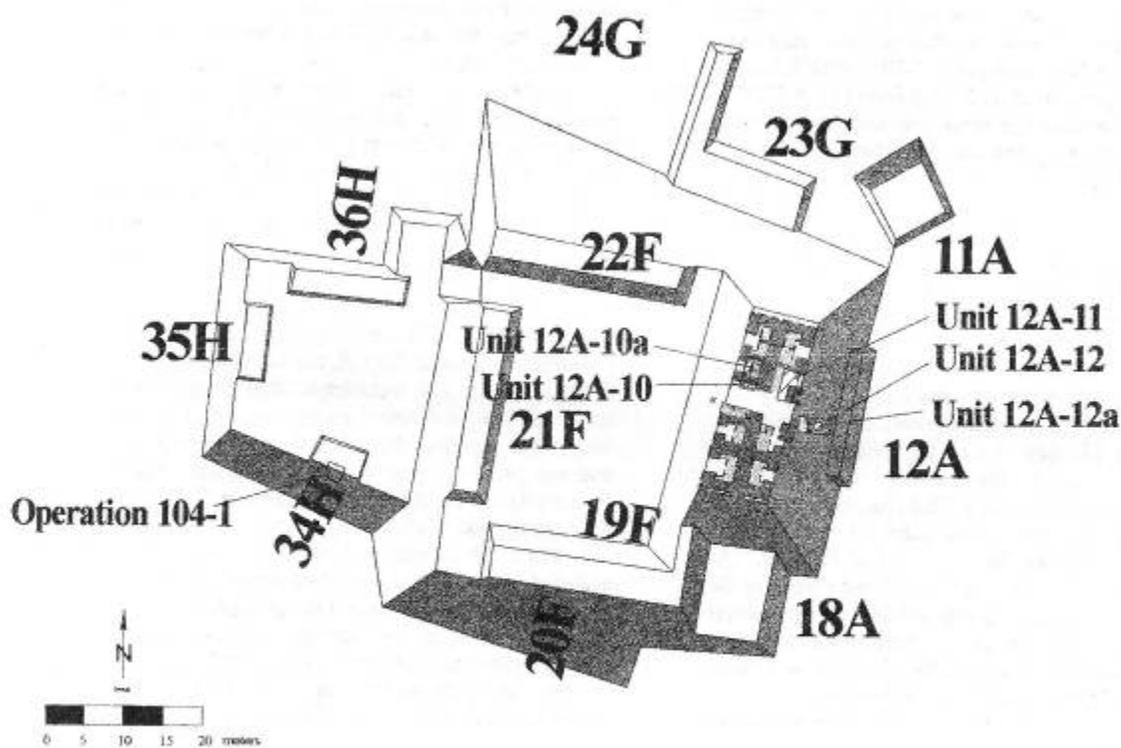
Figure 1. Rectified, isometric plan of Minanha site core. Surveyed by A. Menzies and N. Jamotte 2002. Map modified by Iannone.

flanked by benches both to the east and west of the spinewall, although the benches to the east were set back from the spinewall approximately 1m, whereas those to the west were flush with the spinewall. Chase and Chase (2001: 112) have suggested, based on the presence of benches located along the central passageway in range structures at Caracol, that these benches were used as seats for individuals who controlled traffic between plazas and courtyards. This type of structure has been referred to as either an *'audencia'* (see Taschek and Ball 1999) or "Passageway Range Structure" (see Harrison 1999), and for the purposes of this paper the second term will be employed, because it is more

descriptive and less 'value laden'.

Passageway Range Structures appear to have served as an intermediary space of sorts, separating the courtyards behind them from the plazas in front of them. These structures did not, however, function solely as a 'curtain' between courtyards and plazas. As was alluded to above, Passageway Range Structures, and the passages themselves served as liminal spaces between the more public plaza areas and the more private courtyard areas. As such, it has been suggested that the function of these structures reflect this dynamic between public and private space. The work of Joseph Ball and Jennifer Taschek (Ball 1993; Ball and Taschek 1991, 2001; Taschek and Ball 1999) has emphasized the relationship between private and public spaces in Passageway Range Structures, and elucidated the different roles played by these buildings.

Structure 12A reflects just such a dichotomy between public and private space. The eastern range of rooms in this structure, which faces the public plaza, were likely, visually accessible from the plaza, and the rooms on either side of the central passageway were connected to the passage itself, creating a 'T' shaped entrance. The benches to this side of the spinewall, mentioned above, were offset from the spinewall because they were associated both with the central passage and the flanking rooms. The range of rooms that faced into courtyard F, which formed the more 'private focus' of the structure, conversely, were organized into a series of discreet cell-like rooms. It is worth noting that all of the rooms examined contained benches, which as Valdes (2001) has indicated were likely important loci of courtly activities. This supposition is reinforced by the work of Reents-Budet (1999, 2001), who contends that benches are shown on Late Classic polychrome vessels, are places where specific sorts of activities including feasting and the



Survey by A. Menzies & N. Jamotte
Map provided courtesy of Gyles Iannone

Figure 2. Rectified, isometric plan of Structure 12A and Courtyard F.

reception and administration of tribute took place.

Artifacts recovered in association with occupation surfaces from Structure 12A offer very little insight into the function of the building. On floor assemblages recovered from this structure consist primarily of partial vessels, in some cases found in association with burnt surfaces, and on floor scatters of ceramic sherds. The partial vessels mentioned above are evidence of termination rituals conducted in the structure. This interpretation is especially valid, particularly in the case of partial vessels found in association with burnt surfaces. The only artifact found in association with an occupation surface which

yielded any information regarding function was a discoidal grinding stone, which resembles the pigment grinders discussed by Coe and Kerr (1998:152-153). This suggests the possibility that scribal activities were carried out in this structure, which reinforces the aforementioned hypothesis that this structure fulfilled an administrative function.

It is because of the paucity of artifacts, and the well-preserved nature of the architecture excavated at Structure 12A that interpretations of the function of this structure tends to hinge mostly on the architecture and not on the artifacts. A review of similar architectural configurations in the vicinity of Minanha will serve the purpose of clarifying

the aforementioned argument. Passageway Range Structures in the surrounding area

Structures similar to 12A, and group configurations similar to 12A and courtyard F are present in a number of locations throughout the area near Minanha. The primary examples that are being addressed in this study are located in the Vaca Plateau and the Upper Belize Valley, namely Caracol, Las Ruinas de Arenal, El Pilar, Cahal Pech and Buenavista de Cayo.

Caracol

The first example of a configuration similar to 12A \ Court F is the Barrio group, described by Chase and Chase (2001). This group was comprised of 3 range structures, with a large platform located at the north end of the group. The Barrio group represents a looser configuration than is seen in 12A courtyard F from Minanha, insofar as the group itself was more accessible than the 12A, courtyard F configuration. The western structure of the Barrio group is a passageway range structure, similar to 12A. The structure is composed of two parallel ranges of rooms divided by a spinewall, with one facing into the more public locale and one into the more 'private'. The passageway which bisected this structure was not flanked by benches, suggesting that traffic was not as rigorously controlled in this locale as in some other passageway structures (Chase and Chase 2001: 119-120). This suggests that the western structure from Barrio, while serving as a 'passageway structure' was not as strictly divided into public and private loci as some of the other structures discussed, including 12A. In addition, structure 12A from Minanha is taller and more massive than the passageway range structure from the Barrio Group.

Buenavista del Cayo

Ball and Taschek's (1992; 2001) work at Buenavista del Cayo has also yielded

insights into the organization of passageway structures and associated courtyard groups. The North plaza group from this site resembles Structure 12A \ Courtyard F insofar as the passageway range structure that separates this group from the main plaza of the site is quite similar to 12A. This structure is divided by a central passageway and has two ranges of rooms, facing in opposite directions (Ball and Taschek 2001: 191-192). Ball and Taschek noted (2001:191), however, that the "audiencia" structure is "grotesquely out of place" because of its large size in comparison to other structures in the group. Indeed, it seems that this courtyard, when compared to similar groups does have a disproportionately large range structure in comparison relative to the size of the other structures. In addition, the courtyard is not as spatially discreet as courtyard F, at Minanha in large part due to the arrangement of the non-passageway range buildings that comprise the group. The overall group configuration of the North Group is, however, sufficiently similar to structure 12A and courtyard F to merit comparison between these two architectural groups.

Las Ruinas de Arenal

Taschek and Ball (1999) describe a passageway range structure which was excavated at the site of Las Ruinas de Arenal, referred to as Structure 20. This structure is associated with a complex plaza group, comprised of two pyramidal structures, a number of small platforms and a plazuela group (Taschek and Ball 1999a:11). This building appears to have controlled formal access into this large group, with a smaller 'servant's entrance' set off of the back of the plazuela described above. Structure 20 is organized into two parallel ranges of rooms, and does not appear to have been vaulted in antiquity. This makes the structural layout of structure 20 similar to structure 12A from Minanha, but also suggests that there was a

much lower degree of architectural elaboration in the structure itself when compared to 12A. Taschek and Ball (1999) also note that very few on floor materials were recovered from Structure 20, and that those items that were recovered are quite deteriorated, and can yield very little information. Sufficient data about Structure 20 are not presented in Ball and Taschek's 1999 report to comment further on this building.

El Pilar

At least two passageway range structures were excavated at El Pilar by the BRASS project, (see Ford et al 1995). The passageway structures from El Pilar appear similar to the structures discussed above, insofar as they served as liminal spaces between public plazas and private courtyards. Ford et al (1995: 24) discuss their excavations in EP 3 CTR, which is the passageway through the range structure dividing the Copal and Axcanan plazas. The structure was composed of two ranges of rooms, divided by a spinewall. This spinewall was transected by a central passageway, that was plastered and approximately 2.5 m wide. Although not discussed by Ford et al. (1995) this passageway contained masonry benches. This range structure had a superstructure that was at least partially masonry, although Ford et al. (1995) did not indicate whether it was vaulted in antiquity. On floor artifactual assemblages are not discussed by Ford et al (1995). While a great deal can not be said about the buildings when compared to 12A it is noteworthy that these two general architectural configurations are similar enough, especially in the context of the groups discussed previously, to suggest that this general architectural type was common throughout the region.

Cahal Pech

The major passageway range structure at Cahal Pech (referred to as Structure 1 by Ball 1993 and A-2 by Awe and Campbell 1988) is, in many ways quite similar to Structure 20 at Las Ruinas insofar as it serves as a liminal space between the main plaza of the site and a large palatial complex (Taschek and Ball 1999). In terms of construction techniques and structural layout, however, Structure A-2 more closely resembles 12A from Minanha than Structure 20 from Las Ruinas. Awe and Campbell (1989) note that the building was composed of two ranges of rooms, both of which ran parallel to the spinewall of the structure. The spinewall of the structure was penetrated by a central passageway, similar to the central passageway noted in all of the examples discussed above (Awe and Campbell 1989: 17). Benches were present in a number of these rooms, and were also found in the central passageway, on the 'private' side of the spinewall. These benches were placed there possibly to control traffic into and out of the courtyard. The superstructure of A-2 was vaulted and constructed from dressed masonry.

Conclusions

This survey was conducted with the express purpose of offering a regional context for the finds recovered from Structure 12A at Minanha, and to place this structure in context. Passageway range structures are present at a number of other sites in the Upper Belize Valley and Vaca plateau. This class of structure is seen at a number of other sites in the Maya area outside of this immediate region, most notably Tikal (Orrego Corzo and Larios Villalto 1983). In all of the cases discussed in detail in this paper there has been either a conspicuous lack of, or poorly preserved, floor assemblages recovered to aid the archaeologist in their reconstructions of

function.

As was discussed throughout this paper, Passageway Range structures were likely utilized as locations for the receipt and administration of tribute, as well as serving as forums for other forms of elite interaction. This supposition is reinforced by the presence of benches that face into public locations in these structures, the location of these structures in public plazas and is further bolstered by the similarity of these benches to ones depicted on Classic Period Polychrome ceramic vessels (see Reents-Budet 1999). This survey shows that in a regional context, Structure 12A from Minanha is by no means unique as a structural type.

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SECTION TWO: NORTHERN BELIZE

Programme for Belize

Northern Sites in the Postclassic



13 **PROGRAMME FOR BELIZE ARCHAEOLOGICAL PROJECT: A HISTORY OF ARCHAEOLOGICAL RESEARCH**

Richard E.W. Adams, Vernon Scarborough, Laura Levi, Stanley Walling, Nicholas Dunning, Brandon Lewis, Leslie Shaw, Eleanor King, Lauren Sullivan, Kathryn Reese-Taylor and Fred Valdez Jr.

In 1992 the Programme for Belize Archaeological Project (PfbAP) initiated its first research season in Northwest Belize. The goals and interests of the project were to document settlement and landscape modifications across the Programme for Belize property known originally as the Rio Bravo Conservation and Management Area. In an effort to expend the research goals and impact of the research, the PfbAP identified several areas of intensive research to be directed by qualified scholars. Thus, projects within the PfbAP such as Dos Barbaras, Maax Na, and the Three Rivers Archaeological Project were separated as distinct research endeavors under the general goals of the PfbAP. A history of the PfbAP and selected aspects of research and findings are presented as a general overview of archaeological interests from Northwest Belize.

Introduction and Background

The Three Rivers Region of northeast Peten, Guatemala and northwest Belize (Figure 1) was named and defined to identify best the inclusive boundaries of a highly active set of research projects currently conducted in this area (Adams 1995). Although somewhat arbitrarily selected for regional examination, the region represented a significantly understudied zone until the mid-1980s within the ancient Maya sphere of occupation and influence. Because the Rio Azul/Rio Hondo, the Rio Bravo and the Booth's River drainage converge in this setting, the geographic descriptor is not inappropriate. In fact, the confluence of these drainages may well have had a culturally uniting effect on the Maya, given the significantly shared material culture of the region. Nevertheless, the term is not intended to imply a regional state or another politically cohesive unit, though well-defined interaction between communities within the region is demonstrable. Although important information about past landscapes to Quintana Roo, Mexico exists, they are not yet coordinated into our examinations. As logistical barriers to field research are

reduced, we anticipate greater integration of projects and project resources internationally.

One of the longest running projects in the region is the Programme for Belize Archaeological Project (PfbAP). The project has its antecedents in the Rio Azul Project and the Ixcanrio Regional Project of northeastern Peten both directed by R.E.W. Adams (Adams 1990, 1995, 1999). Most of the current research project operates under the umbrella of the PfbAP, and those tract encloses nearly 260,000 acres (1052 km²) in Belize and, thus far, includes at least five major centers (Dos Hombres, Maax Na, Gran Cacao, and Great Savannah in addition to La Milpa) and more than 40 ancient towns, villages and hamlets (Scarborough, Valdez, and Dunning 2003).

The following presentation reviews the history of archaeological research in the region (for the PfbAP and related projects) and the overall goals of the archaeological investigations.

Maya Chronology and the Three Rivers Region

The regional chronology of the PfbAP extends from ca. 900 B.C. to A.D.

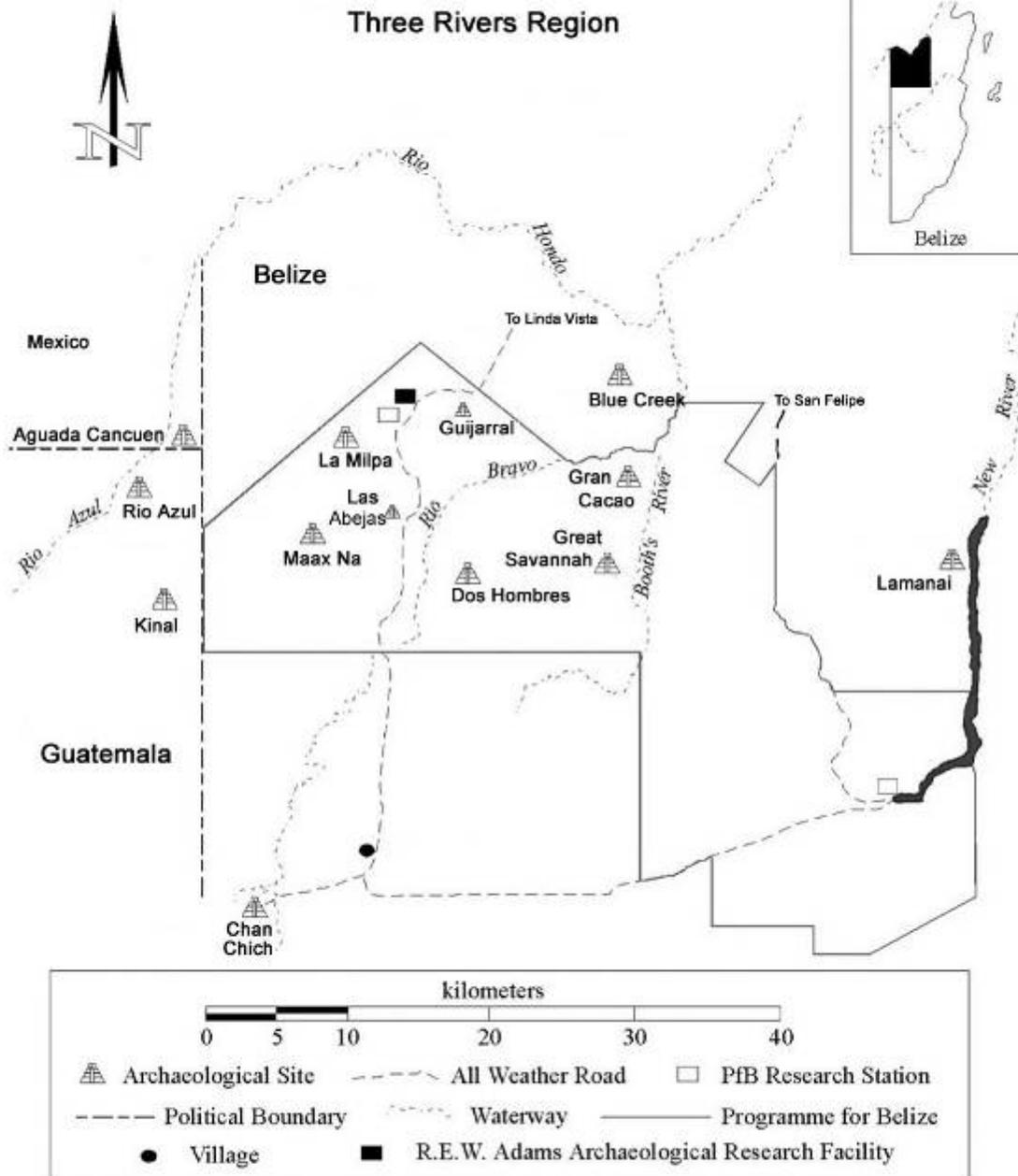


Figure 1. Map of the Three Rivers Region (Courtesy PFBAP, modified from earlier PFBAP versions by Grant R. Aylesworth).

900. While some Postclassic visitations are indicated by the occasional cache or arrow point, there is currently no significant evidence for Postclassic occupation from any of the PFBAP sites. Valdez and Sullivan (2003) provide a chronology chart useful for the Three Rivers Region.

The identification of early Maya settlers in the Three Rivers area is limited to potsherds of likely Swasey Sphere (early Middle Preclassic) affiliation. A beginning date of ca. 900 B.C. is the most acceptable given current date (Sullivan and Valdez 2003; Valdez 1998; Valdez and Houk 2000). This assessment applies from the Three Rivers Region east across northern Belize. However, this early evidence, primarily in the form of ceramic sherds, is scant. A termination date of 600 B.C. for the early Middle Preclassic is suggested for the area based on comparative data (Valdez 1987; Valdez and Houk 2000).

The next major phase of occupation in the region is datable to the late Middle Preclassic Mamom Sphere (ca. 600-400 B.C.) As with the previous phase, specific village locales have not been located, but more extensive remains indicate significant settlement at certain sites (Valdez 1987, 1998). The final segment of this phase may see the introduction of institutionalized relations as represented in monumental construction and the sharing of iconographic “values” across the Maya area (Valdez, Grazioso, and Buttles 2000).

The Late Preclassic Chicanel Sphere, ca. 400 B.C. – A.D. 250, is more clearly represented at many of the sites in the Three Rivers Region. Rio Azul (Adams 1999; Valdez 1987), La Milpa (Hammond, Tourtellot, Everson, Sagebiel, Thomas, and Wolf 2000), Blue Creek (Guderjan and Driver 1995; Guderjan 1997; Guderjan and Lichtenstein 2002), Dos Hombres (Brown 1995; Trachman n.d.), Las Abejas (Sullivan

1997), and Chan Chich (Houk and Robichaux 1996; Valdez 1998; Valdez and Houk 2000) all stand out as significant centers of Late Preclassic activity. Representative material culture includes architecture, ceramics, and lithics as well as burials or small tombs exhibiting status differentiation. The latter is especially evident towards the end of the Late Preclassic (sometimes termed the Terminal Preclassic or Protoclassic). Evidence is also available concerning landscape modifications, water management issues, and a general development that provides for an increasing population along with the implications of social complexity (Adams 1999; Scarborough 1993, 1994; Scarborough and Dunning 1997).

The Early Classic, A.D. 250 – 600, is another important phase in the Maya chronology of the Three Rivers area. Most findings belong to the pan-lowland Maya Tzakol Sphere. Distinctive architecture, ceramics, lithics, and obsidian associated with this period have been found at numerous sites in the region including Rio Azul, La Milpa, Blue Creek, Dos Hombres, Maax Na, and Chan Chich. Significant tombs of the period have been excavated at Rio Azul (Adams 2000) and Dos Hombres (Durst 1988; Hageman 2000). At some sites, such as Dos Hombres, Early Classic settlement and associated remains appear located away from the central precincts of the Late Preclassic Period (and the Late Classic Period as well). The Early Classic shifting settlement phenomenon and our still limited survey coverage of the Three Rivers Region may skew the settlement data and occupational history.

The late Classic (ca. A.D. 600 – 750/800) and Terminal Classic (ca. A.D. 750/800 – 850/900) phase of the Tepeu Sphere are well represented at most of the Three Rivers sites thus far documented. Kinal, La Milpa, Blue Creek, Dos Hombres,

Maax Na, Las Abejas, Punta de Cacao, and Chan Chich all figure prominently and contribute to an understanding of these turbulent phases. It seems that all of these sites are abandoned with the conclusion of the Terminal Classic phase. The term abandoned is used somewhat loosely as several sites must have continued with occupation in the form of squatter populations maintaining Terminal Classic material culture (such as ceramics and lithics) without monumental construction. Modest building efforts during this difficult period are represented by stone robbing (reuse of stone) from existing structures and the construction of crude, rough cobble walls (as seen at La Milpa and Chan Chich).

The Postclassic Period (post A.D. 900 to Spanish Contact) is not well represented in the Three Rivers Region. There are indications of visitations to sites and perhaps minor re-occupations, but no significant material culture in terms of Postclassic pottery and lithics were observed to indicate a new population in place. Much of the evidence for this activity is in the form of ceramic offerings at site central temples and the resetting of Classic Period stelae (cf. Hammond and Bobo 1994).

Research History of the Three Rivers Region and PFBAP

The Three Rivers Region has been part of research programs for nearly two decades. The Rio Azul Project (Adams 1999) marks the beginning of sustained research in the region since 1983. Several sites have been investigated since the 1920s, but these research efforts were sparing and disjointed at best (Valdez et al. 1997). A brief overview of activities at several sites in the immediate area follows, together with a discussion of PFBAP research history.

On the Belize side of the Three Rivers Region, J.E.S. Thompson visited numerous sites in the region during the 1920s and

1930s. Although Thompson's research focus was at the site of San Jose (Thompson 1939), just south of the "defined" Three Rivers Region, he did travel to and record monuments at the site of La Milpa. Archaeologists with the Institute for Archaeology from Belmopan, Belize visited La Milpa and other sites in northwestern Belize in the 1970s and 1980s. In 1976 Mary Neivens mapped and tested the site of Blue Creek near the northern boundary of the Three Rivers area.

In northeastern Peten, Guatemala, sites were being recorded in the early 1960s through the interest and efforts of John Gatling. Gatling was directing oil field crews in the area and had his field team record "ruins/mounds" as they moved about testing for oil reserves. In 1962, Gatling and R.E.W. Adams mapped and documented the site of Rio Azul (Adams and Gatling 1963). Ian Graham (1067) mapped various sites in the northeast Peten (including Kinal) in the 1960s and returned to document significant illicit looting concerns of the area in the early 1980s.

The direct history or genealogy of the current PFBAP begins with the Rio Azul Project (1983-87) initiated and directed by R.E.W. Adams (1999). The research endeavors of the Rio Azul Project led to questions that would be answered best through regional research and analysis. Adams then organized and directed the Ixcancario Regional Project (1990-91) in northeastern Peten.

In the fall of 1991 Adams was invited by the Programme for Belize (owners of the Rio Bravo property in northwestern Belize that adjoins the Ixcancario research area) to move the regional project onto the Belize property. During the same period, Norman Hammond was invited to begin an excavation program at the site of La Milpa. After numerous discussions between Adams, Valdez, and Scarborough, it was decided to

begin or extend the regional project into the Rio Bravo area. The Programme for Belize and the PfBAP entered into a 20-year (1992-1012) agreement concerning site access and research. Thus, the spring of 1992 witnessed the initiation of the Programme for Belize Archaeological Project. It is also important to recognize the Institute of Archaeology in Belmopan, Belize. Without the interest and support of the Institute (permits, customs, etc.), the PfBAP could not have commenced. The Institute of Archaeology therefore, figures prominently into the history and accomplishments of the PfBAP.

For the 1992 and 1993 field seasons all work was completed during the Spring session (or dry season). Field research entailed the initial reconnaissance and documentation of sites on PfB property, including the focus investigation of small sites, initial investigations at Dos Hombres, and water management issues at the site of La Milpa. The 1994 Spring session was enhanced by the addition of a PfBAP summer program and field school (Valdez 1995). The 1995 and 1996 seasons did not have “dry season” sessions, but continued with the summer program and field schools. Some of the significant research during these two seasons was carried out at Dos Hombres, Guijarral, Las Abejas, and several other small site locales. Each PfBAP season has had collaborative efforts from various colleagues and institutions. In 1996, the PfBAP became an umbrella organization under which the various researchers brought in their “independent” project resources, but still functioned under the collaborative framework.

Vernon Scarborough and Nicholas Dunning initiated a dry season program again in 1997 and 1998 through research support from the National Science Foundation. Both seasons were significant efforts with general water and soil management issues as the focus of research. The 1999 and 2000 PfBAP

field session were again limited to summer months, but continued with the overall goals of the PfBAP and the collaborative nature of the research.

The spring of 2001 saw once again the initiation of a Spring season by Fred Valdez (with support from the University of Texas at Austin) continuing into the summer. Both the Spring and Summer field seasons involved collaborative colleague research. Among the research efforts beginning in 2001 was the return to the Dos Hombres site, continuing research at Maax Na by Leslie Shaw and Eleanor King, and a west property survey (connecting to the Guatemala research by K. Reese-Taylor. With the 2001 season, Valdez and Scarborough introduced the Three Rivers Archaeological Project with a research focus at Dos Hombres. This move cleared the PfBAP as a complete umbrella organization with no directed research of its own. It is anticipated that the Spring and Summer combination of research efforts will begin again with the 2004 field season.

The overview above is a generalized and brief history of the PfBAP. It also provides some indication of the range of research interests and efforts coordinated through the umbrella organization. Not all of the collaborating colleagues are referenced nor are all of the research ends cited. Much of what has been accomplished is found in the form of theses and dissertations.

Research of the PfBAP

The PfBAP holds two significant goals in its research agenda. The first is a practical concern of specific interest to Programme for Belize and general conservation goals. The PfBAP conducts survey and mapping research to provide PfB and the Rio Bravo land management teams data about site discoveries. The hard data of where sites are located, what those sites look like, a likely dating of the sites, and

suggestions about site protection and access are mutual interests of PFB and the PFBAP.

The second goal of the PFBAP is to establish from a regional perspective the economic, political, and social structures that gave rise to and supported the ancient communities of the region (Adams 1995). The PFBAP shares these goals with its sister project in the northeast Peten, Guatemala.

The PFBAP is designed to produce a comprehensive and integrated view of the history and cultural evolution of the over 100 km² region in Belize. The regional approach is appropriate for investigating a broad spectrum of issues including cultural evolution, as well as hard-won baseline data treating culture-history, because it allows for the examination of Maya communities in a more comprehensive and interactive fashion than that associated with more traditional, single-site focused research. At its uppermost level, the analytical units employed by the PFBAP consist of regional cultural institutions that are conceptualized as broad theoretical constructs typically understood through generalization. Knowledge of these cultural institutions is derived from the study of secondary cultural components. For example, an abstract institution such as economy is made comprehensible through identifying patterns of internal exchange, external trade, degrees of craft specialization, kinds of subsistence activities, rates and processes of consumption, and perhaps the role of abandonment. Demography, household characteristics, urban organization, and landscape modification are secondary level delineations that help to make the institution of ancient settlement more intelligible. A third level of archaeological activity and analysis results from careful field research including material culture (ceramics, lithics, shell, etc.) analysis associated with excavation, surveying, and mapping. Through these latter analytical activities,

basic understandings of function, disposition, and chronology are achieved. Each of the above “levels” or divisions is thought and analysis are tied to others in attempting to reconstruct the ancient Maya world of the Three Rivers Region of northwestern Belize.

Current theoretical trends are incorporated into various aspects of the archaeological research. For example, the issues raised about the utility of heterarchy in explaining significant aspects of ancient Maya political economy are among the currents of discussion and scrutiny within the PFBAP professional work force. We also continue to pursue research focused on the complex interplay between environmental change, cultural adaptations, and the course of Maya civilization (Dunning et al. 1999).

Another more site-specific example of our approach is found in issues of gender representation at the household level that are now part of the Dos Hombres research orientation. Included in this latter research is the analysis of age status activities and social differentiation (Trachman n.d.). This doctoral research is provided as only an example of one particular interest. Each research team (whether at Dos Hombres, Maax Na, Dos Barbaras, Betan Chinam, El Intruso, etc.) has its own set of theoretical premises and constructs. Nevertheless, these varied approaches are all tied together under the PFBAP with one major goal—that of reconstructing ancient Maya cultural institutions from a regional perspective. Each research effort may be executed within a set of site-specific issues, but then translated eventually into a regional framework.

Among the numerous research questions and problems that have emerged during the tenure of the PFBAP are:

1. The lack of settlement in the region prior to 900 B.C.
2. The extent of Late Preclassic populations in the region and level of

- manifestation, 36 agricultural intensification, etc.
3. The nature of shifting settlement in the Early Classic and the extent of the de-population of site centers,
 4. The effect of the Hiatus (ca. A.D. 534 – 600) in the Three Rivers Region,
 5. The extent and rate of growth in the Late Classic (ca. A.D. 600 – 750/800) and the resulting effects on landscape from growing populations, and
 6. Manifestations of both causes and consequences in the demise of Terminal Classic (ca. AD. 750/800 – 850/900) settlements.

The issues noted above are the more general concerns that have been voiced and serve to guide some of the PFBAP research. The various research groups attempt to address aspects of all of these queries. Regardless, the research questions investigated by the PFBAP are similar to those under study across the Maya region and Mesoamerican. Likewise, many of the

methods employed by the PFBAP may be found on numerous other projects. It is, however, our directed effort at placing the accumulated data into a regional perspective that partly differentiates this project. It is also the broadly collaborative enterprise of the PFBAP as a regional endeavor that makes it unique.

Table 1 is a summary of the major projects, years of activity, and the project director(s) responsible for meeting the requirements for research permitting, etc. While the PFBAP is at its halfway mark with the PFB research agreement, it is estimated that the research program in the Rio Bravo area could (and perhaps should) continue for many more decades.

The PFBAP does not dictate the theoretical and methodological premises found within each organized project. However, the collaborative forum of the PFBAP has allowed for a wonderful exchange of ideas, testable hypotheses, and basic findings that continue to spark debate.

Table 1. Summary of major projects.

Year(s)	Project	Director(s)
1992-1994	Programme for Belize Archaeological Project	R.E.W. Adams
1995- present	Programme for Belize Archaeological Project	Fred Valdez
1996-2002	Household Studies	Laura Levi
1996-present	Escarpment Settlement	Stanley Walling
1996-present	Maax Na	Leslie Shaw and Eleanor King
1997-1998	Water and Land Management	Vernon Scarborough and Nicholas Dunning
1998-2002	West Property Survey	Kathryn Reese-Taylor
1998-present	Dos Barbaras	Brandon Lewis
2001-present	Three Rivers	Fred Valdez and Vernon Scarborough

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14 NORTHWEST BELIZE: A REGIONAL PERSPECTIVE ON CULTURE HISTORY

Lauren A. Sullivan and Fred Valdez, Jr.

Various archaeological projects in Northwest (NW) Belize have produced much data concerning the chronological ordering of Maya civilization. The Programme for Belize Archaeological Project with 12 years of continued research is ideally placed to introduce a regional chronology for NW Belize. While site-specific events and/or dates may vary, the general ordering and events of the region are well founded from the many settlements and features investigated. Significant developments and characteristics of each major period are discussed as a background in support of separate chronological phases.

Introduction

More than 12 seasons of archaeological investigations, in northwest Belize on the Programme for Belize's Rio Bravo Conservation and Management Area property, allow for a reconstruction of the chronological history of the region. Using ceramic data as a guide, a timetable is discussed along with some of the cultural characteristics for each phase (particularly ceramic continuities or changes). The effort here is to provide a general guide concerning Maya occupation and utilization of the NW region of Belize. While site-specific chronologies may vary in content, the regional perspective is intended as a broader view of Maya civilization in this generally ignored part of the prehistoric Maya world.

Background

The data discussed in this paper were recovered on sites located on the Programme for Belize, part of the Rio Bravo Conservation and Management area – a 260,000 acre parcel of land in northwestern Belize bordering Peten, Guatemala (Figure 1). The Programme for Belize is a Belizean owned and operated non-profit organization, established in 1988, to promote conservation of the natural heritage of Belize. There are approximately 60 known archaeological sites

found on the property (<http://www.pfbelize.org/>). This conservation area is located within the Three Rivers Region, a geographically defined area that is bounded by the Rio Azul and its associated flood plains on the northern and western margins, the Booth's River on the eastern edge, and the site of Chan Chich which



Figure 1. Map of the Maya area and NW Belize.

arbitrarily sets the southern border (Adams 1995:5). Three terraces faced by steep escarpments (the Rio Bravo, Booth's River, and La Lucha escarpment) form the dominant topographic features of the area. The vegetation of the region consists of a varied tropical forest environment, shallow soils, and a high topographical diversity (Lundell 1937; Hartshorn et. al. 1984; Brokaw and Mallory 1993; Scarborough et. al. 2003). Ceramic and settlement data suggests that the area was continuously occupied from the Middle Preclassic to the Terminal Classic with little indication of Postclassic occupation. While each project working in the area under the PfbAP has its own specific theoretical approach, the wealth of sites and archaeologists working together has allowed for an overall research focus that emphasizes regional interaction and interdependence which might be missed with a single site centered approach (Scarborough et. al. 2003). This paper will address regional chronology, broad settlement patterns, and general cultural trends observed in the area.

Chronology

The chronological ordering of occupation phases in NW Belize for the prehistoric Maya begins about 1,000 BC and extends to nearly A.D. 900 (Table 1) when most of the currently known sites were abandoned. Traditional phase terms such as Middle Preclassic, Late Preclassic, and Early Classic are utilized for this research presentation. Each phase is defined by terms and characteristics that occur in NW Belize as a region, thus specific sites may or may not exemplify the particular complex discussed.

Middle Preclassic. There is scattered evidence for occupation beginning in the Middle Preclassic with the majority of sherds recovered from Dos Hombres (Group A - Courtyard A-2) and including Swasey (Bolay) types such as Consejo Red and Ramgoat Red (Brown 1995) that are believed to be temporally equivalent to Xe in the

Pasion region of Guatemala. A Mamon sphere is tentatively identified based on the presence of a small number of Chicago Orange, Chunhinta Black, and Joventud Red sherds. Excavations at the nearby site of Chan Chich have yielded a significant number of Swasey and Mamon ceramics and a Carbon 14 date of 770 BC suggesting that there was a clear Middle Preclassic occupation in this region (Valdez 1998; Valdez and Houk 2000; Robichaux 1998).

Late Preclassic

Late Preclassic deposits indicate a population increase across the region with groups congregating around natural and stable water sources, such as the Rio Bravo and Rio Azul (Adams 1990, 1995:6). These deposits have been recovered from the majority of sites in the area and are characterized by the presence of Chicanel sphere ceramics (Sullivan and Valdez 1996;

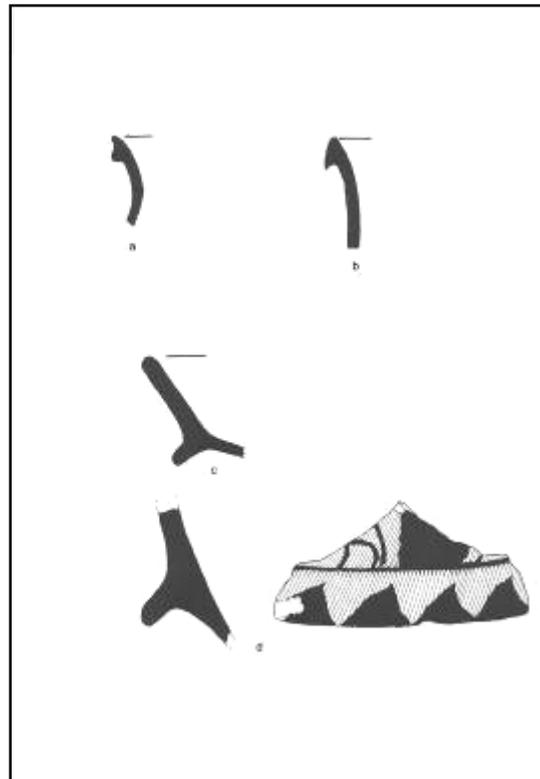


Figure 2. Ceramics of the Middle and Late Preclassic. a) Chicago Orange b) Consejo Red c, d) Unslipped-and-striated jars.

Dates	Time periods		Uaxactun	Tikal	Rio Azul	Three Rivers	Barton Ramie	Colha					
1500	S T A S S I C	late					late facet	Ranas					
1400									Canos				
1300		early			CABAN		Incomplete/ Unnamed	New ___?___ Town	early facet	Yalam			
1200													
1100													
1000													
900	C L A S S I C	terminal	TEPEU 3	EZNAB	Yat	TR-Tepeu 3	Spanish Lookout	Masson					
800		late	TEPEU 2	IMIX	Ramirez	TR-Tepeu 2							
700			TEPEU 1	IK	Chacuta	TR-Tepeu 1	Tiger Run	Bomba					
600			early	TZAKOL 3	MANIK	Mucu	TR-Tzakol 3						
500		TZAKOL 2											
400		TZAKOL 1									TR-Tzakol 1-2		
300													
200	P R E C L A S S I C	proto-classic	CHICANEL	CIMI	Hilario	TR-Chicanel (Floral Park)	Floral Park	Blossom Bank					
100AD				CAUAC		?	Mount Hope						
0		late						TR-Chicanel (Early-Middle)	Barton Creek	Onecimo			
BC100													
200							CHUEN						
300													
400		MAMOM	TZEC	Ordoñez	TR-Mamon	Jenney Creek	Chiwa						
500													
600													
700				EB	Incomplete/ Unnamed	TR-Swasey	Bolay						
800													
900													
1000													

Table 1. Ceramics Chronological Chart.

Sullivan 1998; Kosakowsky and Sagebiel 1999) Common types include Sierra Red, Polvero Black, Flor Cream, Sapote Striated, and Society Hall Red. These sherds possess the waxy surfaces found on Late Preclassic sherds throughout the Maya area (Sullivan 1998; Valdez and Sullivan n.d.). Sierra Red is by far the most common type in Late Preclassic contexts representing 68% of the sherds recovered that date to this time period. The Sierra Red type is found on a variety of forms such as shallow, flaring-walled dishes, plates with wide everted and thickened rims, and spouted vessels.

Other material culture identified to the Late Preclassic includes thick plastered architecture often with rounded rather than squared corners and edges. Lithics have particular forms including the large oval biface, the tranchet tool, the stemmed macroblade, and the introduction of eccentrics. These data suggests that by the Late Preclassic sites in the Three Rivers Region are clearly part of the widespread trade and inter-regional communication networks throughout the Maya lowlands (Graham 1989; Sullivan 1998). Protoclassic or Terminal Late Preclassic ceramics have been identified in the form of a handful of mammiform supports and a Protoclassic tomb located at Chan Chich indicating a Floral Park equivalent. Recovered from this tomb (Tomb 2) were: five mammiform support bowls, two spout and bridge vessels, two basal flange bowls, one basal angle bowl, and one ring base jar (Valdez 1998; Valdez and Houk 2000).

Early Classic

Originally, the excavation and ceramic data from the Three Rivers Region suggested a population decline during the subsequent Early Classic period even though the nearby site of Rio Azul was flourishing. More thorough investigations over the past five years have indicated that what originally appeared to be a population decrease was, in

part, due to the inability to successfully identify all of the ceramic types used during the Early Classic (Lincoln 1985:73; Valdez 1987:246; Sullivan and Valdez 1996; n.d.) and the spatial location of Early Classic occupation, especially Early Classic elite populations, outside of ceremonial centers (Pyburn 1998; Sullivan and Valdez 1996; n.d.; Sullivan 2002; Adams et al. 2003). Lithic tool forms, like ceramic types, also are difficult to sort between the ending of the Late Preclassic and the ensuing Early Classic. This difficulty is in part to the continued use of forms and/or slips from one phase into the next. Sullivan and Valdez (n.d.) have recently completed a more detailed analysis of this research issue including data from ceramic thin-sections. The successful development and adaptation of certain tools during the Preclassic are continued in use well into the Early Classic obscuring the “beginning” of the Early Classic.

To reiterate, the spatial location of Early Classic occupation, especially Early Classic elite populations, may be located outside of ceremonial centers (Adams et al. 2003). Consequently, many of the test excavations done in the plazas and structures of ceremonial centers did not result in the location of significant Early Classic architecture. Instead, evidence for Early Classic construction and elite occupation is found away from these main centers including a group on top of the Rio Bravo escarpment, at some of the smaller sites such as Guijarral (Hughbanks 2003), El Intruso (Muñoz 1997; Sagebiel personal communication), and outside of the primary ceremonial precinct of Dos Hombres (Hageman n.d.). What is interesting about these “outlying” areas, customarily associated with non-elite populations, is that we are finding evidence for elite populations. This evidence is in the form of tombs with a wealth of grave goods rich with symbolism and connections to large Early Classic centers outside of the Three Rivers Region such as

Tikal and Uaxactun (Durst 1998; Sullivan 2002; Sullivan and Sagebiel 2003). There are two deposits of special interest: a small raised platform group at Dos Hombres located 75 meters west of the ball court and sacbe and not part of the ceremonial precinct (Durst 1998) and another deposit located atop the edge of the Rio Bravo Escarpment, about 2.5 km northwest of the site of Dos Hombres (seemingly in the ‘middle of nowhere’) (Hageman 1999). Pottery recovered from these deposits indicates that the region is clearly tied to the Tzakol ceramic sphere (Sullivan 1998; 2002).

The Dos Hombres tomb was located in a structure, approximately two meters high, and part of a small raised platform group of four structures (Houk 1996; Durst 1998). This courtyard, prior to excavation, was originally interpreted as a residential area (Houk 1996). Among the vessels recovered from this deposit was a Dos Arroyos Orange-polychrome basal flange bowl covered by a Yaloche Cream-polychrome scutate lid (see Sabloff 1975: 27) with a macaw head handle. The Dos Arroyos bowl is very similar to a vessel recovered from Burial 1 at Uaxactun (Smith 1955: Figure 76b5) as noted in the images on the vessel interiors: both depict a man in profile wearing a headdress. Similar figures are also noted on the vessel exteriors: a male figure laying his stomach with bent knees (Smith 1955: Figure 3e). This design was also observed on a sherd from a looted tomb at Chan Chich (B. Houk, personal communication, 1999) and on a sherd from San Jose (Thompson 1939). The macaw head handle from the lid is also similar to a handle from Uaxactun (Smith 1955: Figure 69b4). This type of macaw imagery was typically used by elites to link themselves with supernatural forces, in this case, the Principle Bird Deity (Schele and Miller 1986; Kappelman 1997; Carmean 1998). A

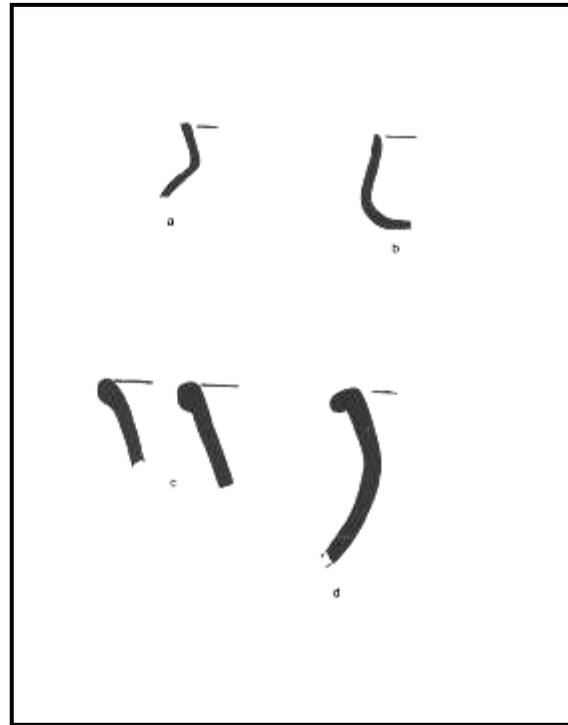


Figure 3. Ceramics of the Early Classic. a, b) Unslipped-and-striated jars. b, c) Dos Arroyos Orange-polychrome.

coatimundi effigy vessel with a red and black mottled slip was among the vessels recovered and is similar to a vessel associated with Burial A22 at Uaxactun (Smith 1955: Figure 5a-d). This type of specialized effigy vessel was not recovered from any other context at Dos Hombres.

Another Early Classic tomb, excavated by Jon Hageman (1999), was located on top of and at the edge of the Rio Bravo Escarpment, about 2.5 km northwest of Dos Hombres. Among the five vessels recovered was a Teotihuacan-style cylinder tripod with a human head handle that is similar to a lid recovered from Burial A 22 at Uaxactun (Smith 1955: Figure 1j) and several from Rio Azul (Hall 1989). There were three uniquely shaped effigy vessels in this deposit. The first is anthropomorphic and resembles a shell with a human head (old man) and might represent God N (Pawahtun) who is often

shown emerging from a shell and may be associated with connections to the Otherworld through the primordial sea (Schele and Miller 1986: 54; Freidel et. al. 1993: 139). The second effigy vessel, a zoomorphic orange polychrome jaguar, highlights elite association with the jaguar - an animal that is generally associated with kings (Schele and Freidel 1990). The last effigy vessel recovered from this burial resembles an oscillated turkey that was often used as an offering (Freidel et. al. 1993: 40).

There was also an Early Classic tomb recovered from the site center of La Milpa; however, the tomb was not associated with any major Early Classic construction. Kerry Sagebiel (Sullivan and Sagebiel 1999a, 1999b, 2003) has discussed the ceramics from this tomb and has demonstrated connections with Tikal, Uaxactun, and Teotihuacan (with the latter in the form of a cylinder tripod).

Clearly, we now have a different picture of the Early Classic in this region. First we have the issue of ceramic traditions continuing through time, which makes it harder to identify some Early Classic ceramic types and may have originally caused the underestimation of Early Classic populations. Second, the discovery of elite deposits in “unanticipated” locations – places where we weren’t necessarily expecting to find evidence for elite occupation - shows that the area was thriving in the Early Classic and that the elite were forging connections with established and powerful sites nearby. At the end of the Early Classic, with the fall of Teotihuacán and declining activity at Tikal, there is a dip in population (Tepeu 1), but by the next phase of the Late Classic (Tepeu 2) population levels in the region reach their highest level (Sullivan 2002.)

Late Classic

The Late Classic brings with it an increase in agricultural related activities and

associated land modifications, an increase in the rural communities that developed around large centers, and an increase in the construction of monumental architecture. This increase in monumental architecture contrasts with that of the Early Classic. Based on site planning, Houk (2003) has suggested that the elite of the largest sites broke free from sites outside of the region that had controlled them during the Early Classic while simultaneously asserting their control over developing sites within the Three Rivers Region (Sullivan 2002).

Over 80% of the ceramics recovered date to the Tepeu 2-3 Period (Sullivan 1998). Likewise, most stone tools and other artifacts are also dated to the Late Classic. Tool forms including general utility bifaces and stemmed macroblades are among the types recovered. Some items such as the stemmed macroblade can be traced back to the Early Classic and Late Preclassic when larger versions were often produced.

Ceramic types recovered include: Tinaja Red, Garbutt Creek Red, Achote Black, Cubeta Incised, Encanto Striated, Palmar Orange Polychrome, and Cayo Unslipped, and several later modeled vessels. Vessel forms include bolstered rim bowls, large thick-walled utilitarian jars, smaller thin walled jars, and beveled lip plates. An increase in the quantity of utilitarian types is also noted. At this time, burial vessels appear that are not especially distinctive or restricted to burial contexts (Smith 1955; Ball 1993). Generally, Late

Classic burials in the region yield more utilitarian ceramics and not “prestige” types given the areas that have been investigated. One of the two Late Classic burials recovered from the site center of Dos Hombres (in a range structure) was placed into a floor and had no associated grave goods (Houk 1996). The other Late Classic burial was placed in a lip-to-lip cache consisting of a Cayo Unslipped vessel

covered by a Subin Red bowl - both considered utilitarian rather than exotic types. Late Classic burials from the site of Dos Barbaras also fit this pattern (Lewis, personal communication, 2000). Three Late Classic burials were placed directly into the subfloor fill of the largest structure at the site and were not associated with any grave goods. In the same courtyard, three cyst burials were located. Only one of these cyst burials had associated material - in the form of a conch shell ladle (Lewis, personal communication, 2000). There were no vessels recovered with any of these burials.

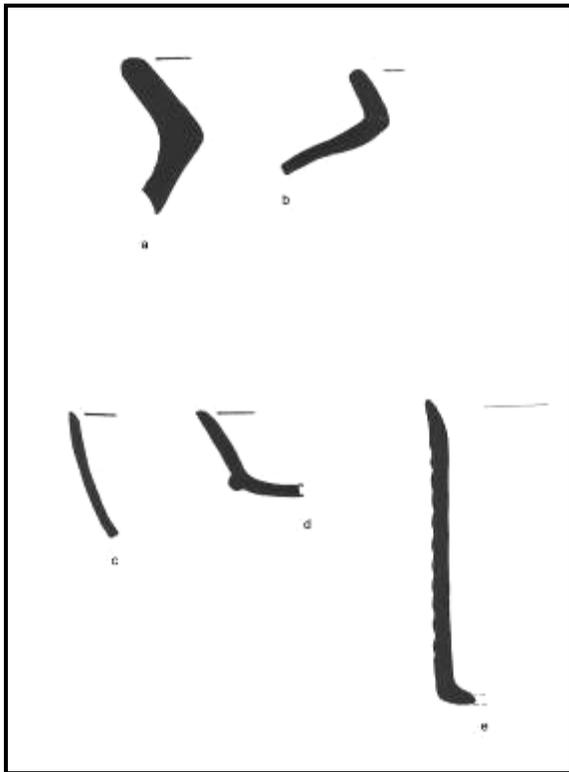


Figure 4. Ceramics of the Late Classic. a, b) Unslipped-and-striated jar. b,c d) Achote Black group.

Observed in the Late Classic are utilitarian ceramics in elite, but not necessarily burial contexts. At Las Abejas two Late Classic caches were found on the center staircase of the largest structure

(Sullivan 1997). The first cache consisted of a plain bowl with a small-unslipped plate placed on top. The second cache was an unslipped bowl. Similar caches were also noted at Dos Barbaras, although these vessels were a bit more elaborate - yet still unslipped (Lewis n.d.). It is clear that during the Late Classic more common utilitarian types were being used in elite contexts, a pattern not observed in the Early Classic (Sullivan 2002). These utilitarian types are distributed across a number of different contexts (i.e., not just elite) in the region ranging from small rural sites to ritual use in large centers

The Late Classic population increase, at the very least, taxed the natural resources, eventually decreasing productivity and increasing competition among the elite for resources (Willey and Shimkin 1973). By the end of the Terminal Classic/Tepeu 3 (AD 800-900) the lowlands had experienced a major reorganization. Many of the large centers of the Peten, such as Tikal, Uaxactun, and Yaxha were virtually abandoned. Data from the Three Rivers Regions also reveal the cessation of monumental construction (at sites including Dos Hombres, Chan Chich, Rio Azul, and La Milpa), a major decline in rural population (Robichaux 1995; Adams 1999), and a decrease in quantity and quality of ceramic production (Sullivan 1998). Architectural data, ceramic data, and evidence of associated ritual behavior all provide evidence suggesting the breakdown of elite control and subsequent abandonment of the Three Rivers Region by the end of the Terminal Classic/Tepeu 3 (ca. 850 A.D.) The structures that are built appear to have been hastily made without the elegantly cut facing stones, carefully mortared retaining walls, fine plastered floors, or platform heights that were observed at the height of the Late Classic. Another noted change is the construction of buildings in the middle of formerly sacred plazas. It is not uncommon to see low-walled structures made from

stones “robbed” from existing Late Classic monumental structures and constructed on top of Late Classic plaza surfaces as was observed at La Milpa (Structure 86) (Tourtellot and Rose 1993), Dos Hombres (Houk 1996), and Kinal (Hageman 1992).

While in other areas, such as Lamanai, the Terminal Classic brings with it a proliferation of new ceramic types hinting at increasing interregional exchange and communication; this is clearly not the case in the Three Rivers Region. There is a strong continuity between the Late Classic and Terminal Classic; however, a decrease in the predominant Late Classic types (such as Achote Black, Subin Red, and Tinaja Red) as well as a decrease in overall quality with the ceramics (by the end of the Terminal Classic) tending towards a poor quality with a crumbly paste and little to no slip is observed/preserved. The majority of slate ware recovered most likely represent locally made imitations of Ticul Thin Slate and may represent a feeble effort on the part of the elite to associate themselves with the growing sites to the north. Further evidence of growing problems in the Terminal Classic is found in deposits recovered from the sites of Dos Hombres and Chan Chich that include large quantities of broken ceramics and other artifacts placed on elite residential courtyard floors or steps to buildings. Superficially, these features resemble middens in terms of their composition (lacking substantial amounts of faunal material and including large vessel fragments that may have been broken in place), but are ritual termination deposits in terms of their contexts and may be directed at “terminating the elite” (Houk et al. 1999). Similar or at least temporally related activities have been identified at many other sites including Colha, Altar de Sacrificios, Tonina, and Becan.

Postclassic

Evidence for Postclassic occupation in the Three Rivers Region is scarce, with no evidence of a rural population or construction at large sites (Robichaux 1995). Some Postclassic remains from Gran Cacao represent the only significant finds thus far for NW Belize. Only a few Postclassic ceramics have been located outside of Gran Cacao, including a whole censer from the summit of a mound at Chan Chich (Guderjan 1991), censer fragments from the base of Stela 2 at Dos Hombres (Houk 1996; Sullivan 1998), and from Stela 7 and Stela 12 at La Milpa (Hammond and Bobo 1994: 23-24). However, the presence of these few censers probably indicates Postclassic pilgrimages to major Classic period centers and does not represent Postclassic occupation (Hammond and Bobo). A Postclassic “jaguar-shaped” plumbate foot was recovered by Walling in 2002 at terrace excavations; however, there have not (as of yet) been any other Postclassic sherds associated with his excavations. These data all point towards a deteriorating economy, with the elites lacking the resources to maintain power and prestige at their former levels. While we have not yet identified the mechanisms behind these changes (internal revolt, external invasion, environmental catastrophe) it is clear that the elite lose the control and power they once had - resulting in the abandonment of ceremonial centers and a massive depopulation of the countryside.

Summary/Overview

In sum, the collection of data on a regional scale has provided us the opportunity to examine overall patterns of prehistoric settlement, occupation, and landscape utilization. Although the chronology of the region is presented from a “ceramics perspective”, other characteristics are provided for comparative purposes. The findings are consistent with events and/or

cultural changes reported from other parts of the Maya world. Some of the observations and interpretations posited from research in the Three Rivers area are derived from an emphasis of investigations of smaller sites and rural settlement. It remains uncertain how these findings will affect the understanding of Maya culture-history at other (namely large) sites. It may, however, be that these preliminary findings/interpretations will play well into the settlement strategies identified with other archaeological research programs. Equally fascinating, and not entirely unanticipated, will be that parallel, but different adaptations may be identified across the lowlands relating to the different geopolitical systems utilized.

Among the significant points are the long history of Maya civilization in NW Belize, the density of occupation, the extent of land utilization, and the issues surrounding the near complete abandonment of the region at the end of the Classic Period. Continued research and new perspectives on the data may help refine, perhaps redefine, various events that seem obvious or remain unanswered. Among the issues that may be refined, for example, are the exact nature of landscape modification and adaptation to the differing microenvironments. In need of "redefinition" are chronological terms or phases with more exacting attributes or events and the causes/results of those activities. Clearly, the type(s) of earliest settlement, the role or significance of certain cultural transitions and/or transformations, and the details of the last years during the Terminal Classic are as yet not satisfactorily answered or simply unanswered.

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15 **ARCHAEOLOGICAL RESEARCH AT THE PUNTA DE CACAO RUINS IN NORTHWESTERN BELIZE: COMMUNITY ANALYSIS USING THE MULTI-NUCLEI MODEL OF GEOGRAPHY**

Hubert R. Robichaux

This project is studying a moderate-sized ancient Maya site known as Punta de Cacao that is located on the Gallon Jug property in Orange Walk District in northwestern Belize. The investigation seeks to determine the size, chronology, population, spatial arrangement and functional dynamics of this community. The multi-nuclei urban model of geographers is being used as an interpretational framework for the data obtained at Punta de Cacao. The project hypothesizes that this model more accurately reflects the nature of ancient Maya communities than does the concentric model, which has long been applied in the analysis of ancient Maya sites. Punta de Cacao is large enough to have adequate complexity, but not so large as to require extraordinary effort to study it.

Introduction

This paper provides a summary account of archaeological research on-going at the ruins of the moderate-sized ancient Maya site known as Punta de Cacao in the Three Rivers Region (Adams 1999) of northwestern Belize and northeastern Guatemala. The ruins are located on the jungle-covered Gallon Jug property in Orange Walk District, south of the Programme-for-Belize Rio Bravo property, and north of the Yalbac property (Figure 1). The proposed five-year research project at Punta de Cacao is being undertaken by the University of the Incarnate Word of San Antonio, Texas. The project has already completed field seasons during the summers of 2001 (Robichaux et al 2002) and 2002 (Robichaux 2003; Robichaux and Miller 2003). The 2003 field season is currently in progress at this writing. The 2001 field season emphasized mapping, and built upon earlier survey work done at the site center by Thomas Guderjan and the Maya Research Program in 1990 (Guderjan 1991). The 2002 season focused on excavations at the Plaza B Complex, which is hypothesized to have been

the residential complex for the ruling elite of Punta de Cacao. Additional mapping also took place during the 2002 season. The 2003 season, presently on-going, is approximately evenly devoted to mapping and excavation. Excavations during the 2003 season are being directed principally to the Plaza A area of the site.

In attempting to archaeologically define the ancient community of Punta de Cacao, the project will utilize the multi-nuclei model of geographers as an overarching conceptual framework for understanding the spatial organization, and dynamic functioning of Punta de Cacao. We believe the multi-nuclei model has applicability to most moderate and larger sized ancient Maya communities. A discussion of the multi-nuclei model, and a brief description of work accomplished thus far at Punta de Cacao follows:

The Multi-Nuclei Model

Archaeologists have been slow in achieving a satisfactory and realistic model representing the true nature of sizable ancient Maya communities. This deficiency, in large measure, derives from the abundant presence

of dense vegetation, which covers most ancient Maya ruins and obscures the settlement patterns that are present. Another problem stems from the fact that earlier archaeologists placed a disproportionate

research emphasis on the study of the center of sites where the largest structures were located, and largely ignored the surrounding areas. As a result of this research bias and the skewed data it produced, pioneering

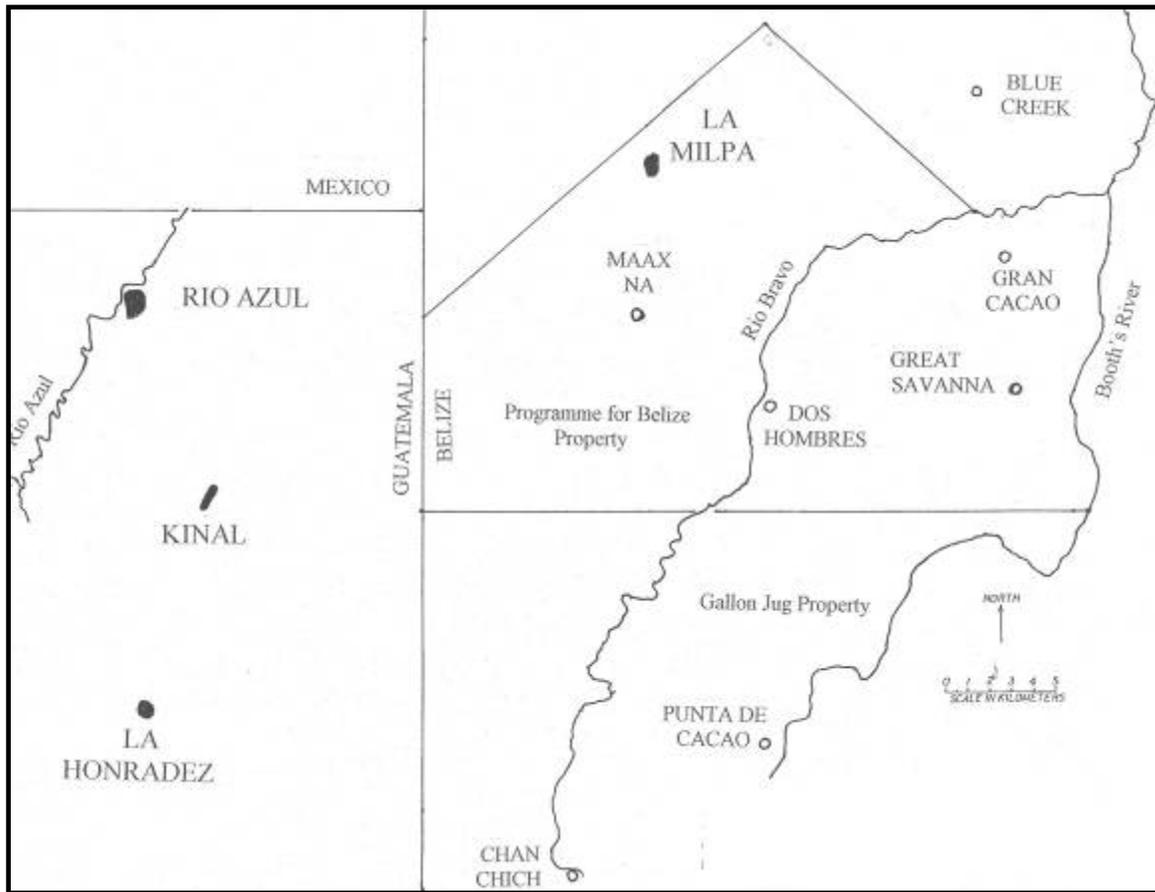


Figure 1. Punta de Cacao location in the Three River Region, Maya Lowlands

scholars such as J. Eric S. Thompson once believed the Maya did not have true communities, such as towns and cities, but instead only largely uninhabited “ceremonial centers” which were only occasionally visited by peasant farmers living in surrounding rural areas (Thompson 1963, 1966).

Later, archaeological surveys into the jungle covered areas immediately surrounding these “ceremonial centers” such as those by Puleston at Tikal in the 1960s, suggested dense human populations had been present there as well (e.g., Puleston 1973,

1983), undermining the uninhabited ceremonial center hypothesis. Gradually, within the last 40 years, it has become increasingly clear that the Maya did indeed have towns and cities in a fairly normal sense, not as densely settled as those in many cultures, but nonetheless large, bounded areas containing considerably more dense settlement and population than that present in the surrounding rural countryside (e.g., Hammond et al 1999; Robichaux 1995; Chase and Chase 1994). While in more recent years survey beyond the site center at

numerous sites has now increased the settlement data base available concerning the character of larger communities, our conceptual understanding of the organization and dynamics of larger ancient Maya communities tends to remain at an elementary level.

With regard to the organization of ancient Maya communities, the most prevalent view has been that they were organized in a concentric pattern (e.g., Marcus 1983:200; Kurjack 1974:94; Thomas 1981:107-109; Folan et al 1983; and Haviland 1963:517). This model has most commonly been applied in a manner which has the community's largest, most important buildings, and most important people, being located at the site center (central precinct), and progressively smaller buildings, and less important people, being present in the surrounding outer zone of the community as one moved farther and farther away from the central precinct. This monocentric view, which can be traced back to the 16th Century, tends to be a static and non-insightful perspective, however, and it is also inconsistent with the data from many sites (see, e.g., Robichaux 1995).

A more realistic and fruitful analytical approach may lie in examining the degree to which ancient Maya communities were organized in a manner consistent with the "multi-nuclei" urban model of geographers (Harris and Ullman 1945; Austin, Honey and Eagle 1987; Marcus 1982; Robichaux 1995). In this model, urban areas are seen as consisting of interacting functional subparts (nuclei) located at various positions, not only in the central precinct, but throughout the full extent of the community (i.e., throughout the central precinct and the surrounding outer zone of the community, as well). These nuclei may involve economic, military, social, political, administrative, religious, residential or other functions located away from the center of the site. These activity

nuclei would have been physically integrated in a coherent manner that promoted the functioning and survival of the community. Sacbeob (elevated roadways), access corridors, natural waterways, artificial irrigation channels, etc., may have served to link the various nuclei. Also, to be expected in the larger communities of a state-level society, such as that of the Classic Maya, would be centralized control of the primary functions of the community. It may be possible to infer centralized control of activity nuclei by the nature of their physical linkage or connection to the seat of political power for the community, as seems to be the case at La Milpa (Robichaux 1995:295-297). At La Milpa, in northwestern Belize, independent survey efforts suggest the site had a radius of approximately 5 kilometers and a population estimated to be in the range of 50,000 persons during the Late Classic period (Robichaux 1995:284-285, 290; Hammond et al 1996:86). Beyond the 5 km radius of the city of La Milpa, a rural population of low density prevailed. While La Milpa has a clearly defined central precinct or central zone, with many important functions centered there, the balance of the community, the outer zone, contained most of the population of La Milpa, and it is clear that it contained various nuclei of elite settlement at least as far as 3 km away from the site center. This indicates that important people and important activities were embedded at various distances and locations in the outer zone of the community, away from the site center. Additionally, with regard to the data from La Milpa, water management analysis by Vernon Scarborough (Scarborough et al 1992:2) suggests that reservoir water from the very heart of the central precinct of La Milpa may have been released periodically to flow through natural and artificial channels to a small *bajo* some 2.5 km to the west. While not yet confirmed there seems a good likelihood that intensive agriculture may have

occurred in that *bajo*, and also that a sizable elite enclave (Thompson's Group) located on a nearby hilltop overlooking this *bajo* may have managed this agricultural effort on behalf of ruler of La Milpa. Although many projects in the Maya area have incidentally, or inadvertently, acquired data relevant to the issue of multi-nuclei organization, the Punta de Cacao project has deliberately organized its efforts to pursue the applicability of the multi-nuclei model in interpreting the organization and functioning of Punta de Cacao. We believe this effort will result in an enhanced and more realistic conceptual framework in which to analyze and understand the functional dynamics of all larger ancient Maya communities.

Punta de Cacao currently appears to be a suitable test case for testing the multi-nuclei model. It is one of a number of moderate-sized sites that formed a major component of the overall Three Rivers Region settlement pattern. Communities of Punta de Cacao's size are believed to have played important political, economic and administrative roles in the functioning of the region, serving as intermediaries between the largest sites such as Rio Azul and La Milpa, and smaller towns, villages, and hamlets. The data currently available indicate that Punta de Cacao had the size and complexity necessary to make it an appropriate subject for the present study. Approximately 450 structures have presently been mapped within the central 2.71 square kilometer area of Punta de Cacao and it is clear that the site extended well beyond the area presently mapped. Punta de Cacao (Figure 2) had a large (ca. 100 m X 80 m) public-function plaza (Plaza A), a large array of housing for elite Maya (the Plaza B Complex), a centrally positioned ball court, and at least one stela. Additionally, reports from an informant indicate there may have once have been 10 stelae at Punta de Cacao (Guderjan et al 1991:61). Lastly, from an efficiency

perspective, Punta de Cacao is of a manageable size, which is compatible with the objectives and resources of our compact and focused project. The projected five field seasons of the Punta de Cacao Archaeological Project are expected to provide evidence that will allow us ultimately to perform an analysis using the multi-nuclei model as our theoretical framework. The project's 2001 and 2002 field seasons, as well as the currently in-progress 2003 field season are summarized below.

Highlights of The First Season at Punta de Cacao: The 2001 Season

Mapping

The project's 2001 field season (Robichaux et al 2002) emphasized mapping as the logical first step in understanding Punta de Cacao, and thus, most of our effort was devoted to it. A 2.04 sq. km area of the site centered upon what is currently thought to be the site center, or "central precinct", was mapped during the 2001 season. Given that the site is totally covered by dense jungle vegetation this was a sizable accomplishment. The mapping methodology utilized at Punta de Cacao is both efficient and effective, and generates a level of accuracy that is suitable for the purposes of our research. That methodology was developed by the author and is detailed in the 2001 report (Robichaux et al 2002). It is a refinement of the methodology developed for mapping in the peripheral zones of La Milpa and Dos Hombres (Robichaux 1995) and was also used to generate a map of Chan Chich (Robichaux and Houk 1996). Under this methodology, a mapping person walks within 13 meters of every spot in the mapped area. The methodology provides an adequate definition of topography and other natural features, and has a high probability of detecting house mounds and larger architectural remains, and determining their size, shape, orientation, and location with

reasonable accuracy. The 2001 mapping resulted in the mapping of approximately 355 structures (including approximately 50 structures previously mapped at the site center by the Maya Research Program in 1990 (Guderjan 1991). Some preliminary patterns related to the site's land form, and the settlement present on it emerged during the 2001 field season, as is further described below.

Environmental and Settlement Patterns at Punta de Cacao.

An imaginary north-south line running through the Plaza B Complex marks a transition in topography at the site. To the

west of this line the terrain is nearly flat, and at an elevation of ca.100 m above sea level (a.s.l.). Just to the east of the line the terrain begins a descent down to the level of Peterson's Creek which is estimated to be at an elevation of 75 m asl. The estimated to be at an elevation of 75 m asl. The creek flows through the site from south to north and is a tributary of Booth's River. Beyond the creek to the east the terrain rises again and continues to do so up to the eastern edge of the area mapped in 2001.

While there are small areas of the site containing taller montane forests, the predominant vegetational regime observed

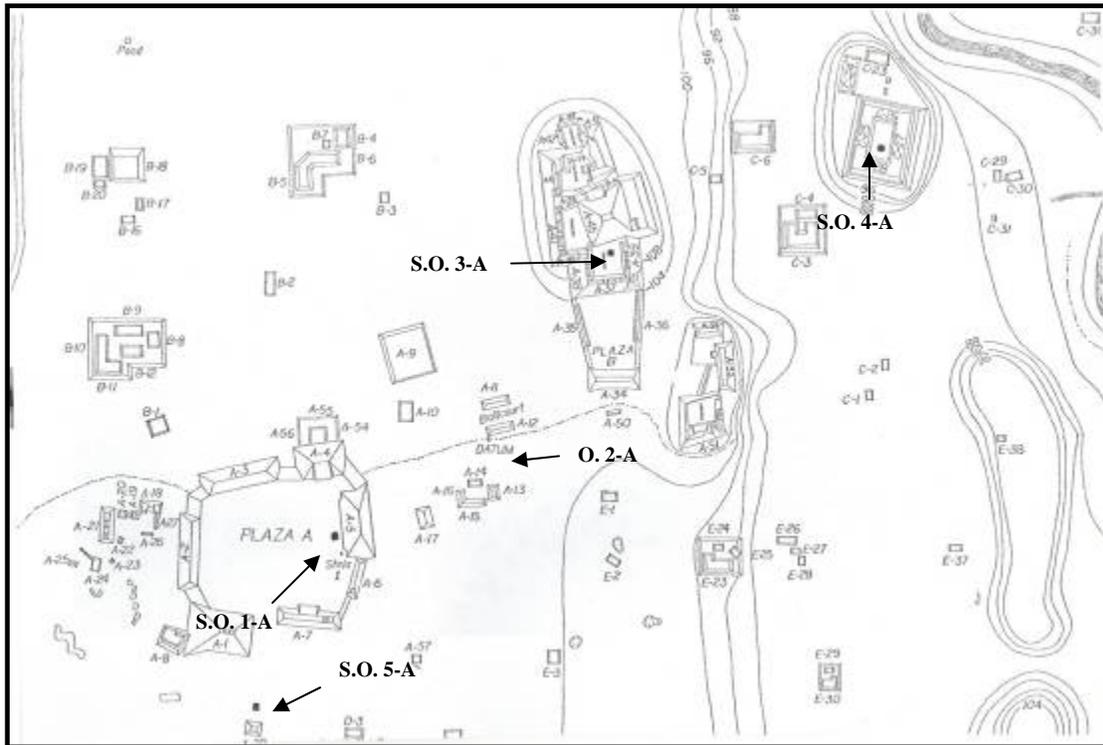


Figure 2. Map of the Central Precinct of Punta de Cacao showing the locations of the 2001 excavations [after Guderjan et al (1991) and Robichaux et al (2002)].

so far at Punta de Cacao is that known as corozal or cohune forest, which is characterized by the abundant presence of the *Orbignya cohune* plant. Modern data indicate

corozal zones have rich soils well suited for agriculture (Brokaw and Mallory 1993).

A distinctive feature of the generally flat western half of the site is the occasional

presence of small, slightly depressed areas which tend to collect and hold water in rainy periods and today contain a form of saw-grass as their principal vegetation type. In at least one instance near the northwest corner of the mapped area the ancient structural remains seem to have been organized around the periphery of a depressed saw-grass area, suggesting the depressions were a consistent feature well into antiquity. The distribution of structures beyond the site's central precinct (i.e., outward from the Plaza A, Ballcourt, and Plaza B Complex areas) is asymmetrical. There are significantly more and larger structures to the northwest and northeast of the central precinct than there are to the southwest and the southeast. Structures in the southwest quadrant are smaller in size, tend to be isolated, and are dispersed. One possible explanation for this pattern is that close-in agricultural fields existed in the southwest quadrant of the community between the isolated residential remains in this area.

The southeast quadrant of the site is the most rugged, and is characterized by the presence of a number of low rounded hills. It also has the lightest settlement density of the four quadrants and was, perhaps, seen as a less desirable living area because of the sharply undulating topography. The densest settlement known at Punta de Cacao was to the north of an imaginary east-west line passing through the southern edge of Plaza A. Not only does the northern half of the site have both more structures, and larger structures than the southern half, but the structures in the northern half of the site also tend to be more formally organized around courtyards than their southern counterparts. An explanation for this settlement patterning will be sought in future field work.

The 2001 Excavation Program

While the 2001 field season emphasized mapping, a small program of test

pitting was also conducted in the central precinct zone at Punta de Cacao under the direction of Alexandra Miller and Dr. E. Thomas O'Brien (Figure 2). The test pitting was done in order to obtain a preliminary indication of the chronology of construction and occupation episodes at the site. A total of four test pits were excavated. Chronological assignments for the excavated features and artifacts discovered in the excavations of 2001, as well as those in the 2002 season, were based upon the ceramic analysis performed by Dr. Fred Valdez, Jr., of the University of Texas at Austin, and Robynne Valdez (Valdez and Valdez 2003).

One test pit, designated Suboperation (S.O.) 1-A, was placed in Plaza A near the base of Structure A-5, a large east-facing pyramid-shaped mound. S.O. 2-A was located at the center of the playing alley of the Punta de Cacao ball court. S.O. 3-A was placed in the large courtyard (Courtyard 1) situated just to the north of Plaza B in the Plaza B Complex. Another test pit, S.O. 4-A, was started in the courtyard of the Str. C-25 courtyard group (located ca. 150 m east-northeast of the Plaza B Complex) but was quickly abandoned after an attack by very aggressive bees. The final test pit excavated in 2001, S.O. 5-A, was placed near Str. A-28 just to the south of Plaza A. These excavations provided the basis for some preliminary inferences concerning the chronology of Punta de Cacao's central precinct area. The 2001 test pit excavation results are summarized below:

-Plaza A Test Pit: At least four separate floors were detected in test pit 1-A. The deepest and oldest floor appeared to date to Late Preclassic times (ca. 400 B.C.-A.D. 250). The next floor was dated to the Early Classic period (ca. A.D. 250-660). Following this was a floor dated to Tepeu 2 times (ca. A.D. 725-850) and the most recent floor dated to the Terminal Classic period (ca. A.D. 850-900). Although no construction

dating to the Middle Preclassic period (ca. 825-400 B.C.) was found, sherds dating to that period were recovered indicating human occupation in or near the Plaza A area during the Middle Preclassic. There was no indication of human occupation of the area at any earlier time.

-Ballcourt Test Pit: Excavation here suggested that the ballcourt was built in Late Classic (Tepeu 2 times), and had only one construction episode.

-Plaza B Complex Test Pit: The one excavation during 2001 in this architectural complex was placed in the large courtyard (Courtyard 1) just to the north of Plaza B. Four floor surfaces were encountered in this unit. Surprisingly, the recovered evidence suggested that all four detected construction episodes in this courtyard occurred during the Late Preclassic period. A simple Late Preclassic period burial encountered in this excavation unit at a depth of 2 m below the surface was distinctive in that no skull fragments, teeth, or cervical vertebrae were present with the skeleton, suggesting the individual may have lost his head in life, or shortly after death.

-Trash Midden Test Pit (South of Plaza A): S.O. 5-A, a shallow 1m X 1 m excavation unit just to the south of Plaza A revealed the presence of a trash dump area dating to Late Classic and Terminal Classic times. Approximately 1000 sherds and 287 lithics were found in this small unit, along with obsidian and shell material, and mano/metate fragments.

The totality of the 2001 excavation data, although limited in size and scope, suggested that human occupation of the central precinct zone at Punta de Cacao first occurred during Middle Preclassic (Swasey) times. Some construction occurred in both the Plaza A and Plaza B Complex areas during Late Preclassic times. The only Early Classic period construction noted in the 2001 excavations was that of a single floor in Plaza

A. Plaza A also experienced construction during the Late and Terminal Classic periods, and this was matched that of a single floor in Plaza A. Plaza A also experienced construction during the Late and Terminal Classic periods, and this was matched by trash deposits found just outside Plaza A dating to those periods. The ballcourt, it appears, was built in Late Classic times. The Punta de Cacao community was apparently abandoned near the end of the Terminal Classic period. No Postclassic material was recovered from the excavations.

Highlights of the 2002 Field Season at Punta de Cacao

The second (2002) field season of the University of the Incarnate Word Punta de Cacao Archaeological Project was accomplished in accordance with its proposal to the Belize Government's Institute of Archaeology (Robichaux 2003; Robichaux and Miller 2003). Excavations were conducted in the Plaza B Complex of the site, and mapping occurred to expand the site map.

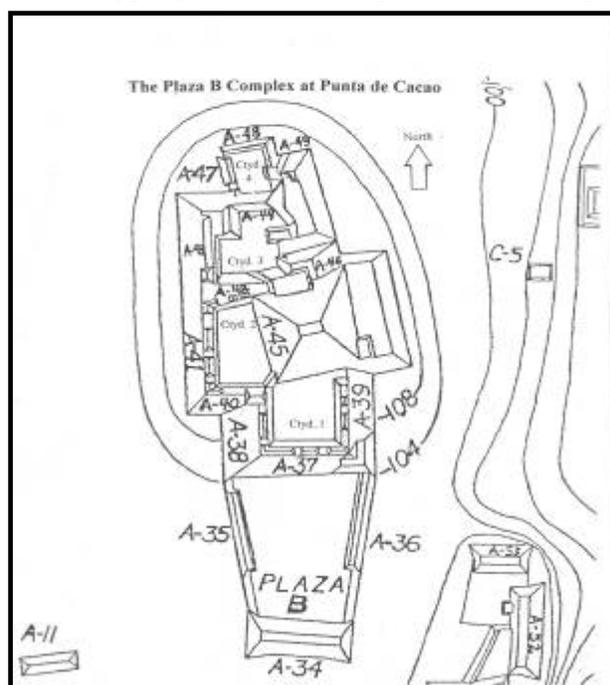


Figure 3. Map of the Plaza B Complex

Unfortunately, unusually heavy and frequent rainfall during the field season diminished somewhat both the mapping and excavations that had been planned. Nonetheless, the work, which was accomplished, provided a substantial body of new evidence relating to the ancient community of Punta de Cacao and the Maya people who lived there before its abandonment around A.D. 900. The total mapped area at Punta de Cacao after the 2002 field season was ca. 2.31 sq. km, with a total of 410 structures having been mapped. The Plaza B Complex (Figure 3) seems beyond doubt to have served as the principal residential zone for the highest-level elite people at Punta de Cacao. The complex, which is ca. 200 m (650 feet) long (north-south), and ca. 90 m (315 feet) wide (east-west), is perched on top of a north-south aligned ridge a short distance to the west of Peterson's Creek. The ridge, at its highest point, has a height of ca. 8 meters above the surrounding terrain. The elevation of the complex was further artificially raised by successive superimposed construction episodes taking place over many centuries. The complex includes a small plaza (Plaza B), and four courtyards of elite architecture.

Str. A-45, the pyramid-shaped mound that towers over the complex, was the principal focus of the Plaza B Complex's spatial organization. Courtyards 1, 2, and 3 of the Plaza B Complex are nestled against the south, west, and north sides of the pyramid, respectively. Major architectural components of the Plaza B Complex are discussed below in light of the data obtained during 2002.

The Structure A-45 Pyramid - This ca. 15 m tall pyramid-shaped mound is located on the eastern side of Courtyard 2. A stairway is believed to have been present on its western face that would have descended the front side of the pyramid into Courtyard 2. The east (back) side of Str. A-45 descends ca. 15 m to a flat, 15 m wide platform surface. No

structural remains were noted atop this flat area behind the pyramid, and the platform's function is not clear. Looting at the top of Str. A-45 revealed the presence of at least two rooms (possibly four - Guderjan 1991), which appears to have been part of the sub-structure (Str. A-45 Sub 1) that existed immediately prior to the construction of the Str. A-45 pyramid over it. Compass sightings down the exposed walls in the looted rooms indicate that Str. A-45 Sub 1 had an orientation of ca. 266-086 degrees by 176-356 degrees. The alignment of these rooms differs somewhat from the apparent orientation of the pyramid (Str. A-45) whose front side faces slightly more to the southwest. The pyramid may have served as a family shrine for the highest ranked families of Punta de Cacao. Very possibly, venerated ancestors from these leading families are buried within the pyramid.

Courtyard 1 - This courtyard is ca. 25 m X 20 m in size and is located on the south side of the pyramid, and north of Plaza B. It is enclosed by "palace-type" Strs. A-37, A-38, A-39, and the pyramid, Str. A-45. No looting has occurred at this courtyard. While not certain, it is highly probable that each of the three palace-type structures on the sides of the courtyard consists of two parallel rows of vaulted, masonry rooms. A test pit (S.O. 3-A) excavated over the surface of the courtyard in 2001 revealed at least 4 construction episodes, all of which, the available evidence suggests, took place during the Late Preclassic period. A burial was found below the lowest floor. It was unusual in that the skull and cervical vertebrae were not present. Sherds found in the humus (top soil) showed occupation in Terminal Classic times.

Courtyard 2 - A principal focus of the 2002 excavations, Courtyard 2 was closely associated with the complex's lone pyramid, Str. A-45. Courtyard 2's central position suggests that the most prominent of the Plaza

B Complex's occupants were residents of this courtyard, and that the pyramid may have served as a shrine for this leading family or lineage of Punta de Cacao. The courtyard is ca. 30 m by 15 m size, and is enclosed by palace-type Strs. A-40, A-41, A-42, and the pyramid, Str. A-45, which rises steeply on the east side of the courtyard. The courtyard's surface is presently irregular in shape due to the presence of much debris from the looters' illegal diggings. Five of the eight excavations that occurred during the 2002 season were located in Courtyard 2. Substantial looting had occurred in Strs. A-40 and A-41, and portions of several rooms were visible in the looted areas. Three excavation units, S.O.s 3-B, 3-D, and 3-E, were placed in rooms in Str. A-41 that were partly visible in looted areas. These excavations revealed that there were widely varying floor plans and room sizes within the complex, and that significant modifications to the room configurations took place over time. These rooms were deliberately filled up with rubble stone at some point in time in antiquity, for the apparent purpose of supporting new constructions to be built over them. Two excavation units (S.O. 3-C and 3-D) placed over the courtyard surface, at the foot of the pyramid, revealed the chronological sequence of human occupation and construction at this location. Evidence from these excavations indicates that the first human presence at this location occurred during Late Preclassic times, and two construction episodes, including that of a low, plastered platform, took place then. No construction dating to the Early Classic was detected. Indeed, less than a dozen sherds dating to the Early Classic period have been found in the totality of excavations in the Plaza B Complex, suggesting only a light human presence in the complex at that time. Three subsequent floor surfaces were constructed in either the Late or Terminal Classic periods. The next construction episode took place near the

beginning of the Terminal Classic period, and appears to represent the courtyard surface associated with the rooms surrounding the courtyard, indicating that the structures themselves were built late in the life of the community. A final construction episode may have been a courtyard surface associated with the filling-in of the rooms in the surrounding structures, for the probable purpose of constructing new architecture over them.

Courtyard 3 – This courtyard is located on the north side of the Str. A-45 pyramid, and has palace-type Strs. A-42, A-43, and A-44 enclosing it. It is ca. 15 m by 15 m in size. Looting occurred in Strs. A-43, A-44, and in Str. A-46 (a small structure extending out of the north face of the pyramid). Test pit (S.O.) 3-F was placed within the confines of a looted room in Str. A-44. This room suffered substantial damage from the looters who burrowed through walls and penetrated widely through the floor. Some human bone recovered in the rubble of this room suggests the looters discovered a burial beneath the S.O. 3-F room floor. S.O. 3-I was a test pit placed over the surface of Courtyard 3. Unfortunately it had to be abandoned prior to completion due to heavy rains at the time it was being excavated. All of the approximately 520 sherds recovered from this unit dated to Terminal Classic times.

Courtyard 4 – This is a small courtyard, ca. 12 m X 10 m in extent, at the very north end of the Plaza B Complex. Its position suggests it may have been a late addition to the complex, but no excavation was accomplished in it and its date remains to be determined. Structures. A-44, A-47, A-48, and A-49 enclose it. The latter three of these are comparatively low mounds, and are among the smallest and least impressive structures present in the Plaza B Complex. It is possible that lower status individuals lived here who provided services to superiors housed in the balance of the complex.

Plaza B - This is the ca. 50 m X 40 m flat, open area that is located at the south end of the architectural complex, which is named after it. It has structures on all four sides. Str. A-34 on the plaza's south side is a range-type structure that has suffered some looting near its eastern end. Strs. A-35 and A-36, on the plaza's western and eastern sides, respectively, are low mounds and apparently represent less substantial constructions than is typical in the Plaza B Complex. S.O. 3-H, was a test pit placed over the surface of the plaza, near its southern end. Unfortunately, heavy rains near the end of the season interfered with its excavation, and we were forced to abandon it prior to its completion. Sherds recovered from it prior to termination all dated to the Terminal Classic period.

The In-Progress 2003 Field Season

At this writing (June 25, 2003), the 2003 field season has been on going for less than three weeks. Five excavation units have been completed in the Plaza A complex, one has been completed to the near west of Plaza A over a postulated trash midden, and two excavations are also in-progress in the Plaza B Complex in an effort to complete the needed data acquisition for that complex. Mapping of a 0.775 sq. km. area is programmed for 2003. Approximately 30% of the mapping has been completed at this time, and an additional 50 structures have been discovered, providing a current total of 460 structures mapped.

Chronology of the Central Precinct of Punta de Cacao

Based upon the available evidence from Punta de Cacao at the end of the 2002 field season the below cited occupation/construction sequence for the central precinct area of the site has been inferred. Humans first moved into the central precinct area of the site during Middle Preclassic times. Evidence for this earliest occupation (Swasey ceramics) was found in

the Plaza A area, but no construction dating to that time, or to the subsequent Middle Preclassic "Mamom" time was encountered. During the Late Preclassic period construction occurred in both the Plaza A and Plaza B Complex areas. In Plaza A one floor surface dated to the Late Preclassic. In the Plaza B Complex, a floor was constructed over the surface of the ancient topsoil during the Late Preclassic. Subsequently, still in the Late Preclassic, a low platform and floor was built near the spot where the later Str. A-45 pyramid and Courtyard 2 interface. Also, it appears that most or all of the construction episodes in Courtyard 1 of the Plaza B Complex took place during the Late Preclassic. It is thus clear from the excavation data that the Punta de Cacao community began to take form during the Late Preclassic period.

Based upon the present data and the traditional understanding of Early Classic ceramics, the subsequent Early Classic period was a subdued time at Punta de Cacao with only a single floor surface in Plaza A being dated to that time. The paucity of Early Classic sherds found at the site is so dramatically small as to bring into question the degree to which the central precinct area, other than Plaza A, was occupied at that time. One floor in Plaza A, and the Punta de Cacao ballcourt appear to date to the latter part of the Late Classic period (Tepeu 2 times). It is also possible that three floors were constructed in Plaza B Complex (Courtyard 2) during the Late Classic. The data suggest that the construction of many of the structures surrounding the courtyards in the Plaza B Complex, the site's largest elite residential complex, was carried out late in the life cycle of Punta de Cacao, near the end of the Late Classic, and the beginning of the Terminal Classic period. Within a relatively short time thereafter, these structures were abandoned, and their rooms filled-in with rubble stone. If this was done for the purpose of building new

structures over the old, as seems likely, there is no clear evidence that the construction was completed before Punta de Cacao itself was totally abandoned.

Conclusion

Punta de Cacao first developed as a community during the Late Preclassic period. The central precinct area of Punta de Cacao appears to have suffered a decline during the Early Classic period. The site rebounded during Late Classic times, with some construction occurring then. The time of maximum development at the site happened late, around the end of Tepeu 2 times, and near the start of Tepeu 3, or Terminal classic times. This developmental apogee was short lived, however, and the site was abandoned a few decades later, possibly before contemplated construction projects could be completed. This suggests the possibility that the advent of the collapse at Punta de Cacao may have been relatively sudden, and unforeseen. No sign of Postclassic occupation was found. It should be recognized that virtually all of the project's excavations so far have been within the central precinct of the site. Future excavations in the broader community may refine, or alter, the present conclusions.

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16 REGIONAL VIEWS ON THE LATE CLASSIC FROM THE BLUE CREEK AREA OF NORTHWESTERN BELIZE

Jon C. Lohse, Timothy Beach, Laura Kosakowsky, and Sheryl Luzzadder-Beach

Recent research by the Blue Creek Regional Political Ecology Project in upper northwestern Belize has yielded abundant evidence for the dynamic nature of the period from ca. A.D. 550-850, the transition from the end of the Early Classic through the Late Classic. These three centuries see changing fortunes at a number of sites in the area (Blue Creek and Ixno'ha) and others to the south in the Programme for Belize (La Milpa, Gran Cacao, Maax Na, and Dos Hombres) and many others in part as a response to the changing environment and political climate across the broader Lowlands. Much of our evidence comes not only from these sites centers themselves, but also from surrounding hinterland settlements. These data are evaluated to construct a profile of the changing political stature of communities in northwestern Belize, with implications for regional organization as seen from both site center and household perspectives.

Introduction

Recent research by the Blue Creek Regional Political Ecology Project (BCRPEP) in upper northwestern Belize has recovered evidence from a variety of contexts that sheds new light on the transition from the Early through the end of the Late Classic, ca. A.D. 550 to 850. These centuries represent a period of tremendous change and instability across the Maya lowlands, as long-distance trade routes and political interactions were altered by conflict and shifting alliances between major centers such as Tikal, Caracol, Calakmul, and others (see Martin and Grube 2000). Our study indicates that the fortunes of political centers and hinterland occupants were both inextricably bound at this time and firmly grounded in a highly variable natural landscape. Contrasts evident between sites can be understood by evaluating adaptation strategies selected by people occupying different positions both on this landscape and within the social spectrum.

Describing shifts in ceramics design and manufacture allows us to reconstruct aspects of regional political organization. Through the Early Classic, northwestern Belize ceramic inventories closely paralleled those of the Peten in the prevalence of monochrome and polychrome styles, in

particular the Dos Arroyos Orange Polychrome Group (Kosakowsky and Lohse 2003; Kosakowsky and Sagebiel 1999; Sullivan 2002). Soon thereafter, ceramic styles changed to favor local expressions and involved ties to the Belize Valley and the Yucatan peninsula, suggesting a reorganization of regional political economies. Black slipped pottery of the Molino/Infierno and Achote groups, often elaborately decorated with incising or fluting, replace polychromes such as Saxche or Palmar as the ceramics of choice. Coinciding with the timing of these changes, some communities flourished- La Milpa and Dos Hombres are the best examples- while others appear not to have languished, but rather to have embarked on significantly different developmental trajectories. These sites include Blue Creek, Ixno'ha, and perhaps others. Compounding the effects of regional unrest at local levels were changes in the environment, including rising groundwater tables, soil loss in uplands and in-filling of lowlands, and occasionally droughty conditions (Beach et al. 2003; Hodell et al. 1995). Our data indicate that the fortunes of supporting rural populations were similarly transformed, a process that contributed yet further to the evolving political landscape.

In this paper, we describe a model of Late Classic political organization that is intimately tied to environmental differences conditioning the availability of arable land and other important resources. Sites across upper northwestern Belize are ranked according to Adams and Jones's (1981) courtyard count method, an expedient manner of comparing terminal-phase political stature. To understand how these relationships changed from the Early to Late Classic, we consider the appearance of ball courts as a measure of a community's standing in the geopolitical region. Finally, information from hinterland contexts helps indicate the deep and fundamental nature of societal transformations during this time period.

Physical and Political Geography of the Study Area

Currently, BCRPEP research is focused along two "corridors" representing large-scale environmental variability in terms of arable land, groundwater, and other important resources (Figure 1). The Upland Hill and Bajo Corridor is characterized by low-lying seasonal *bajos* separated by karstic limestone hills. Work at La Milpa (Dunning 2002; Dunning et al. 1999; Scarborough and Dunning 1997) indicates that many of these depressions were once perennial wetlands that became in-filled over centuries of settlement. Sites in this corridor exploited resources that include agricultural lands as well as outcrops of stone for tool making (Barrett 2002, 2003), and perhaps clay deposits for pottery production. To the east, three dramatic escarpments run southwest-to-northeast, converging just south of Blue Creek. These features represent a large ecotonal boundary between the Belize Coastal Plain and the Peten plateau environmental provinces. Freshwater springs surfacing along these features create rich microenvironments stretching out along the base of the escarpment ranges. This area,

referred to as the Escarpment Ecotonal Corridor, offers an array of resources including both those of the nearby hill and *bajo* terrain as well as of the flat but nutrient-rich Coastal Plain.

Figure 1 shows major sites located in these corridors as well as hinterland areas investigated by the BCRPEP in the past two seasons. Figure 2 shows the rank-order of major centers by comparing courtyard counts. This method of comparing sites, while useful for considering site stature at the moment of abandonment, is not well suited to understanding how a community's standing might have changed through time. To consider diachronic relationships and to overcome differences in excavation approaches from one project to another, we also compare sites according to the presence and construction chronologies of ball courts. The ball game was a significant event at community and regional levels across Mesoamerica, as it offered a means for local elites to exemplify their status to community members while also providing a mechanism for political contact between neighboring communities (Fox 1996; Scarborough and Wilcox 1991). This is not to argue that all sites with ball courts were equivalent, only that ball courts indicates a certain political stature, both within the region and with respect to their supporting populations. Figure 3 shows sites in the area known to have ball courts.

Available data show that not all ball courts in the region appeared at the same time. A number of courts have been identified dating to the Early Classic (Figure 4); these include Blue Creek (Guderjan 2002), Gran Cacao (Lohse 1995), Ixno'ha (Lalonde 2002), and Maax Na (Shaw and King 2002). But for the one at Blue Creek, each of these ball courts has multiple construction episodes and the ones at Maax Na and Gran Cacao may also have been remodeled in the Late Classic (additional work is required to fully

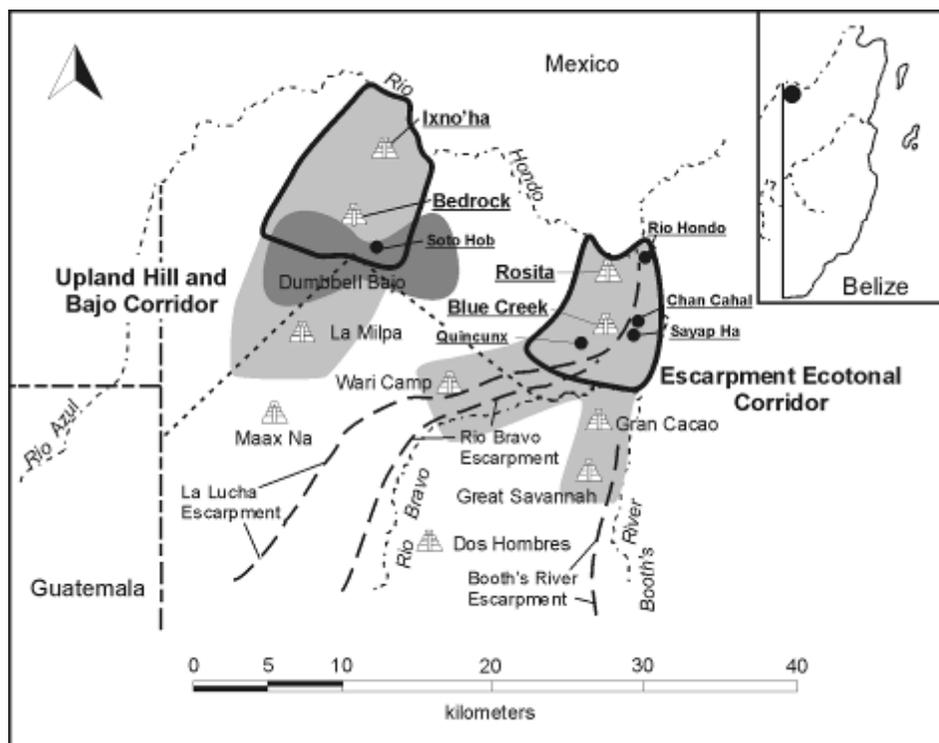


Figure 1. Map of upper northwestern Belize showing sites (underlined) and intersite areas (surrounded by heavy lines) investigated in 2001 and 2002 by the Blue Creek Regional Political Ecology Project. These areas are shown in relation to larger, environmentally defined research “corridors” reflecting differences in resource distribution that are hypothesized to have played a key role in regional political and economic organization in the Late Classic. Programme for Belize property is small dashed line

document these two construction histories). Based on ball court histories, we suggest that these communities were of primary regional importance during the Early Classic.

When known Late Classic ball courts are considered, the view changes to more closely approximate the courtyard counts presented in Figure 2 (Figure 5). Ball courts were already in place at Blue Creek, Gran Cacao, Maax Na, and Ixno'ha, and no data are available to suggest that these areas were terminated or razed (although trash was dumped in the playing alley at Blue Creek by the end of the Late Classic [Guderjan 2002:19]). However, the addition of two ball courts each at La Milpa (Schultz et al. 1994) and Dos Hombres (Houk 1996; McDougal

1997) corresponds with significant changes in regional settlement history, construction programs, and, in all probability, other shifts in the fabric of Maya society. That these are the only sites in the region with multiple ball courts suggests that this ritual activity was selected as a political strategy by rulers of these communities to a degree not experienced elsewhere and in earlier times. **Hinterland and Site Distribution Date From Blue Creek Area of Northwestern Belize**

Based on the dates and distribution of ball courts together with courtyard counts, it would be easy to conclude that La Milpa was the dominant Late Classic center of northwestern Belize, with secondary

Courtyard Count of Sites in Upper Northwestern Belize

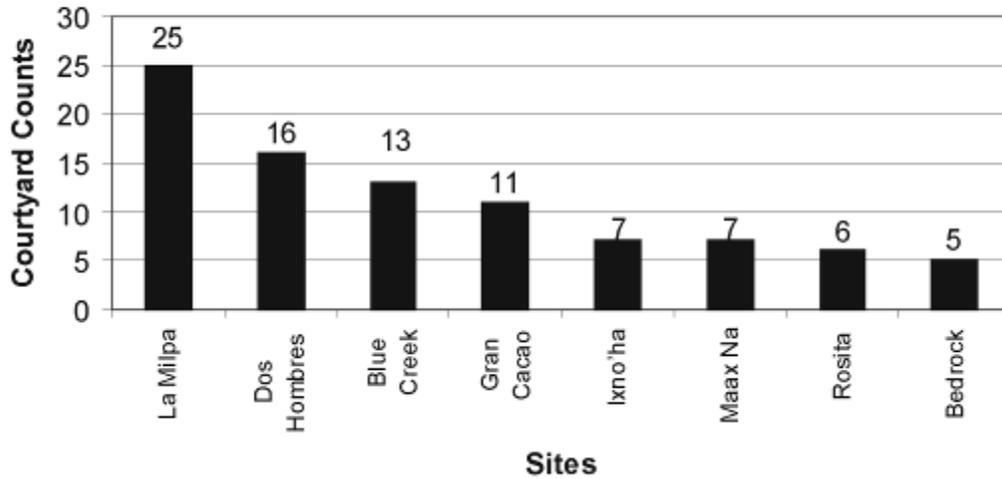


Figure 2. Courtyard count of sites in upper northwestern Belize. Data for Blue Creek and Gran Cacao from Houk (1996: Table 1). Dos Hombres is from Lohse (2001). La Milpa, Ixno'ha, and Maax Na are R.E.W. Adams, personal communication (2003). Numbers for Rosita and Bedrock are estimates, as much of these sites have been destroyed by modern farming or settlement, and maps are not yet completed for them. No courtyard count data are yet available for Wari Camp, shown in Figure 1, so this site is omitted

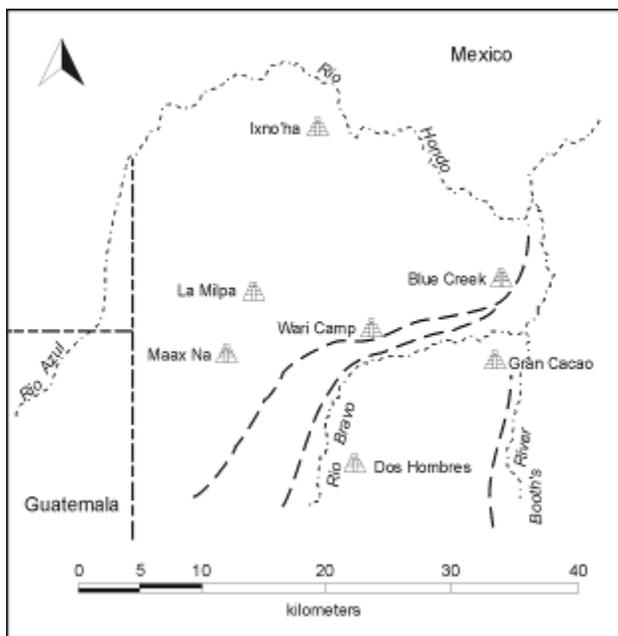
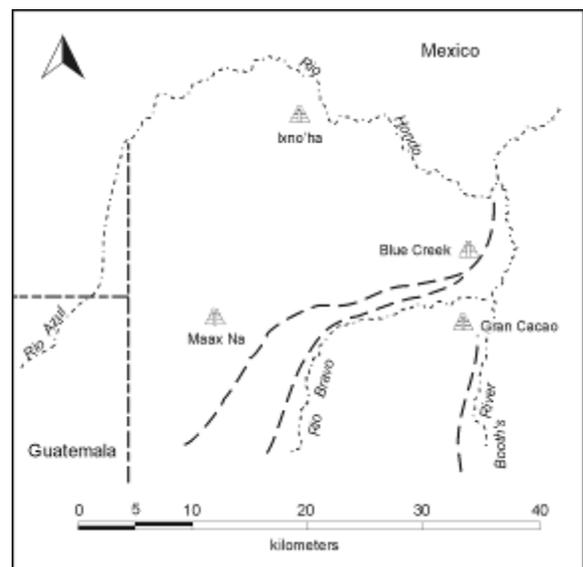


Figure 3. Sites in upper northwestern Belize known to have ball courts.

Figure 4. Sites in upper northwestern Belize with Early Classic ball courts (no data are available for Wari Camp ball court).



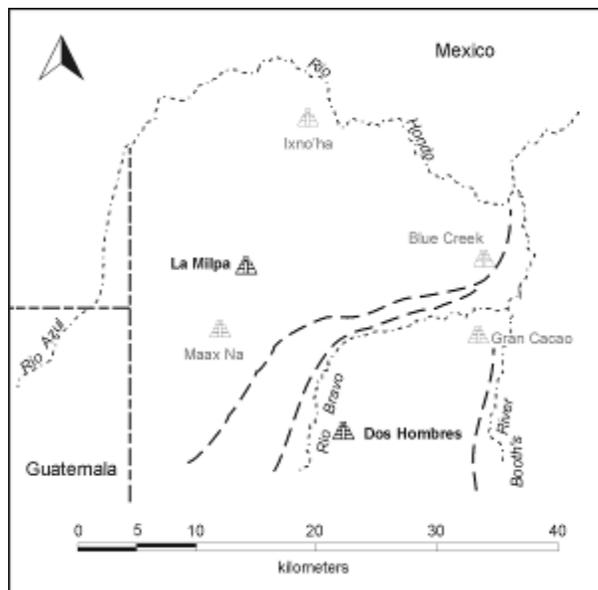


Figure 5. Sites in upper northwestern Belize with ball courts available in the Late Classic. Precise temporal data are not available for later phases of Gran Cacao and Maax Na ball court construction, and no evidence indicates that Ixno'ha or Blue Creek courts were razed or otherwise terminated at this time (though rubbish was deposited in the Blue Creek alley in the Terminal Classic). La Milpa and Dos Hombres are the only sites in this study area with two ball courts, and at each site both courts date to the Late Classic

sites like Blue Creek, Ixno'ha, Dos Hombres, Gran Cacao and others held under sway. However, recent data from hinterland contexts allows us to take a closer look at regional organizational strategies in evidence at this time. One of the most noteworthy adaptations consists of an expansive set of canalized agricultural fields found along the base of the escarpment ranges (Baker 1997; Beach et al. 2002; Guderjan 2002; Lohse et al. 2003). Though dating these fields has been problematic, most canals are visible at the modern ground surface, suggesting that they post-date sedimentation in the area (Beach et al. 2003). Paleoenvironmental data show that the Preclassic land surface was stable until about 2,000 years ago, but that local water tables soon began to rise accompanied by sedimentation through alluviation and precipitation of gypsum and carbonates, with total aggradation exceeding 120 cm in some

areas (Figure 6) (Beach et al. 2003). In response to these conditions, the majority of canals likely originated after the Early Classic, and represent an example of significant labor investment being diverted away from monumental centers.

Elsewhere at Blue Creek, in a series of courtyard and *plazuela* groups referred to as the Western Group (Hanratty 2002; Lichtenstein and Hanratty 2002), energetic investments were made in non-royal though high status domestic architecture outside the site core. Although these groups had been established in the Late Preclassic (Guderjan and Hanratty 2002), their growth in the Late Classic was several orders of magnitude greater than in earlier times. The development of this local group represents another instance of labor diverted from the Blue Creek site center.

Some evidence from the Blue Creek center supports the suggestion that nearby residents were motivated to apply their labor to activities other than elite sponsored ones. Late Classic construction shows changes from earlier themes of ritual expression and community-wide incorporation, as well as a relative decrease in overall construction volume (Driver 1999). Effort was invested in constructing private elite residences and transforming previously public areas into ones of controlled access (Lichtenstein 1996, 2000). In addition to changes in architectural programs, a chronological study of jade recovered across the site (Guderjan n.d.) shows that a mere 2.1 percent of all jade artifacts from Blue Creek and nearby areas date to the Late or Terminal Classic. Correlations between jade and elite status and ritual are not straightforward, but this precious greenstone was important for emphasizing social differences and was frequently incorporated into symbolic behavior such as caching. The diminished availability of this resource in the Late Classic was undoubtedly the result of disruptions to long distance

solstice and perhaps the solar zeniths. Among contemporary and historic Maya communities, these were significant moments in local agricultural calendars (Milbrath 1999). Noting when these occurred would have allowed prehispanic farmers to attend to *all* elements of food production for themselves, including soil and water management as well as ritual aspects that could previously have been under the elite domain.

La Milpa and Dos Hombres

If settlements along the escarpment were undergoing these centrifugal changes by the beginning of the Late Classic, how do we view sites to the west that experience their apogee at this time? The large site of La Milpa is situated approximately four kilometers south of the southern margin of the Dumbbell Bajo, where it maintained access to these and other resources. Settlement data indicate that there were as many as 50,000 people living within 3.5 km of the site center (Tourtellot et al. 1997), making it one of the most densely inhabited cities in the southern Maya world. In addition, the Tepeu 2/3 (Late Classic) site plan has been identified as a nearly perfect cruciform pattern, with minor monumental components almost exactly 3.5 km in cardinal directions outside main plaza (Tourtellot et al. 2000), conforming to quincuncial models of the Maya cosmos. Work elsewhere at La Milpa has identified yet other ways in which site rulers increased their attention to community-wide rituals. Scarborough (1998) explored the role of water management systems built around plaza catchments and nearby reservoirs in elite-controlled religious expression involving themes of renewal, the underworld, and shamanistic divination. Transforming elements of the La Milpa landscape into a “Water Mountain” and crafting the city layout according to widely held models of the cosmos allowed rulers to better integrate the surrounding population. In this sense, initiating construction of not one

but two ball courts can be seen as yet another strategy for drawing a large populous together and cementing the paramount status of local elites.

Approximately twelve kilometers south-southeast of La Milpa is the large site of Dos Hombres, located in the middle of an enormous expanse of *bajo*. At present only slim evidence links Dos Hombres and La Milpa during the Late Classic. The most striking comparison between the two is the similarity in their site layouts (Figure 7). Both have strong north-south orientations with large open plazas at the north and restricted elite residences in the south (Houk 1996). As discussed above, Dos Hombres also has two ball courts, and both date to the Late Classic Tepeu 2/3 ceramic phase. Demographic reconstructions here have not been compiled to same extent as La Milpa, though Robichaux (1995) estimates peripheral Dos Hombres occupation densities in the Late Classic at as many as 480 people per square kilometer. Based on Lohse’s (2001) research at the site, the site’s population estimate is somewhat lower, but still between ten and fifteen thousand people.

Beyond the significance of the ball game, evidence is absent at Dos Hombres for the kinds of integrative community ritual found at La Milpa. However, based on the demographic profile and the rapid Late Classic expansion of the site, it is clear that its rise to local prominence was fairly meteoric. Over the period of only a couple of centuries it surpassed in size all other sites in the region with the exception of La Milpa. Based on the similarities between the two, Houk (1999) suggests Dos Hombres to be a daughter community of La Milpa. In any event, the growth trajectories of these sites are in stark contrast to events noted at Blue Creek and, based on what is known of ball court chronologies, perhaps also at Maax Na, Ixno’ha, and Gran Cacao.

Conclusions

How can we understand the widely disparate trends in site growth and apparent political stature of sites in upper northwestern Belize from the Early to the Late Classic? Using ceramics to characterize the basic structure of these changes, Early Classic potters in the region were closely emulating styles of the large and powerful centers of the Peten. However, by the end of the Early Classic this connection was either lost to some degree, or no longer viewed as the preferable program of expression. Potters in the area

expressed themselves in locally developed styles that borrowed elements from the Belize River Valley to the south and the Yucatan to the north. While we do not fully understand the causes of this transformation, we see additional symptoms in shifts of architecture programs at Blue Creek, the virtual disappearance of jade in ritual deposits, the diversion of labor to residential construction and agricultural intensification, and the appearance of hinterland ritual complexes such as Quincunx.

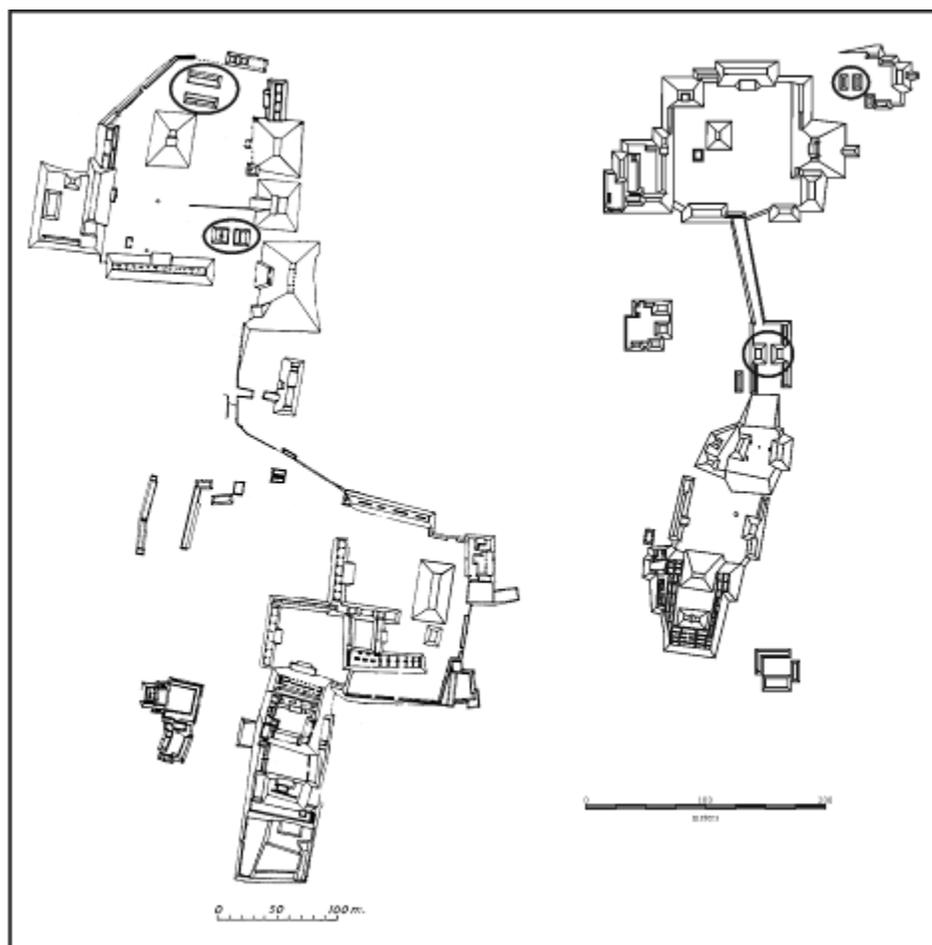


Figure 7. Central precinct maps of La Milpa (left) and Dos Hombres (right) reproduced at the same scale. La Milpa map after Gair Tourtellot, Dos Hombres map from Houk (1996). The two ball courts at each site are circled. Not all components of these centers are shown; the outlying monumental parts of La Milpa, for example, have been omitted.

To better understand this situation, we return to the geophysical landscape of the area, and consider site-to-site relationships in the context of differential developmental trajectories. Along the Escarpment Ecotonal Corridor, it appears that the position of local elites changed substantially as the long distance networks they relied upon for centuries started to deteriorate and reorganize, and that hinterland residents responded by turning more attention to their own affairs. The richness of this setting may have given some farming communities greater ability to negotiate the allocation of social labor and surplus production with nearby Blue Creek. Similarly, farmers at Quincunx were less reliant on central elites for knowledge of the movement of the sun through agricultural cycles. While more data are required to understand how communities like Rosita and Gran Cacao experienced this period, it seems that Maya society along the escarpment became less focused on individual rulership and elite aggrandizement and turned increasingly towards other mechanisms for integrating local populations.

To the west, in the Upland Hill and Bajo Corridor, budding communities such as Ixno'ha and Maax Na with Early Classic ball courts appear to have been engulfed in the Late Classic political expansion of La Milpa. To be sure, occupation continued at these sites though they were dwarfed by the demographic and political magnitude of La Milpa. Our hypothesis is that the rugged and often-times tenuous nature of the resource base here provided opportunities for La Milpa elites to engineer landscapes for both resource management and symbolic expression, allowing them to integrate populations at a scale not yet seen in northwestern Belize (see Scarborough and Valdez 2003).

The implications of these Late Classic scenarios for upper northwestern Belize are

significant for our understanding of Classic Maya society in general. We see an array of responses at multiple levels of society to changing conditions that are environmental, climatological, and political in nature. Upon the disruption of Early Classic lowland political economies, more productive resource bases allowed certain local populations to enjoy a degree of relative autonomy in many facets of daily life, leading to political decentralization in some areas. Elsewhere, the political vacuum near the end of the Early Classic and limitations of terrain were overcome through political strategizing, resulting in the appearance of strongly centralized primary centers (La Milpa) for the first time in the history of the region. While more research is required across the study area to substantiate elements of this model, it is clear based on data available so far that the period from the end of the Early Classic through the Late Classic in northwestern Belize was one of rapid and fundamental changes at nearly every level of Maya society.

Acknowledgements. We are grateful to our colleagues in northwestern Belize who have shared their data, both published and unpublished with us for this study. They are not responsible for, nor do they necessarily concur with, our statements herein. We also deeply appreciate the Government of Belize and Institute of Archaeology (then the Department of Archaeology) for permitting our research in their country.

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17 **LAMANAI RELOADED: ALIVE AND WELL IN THE EARLY POSTCLASSIC**

Elizabeth A. Graham

David M. Pendergast of the Royal Ontario Museum directed investigations at Lamanai from 1974 to 1986. The site was mapped, and excavations focused on a wide range of residential and monumental structures. A second phase of excavations was initiated in 1998, directed by Elizabeth Graham, which is aimed at clarifying periods of transition that are little known at other sites, but well represented at Lamanai. These are: the transition from the Late Preclassic period to the beginning of Maya florescence in Classic times (400 B.C. to A.D. 250); the time of the Maya collapse, from about A.D. 800 to 1000; and the transition from Precolumbian occupation to the Spanish Colonial period (1450 to 1700). This contribution presents a summary of recent investigations at the site, with special attention given to the buildings surrounding Plaza N10 [3], also known as the Ottawa Group.

Introduction

It will not be possible to cover as much as I would like in this chapter, but I will attempt to summarize some of the information bearing on the Classic to Postclassic transition that results from the excavations I began at Lamanai in 1998. My title focuses attention on the Early Postclassic, but this does not mean that Lamanai produces no information from other periods (see Table 1 for provisional chronology.) However, arguments have been put forward based on recent research to the effect that the Early Postclassic as it was originally understood –with a twelfth to thirteenth century florescence at Chichen Itza– no longer exists (Andrews et al. 2002). Although the concept of a hiatus may aptly describe the character of the occupational sequence in some areas, evidence from Lamanai indicates that activity associated with intensive occupation continues without interruption from Classic to Postclassic times (Pendergast 1982, 1986).

With regard to the character of occupation, however, there is little doubt at Lamanai that the Classic to Postclassic transition was distinguished by a socio-cultural dynamic of continuity and change.

Aspects of change in material culture, which I discuss below, suggest that those pulling the strings of power in the Early Postclassic had cultural, political, religious, and perhaps economic priorities that were different from those of Classic Period rulers, although key aspects of the way society was organized seem to have remained the same. Along the lagoon, dense and apparently continuous occupation –which remains to be fully investigated– from Early Postclassic to Historic times suggests that the Early Postclassic kick-started a vibrant period of economic revival in commerce and long-distance trade. I will hazard the statement that elite priorities changed –which could be a reflection of an influx of new people or new alliances (marriage or otherwise) of established elites, or a bit of everything– but non-elites seem to have maintained, or to have been allowed to maintain, significant integrity of organization by adjusting production (Howie-Langs 2001; Howie-Langs et al. 2002, 2003) to suit new needs and new priorities.

Research under the Lamanai Umbrella

Before discussing evidence for the Classic to Postclassic transition, I will first

summarize the results of research carried out by colleagues and students under the umbrella of the Lamanai Project.

The Stucco Frieze project

Thomas M. Shelby and Dorie Reents-Budet have been able to reconstruct significant portions of a stucco frieze that ornamented one of the buildings, Str. N10-28, of the Ottawa palace-courtyard group (Shelby 2000a, 2000b, 2000c; Shelby and Reents-Budet 2001) (Figure 1). Over 2,000 fragments of the frieze had been recovered in 1981 from around the base of Str. N10-28's south and west sides, and most retained their blue, green, yellow, rose and specular hematite red paint. Shelby began preliminary studies in 1998, and in 1999 Shelby and Reents-Budet conducted further excavations to recover more stucco fragments. Their work included cataloguing all fragments, and an attempt was made to reconstruct the frieze to discover its pictorial contents and meaning.

The theme of the frieze as indicated by the reconstruction was rulership, an appropriate topic for what is believed to have been an administrative building. The imagery includes a full-figure rendering of a man who is likely to have been a Lamanai ruler; the large size of the figure suggests that it was the frieze's central image. Flanking the central image were secondary figures, possibly Lamanai's ruling elite, as well as captives, supernaturals, and symbols associated with kingship. Shelby and Reents-Budet's detailed report and catalogue of all recovered fragments is published on the FAMSI website (www.famsi.org, Report No. 98037).

Recent Perspectives on Str. N10-28

The frieze decorating Str. N10-28 was destroyed as part of a massive re-building effort in the Ottawa Group, nicknamed the 'Boulders' phase. The destruction of the frieze and the re-building activity probably

began sometime in the ninth century, but we will have more details on chronology once the radiocarbon dates of charcoal from various caches have been run. Str. N10-28 was razed in rather dramatic fashion (Figure 1), and at first it appeared that no structure replaced it. However, in 2002, as we excavated the north side of the Ottawa Group (Figures 2 and 3), we discovered what looked like the edge of a platform in the spot where N10-28 had once stood but was now buried. This 'platform', part of Str. N10-80 (Figure 3), turned out to be a partial-height wall of a perishable building with a platform addition. In fact, Str. N10-28's transformation turned out to be one of several wooden buildings of the Ottawa Group that replaced masonry structures. This pattern of replacing masonry administrative-residential buildings with wooden ones is a distinctive feature of the Terminal Classic Period at Lamanai in the zone of the Ottawa Group.

Chert Eccentrics as Flaked Stone Symbols

Richard Meadows (2001) completed a material cultural analysis of chert eccentrics that included the Lamanai sample. He was able to contextualize the emergence of a distinctive style of northern Belize symbolic lithics that has regional technological antecedents. His discovery of fabric and pigment residues led to the conclusion that eccentrics, as "flaked stone symbols" (Meadows 2001), were part of a complex production process that included painting and adorning prior to final deposition. Meadows also explored the meaning and symbolism represented by the various eccentric forms.

Preclassic to Early Classic Ceramics at Lamanai

Terry Powis (2002) carried out research on the Preclassic ceramics at Lamanai. He explored the idea that elaborate pottery became one of the means by which

Table 1. Preliminary Lamanai Chronology

	Present	Independence		Economic and cultural orientation changes to greater involvement with North and Spanish America; greater participation in global economy.
	1981	Self-Governing		Long-distance trade continues to be characterized by relationships with Britain.
	1964	British Colonial		Sugar mill constructed at Lamanai in mid-19 th century, widespread use of ceramics imported from Britain
A.D. B.C.	1700	Yglesias		Terminal Postclassic to Early historic period – distinctive ceramics, lithic change marked by widespread use of the bow and arrow, appearance of European pottery and metals after 1540
	1450	Spanish colonial		
		Cib		Late Postclassic – marked by concentration of activity along the lagoon, continuity in forms and ceramic motifs from the Early Postclassic – there is very likely a period of ceramic stylistic change that occurs between Cib and Yglesias, but it has yet to be securely defined.
	1250			
		Buk		Early Postclassic – marked by distinctive elite sub-complex of pottery that seems to replace Classic emphasis on polychromes, no hiatus from Terminal Classic apparent in the stratigraphy, continuity in organization of ceramic production (Howie 2003), residential buildings largely of wood, apparent increase in lagoon orientation
	1000			
		Terclerp		Terminal Classic – marked by extensive masonry platform construction, superstructures largely perishable, distinctive pottery, with some forms that herald Postclassic styles
	800			
		Tzunun		Late Classic – very little known about this period at Lamanai – ceramic change to Terminal Classic is gradual
	600			
		Shel		Provisional Middle Classic represented ceramically by Tzakol 3 polychromes, slab-footed cylinder vessels, stela iconographic elements
	250			
		Sac		Early Classic (A.D. 250-450)
	150		Late	Late facet of the Terminal Preclassic or Protoclassic (Powis 2002)
		Zotz		
0		Early	Early facet of the Terminal Preclassic (Powis 2002)	
100				
	Lag		Late Preclassic (Powis 2002)	
400				
		Late	Late facet of the Middle Preclassic (Powis 2002)	
600	Mesh			
		Early	Early facet of the Middle Preclassic (See Powis 2002)	
900				
	?		Provisional – based on radiocarbon dates from the ‘Harbour’ zone (Pendergast 2002)	
1500				

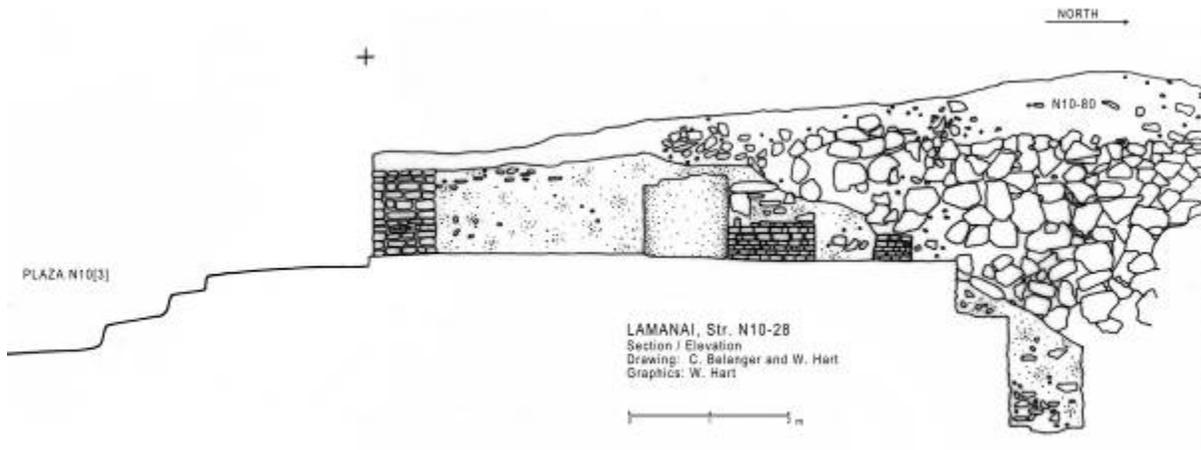


Figure 1. West section of axial north-south trench through Tulip, Str. N10-28, showing razed walls covered and sealed by dry boulder core of the “Boulders Phase”

Lamanai’s elites displayed their wealth and power, and he also carried out functional analyses (e.g., Powis et al. 2002). Given Pendergast’s data on elite and non-elite contexts, Powis was able to examine 140 complete Late Preclassic and Protoclassic vessels –400 B.C. to A.D. 250– from a variety of primary contexts such as burials, caches and primary middens. His results showed that during the Late Preclassic and Protoclassic periods, elites and commoners had a similar ceramic inventory with all segments of society having access to fine quality pottery, as well as to a range of more ordinary and utilitarian wares. It was not until the Early Classic was underway that distinctions began to appear in access to fine wares that reflected a burgeoning social inequality.

Ceramic Petrography and the Terminal Classic to Postclassic Transition

Ph.D. research undertaken by Linda Howie-Langs (Sheffield) is examining ceramic production technology at Lamanai from the Terminal Classic to the Early Postclassic. Howie-Langs is focusing on how continuity and change in the production and use of pottery reflect the larger, dramatic events of the Classic to Postclassic transition.

She has combined stylistic analysis with scientific techniques such as Thin Section Petrography, Neutron Activation Analysis and Scanning Electron Microscopy. She has also extensively sampled locally available raw materials such as clays and rocks used as tempering materials. The result is that Howie-Langs’s research is providing considerable insight into the nature of economic and ceramic production activities during the Classic to Postclassic transition (Howie-Langs 2001; Howie-Langs et al. 2002, 2003).

Postclassic Ceramic Iconography

Jenny Scarlin (UCL) is studying Postclassic ceramic iconography. Her preliminary conclusion is that the Early Postclassic symbols represented on Buk pottery reflect an elite semiotic code that replaced Classic Period symbolism. The code may reinforce military and messianic aspects new to the area. The repertoire of symbols reduces greatly from the Buk to the Cib Phase, although the style remains the same in terms of placement of motifs on vessels. With the onset of the Terminal Postclassic and Yglesias periods there was a stylistic break with Cib; the symbolism became figurative, which might reflect a loss

of understanding of the complex Early and Middle Postclassic code and a return to a visual language more easily read and understood.

Hieroglyphic Monuments Project

In addition to the studies listed above, a program of recording the hieroglyphic monuments at Lamanai was initiated in 2002, funded by the British Academy. Stuart Laidlaw of the Institute of Archaeology, UCL, has recently completed a photographic inventory of the Lamanai monuments. Study of the glyphic inscriptions is being undertaken by Simon Martin, with iconographic analysis by Dorie Reents-Budet. Of particular interest at Lamanai are the carved monuments that were re-used in construction that post-dated the Classic period.

The Field School at Lamanai

Laura Howard and I began a field school component at Lamanai in 1998 under the aegis of the Lamanai Field Research Center. Since 2001 the field school has been directed by Scott Simmons of the University of North Carolina at Wilmington, and co-directed by Laura Howard. Excavations are centered around the Spanish Colonial Period residential zone, which was first excavated in 1984 (Pendergast 1991, 1993a, Pendergast and Graham 1993), and produced a large number of copper and alloyed copper artifacts. Ingots and artifact composition (Hosler 1994) suggested the presence of on-site metallurgy, and one of Simmons's primary efforts is aimed at elucidating the nature of metallurgy in the Southern Maya Lowlands, both before and after the Conquest. In 2001 and 2002, further compelling evidence for on-site metallurgy was recovered by Simmons and his team. To date the site's inventory of copper and bronze artifacts numbers 171 objects.

Faunal Remains

Analysis of faunal remains at Lamanai is being undertaken by Norbert Stanchly (UCL), with a particular focus on the Postclassic period. Stanchly has helped supervise the excavation of a number of late period structures and features at Lamanai, among them the Ottawa Group, the Str. N10-9 (Jaguar Temple) midden, the platform in the Jaguar Temple plaza, and Str. N10-27. The results of his analyses are informed by some exceptional stratigraphy and should yield a wide range of information on Terminal Classic to Postclassic resource use. Earlier faunal analysis at Lamanai and comparisons with Tipu were carried out by Kitty Emery (1999).

Human Skeletal Remains

The human skeletal remains excavated at Lamanai from 1974 to 1985 have been analysed by Hermann Helmut of Trent University. Christine White of the University of Western Ontario has recently assumed supervision of human skeletal studies at Lamanai for the excavations begun in 1998, and she carried out preliminary studies of the collection during the 2003 field season, which includes the material recovered during the TDP infra-structural construction, burials from the Ottawa Group, from Str. N10-27, and from Lamanai's second church cemetery excavated by Pendergast in 1985.

Periods of Transition

My focus at Lamanai has been on illuminating periods of transition. From the start of the work in 1998, however, as the result of conversations first with John Morris regarding recording and database analysis, and then with Allan Moore regarding the Stela Temple, N10-27, our research was integrated with plans for consolidation of structures for tourism. My recent excavations in the Ottawa Group were planned in concert with TDP (Tourism Development Project)

strategies for Lamanai in cooperation with Jaime Awe and Claude Belanger, and in concert with Lamanai Reserve park planning under the aegis of George Thompson, Ag. Archaeological Commissioner from 2001 to 2003.

My original research plan –which I now realize was overly ambitious– had been to explore the bridging period between the Classic and the Postclassic; to explore details of the transition from the Early to the Late Postclassic; and to expand our knowledge of the Terminal Postclassic to Historic/Colonial period. I had a good idea about where to look for this information (Figure 2) based on earlier work that had been reported by Pendergast (1981) on the Central Precinct, but also based on excavations I myself had carried out in the Camp Zone; in the area of Str. N10-27; and in the Spanish historic community.

Summary of Recent Investigations

Prior research and foundations critical information comes from Pendergast's early work on N10-9, N10-2 and N10-4 (Pendergast 1981) (Figure 2). These excavations first revealed the pottery and other material culture of what we now call the Buk (Figure 4) and Cib phases at Lamanai (Graham 1987; Pendergast 1982). Pendergast (1982) and I (Graham 1987) originally characterized Buk pottery as Middle Postclassic based on the decorative and formal attributes the pottery shared with suggested classifying Buk as Early Postclassic to bring it into line with terminology elsewhere, because the dating of its appearance in the eleventh or early twelfth century is more secure than its later end.

Radiocarbon dates from a cache with Buk pottery on N10-9 indicate that Buk was in full swing by AD 1100 (Pendergast 1981), but until Cib or related Tulum Red pottery is more precisely dated and contextualized, the full time span of Buk and its relation to Cib

remains unknown. What we do know is that for Buk and the phase that followed it, the lagoon shore was a hub of activity.

A staggering quantity of Postclassic and later ceramics has emerged recently as the result of TDP infra-structural construction along the lagoon. Sections dug to carry waste runoff for toilets reveal an intensively manipulated landscape, and possible quarrying for clays or clay minerals. The bulk of the ceramic material is in fact Late Postclassic, or Cib, with considerable Yglesias period material as well (see Table 1) (Graham 1987). Darcy Wiewall (UC Riverside) will include analysis of this material in her Ph.D. research on late-period households at Lamanai.

Str. N12-12, The Rectory

Information on the transition to the Historic period has come from excavations supervised by Laura Howard of what we call the "Rectory," Str. N12-12, which lies immediately north of the second church at Lamanai, and also from selected excavation of the areas around the first and second churches. Results are preliminary, and the Rectory is probably one of the most enigmatic structures at the site, but there is artifact, stratigraphic, and structural evidence to indicate that this building was used during and perhaps even beyond the Spanish historic period. Pendergast (1986) discovered that the second church, Str. N12-13 (YDL II), had been used as a smithy by the British during the sugar mill period, so perhaps it is not surprising to learn that the building next door had a life beyond that of housing the individuals who helped care for the church. The Rectory is also interesting from a tourist point of view, because it started out by incorporating good-quality Postclassic Maya stone masonry, but the various modifications and additions exhibit a peculiar style that we have come to associate with sixteenth century activity or later.

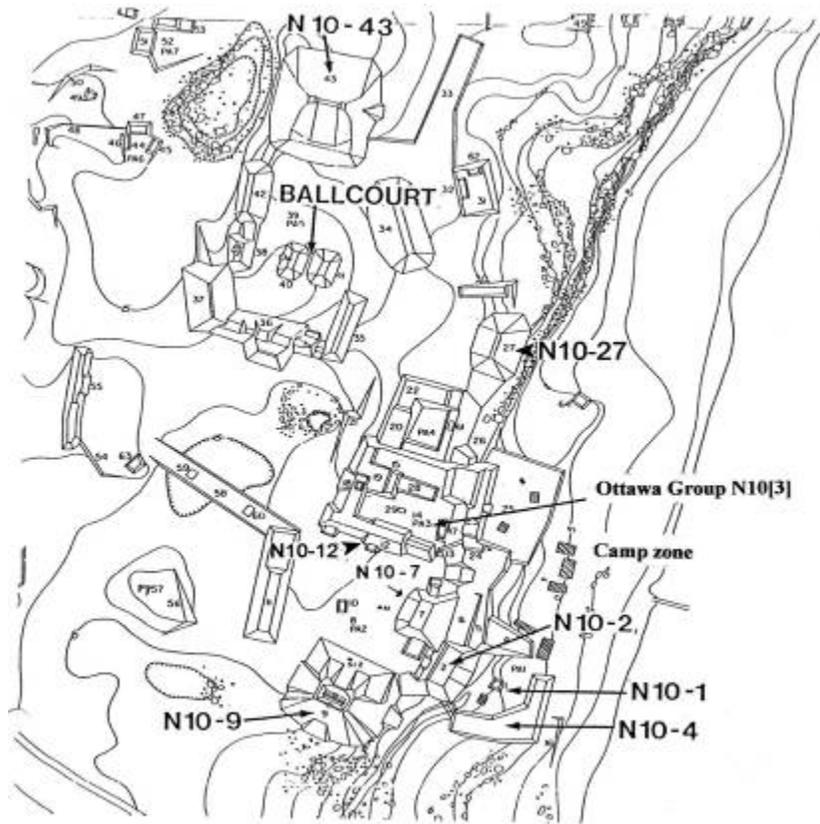


Figure 2. Square N10 showing the locations of the Ottawa Group, the Camp zone and other major buildings.

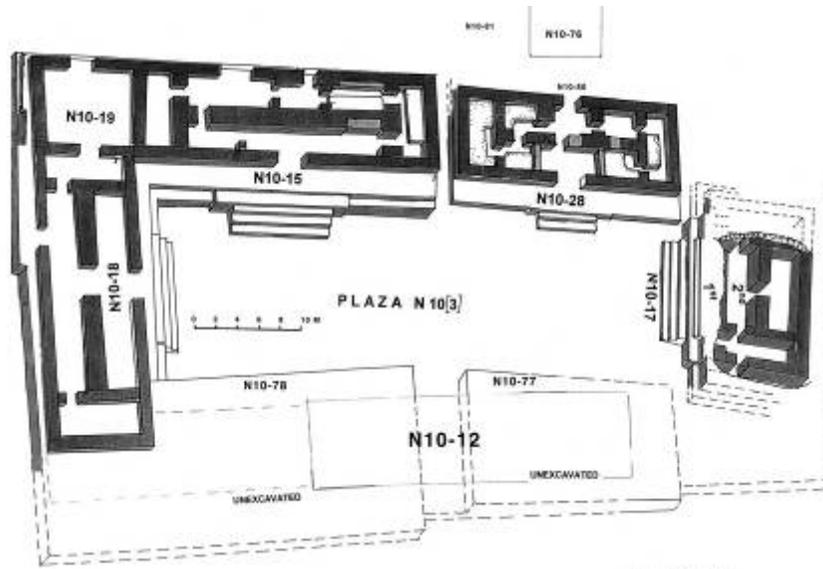


Figure 3. Plan of the Ottawa Group

Str. N10-27, The Stela Temple

Some of the most important information recovered since excavations began in 1998 helps to document the Classic to Postclassic transition. Our excavations around the lower courses and central stair of Str. N10-27, the Stela Temple, carried out in conjunction with the TDP Project, produced ceramics from special-activity midden, as well as stratigraphic information on continuity at a time when other sites in the Maya area were undergoing collapse and abandonment. There is little question that whatever purpose the Stela Temple served ended abruptly. Pendergast (1988) reported that the lower portion of the stela had shattered as the result of the effects of a fire at its base, although he posited that the shattering could have been accidental. Infilling of the doorways of the building that lay across the central stair seems to have ceased abruptly, and stratigraphic excavation of the midden abutting the lower terraces and burying the lower central stair showed that midden deposition began virtually immediately—that is, not long after the toppling of the upper portion of the stela as the result of the shattering of its base, and before the plaza surface or lower terrace faces had been exposed for any great period of time.

The bulk of our detailed stratigraphic information on midden deposition and its relationship to N10-27, described below, comes from the structure's southwest side. The midden is deeper and less heavily disturbed on this side than it is on the north and west sides of the structure. Indications are, as noted below, that the source of the activity that produced the midden lay south of the Stela Temple, possibly originating in the Ottawa Group, which may explain the heavier deposition of refuse on the Stela Temple's south and west sides. On the

northwest, the terrace face began to collapse soon after upkeep of N10-27 ceased, and collapse continued intermittently but apparently quite frequently as midden was deposited. As a result, stratigraphy is highly obscured on this side by the combination of early and relatively frequent deposition of collapse debris, root action, and other natural disturbances.

The Midden on the Southwest Side of the Stela Temple

The collapse of the upper portions of the building constructed across the central stair of the Stela Temple seems to have been rapid. The unusually large stones that formed the corners of the basal moulding of the upper zone at the south end toppled directly onto a clean plaza surface, and subsequent sediment deposition was rapid and water-laid, perhaps the result of exposure to rain. Deposition of the midden material—mostly ceramic fragments but also some lithics and bone—began after a period of rain, but before plant growth could alter sediment sorting or begin to disintegrate the plaza's surface.

Midden deposition was spotty and resulted in a highly idiosyncratic pattern of preservation. It was clear that material was tipped first against the lowermost terrace and stairside outset faces, but not evenly; deposition then continued outward from the structural elements and extended to include the central stair at the front. The midden ultimately formed a slope abutting N10-27, with its outer edges expectably thin, except for the portion of the midden burying the central stair and the toppled stela, which remained uniformly thick.

The best-preserved stratigraphy, perhaps not unexpectedly, was found near the junction of the southwest terrace face with the stairside outset. Ceramics from the midden are Terminal Classic (Terclerp) to Early Postclassic (Buk) in date, with

Terminal Classic material abutting the terrace and stairside outset faces, and underlying building collapse. Buk comprised the bulk of the remainder, including the material over the central stair.

There was also Late Postclassic activity in this zone, represented by pottery fragments, but we could make no sense of the ceramic deposition pattern. House platforms had been constructed in front of the Stela Temple, but we could not determine if they were Buk or later: Platform core material was Buk, but masonry characteristics were Late Postclassic. What we did learn, though, was that the area was re-used during the sixteenth century or perhaps later. There is a small structure just south of the Stela Temple that has a rough, single-course platform face that resembles the crude construction we know elsewhere (e.g. Str. N12-12) to be associated with buildings occupied or used in the Historic period. The architectural style – if you can call it that– is distinctive. In addition, Yglesias ceramics were recovered from the midden abutting the Stela Temple on its southwest side, but the Yglesias material was concentrated in the south part of the midden and thickened as it carried over to the small structure with the crude platform face.

An Yglesias burial was intruded into the midden just west of the terrace face of the Stela Temple near its southwest corner. The burial was that of a young child and contained Yglesias-period vessels, including a small grater bowl, a spindle whorl, a broken figurine or whistle, and a pitcher with a frog effigy spout. What we have then in Str. N10-27 is a building abandoned in terms of its primary use at the end of the Classic Period, but with ritual refuse deposited first in the Terminal Classic, and then throughout the period in which Buk pottery was made, possibly as the result of ritual activity centered farther to the south in the Ottawa Group.

The Stela Temple Midden and the Jaguar Temple (N10-9) Midden

In addition to the excavation of the midden abutting the Stela Temple, a contemporaneous midden was excavated just north and east of Str. N10-9, the Jaguar Temple. That the content of these middens was not the result of household activity is a conclusion of Howie-Langs, based on comparative data from household midden accumulation at Altun Ha. The Lamanai middens reflect non-household activity, but exactly what sort of activity or ritual remains unclear. Howie-Langs has been able to extract a good deal of stylistic information on the nature of change from the Terminal Classic through to the later facet of Buk, and we hope that this kind of information will expand our knowledge of Postclassic ritual life.

The Ottawa Palace Courtyard Group

A major contribution of the Ottawa Group research is what the excavations have to tell us about the period when sites in the Maya area such as Tikal are said to have collapsed and been abandoned. Lamanai was certainly not abandoned, but we remain unsure about how it was affected by collapse.

General description of ‘Boulders’ and Plaza N10[3]

The buildings surrounding Plaza N10[3] were designated as the ‘Ottawa Group’ in 1975 by the survey and mapping students working under the direction of H. Stanley Loten, of Carleton University in Ottawa, Ontario. Six structures were given numeric designations: Structures N10-12, N10-15, N10-17, N10-18, N10-19 and N10-28 (Figure 3). Further architectural recording by Claude Belanger since 1998 has added important information to building plans and clarified aspects of the group’s configuration. Str. N10-12, for example, was found to overlie two earlier buildings, Str. N10-77 and

Str. N10-78. Structures N10-76, N10-80 and N10-81 were delineated in 2002 (Figure 3).

Belanger's architectural investigations—and the ingenious methods he devised for clearing the courtyard—enabled clarification of the general process by which the Classic period courtyard was filled, buildings razed and covered with “boulders,” and the entire platform extended to the north to support more buildings. Because of the distinctive use of undressed, randomly cut limestone as courtyard fill and as core of platforms during this phase, we've used the name “Boulders” to describe both the stones and the phase, although strictly speaking the stones were quarried.

“Boulders” Timing and Building Activity Associated with the Ottawa Platform Extension on the North

We originally hypothesized that the massive effort of filling the courtyard and extending the platform on the north must have taken a considerable period of time, and our original view seemed to be reinforced by the presence of Buk sherds in the boulder fill of both the courtyard and the platform extension. It appeared that the major infilling efforts went from south to north—that is, most of the Late Classic(?) masonry buildings around the courtyard were razed and covered, the courtyard was filled, and the entire area of the Ottawa Group was then extended northward. This scenario as well as the long period of time required are based partly on the fact that additions to Str. N10-15 and N10-19 (not shown in Figure 3) were constructed on the north sides of these buildings, which necessitated structural platform support on that side. Also, at least one of the buildings, Str. N10-76, which stood just north of Str. N10-28 on the extended platform surface (see Figure 3), had features that suggested it was Late Postclassic in construction. The Boulders phase began shortly after the stucco frieze of Str. N10-28

was destroyed and the building partially razed (Figure 1). Because the frieze is thought to be Late Classic in date (or later), and Terminal Classic pottery was found both as cache material (in Str. N10-17 and in the courtyard fill of Plaza N10[3]) and as fragments in the boulder core of the courtyard, we hypothesized that the Boulders phase began early in the Terminal Classic and continued into the Postclassic period, perhaps for a considerable period of time.

Str. N10-76

We initiated work in 2002 with the investigation of Str. N10-76 (Figure 3), supervised by Kip Andres of the Chau Hiix Project. We began by clearing the platform face, which was made difficult by the fact that large segments of the face had been pushed, presumably by root action, evenly and deceptively outward, making delineation of the true face a far more time-consuming task than we had anticipated. It was only through the expertise and persistence of Damasio Pop and German Aguilar that the original face was eventually exposed. This exposure revealed that we were mistaken about the features we thought were Late Postclassic. Str. N10-76's north side (not shown in Figure 3) appeared at first to display the characteristic double line of stones that represents a partially collapsed face of a Late Postclassic building platform. It turned out that there was a single, inset step on this north side, and its collapse mimicked Late Postclassic features.

We then looked for corner caches, because if Str. N10-76 was Late Postclassic, it might have had caches in each of the four corners as was the case with at least one Postclassic platform at Tipu (Kautz 1981); but no caches were found. We then excavated a trench across the primary axis, which as the result of Pop's and Aguilar's work we could now accurately situate, and there found an extended burial originally

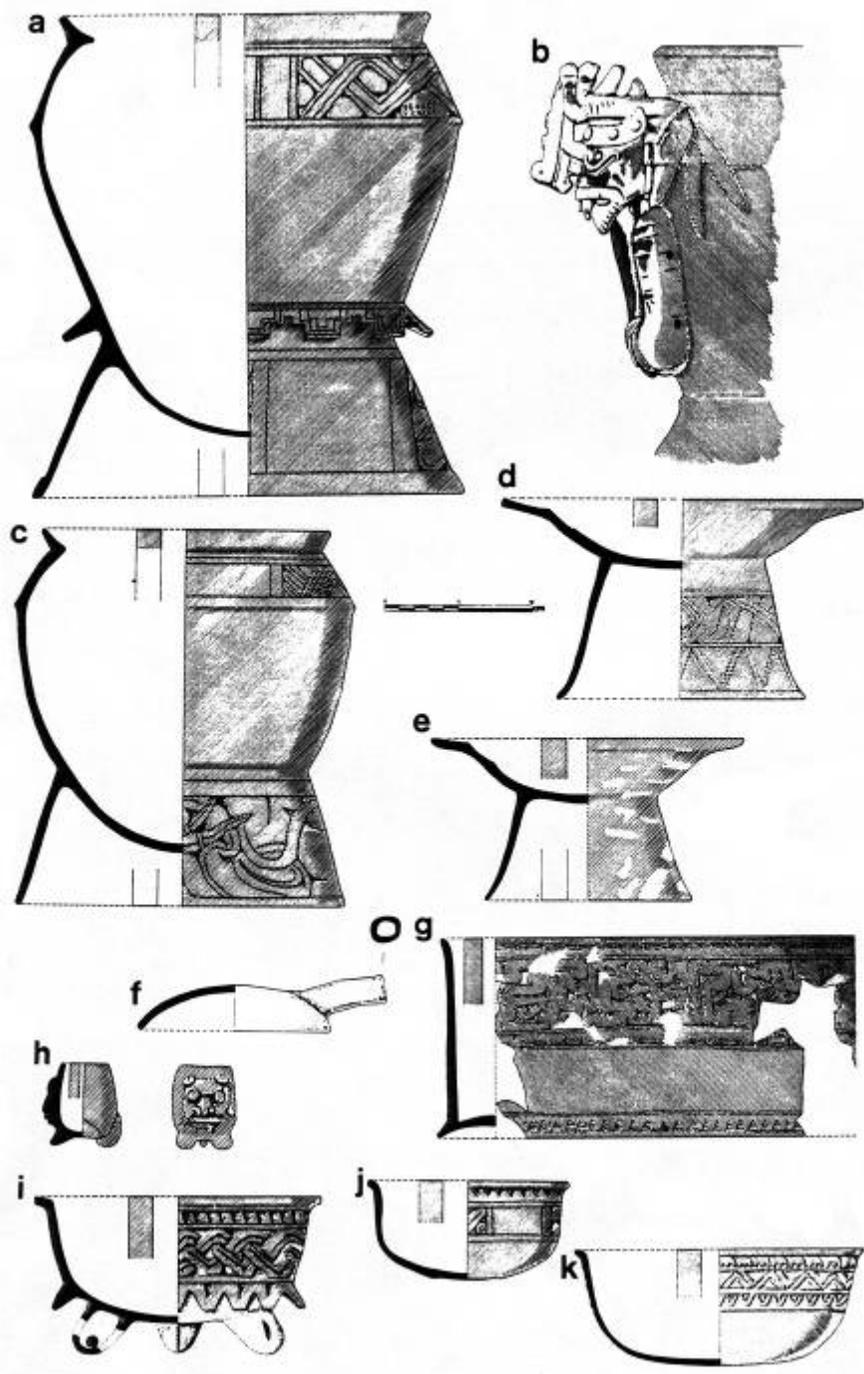


Figure 4. Examples of Early Postclassic, Buk Phase vessels, all from Lamanai (from Graham 1987:84).

placed on the boulder core of the platform extension on this side, and covered by the smaller more variably sized core stones of the N10-76 platform.

Marginella shells and several pottery vessels were buried with the individual, who lay on his back with head to the west. Because the boulders of the core had little earth matrix, however, many pieces of pottery had fallen through the spaces, as had pieces of bone, and it was not possible to retrieve all the burial contents. To our surprise, the vessels associated with the burial displayed features that suggested manufacture at the very end of the Classic Period and beginning of the Terminal Classic (e.g. glossy slips, small basal-break bowls, low pedestal bases).

A Summary of the Activity Associated with the North Platform Extension of the Ottawa Group

The date of the pottery in the Str. N10-76 burial clearly indicates that the Boulders expansion that we thought might have extended into the Postclassic Period had been completed much earlier –apparently in the first part of the Terminal Classic. We have no radiocarbon dates yet, but based on estimates elsewhere, Boulders construction and the building of Str. N10-76 could have to have been completed by, say, AD 850. In addition, we found that Str. N10-76 had incorporated into its construction an earlier wall, which seemed to be primary to the north platform extension. Features had also been added to Str. N10-76 that connected it to the perishable building I mentioned earlier, Str. N10-80, that was built on top of the razed Str. N10-28 (Figure 1).

It now appears that there were a number of variously shaped features and buildings –some of masonry (such as the additions to N10-19 and N10-15), but others largely of wood or part masonry, part wood, but built on low stone platforms (such as N10-76, N10-80)– that were constructed in

the Terminal Classic Period as part of continued occupation of the Ottawa Complex. There was also at least one small house platform, Str. N10-81 (Figure 3), which was built much later, probably in the 16th century based on the Yglesias ceramics recovered. All of these features give a good indication of the intensity of use of this zone during a period when many other sites were experiencing collapse.

Str. N10-12 and Str. N10-77

Across the Ottawa courtyard, on the south side, lie Strs. N10-12, and N10-77, which were our focus in 2002 and 2003. Str. N10-12 turned out to represent the remains of a succession of Terminal Classic to Postclassic buildings, largely of wood, that were built over the remains of two earlier buildings, N10-77 and N10-78. During the Boulders construction effort, an open access between N10-77 and N10-78 was filled with boulder core, and N10-12 was built to span the access and cover the two earlier buildings. We excavated only the portion of N10-12 that needed to be removed to expose the Central Access and one of the earlier buildings, N10-77. In consultation with the TDP, we adopted the strategy to consolidate only N10-77. N10-78 was left for archaeologists of the future, but also to stand as an example for site visitors of the full sequence of Classic to Postclassic construction at this location.

Early Postclassic

We discovered midden accumulation on Str. N10-12's northeast side that reflected Late Postclassic and even sixteenth century activity, but we were unable to distinguish any structural features that related to this period. The first recognizable structural features turned out to be part of the Early Postclassic period or Buk phase. A platform that was large in extent, but not particularly high (see Figure 3), was built up of both cut and uncut stones (N10-12, 2nd is our

preliminary designation for this phase). No mortar or plaster floor covering the platform was detected, but given that nothing protected these features, the preservation of plaster was not expected. It turned out that this Early Postclassic platform had been constructed immediately upon the dismantling of an earlier, Terminal Classic building, and cut stones as well as uncut stones from the Terminal Classic building were re-used in Early Postclassic construction (Figure 5).

Our Early Postclassic or Buk dating information comes from three burials that had been dug through the earlier Terminal Classic building's floor at the time the Early Postclassic platform was originally constructed. All burials (Burials N10-12/6, N10-12/7, N10-12/8) contained different combinations of fragmented Buk pottery – chalices, large pedestal-based jars, frying pan censers, and bowls with effigy feet. The burial position is distinctive and occurs at Lamanai (and on Ambergris Caye) in both the Early and Late Postclassic Periods. The body is laid face down with the legs bent back.

Terminal Classic

The Terminal Classic at Lamanai is characterized by a suite of vessels different from the Early Postclassic (Buk) assemblage. Many Terminal Classic features (Figure 6) were originally identified on the basis of comparisons with San José V and to some extent with San José IV (Thompson 1939:Plates 15,16,18,20,21), but some also appear in the Spanish Lookout and New Town phases at Barton Ramie (e.g, Gifford 1976:Fig.148,149,199). Common at Lamanai during this period and originally typed at Barton Ramie is Daylight Orange: Darknight Variety (Gifford 1976:301-302).

Probably the most distinctive Terminal Classic representatives at Lamanai are what we have been calling the Lamanai polychromes (Figure 7), because their design,

as far as we know, is unique to the site. These polychromes replace the more finely painted Late Classic polychromes, particularly the vases that served as social currency in maintaining elite social and political relationships (Reents-Budet 1994:88).

Unfortunately, we do not have a good enough handle on the Late Classic at Lamanai to propose what ended the Late Classic polychrome vase tradition. What we do know, based on present evidence, is that the well known, beautifully painted polychrome vases do not appear in the same contexts as the cartoonish Lamanai polychromes that mark Terminal Classic caching. Ultimately, even the Lamanai polychromes give way in the Early Postclassic to the Buk traditions of bright red-orange slip and elaborate and decorative fine-line incising. Most of the ceramic information by which we characterize the Terminal Classic has come from a wide range of caches found both in buildings (e.g., N10-17 excavated by Pendergast) and in the core of Boulders phase infilling, associated particularly with the filling of the Central Access between Strs. N10-77 and N10-78. The common cache vessel contents are obsidian blades and carbonized remains. The evidence recovered in 2002 and 2003 of Terminal Classic building remains was difficult to isolate and elusive in section (see Figure 5). There may have been at least three phases of the Terminal Classic building, but of these three, two are represented by highly limited features. The most distinctive remains consist of a highly fragmentary plaster floor and cut stones placed around the edge of the floor that seem once to have supported the pole walls of a superstructure (N10-12,1st) (Figure 5). This superstructure and its foundation rested on boulder core deposited as part of Boulders-phase construction, which also included stairs

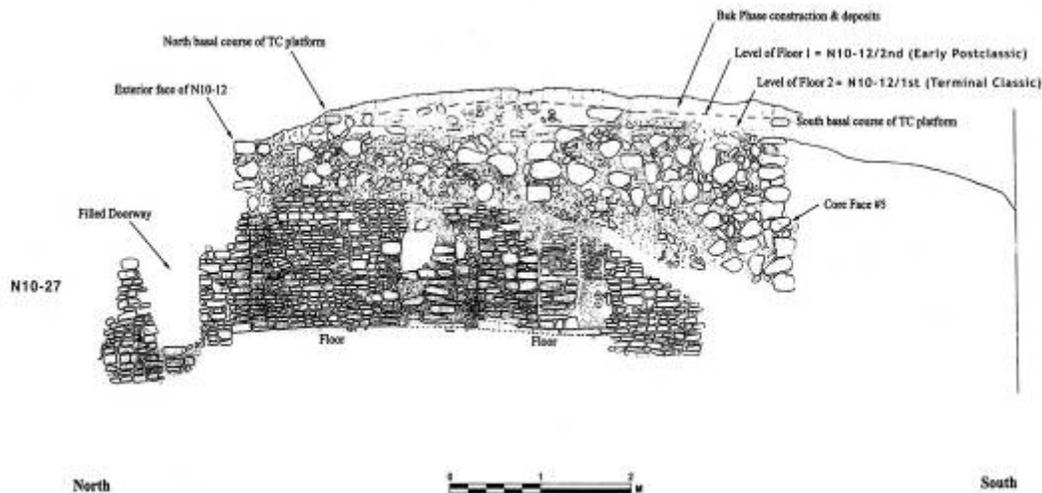


Figure 5. East section of north-south trench through Str. N10-12 in area of Central Access; shows Str. N10-12, 2nd, N10-12, 1st, and elevation of the west side of Str. N10-77.

and platform terrace additions that faced the Jaguar Temple, Str. N10-9, to the south (not shown, but these features lie just south of Core Face #5 in Figure 5). On the north side facing the courtyard, the boulder core of Str. N10-12 was retained by a low platform face (Figure 5). Beneath the boulder core of the Boulders phase lay the razed remains of Str. N10-77 (Figure 5).

Str. N10-77

My original idea, based on the style of construction of N10-77 as revealed by clearance of the courtyard, was that it, too, might be Terminal Classic rather than Late Classic in date. The doorways of Str. N10-77 open directly onto the courtyard, separated from the courtyard level by the height of a single step or two. Str. N10-77 does not appear to stand (in the expected Maya fashion) on a platform, as do the other buildings of the Ottawa group; nor does it have access to the courtyard via a platform stair. To this extent Str. N10-77 reminded me of the buildings straddling the wide platform stair of one of the structures of the Nunnery Quadrangle at Uxmal.

It turns out that the latest use of N10-77 dates to the Late Classic/Terminal Classic transition. This conclusion is based on several lines of evidence. Construction of the latest phase in the Late Classic is indicated by the style of a grooved, black-slipped vase recovered from a cache beneath the floor of the latest phase. At the end of this final phase, all room contents seem to have been burned as evidenced by the presence of carbonized remains on floors, and the heavy blackening of all floors and parts of walls. We have not interpreted this as hostile action because the penultimate building phase was also terminated by a burning event. But by the time Str. N10-77 was chopped, its rooms filled with *sascab* and the razed remains covered with Boulders, we know that the Terminal Classic was underway, because Terminal Classic sherds occur abundantly in the *sascab* room fill, particularly near the floor where they seem to have been dumped or swept into piles; sherds from Terminal Classic vessels were walked on and pressed into the floor as Maya builders prepared the rooms for filling; Terminal Classic vessels characterize the caches associated with the

razing of N10-77 and the subsequent Boulders activity; and in the one case in which a vessel seems to have been left on the floor before the room was burned, its style (see, e.g., Figure 6d or f) indicates a Terminal Classic date of manufacture.

At the time of writing we have just completed the 2003 field season, and I have no finished drawings that would help me to describe Str. N10-77 in any detail. Essentially, Str. N10-77 started out as two parallel E-W rooms that were originally open-plan, but were later subdivided by interior walls and benches. We were able to date the use of the later, final phase, as I noted above, to the Late to Terminal Classic transition, but we uncovered no primary deposits that indicated the date of the earlier phase. Although 17 caches were recovered from beneath room floors, only one contained datable pottery: Cache N10-77/4 with the grooved, black-slipped vase noted above. One, Cache N10-77/2, comprised tiny jade fragments, apparently debris from jade working. All other caches contained carbonized remains, which are scheduled to be subjected to identification and radiocarbon dating.

None of the benches yielded caches or burials. One, however, did contain fill of dark, midden-like soil with a high concentration of sherds, a good proportion of which pre-dated the Terminal Classic Period. Another internal room feature had been chopped back and covered by a later bench. The earlier feature appeared at first to be an antecedent bench, but instead turned out to be a red-painted, freestanding feature of some kind, possibly an altar.

Construction techniques characterizing the latest phase of Str. N10-77 match techniques exhibited by other structures around the Ottawa courtyard that are believed to have been contemporaneous with Str. N10-77. These are: even-numbered terraces and doorways; variable proportions

of features such as doorways or doorjambs within the same building; the use of robbed facing stones in uncoursed facades; and the distinctive use of vertically set stones in features such as stair risers.

Conclusion

The final phase of Str. N10-77 was marked by extensive burning –apparently of room contents– prior to the filling of the rooms and the deposition of boulder core to fill the courtyard and to support Str. N10-12.

The rooms, whose contents were burned just prior to the razing of Str. N10-77 to accommodate the Boulders construction effort, had Terminal Classic pottery scattered in the room fill. If I am correct in my inference that the blackware vase from the cache dates the latest construction phase of Str. N10-77, then this occupation phase clearly bridges Classic to Terminal Classic lifeways.

Str. N10-12 started out as a Terminal Classic building: Str. N10-12,1st. Str. N10-12,1st differed from Str. N10-77 in that its walls and roof were of perishable materials. Its style of construction –poles placed on-end on cut stone blocks around the perimeter of a plaster floor– might have cultural significance. Str. N10-12 was of substantial dimensions (see Figure 3), with an element or extension on the east side (not shown in Figure 3) that filled the corner space between Str. N10-77 and Str. N10-17 (refer to Figure 3). At some point in time, and possibly after Str. N10-12,1st had undergone some modification, Str. N10-12 was altered in a major way. Three graves were dug into the floor of Str. N10-12,1st and three individuals were interred, accompanied by fragmented and incomplete pottery vessels of styles, forms, and colours that are distinctively Buk (vessels in the style of those in Figure 4).

Str. N10-12,1st was then razed; cut and uncut stones used in its original construction were spread on its former floor

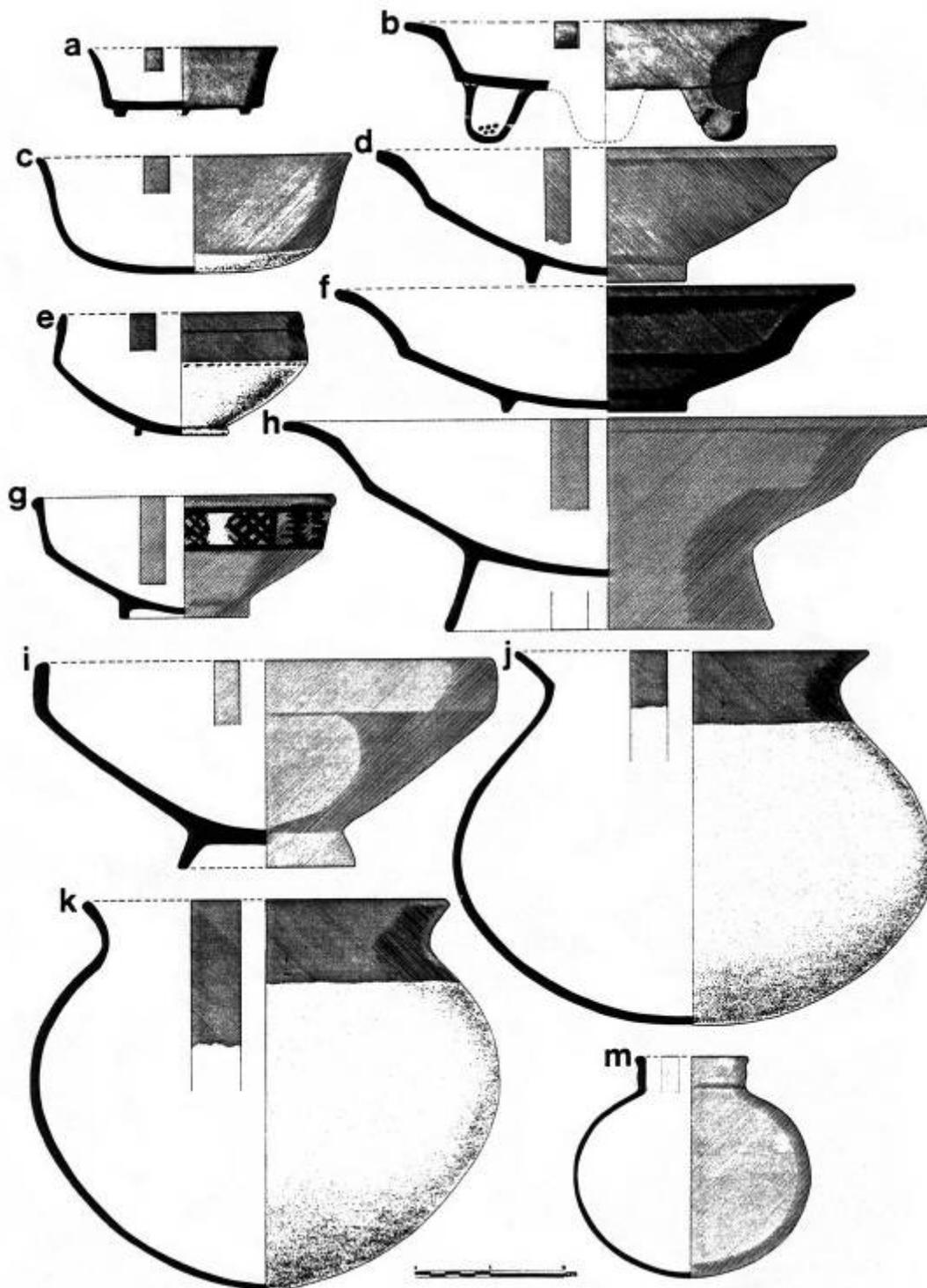


Figure 6. : Examples of Terminal Classic vessel forms/types found at Lamanai: a-e,i, and m are from Lamanai; f is from Actun Tzimin; g and h are from Altun Ha; j and k are from Actun Polbilche (from Graham 1987:77)



Figure 7. Example of a Lamanai polychrome. Illustration by Louise Belanger.

surface to form the core of a new, raised building platform, and we infer that a new perishable building, Str. N10-12,2nd, was built on the new platform. If a floor capped the platform, as it probably did, it was not preserved. Dating of this phase is based on the burials cut into the floor of Str. N10-12,1st as well as on the accumulation of Buk Phase sherds, apparently part of a midden, on N10-12's north and east sides. Buk sherds were also abundant in the platform core, although this context is heavily disturbed by root action.

Activity of the Buk Phase –the Early Postclassic– seems to have involved a shift in focus to the lagoon. Although Late Postclassic sherds were recovered from the north side of the N10-12 platform, they were not associated with structural remains that we could identify. The transition from the Early to the Late Postclassic, and from the Late

Postclassic to the Historic Period is better documented by settlement along the lagoon. Once the data from the Ottawa Group excavations are compared to Pendergast's results (1981) from Strs. N10-2 and N10-4 – the structures that produced the original Buk and Cib pottery– we should have a better idea of the events that carried the Maya from Terminal Classic to Late Postclassic times. Material that has resulted from TDP activity along the lagoon, as well as from early excavations in the Camp Zone, and possibly from the platform of the Mask Temple, will help flesh out the Late Postclassic picture as well as the transition to Historic times.

Lamanai has had a long life, and its resourceful inhabitants seem to have exhibited endless ability to adapt to changing circumstances. It is one of the sites in Belize in which the past meets the present because of its continuous occupation, and as such can offer researchers, teachers, and tourists both local and foreign a unique opportunity to learn about cultural survival.

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18 *SANTA RITA COROZAL: TWENTY YEARS LATER*

Diane Z. Chase and Arlen F. Chase

When Corozal Postclassic Project investigations were initiated at Santa Rita Corozal in 1979, the primary focus of most ongoing Maya research was the Classic Period (with notable exceptions). This paper reviews the contributions of the Corozal Postclassic Project and considers archaeological data from Santa Rita Corozal in light of recent investigations on the Postclassic Period Maya and on current ideas and approaches in Maya Studies. These data highlight the use of a contextual approach that combines history and archaeology in the reconstruction of ancient Maya social, political, ritual, and economic organization.

Introduction

Corozal Postclassic Project investigations at Santa Rita Corozal were conducted from 1979 through 1985. This work was undertaken at a time when the Postclassic Period Maya were viewed largely in negative terms as compared to their Classic Period ancestors. The Postclassic Maya were seen as decadent and still declining, faint remnants of the glorious populations that had once inhabited the depopulated Classic Period centers. The Postclassic Maya were contrasted with their Classic counterparts in terms of things that were no longer present, such as carved stelae with long count dates. We now know that these characterizations are incomplete and inaccurate. Since the 1980's the Postclassic Period has come to be associated with temporal rather than cultural meaning. As was the case during the 1970s and 1980s, however, archaeological investigations continue to focus predominantly on the Preclassic, Classic, and Terminal Classic Periods of Maya prehistory, even though there has been an increased emphasis on Postclassic Period archaeological research and conferences (A. Chase and P. Rice 1985; D. Chase and A. Chase 1988; Masson 2000; Sabloff and Andrews 1986; Smith and Berdan 2003).

Santa Rita Corozal may be viewed as a microcosm for analyzing changes in the Maya

field over the last two decades. Some of the hallmarks of Postclassic Period archaeology – such as its focus on low-lying architecture and vacant terrain – have received some emphasis in work on earlier horizons; indeed, sites, such as Classic Period Caracol, have simple line-of-stone constructions in their epicenters that have now been investigated. Also emerging in the last 20 years has been a focus on the recovery of functional assemblages that are a recognized part of abandonment processes. Archaeological identification of abandonment has been a focus of investigation by a number of researchers (Cameron and Tomka 1993; Inomata and Sheets 2000) and it is evident now that abandonment materials can be recovered for early time horizons (Brown and Sheets 2000) and not only late phases like those recovered at Santa Rita Corozal. There are, however, some aspects of the Santa Rita Corozal research that have not yet seen widespread adoption, specifically our focus on using archaeology as a critical methodology for testing historic statements. This was a particularly effective methodology at Santa Rita Corozal with regard to community organization and ritual activity. In recent times, only the work of the Rices and their students (1998) in the central Peten has attempted a similar conjunctive approach. The contextual approach that we used at Santa Rita Corozal

has also been employed at Caracol (A. Chase 1994) and has seen increased usage by other projects (e.g., Iannone 2002); this methodology, however, could have greater applicability to Maya archaeological research as a whole.

Within this paper we would like, first, to review the site's occupational history and, then, to focus on specific aspects of the organization of the Postclassic community. In this way we hope to place some of the Corozal Postclassic Project work within the context of current archaeological work in Belize and in the Maya area.

Santa Rita Corozal

Santa Rita Corozal is located in and around modern Corozal Town in Northern Belize. The site is auspiciously located between the New and Hondo Rivers on Chetumal Bay. Santa Rita was first investigated by Thomas Gann, a medical doctor stationed in Corozal Town. In his reports (Gann 1900, 1911, 1914, 1918; Gann and Gann 1939), Santa Rita was notable for its Late Postclassic material remains – specifically, its numerous modeled and painted ceramic effigy cache figures and a series of painted murals on his Mound 1, thought to be indicative of the Mixteca-Puebla style (Nicholson 1955, 1960, 1961; Quirarte 1974, 1982; Robertson 1970). Santa Rita Corozal was the site of later investigations by Ernestine Green (1973), Raymond Sidrys (1976:332-344, 1983:124-159), and Hammond's (1982) Corozal Project (see also Pring 1973:62-67). Santa Rita Corozal was selected for intensive investigations by the Corozal Postclassic Project between 1979 and 1985 because of the previously documented existence of Late Postclassic material at the site. Four full field seasons of excavation were undertaken in 1979,

1980, 1984, and 1985 with laboratory work and mapping being tackled during the interim years.

Work at Santa Rita Corozal focused primarily on intensive excavations that generally consisted of areal clearing and/or trenching. In all, 46 structures were investigated. Work focused on Postclassic occupation and nearly all excavations contained remains from this period. Of the 152 Special Deposits encountered by the project, 15 were Postclassic caches and 42 were Postclassic interments; the remainder of the deposits dated to earlier periods of occupation.

Although best known for its Late Postclassic Period (post A.D. 1250) remains, Santa Rita Corozal maintained an exceedingly long sequence of occupation. There is evidence for human habitation at the site from the Early Preclassic through the present.

Occupation History of Santa Rita Corozal

The first evidence of occupation for Santa Rita Corozal dates to the Early Preclassic Period or approximately 1200-900 B.C. (similar dating as ascribed to the early remains at Cuello; see Hammond et al. 1995). The early inhabitants of the site occupied a high bluff well above Corozal Bay. Excavations encountered four early burials deeply buried in Structure 134 (Operation P12) (D. Chase 1982:403-405; D. Chase and A. Chase 1988:62-63). There was a single slipped ceramic vessel in two of these burials (S.D. P12B-24 and S.D. P12B-26); S.D. P12B-24, the burial of an adult female also included a shell necklace and two shell bracelets. The ceramics clearly belong to the Swasey Ceramic Sphere (Kosakowsky 1987; Kosakowsky and Pring 1998; Pring 1982). When it became clear that the bluff area in the Southwest Sector at Santa Rita Corozal contained primarily non-

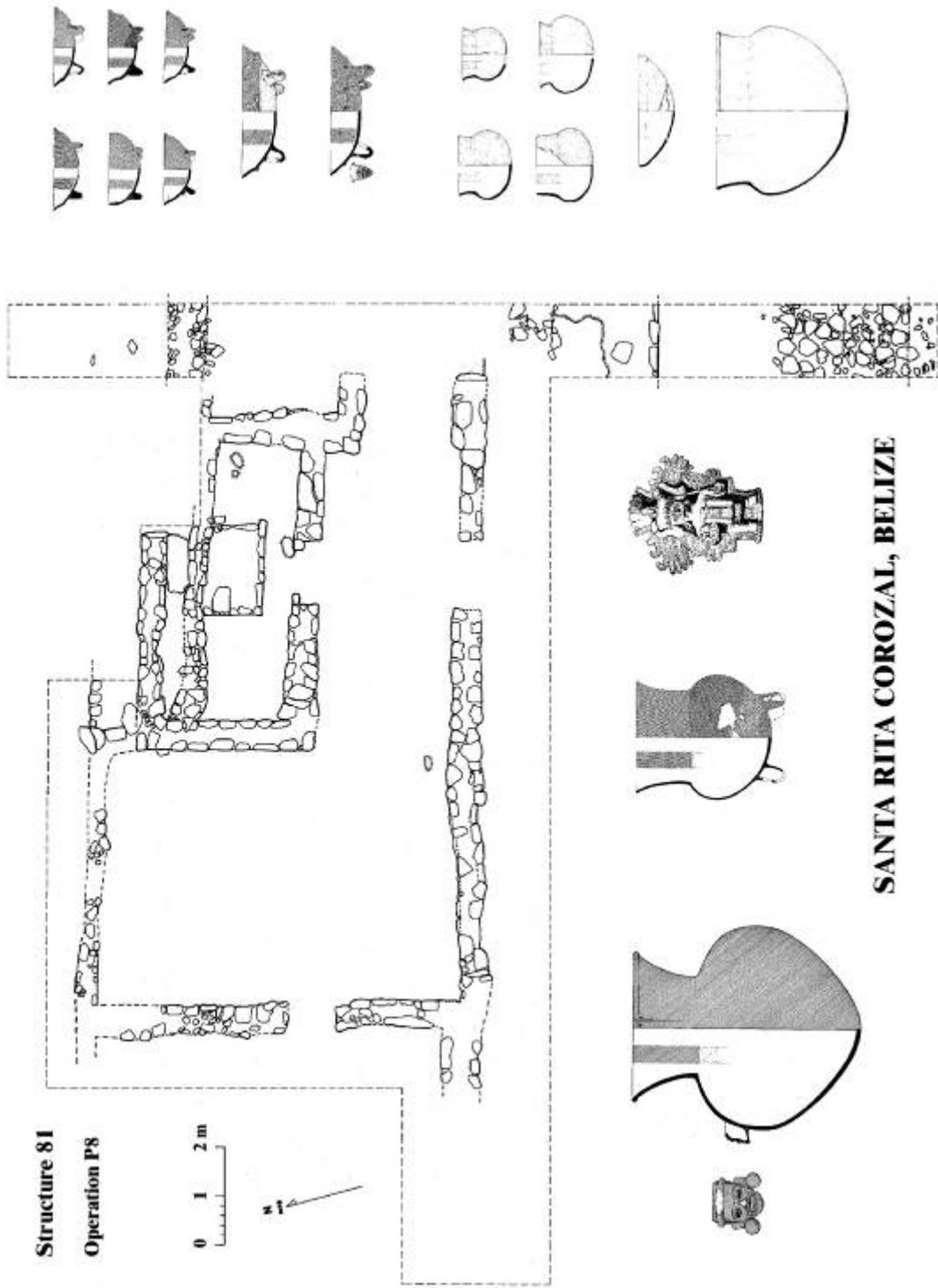


Figure 1. Plan of Santa Rita Corozal Structure 81 with some of the vessels that were recovered from inside this building (after D. Chase and A. Chase 2000).

Postclassic materials, no new investigations were undertaken. It is suspected that there was only a small village in this area during the Early Preclassic Period with an estimated population of approximately 150 people (D. Chase 1990:Table 10.1 and 10.3).

Evidence for Middle Preclassic Period (900-300 B.C.) occupation was found in two very distinct locations at the site, in the North Central (Structure 92; Operation P24; D. Chase and A. Chase 1988:38-39) and Southwest Sectors (Structure 134; Operation 12B; D. Chase and A. Chase 1988:62-63; D. Chase 1982:403-405). Five burials may be dated to the Middle Preclassic Period; there were ceramics in most of these interments. The pottery (see D. Chase and A. Chase 1988:Fig38) represents a blending of Swasey and Mamom traditions as opposed to the distinct Mamom Ceramic Complex identified for Cuello by Kosakowsky (1987). Population during this time was likely about the same size as in the earlier Early Preclassic Period (D. Chase 1990:Table 10.1 and 10.3).

By the onset of the Late Preclassic Period (300B.C.-A.D.200), however, there is evidence for a substantial population increase at Santa Rita Corozal. Late Preclassic occupation levels were recovered in 12 locales; 32 Late Preclassic interments (representing 34 individuals) were recovered. Pottery included within burials is typical of Sierra Red pottery found throughout the Maya lowlands. Estimated population for the site during this era was approximately 1,000 people (D. Chase 1990: Table10.1 and 10.3).

Four constructions and four burials were encountered that could be related to the Protoclassic (A.D.200-300). All of these locales were found in extremely low-lying constructions beneath vacant terrain Postclassic Period buildings. In spite of the paucity of recovered deposits, it is suspected that the population during this period increased over the preceding Late Preclassic Period (D. Chase

1990: Table 10.1 and 10.3). Early Classic Period Santa Rita Corozal (A.D. 300-550) contained a population of only approximately 1,500 people, but the village was much changed. Monumental architecture was constructed in the area of Structure 7; trade items increased; and, the 13 interments from this time indicate the existence of a wide social dichotomy. Three interments were encountered in the summit excavations of Structure 7 (D. Chase and A. Chase 1988:31-35); they are sumptuous in contrast to those located elsewhere at the site. One interment, dated to A.D. 450 housed the remains of what must have been one of Santa Rita's great rulers.

His tomb contained virtually all of the possible burial offerings for a high-ranking individual of his time (A. Chase 1992). This Early Classic data is important in that it indicates that a relatively small population may support monumental architecture and be associated with an established social dichotomy. The relative wealth of the Structure 7 interments is likely related to Santa Rita Corozal's pivotal location relative to trade along the Rio Hondo and New River (D. Chase and A. Chase 1989) rather than Santa Rita's control over local labor and politics. It would appear that Santa Rita supplanted Cerros as the key site of Chetumal Bay at the beginning of the Early Classic (D.Chase and A. Chase 1989; Walker 1998).

Late Classic Period (A.D.550-900) occupation is widespread at Santa Rita Corozal, as evident from data found in 14 different excavations and in 28 burials (with 29 individuals). By A.D. 750 there were probably close to 2,500 people living at the site (D. Chase 1990: Table 10.1 and 10.3). The social dichotomy that characterized the Early Classic Period had, however, disappeared and a wider portion of the population had easier access to material items.

The Terminal Classic/Early Postclassic Period (A.D. 900-1200) occupation at Santa Rita Corozal is somewhat problematic

compared with that of earlier and later eras. As at other sites in northern Belize (Graham 1987; Pendergast 1986) it is difficult if not impossible to distinguish Terminal Classic from Early Postclassic occupation. Part of this analytical difficulty may be due to the blending together of regional traditions in northern Belize by outside populations moving in at the time of the collapse. Evidence for habitation during this period was found in 14 structures. However, burials were substantially less prominent, apparently being placed in different locations. Only 6 interments from this period were encountered and most of these were found in atypical structural positions. Population estimates for this Period are approximately 2,000 (D. Chase 1990: Table 10.1 and 10.3).

Four constructions and 4 interments (with 5 individuals) were recovered that can be dated to the early-facet of the Late Postclassic (A.D. 1200-1300). The ceramics associated with this facet of the Late Postclassic appears to be closely related to materials found in other areas of the eastern Lowlands, specifically at the sites of Tulum (Sanders 1960) and Colha (Valdez 1987) (see D. Chase and A. Chase 1988:Fig. 4). This facet is not as abundant as the late-facet Late Postclassic, but is nevertheless well placed via stratigraphy and radiocarbon dates. Population estimates for this facet are approximately 1,800 (D. Chase 1990: Table 10.1 and 10.3).

It is during the late-facet of the Late Postclassic (A.D. 1300-1530) that the largest occupation of Santa Rita Corozal occurs. Virtually all excavation locales produced remains dating to this time. Thirty five structures had direct evidence of late-facet Late Postclassic habitation. Thirty-eight interments, representing 64 individuals, were recovered. Most constructions were located either in low-lying mounds with less than a 20 cm elevation rise above the surrounding surface or in vacant-terrain areas where no mounding was discernable. What appeared at first to be isolated structures, upon excavation could

generally be placed as one of a series of structures in a *plazuela* group. Some of the most elaborate deposits – both burials and caches – were found in places where no structure was visible prior to excavation, but where wall foundations were subsequently identified through areal clearing. Postclassic buildings in these locations also generally covered earlier hidden constructions. Thus, the problem of identifying non-mounded structures was not limited to the Postclassic Period at Santa Rita Corozal. The projected population for this time is conservatively estimated at 6,800 (D. Chase 1990: Table 10.1 and 10.3).

There has been substantial speculation as to the identification of the Protohistoric Maya capital of the province of Chetumal. Evidence for the identification of Santa Rita Corozal as Chetumal has been summarized elsewhere (see D. Chase and A. Chase 1988:65-68 for a discussion). Regardless of whether Santa Rita Corozal can be identified as Chetumal, the site was clearly the most significant center of occupation and ritual activity within its immediate area. The only site for which there exists a greater documented Late Postclassic population and for which a larger number of Late Postclassic caches have been recovered is the site of Mayapan, Mexico, which functioned as a regional capital in the early 15th century.

A sizeable Historic occupation also exists at Santa Rita Corozal. Limited artifacts of Spanish origin (olive jar sherds, an olive jar, majolica, and a spur) have been recovered. The site also has yielded numerous artifacts related to subsequent, mid-nineteenth century, British occupation.

The Organization of Late Postclassic Santa Rita Corozal

The late-facet Late Postclassic occupation of Santa Rita Corozal is the most extensive occupation of the area prior to the 20th century. Even given the loss of information due to the destruction caused by

modern construction activities and through erosion of land on the edge of Corozal Bay, there is substantial evidence for habitation and ritual activity extending through all mapped sectors of the site.

The majority of housing at Santa Rita Corozal during the Late Postclassic was made up of a series of buildings surrounding central plaza areas. A focal point in the most elaborate residential groups was a multiple room palace construction - often with a central, interior shrine. These buildings clearly served a combination of residential, ritual, and possibly administrative functions. Separate shrines were also located within plaza groupings. Other buildings generally consisted of single-room constructions with generalized residential debris. No clear kitchen areas could be identified, although nested domestic vessels were found in the corner area of one multi-room building (Structure 81). Artifacts were found *in situ* on a number of floors and represented domestic activities, lithic production, and ritual refuse. Burials were most often located below or behind structures and/or platforms. The most elaborate of burials were generally encountered in association with specially constructed stone shrines - usually, but not always, inside multiple-room buildings.

There are a series of important lessons to be learned from the Corozal Postclassic Project investigations. The first of these is that low-lying line of stone constructions may be associated with individuals of high status. Virtually all Late Postclassic Period caches and burials encountered in Corozal Postclassic Project excavations were from low lying line-of-stone base wall buildings. These included multiple room buildings that likely functioned as palaces. Excavations in these constructions revealed sumptuous burial offerings. This is most evident in Structure 212, a vacant terrain palace, where the burial of two flexed males was encountered within a crudely constructed stone shrine. The primary individual in this interment was accompanied by earplugs made

of gold, turquoise, and obsidian as well as a *spondylus* shell bracelet and a jade and *spondylus* shell pendant. Copper clasps indicate that he was wrapped in a textile shroud. An accompanying individual, presumably a sacrificial victim, had thirteen stingray spines and one copper needle located among his bones. Significantly, the vacant-terrain Structure 212 building also overlay a buried Early Classic Period cut-stone construction, indicating the degree to which surface remains may not be indicative of actual occupation.

Yet another outcome of the Corozal Postclassic Project investigations was the demonstration of the importance of contextual analysis and of the relationship between excavation strategy and interpretation. The significance of contextual analysis is perhaps best demonstrated by investigations into Structure 81, a multiple room palace building located on the north side of a *plazuela* in the Northeastern Sector of Santa Rita Corozal. It was a Late Postclassic Period construction built with Terminal Classic - Early Postclassic fill. The structure was the locus of residential and ritual activity; it contained one burial and two caches. One of the caches consisted of a stirrup-spouted vessel from South America; the other was a typical Late Postclassic diving-figure cache vessel. Thirty-two reconstructible vessels were found smashed on the floor throughout the building; the majority of these vessels, however, were concentrated in the area in and around a central shrine room. The context has an archaeological signature that would suggest contemporaneously used and abandoned materials as opposed to accretional deposition were it not for the presence of sherds sealed below a plaster floor and located

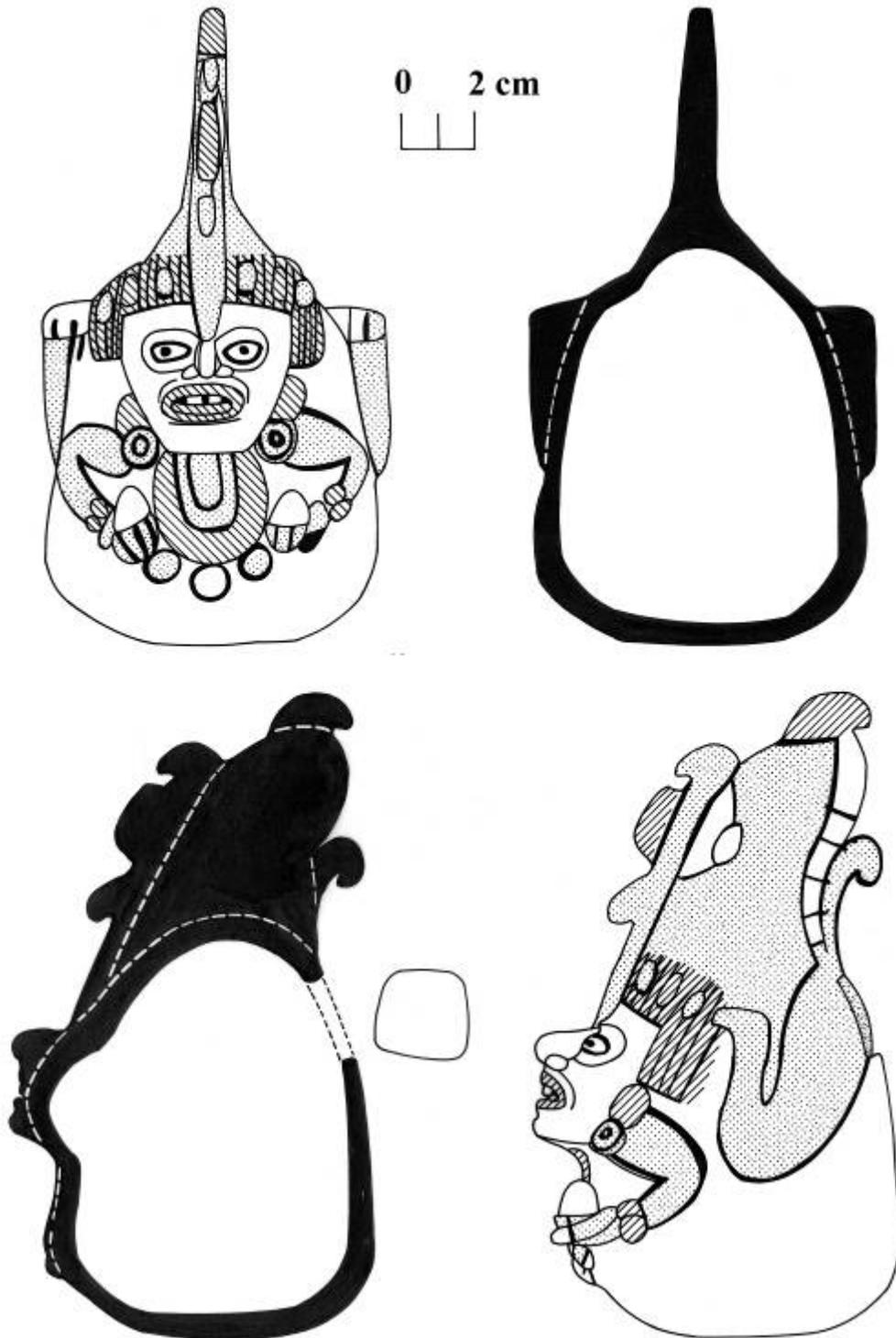


Figure 2. Perspectives on an inner Postclassic cache figure representing a combination corn deity – diving figure from Santa Rita Corozal Structure 37.

inside an intrusive, but sealed, burial cist, that fit to several of the smashed on-floor vessels. The investigations demonstrate that the material found on floors may have accumulated for an extended period of time – at least long enough to have undertaken building modification and to have placed a burial. The Structure 81 investigations have importance on a number of levels beyond simple recovery of archaeological data. First they point to the importance of contextual analysis and of large-scale clearing. They also indicate the difficulty of interpreting the amount of time taken in the deposition of artifactual remains. Finally, as will be indicated below, these investigations highlight the relationship between history and archaeology.

Archaeology and History

Not only can historic statements be used to complement archaeological excavations, but archaeology can be used as part of a critical methodology to test historic statements. Structure 81 also provides potential confirmation of early Historic descriptions of speaking idols based on ritual remains and building plan. Remains of two reconstructible incense burners were located in front of the shrine room, and a plaster-floored passageway or room large enough to contain a ritual specialist was located directly behind the shrine room, but was not visible from the shrine itself.

Thus, religious personnel could have hidden in the rear room to provide the voices for stucco or ceramic idols located within the shrine.

A similar conjunctive approach can be used to elucidate Late Postclassic ritual organization - and *wayeb* rites. Contrary to early descriptions of the Late Postclassic and Early Historic Maya as disorganized idol worshippers, investigations at Santa Rita Corozal suggest that ritual was a regular and patterned activity. Both partial and reconstructible effigy incense burners are found

at Santa Rita Corozal. As has been noted previously, reconstructible Postclassic effigy incense burners were generally found in pairs (D. Chase and A. Chase 1988: 72). One of the effigies of the pair is generally more complete and the other more fragmentary. This has led to the suggestion that these paired *incensarios* may have served as current and outgoing *k'atun* idols associated with calendric ritual, something described by Landa (D. Chase 1985a, 1985b; Tozzer 1941:166-169).

A somewhat similar pattern of censer deposition has also been noted for Classic Period Caracol (D. Chase 1988; D. Chase and A. Chase 1998; A. Chase and D. Chase 1999). The correlation of incense burners with *k'atunob* has been further suggested by the presence of a pair of smashed incense burners below Caracol Altar 16, a giant *ajaw* marker that marks a *k'atun* (D. Chase and A. Chase 1988:72). Not all incense burners, however, would have been *k'atun* idols. There were other kinds of Late Postclassic ritual ceramics, such as Cohokum Modeled containers and Kol Modeled cups that were associated predominantly with burial contexts.

Analysis of Late Postclassic caches at Santa Rita Corozal suggests that these generally do not appear to have been placed as building dedications, but were rather involved in community integration presumably related to calendric ritual. In contrast to Classic Period caches, the symbolism of the contents of Postclassic Period caches at Santa Rita Corozal are readily identifiable. Ceramics are modeled into the shapes of items that would have served as offerings or which indicate activities that would have taken place. Perhaps the best example of conjoined historic and archaeological data can be seen in reconstruction of *wayeb* rituals.

As we have noted elsewhere, Landa appears to have described the caching of objects within ceramic containers when he wrote about offerings made between two

platters (Tozzer 1941:143,165). Descriptions of activities and events associated with the calendric ritual of the unlucky *wayeb* days marked the completion of one year and the beginning of the next and can be correlated with data from both archaeology and Maya codices. Landa described the sacrifice of a man or a dog and the descent of a frightful looking angel to receive the sacrificed heart during *K'an* years. The descending angel has been suggested as being the Postclassic diving god depicted on page 35 of the Madrid codex (corresponding with *K'an* years). This figure matches ceramic cache figures recovered from Structures 37, 58, 81, and possibly 218 at Santa Rita Corozal (Figure 1).

The most detailed correlation of Landa's account, codex pages, and archaeological materials is found in accounts of ceremonies associated with *Muluk* years. During these years, Landa described offerings of cloth, dogs, and squirrels. There were also dances involving warriors, women, and stilts. The companion page in the Madrid codex (page 36) shows bolts of cloth, footsteps to indicate dance, stilts, weapons, and a stingray spine. The archaeological caches from Santa Rita Corozal thought to be associated with the *Muluk* years come from Structures 183 and 213 and contain, among other things, combinations of ceramic warriors, women with cloth in front of their faces, *pisotes* (probably Landa's dogs), and individuals performing penis perforation.

Late Postclassic caches at Santa Rita Corozal were located inside shrines, platforms, and multiple room buildings (D. Chase 1985a, 1985b, 1988; D. Chase and A. Chase 1998). Their location within residential *plazuela* groups is not solely a Postclassic characteristic, for caches are also common in Late Classic residential buildings (e.g., Caracol; D. Chase and A. Chase 1998). However, Postclassic caches are found in buildings at the north, south, and west sides of the plaza rather than associated with the eastern building, which is the ubiquitous location for Classic Period

caches at Caracol. The symbolism contained in Late Postclassic cache contexts is generally easily visible to a foreign eye and, thus relatively easy to interpret. Thus, the combination of cache contexts and ethnohistoric statements make it possible to assign meaning to these caches in a way currently not possible for the Classic Period. Eventually, analysis of Postclassic caches should help with interpretations of Classic Period caches.

Archaeology can also be used to challenge and correct historic statements. At Santa Rita Corozal this is best viewed in terms of site organization. Descriptions of Maya site organization traditionally reference Landa's description of a concentrically organized Maya town. He stated that those of highest status were located closer to the central plazas of a given community (Tozzer 1941: 62), a description he may have plagiarized and borrowed from other Central American contexts (D. Chase 1986). Landa's concentric pattern for a Maya center, in which the elite clustered around the downtown area and the poor lived further away, openly contrasts with Burgess's (1923) concentric model of an urban city, which suggested that there would be clusters of poorer workers near downtown areas and that the suburban elite would be located at some distance from city centers. Investigations at Santa Rita Corozal by the Corozal Postclassic Project suggested that this Maya community was not organized according to Landa's concentric mode, another case where the archaeology can provide data to test historic statements. Partially because of Landa's pronouncements, however, the organization of Classic Period sites has been similarly controversial. Recent investigations at Caracol have used settlement patterns, artifact and feature distributions, and stable isotope characterizations of diet to suggest that the Late Classic Period Maya community of Caracol likewise did not mirror the concentric pattern described by Landa, but rather mirrored

Burgess's (1923) concentric settlement pattern in conjunction with an edge city pattern defined by Garreau (1991; A. Chase et al. 2001).

Conclusions

Corozal Postclassic Project investigations at Santa Rita Corozal continue to be relevant to present day archaeology. Santa Rita Corozal data and interpretations have implications for viewing the Late Postclassic Period Maya and also for interpreting earlier archaeological remains. The research underscores the importance of excavating in low-lying constructions. This is evident in current research by ourselves and others (such as Pyburn 1990) that continues to investigate line-of-stone and vacant terrain constructions. The intensively excavated structures and contextually recorded caches, burials, and refuse deposits from Santa Rita Corozal are a substantial resource for interpretations of the Late Postclassic Maya. Reconstructions of Maya ritual and community organization shed light on the functioning of contact era Maya communities and also have applicability for studies of the Classic and Preclassic Period Maya. The methodology employed at Santa Rita Corozal - contextual analysis conjoined with critical evaluation of historic data - could well see further fruitful application in the analysis of Classic Period hieroglyphic texts.

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19 **LATE MAYA SETTLEMENT AT PROGRESSO LAGOON: TERMINAL CLASSIC THROUGH COLONIAL PERIODS**

Marilyn A. Masson, Maxine H. Oland, and Josalyn M. Ferguson

The Belize Postclassic Project has expanded its temporal focus to frame Postclassic period developments in the context of preceding and following settlement at Progresso. Our recent work reveals that Caye Coco was founded as a Terminal Classic Shrine locality with the construction of a Chichen Itza style round structure atop the island's prominent hill. Dispersed, affluent plaza groups and a minor monumental centre have been documented for kilometres along the west shore. Our work identifies close economic and stylistic relationships with Chichen Itza as well as the southern interior, a brief Early Postclassic disjunction, and a complete settlement reorganisation with the founding of Caye Coco as a Late Postclassic centre by the 12th Century that rekindled strong links to northern Yucatan. The heart of Spanish Colonial period settlements shifted once again to the shore, and we have investigated residential and ritual structures and middens clearly dating to the 16th century.

Introduction

Recent seasons at Caye Coco and shore sites of Progresso Lagoon reveal substantial occupations from the 8th through 17th centuries A.D. Patterns observed in the organization and location of architecture and the variation in artifact assemblages of the Terminal Classic, Postclassic, and Colonial periods reflect important changes through time in the political economy of the northeast Belize area. The Progresso Lagoon settlements provide data on sequential adaptations of communities in a hinterland area that were asymmetrically linked to hegemonic polities centered in the northern peninsula (Chichen Itza, Mayapan, and Colonial Merida) and they also maintained ties to southern neighbors. Our research on the Postclassic period at Progresso Lagoon is thematically linked to that of the bracketing Terminal Classic and Colonial periods through the study of processes of establishment or re-establishment of new settlements in the context of regional patterns of social change.

Terminal Classic

The Terminal Classic settlement of Progresso Lagoon is found on both the island of Caye Coco as well as in dispersed residential platforms along the rolling fields to the west of the lagoon (Figure 1). Beneath Postclassic middens at Caye Coco we find Terminal Classic deposits overlying bedrock at several off mound locations (Subops 18, 38, 39, 40) as well as Structure 1 (Figure 2). Terminal Classic sherds make up 11% of the Caye Coco assemblage. Two substructures of Terminal Classic date have been located within Structure 1 of Caye Coco, which in its latest form was a large Postclassic long structure atop the central hill at the island's high point. The earliest construction we have found is a round structure similar to that reported by Diane and Arlen Chase for Nohmul (1982). It is a rubble platform with three courses of limestone blocks around its exterior. Terminal Classic ceramics including Fine Orange, Sisal Unslipped, Buyuk Striated, Chambel Striated, and various slates were found in the fill overlying this platform and were embedded into the rubble on the round structure's surface. One skull (unexcavated) appeared at the surface of this

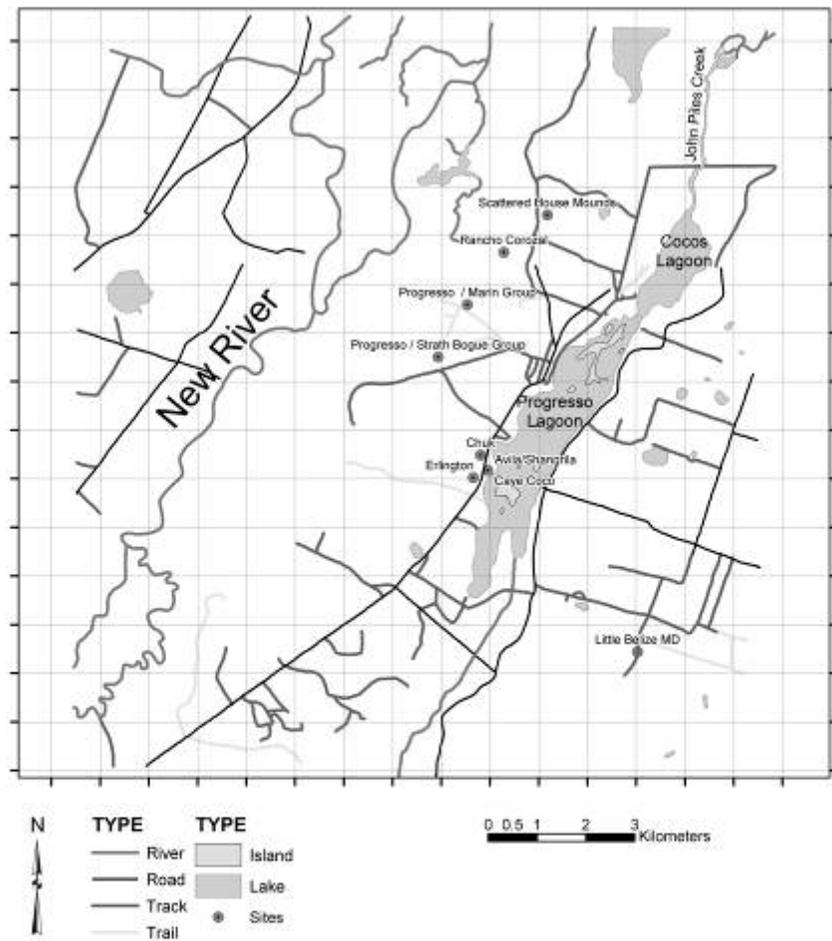


Figure 1. Map of Settlements of Progreso Lagoon Area (from Masson and Rosenswig 2003: Figure 5.1). Map by Timothy S. Hare.

structure, on the last day of excavation, and our work has not yet penetrated this edifice to gather further information about its function. We infer as the Chases did that this round structure reflects the influence of Chichen Itza on inhabitants of Progreso. Until we return to complete the excavation of this structure, we cannot determine whether this influence was hostile or represents Progreso

inhabitants' participation in the feathered serpent ideological sphere that Ringle et al. (1998) describe as linking key trading centers across Epiclassic Mesoamerica.

A word about Terminal Classic pottery and chronology is appropriate here. We are convinced by Andrews et. al.'s recent synthetic paper (2002) which argues that Chichen Itza's major construction and

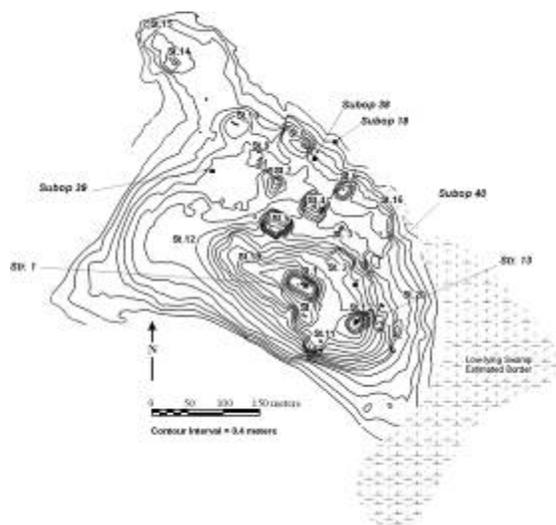


Figure 2. Map of Caye Coco showing location of deposits with abundant Terminal Classic ceramics.

presumed period of political supremacy was concluded by A.D. 1050-1100. While they note that this site was not abandoned and may have wielded some power until the rise of Mayapan, the surge of Chichen's hegemony now falls in line with other Epiclassic Mesoamerican sites. Much reassessment of the regional context of the southern lowlands Terminal Classic social change is called for now that the coeval rise of this empire is documented in the north. In the pottery at Progresso, evidence for considerable exchange (of information and goods) with the north is found in household assemblages, following the earlier work of Diane Chase at Nohmul (1983), who placed local types such as Kik Red in the greater Chichen Red Slipped pottery group. Kik Red is abundant at Progresso, along with Achote Black, a slipped ware common at southern lowlands sites. These assemblages reflect the intermediate position of northeast Belize settlements, which maintained exchange and production networks with the older southern guard while also adopting technologies and styles associated with the new northern core. Pots obtained directly from the north may

also be present as indicated by fewer numbers of types such as Dzitas, Ticul, and Muna Slate (Masson and Rosenswig n.d.). Unslipped pottery analysis also suggests some strong ties to the north by the presence of Sisal Unslipped (and Piste Striated)¹. Links to nearby settlements such as Cerros and Nohmul are also apparent due to the presence of Chambel and Buyuk Striated (Chase 1982, Walker 1990). An AMS date (on faunal bone) associated with one of our Terminal Classic period middens (Suboperation 18) yielded a result of 1160+/-50BP (A.D. 770-990, CAMS 64543). The mixed southern and northern signature of our pottery assemblage from Caye Coco suggests that Progresso area inhabitants engaged in entrepreneurial activities oriented toward the maritime trading network established by Chichen Itza. They also maintained some ties with interior southern sites. Pendergast's (1986) interpretation that Lamanai prospered from the Classic through Postclassic by establishing profitable relationships with northern Yucatan is a model that also fits the Progresso data.

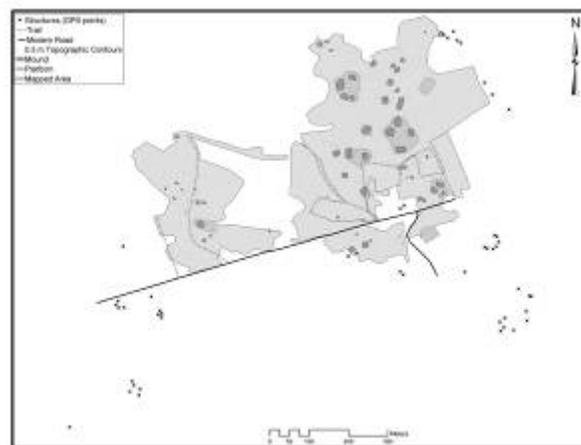


Figure 3. Map of Strath Bogue Group of Progresso Site (from Ferguson 2003: Figure 3.4). Map by Timothy S. Hare.

A second Terminal Classic substructure was located within Str. 1 of Caye Coco that was used for funerary purposes. About 60cm below the surface of the latest Postclassic fill and 60cm above the round structure, a plaster floor is present that is disturbed by secondary interments of Terminal Classic age that likely represent funerary bundles of important individuals. One such interment was found in Subop 6c (Digrius and Masson 2001). This unit had the incomplete remains of two individuals and large pieces of Achote Black and Tinaja Red pottery interred in the floor of the second substructure. A skull protruding from the earlier round structure may be indicative of more burials present in this first building. If so, then the first and second substructures may be linked in function by their use as funerary edifices.

The distribution of Terminal Classic settlements at Progreso provides some preliminary clues about the organization of society at this location during this period. Caye Coco was the site of a round temple or shrine, and houses of this period were present around the island's lower contours as reflected by midden deposits and domestic structures such as Str. 19. Other than Str. 1, at least one additional large mounded structure (Str. 13) has initial Terminal Classic fill (capped by Postclassic fill) and was likely built at this time (Rosenswig and Masson 2002). Caye Coco was but one of multiple nodes of settlement at Progreso during the Terminal Classic. Like many other clusters, Caye Coco had larger mounds², smaller domestic structures, and midden deposits during the Terminal Classic. The round temple and overlying funerary shrine at Structure 1 may reflect the use of the island for occasional specific ritual activities as well as a limited domestic occupation indicated by smaller house mounds.

Along the western shore of Progreso (Figure 1), dispersed Terminal Classic mound

groups are present from the area immediately to the west of Caye Coco to the area north of the town of Progreso at a monumental center known as Rancho Corozal². Thompson (1939) and Gann (1918) worked at the site of "Progreso" plotted just to the west of the modern Progreso town, and the settlement clusters we have investigated are likely parts of this sprawling site. Terminal Classic occupation is evident at structures associated with groups named Avila, Chuk, Marin, and Strath Bogue. Josalyn Ferguson has been working on these Terminal Classic settlements for her dissertation project (Ferguson 2001, 2002, 2003). Her efforts have focused primarily at the Strath Bogue group (Figure 2), which has one of the largest plaza groups south of Rancho Corozal along with a number of smaller *plazuelas* and isolated house mounds. The larger Marin Group is located about 1km to the north of Strath Bogue. These groups exhibit substantial Terminal Classic period construction efforts and have ceramic assemblages quite similar to those identified for Caye Coco. They likely represent affluent family groups engaged in agricultural production, as they are located amidst fertile agricultural clays with nearly equidistant access to both the New River and the Freshwater Creek drainage to which Progreso Lagoon belongs. Numerous large bifaces indicate the importance of farming, and Strath Bogue is located near Progreso chert outcrops that were exploited by its residents. Ferguson is exploring the settlement history of these groups, which may have been established by newcomer entrepreneurs who arrived in this area during the Terminal Classic period, as ceramics of earlier periods are scarcely present in these vicinities.

Dispersed mounds have also been located in agricultural fields to the east of the southern part of the lagoon, around the Mennonite settlement of Little Belize (Figure

1). Ceramics found lying around recent looter's trenches (Masson and Rosenswig 2003) suggest these may be earlier than the western settlements, dating to at least the Early Classic.

Postclassic

The western shores of Progresso Lagoon as well as the island of Caye Coco have a substantial Postclassic period component. The political nucleus of this settlement was likely the island of Caye Coco, where 17 mounds with significant quantities of Postclassic construction fill are documented (Rosenswig and Masson 2002). At least one other Postclassic mound was located on the lagoon shore Shangrila property but has now been destroyed. Other Postclassic occupations on the shore are found in the upper strata of Terminal Classic mounds or in off mound vicinities (Ferguson 2001, Oland 2002). Postclassic research has focused on chronological and socioeconomic investigations of Caye Coco. Early Postclassic pottery is represented by two primary types established by Walker (1990) at Cerros, Zakpah Orange Red (resembling Lamanai's Buk phase pottery in slip and forms) and Tsabak Unslipped. An AMS date (from a carbonized log at the base of a large pit) associated with these types yielded a date of 1070+/-50BP (A.D. 860-1040). Our investigations suggest this pottery was made during the 10th and 11th centuries (ca. A.D. 900-1050) and may partially overlap with earlier and later assemblages (Masson and Rosenswig n.d., Masson and Mock n.d.).

Caye Coco, although previously inhabited, was likely established as one of several Late Postclassic centers in the Chetumal province by the 13th century. Residents of this island were linked to the northern Maya site of Mayapan through local versions of the Chen Mul effigy censer tradition, characteristics of residential architecture such as rear benches and altars,

turtle sculptures used for calendrical rituals, and pottery decoration and form. Pottery similarities are so close that my collaborators in northern Yucatan (Carlos Peraza Lope and Wilberth Cruz Alvarado, personal communication 2003) call into question the use of the different type name of Payil Red for the majority of our slipped sherd sample – as most of our material is indistinguishable from Mayapán's Mama Red in terms of slip, paste, and form characteristics. Similarly, Caye Coco's Santa Unslipped (following Chase 1982) is virtually identical to Mayapán's Navula Unslipped. Payil Red was a type created by Robert Smith (1971) at Mayapán for a low frequency, anomalous type he thought to be from the east coast. It has been adopted by east coast archaeologists (e.g. Connor 1983, Valdez 1987, Peraza Lope 1993) and is considered to share traits such as hollow cylindrical vented feet with Tulum Red (a name used by Sanders in his investigations published in 1960 but never a type formally defined in the type:variety system³). At this stage of the investigation we have not renamed all of our Payil classifications Mama Red, although continued research into this problem may result in some changes. Many other shared types with Mayapan are present, including Palmul Incised decorated dishes and ollas and Papacal Incised grater bowls. Mayapan has far greater diversity in forms, decorations, and types than observed at Caye Coco as might be expected for a core city in comparison to a settlement in its hinterland. Differences in popularity of decorative attributes (such as tripod foot support type) are observed when comparing Mayapan and Caye Coco, but overlap is present. We currently infer that ceramics were produced by specialist communities for regional distribution due to the high degree of homogeneity in attributes among sites in northeast Belize (Masson and Rosenswig n.d.) and similarities are also noted among

sites those located much further apart (such as northeast Belize, Tulum, and Mayapan). Sourcing studies are much needed to compare paste characteristics across the lowlands during this important period to refine our understanding of the organization of production. Attribute analysis (rim/lip typologies and metrics) reveals variation in different form classes of Payil and Navula at Caye Coco, with Payil tripod dishes showing the greatest homogeneity of all forms produced (Masson and Rosenswig n.d.).

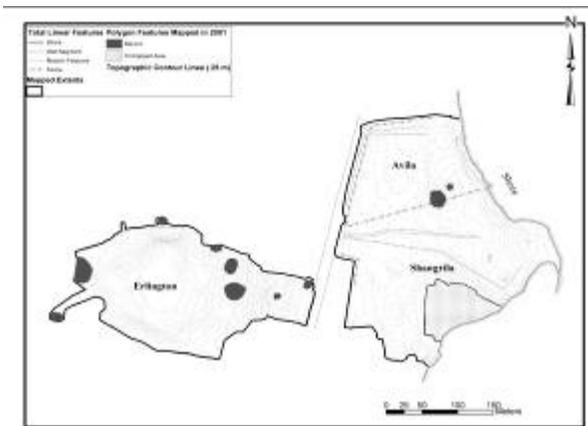


Figure 4. Map of Avila Group (from Oland 2003: Figure 1.1). Map created by Timothy S. Hare.

The Late Postclassic architecture of Caye Coco reveals that multiple affluent families resided there, perhaps indicative of shared or rotating leadership among upper status families of this polity. The largest structures cluster in the center of the island (Structures 1, 4, 5, 6). Structure 1 is more rectangular than the others and due to assemblage differences we have inferred that it was a public building, likely a meeting hall (Rosenswig and Masson 2002, Masson 2000). Structures 4 and 5 are the largest elite residences, about 20m long at the base and 4m tall. Each had central caches on the central rear bench or altar (an appliqué censer at Structure 5 and a stucco turtle at Structure 4). The rear altar of Structure 1 also had an

offering, a miniature colander bowl. Space between structures forms informal courtyards, although most structures face north toward Progresso Lagoon's route to the sea and into the direction of the prevailing breeze. We have intensively analyzed the assemblages associated with these structures and nearby off mound midden deposits. Our results indicate that few differences are observed between elites (occupying large residential mounds) and non-elites in terms of serving wares or obsidian tools obtained through distant networks. This pattern is one reflection of participation in open markets where valued goods can be easily obtained. Elite assemblages are distinguished by specialty craft activities at this site, including weaving (spindle whorls), shell ornament making (shell working debris), specialty crafts (mica, pigments, etc.), and ritual paraphernalia (censers and other calendrical type offerings). Upper status families likely had multiple claims to power, including religious authority derived from their specialized knowledge and control over the use of religious objects as well as secular power stemming from the manufacture and trade of currency items such as shell ornaments and cotton mantles.

Colonial

Colonial period investigations at Progresso have focused on what we infer to be the settlement of Chanlacan⁴ a rebellious Maya center in 1547 and subsequent *encomienda* near the Spanish/Maya frontier through the mid 17th century (Jones 1989). Maxine Oland of Northwestern University is doing her doctoral research on this settlement (Oland 2001, 2002, 2003), located just to the west of Caye Coco along the lagoon shore properties of Avila (landowner) and Shangrila (former resort name). We believe that after the 1547 rebellion was quelled, the population was resettled to the shore (West 1999, Oland 2001, 2002, 2003). The core of

this site is represented by two small mounds on the Avila property⁵, which have Colonial period floors and artifacts overlying earlier (Terminal Classic) construction (Figure 3). The greatest concentration of Colonial materials is found here, including indigenous Spanish Colonial Maya ceramics (following Graham 1987) decorative pottery attributes (such as bulbous supports with large drooping vents, notched basal flanges, and small everted rim bowls with exterior grooves beneath them) as well as Spanish artifacts including 16th century majolica, olive jars, and 16th century glass beads (West 1999, Oland 2001, 2002, 2003). Over part of the upper floor of Structure 2 (the smaller mound), a deposit of smashed appliqué incense burners and olive jars was found. Dense middens are present near these two structures that have given us a large sample of Colonial period materials.

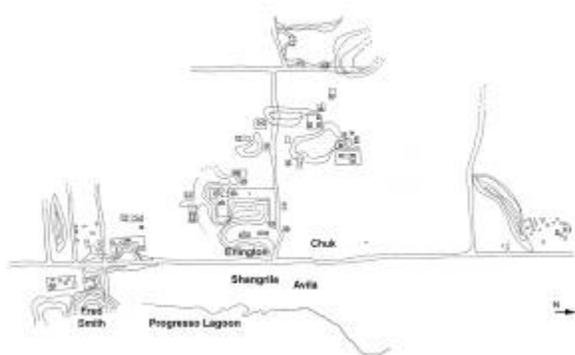


Figure 5. Sketch map of mounds to the west of the Avila/Shangrila properties on the shore of Progreso Lagoon. Terminal Classic, Postclassic, and Colonial age components have been identified in tests of some of these structures. Map made by Yonny Mex in 2001 (courtesy of Maxine Oland).

Maxine Oland has also recovered several copper axes and many clay beads that seem to be associated with the Spanish Maya period. No copper axes were found in Late Postclassic deposits at Caye Coco, and clay

beads are far less abundant in pre-contact deposits. Although we might expect the Colonial settlement to resemble a Spanish town, Oland's has evidence for a more dispersed occupation – as Colonial Maya residential deposits are found overlying scattered mounds of earlier date along the escarpment that rises to the west of the lagoon shore (Oland 2002). To date, we have not found evidence of a Spanish period chapel of the type found at Lamanai and Tipu. No extended (Colonial period) burials have been located despite extensive testing in within and around the two mounds of the Avila property⁶. The consistent recovery of Spanish artifacts along with indigenous materials in the central area (Avila) of the Colonial settlement of Progreso implies that this border community, nearer to Spanish outposts at Bacalar than the southern Spanish period Maya sites of Lamanai and Tipu, may have been more open to incorporating European objects into frontier Maya society. However, the maintenance of a dispersed settlement pattern atop earlier structures may imply the endurance of lingering traditions and a dimension of resistance to the quadrangular grid layout preferred by Colonial Spain. Oland's forthcoming analysis will yield important comparative data on southern Maya society during the first two centuries of European contact.

In summary, the study of Postclassic Maya society has now expanded to earlier and later patterns of communities inhabiting the Progreso Lagoon area. Over time, substantial shifts occurred in the location of central settlements, types of ritual facilities, the organization of residential architecture, and local and regional affiliations reflected in artifact assemblages. From these disparate patterns, it appears that there is little to unite the Terminal Classic, Postclassic, and Colonial communities that represent three profound periods of social and economic transformation in late Maya history.

However, in broader terms, all three Progreso Lagoon settlements held a hinterland position relative to larger political cores within the greater peninsula and in each case the most powerful regional polity was located in northwest Yucatan (Chichen Itza, Mayapan, and Merida). Residents of the lagoon area during all three periods carved out an economic niche in the production of key agricultural products (cotton and perhaps cacao, honey, copal or subsistence goods) geared toward regional trade facilitated by maritime circum-peninsular or overland networks with the north. Each community was located in an intermediate area between north and south, and exhibits material assemblages that show links to both regions. A balance of mixed social identity was likely achieved through each occupation –as reflected in the artifacts– although this may have been an ongoing process riddled with contradictions. With the pending analysis of Oland’s and Ferguson’s dissertations, as well as our current comparative Postclassic work at Mayapan (Masson and Peraza 2001, 2002, Masson, Peraza, and Hare 2003), we anticipate having much more new and valuable information to report.

Notes

1. Types similar in form to Sisal Unslipped and Piste Striated were identified by Wilberth Cruz Alvarado, co-ceramic analyst (with Carlos Peraza Lope) for northern projects such as Mayapan, Culuba, and others, during the 2001 season. We note that a similar form was named Dumbcane Striated by Robert Fry, identified at Pulltrouser Swamp settlements (1989).

2. Larger mounds of Terminal Classic age at Caye Coco are limited to Str. 13 and the round Structure 1. Large elite residential platforms, range structures, and steeper pyramidal type structures of the types identified at the shore sites of Rancho Corozal, the Marin Group, and the Strath Bogue group are not present at Caye Coco. These latter sites have much more substantial architecture than is present at Caye Coco during the Terminal Classic.

3. Rancho Corozal has been recently subjected to an alarming degree of looting (Masson and Rosenswig 2003).

4. Cylindrical vented feet are also commonly found on Mama Red and Navula Unslipped vessels at Mayapan

5. Following Grant Jones’ reasoning for the placement of this site at Progreso Lagoon (1989).

6. Other structures were likely scraped away in the extensive construction projects of the neighboring Shangrila resort)

7. Actually, no burials of the Colonial period have been found at all.

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20 THE LATE ARCHAIC OCCUPATION OF NORTHERN BELIZE: NEW ARCHAEOLOGICAL EXCAVATION DATA

Robert Rosenswig

In this paper, I present new data that augment our understanding of Late Archaic occupation in northern Belize. Excavated data are presented from aceramic components at four sites – Laguna de On, Caye Coco, Fred Smith and San Estevan. These data are contextualized in terms of pollen data that indicate widespread forest clearing began by 2500 BCE. Corroborating evidence indicate the concurrent use of tools, such as the well-known constricted uniface, that were worked from macro-flakes and show use wear consistent with cutting wood and digging earth. While these pollen data bracket the beginning of the Late Archaic, the appearance of the first ceramics, at approximately 800 or 900 BCE, bracket the end of this period. Therefore, for over a millennia and a half the inhabitants of northern Belize employed a unique lithic technology, dramatically altered their environment, yet did not adopt ceramic technology nor village life. Despite the evidence of such developments in other parts of Mesoamerica during the Early Formative, all available data from northern Belize indicate a stable Late Archaic adaptation, which lasted until the beginning of the Middle Formative period.

Introduction

The origins of agriculture and a sedentary way of life are fundamental anthropological concerns. Inquiry into these processes began in Mesoamerica with excavations in a number of locations in highland Mexico (e.g., Byers 1967; Flannery 1986; MacNeish et al. 1967). More recent studies have targeted the tropical lowlands. Regardless of the location of study, understanding this fundamental transition requires that the latest mobile preceramic horticulturists be documented and their adaptation compared with the earliest sedentary, ceramic using peoples (Clark and Cheetham 2002). While a picture of the first ceramic using cultures in various parts of Mesoamerica is emerging, their Late Archaic predecessors are known archaeologically in the lowlands primarily from the Soconusco region of Chiapas (Voorhies 1976; Micheals and Voorhies 1999) and from northern Belize (Hester et al. 1996; Pohl et al. 1996; Rosenswig and Masson 2001). Ironically, these are respectively some of the first and

the last regions of Mesoamerica where sedentism and ceramic use emerged.

In northern Belize, much of what we know of the Late Archaic was documented by the Colha Preceramic Project (Kelly 1993; Hester et al. 1996; Iceland and Hester 1996) directed by Thomas Hester and Harry Shaffer, and is contained in Harry Iceland's (1997) dissertation (see Figure 1). At Colha, the only documented Archaic deposit in *primary archaeological context* is a lithic production surface with evidence of constricted uniface debris found under another surface with Middle Formative lithic debris. In addition, the lithic assemblage from nearby Pulltrouser Swamp contains Archaic remains recovered with dates that place these deposits as late as 1000 BCE (Pohl et al. 1996).

In northern Belize, a distinctive lithic assemblage characterizes the Late Archaic that includes tools made from macro-flakes, many of which were unifacially worked (Gibson 1991; Iceland 1997: 11, 95-113). Constricted unifaces are the most distinctive

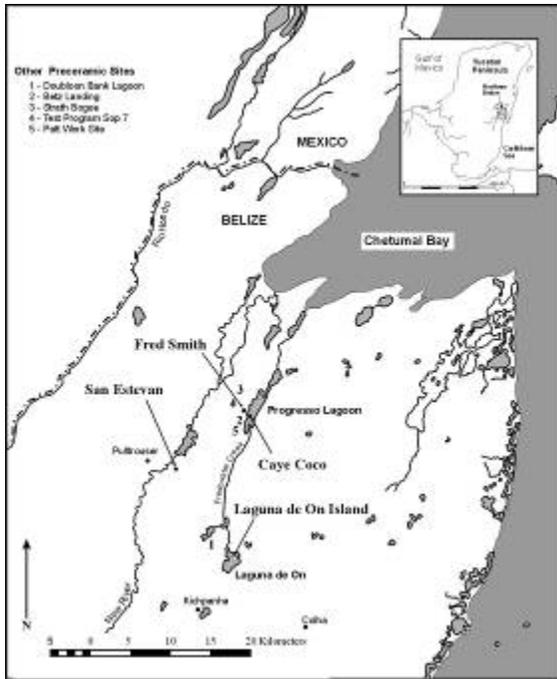


Figure 1. Location of northern Belize with Archaic sites indicated.

and well known of these tools and use-wear analysis suggest they were used to dig soil and cut wood (Gibson 1991; Iceland 1997: 227-229; Hudler and Lohse 1994 in Iceland 1997). In addition, paleoecological reconstruction indicates that by approximately 2500 BCE, forest disturbance is evidenced by a decrease in tree pollen coinciding with increases in disturbance vegetation and charcoal remains (Jones 1994: 208; Jacob 1995; Pohl et al. 1996: 363). At approximately this time, maize and manioc were also present and soon thereafter so were cotton and chili peppers (Jones 1994; Piperno and Pearsall 1998: 300-303). Therefore, lithic assemblages and corroborating environmental data suggest that horticultural societies were using a specialized lithic technology to clear forests and plant crops for over a millennium and a half prior to the first use of ceramics in the region. However, missing, is excavated archaeological data from *primary context* that date to this time period

In this paper I present excavation data from Archaic components of three sites in the Freshwater Creek drainage of northern Belize and review lithic data from these sites that indicate a diverse technological assemblage was in use. I also present excavation data from the San Estevan site from 2002 that documents Middle and Late Formative deposits, possibly overlying an Archaic horizon.

Late Archaic Sites in the Freshwater Creek Drainage

From 1997 through 2001 the Belize Postclassic Project has documented seven new preceramic sites (Figure 2) in the Freshwater Creek drainage of northern Belize (Rosenswig and Masson 2001). Prior to this work, the Belize Archaic Archaeological Reconnaissance project (BAAR) documented a number of sites in the area (MacNeish 1981, 1982). In 1981 and 1982, a total of 46 m² were excavated on the west shore of Progresso Lagoon at the Betz Landing site (Zeitlin 1984) approximately 500 m south of the Fred Smith site. No features are reported from the excavations at Betz Landing but a distinct “reddish-brown soil” 20-40 cm below the surface produced dates of 1230 +/- 85 BCE and 1275 +/- 85 BCE (Zeitlin 1984: 364).

Laguna de On Island

In 1997, the Belize Postclassic Project began its second season of excavation at Laguna de On Island, near the headwaters of the Freshwater Creek drainage. At the base of Suboperation 19, we encountered an aceramic, white clay that contained macroflake tools, including a large retouched macro-flake and a heavily resharpened constricted uniface (Rosenswig and Safford 1998). Our excavations documented cultural deposits over 2 m in depth. The profile of Suboperation 19 documented a Postclassic pit that penetrated a preceramic stratum (see

Figures 3 and 4). Levels A through D all contain Postclassic remains. Level E was formed during the Postclassic period and appears to represent disturbance of earlier, aceramic deposits. Level F is a mottled light yellowish brown clay containing *in situ* burnt rocks and patinated lithics. This was the first time we encountered a preceramic deposit that contained heavily patinated unifacially worked lithic tools under a Maya site. A subsequent program of test auguring documented that a series of pit features existed on the island as the depth of bedrock varied between 65 and 245 cm below ground surface (Figure 5).

Caye Coco

The majority of known Archaic sites from the Freshwater Creek drainage have been documented at Progresso Lagoon. In 1999, a distinctive orange aceramic soil stratum (approximately 15 cm thick) containing patinated lithic flakes was documented 80 cm below ground surface in Suboperation 26 at Caye Coco to the north side of Late Postclassic Structure 2 (Figure 6) (Mazeau 2000; Rosenswig 2001). In 2000, I pursued the aceramic deposits discovered the previous year. A significantly resharpened and heavily patinated constricted uniface along with numerous flakes were recovered and a pit surface in Suboperation 40b under a Postclassic terrace to the east of Structure 2 (Figure 7). In 2001, a concerted effort was made to document the extents of this aceramic component of the site.

The aceramic component that we have documented at Caye Coco covers an area of approximately 150 sq m (see Figure 6) and it originates between 60 and 85 cm below the current ground surface. In 2001, a second pit feature was documented in Suboperation 26a, 24 m west of the first, as well as a single posthole in Suboperation 26b.

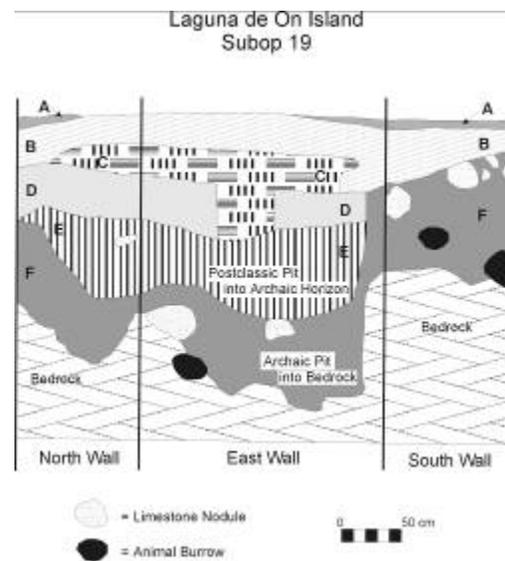


Figure 3. Profile of Suboperation 19 with stratigraphy labeled.

Patinated, unifacial tools and flakes were recovered as well as two patinated hammer stones and evidence of worked oyster shell (Rosenswig 2002). These two pits and one posthole are the only domestic features in the Maya Lowlands that I am aware of from the Archaic period. The documented aceramic component of Caye Coco is likely much smaller than the original extent of the site during this time period. It appears as if the later occupants of the island scraped off topsoil in many places down to bedrock and removed earlier deposits in the process of leveling bedrock. At Suboperation 40f, a pocket of orange soil was preserved in a small depression in bedrock and ceramic-bearing levels directly overlay it. The surrounding bedrock was cut to an even, flat floor surface. At Colha, later period disturbance was common and many constricted uniface have been found



Figure 4. Photo of 1 x 4 m trench (Suboperation 19 and 19a) revealing Archaic component of Laguna de On Island in 1997.

incorporated into later period fill (Iceland 1997). This may only be one of many such pockets of preserved preceramic deposits on Caye Coco that we fortuitously encountered. Disturbed orange soils and patinated lithics were also found 100 m west of this at Suboperation 27 next to another Postclassic structure (Barrett 2000). The island of Caye Coco is 400 x 600 meters and we have only excavated a total area that covers approximately 300 sq m to bedrock.

The excavations of Suboperations 26a, 26b and 26c (Figure 8 and 9) provide fine-grained documentation of the stratigraphic position of the orange, preceramic horizon below Terminal Classic and Postclassic deposits. Suboperation 26a was excavated by arbitrary 10 cm levels and a patinated, plano-convex chopping tool was recovered 98 cm below ground surface and approximately 40 cm southeast of a pit feature of orange aceramic soil that intrudes

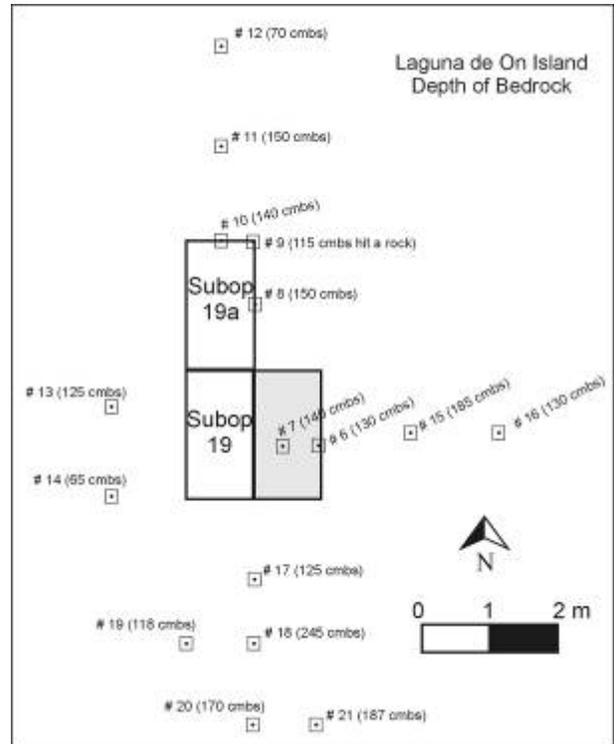


Figure 5. Map of Suboperation 19 and 19a at Laguna de On Island and numbered test auguring location with depth of aceramic levels indicated as centimeters below surface (cmbs).

into bedrock. Suboperation 26b was also dug by arbitrary 10 cm levels and in its north profile we documented an 18 cm deep posthole originating from the aceramic orange horizon and descending into bedrock (Figure 8). The profiles of Suboperation 26b document three levels (A, B and C) that all contain Postclassic ceramics. Level A is a very dark brown (10YR 2/2) loosely packed, humic topsoil. Level B is a densely packed, dark brown (10YR 3/2) clay loam with limestone inclusions and a high ceramic density. Level C is a very dark brown (7.5YR 3/2) soil horizon that resembles Level A without the roots. Level D contains Terminal Classic ceramics and is composed of a medium brown silty clay. Level E is an orange brown (7.5YR 4/6) silty clay containing patinated lithics and no ceramics. Below Level E there is a soft, decomposed limestone bedrock. In addition to the

posthole, the north profile of Suboperation 26b also contained a pit originating from Terminal Classic Level D dug down into bedrock and, along with Suboperation 40f and 27 discussed above, provides a third example of Maya occupants of Caye Coco disturbing earlier preceramic deposits.

The use of arbitrary excavation levels employed in Suboperations 26a and 26b did not allow us to remove each of the levels described above without some mixing. Therefore, between these two units we excavated Suboperation 26c, a 1 x 2 m central unit, from the north profile of Suboperation 26a and the south profile of Suboperation 26b in order to carefully remove soil according to cultural levels. In this manner, each soil level was stripped off from the sides using profiles as a guideline and we were able to confirm that the orange horizon was aceramic. Figure 9 is a photo of Suboperation 26a, b and c at the top of the Late Archaic Level E in Suboperation 26c immediately prior to removal of this orange horizon.

Fred Smith

In 2001, excavations were also initiated at the newly discovered Fred Smith site on the west shore of Progreso Lagoon (Figure 10). This site faces Caye Coco and is approximately 500 m north of Betz Landing (see Figure 2). An area of approximately 800 sq m had been stripped of topsoil by heavy machinery in preparation for house construction. In 2001, excavations were also initiated at the newly discovered Fred Smith site on the west shore of Progreso Lagoon (Figure 10).

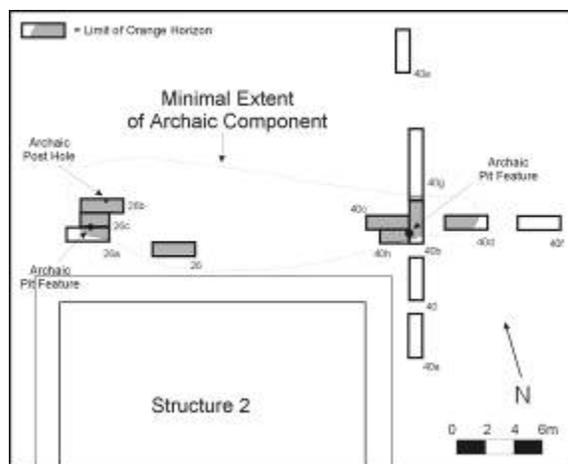


Figure 6. Map of Suboperation 40 and 26 complexes at Caye Coco indicating the extent of the documented Archaic component.

This site faces Caye Coco and is approximately 500 m north of Betz Landing (see Figure 2). An area of approximately 800 sq m had been stripped of topsoil by heavy machinery in preparation for house construction. The bulldozing occurred just prior to our visit to the site and exposed orange soils identical to those documented at Caye Coco, and described from Betz Landing, as well as a scatter of patinated lithics. Systematic surface collections at the Fred Smith site over the next month recovered 358 patinated lithics, including ten unifacial tools, two expedient bifaces and two formal bifaces. Only eighteen unslipped ceramic body shards were recovered from this entire area. Excavations documented an orange, aceramic soil horizon replete with patinated lithics (Figure 11). Unlike Caye Coco, the preceramic orange soil of this site began virtually at ground level and there appears to have been no subsequent occupation. There was a clear association at the site of the orange soil and patinated lithics and so we trenched the shallow deposit to bedrock in order to determine their extent both in the disturbed area and in the intact area adjacent to the bulldozed lot. In all, orange soil containing patinated lithics extended over an area of at least 400 sq m

(see Figure 11). There were no lithics on the surface of the undisturbed area and without the current land disturbance, we would not have been aware of this site's existence.

Transition from Late Archaic to Middle Formative

The Archaic lacustrine settlement choice, that parallels Postclassic settlements, appears to have been abandoned during the Formative and Classic periods at the sites of Laguna de On and Caye Coco. This raises the fundamental question of what constituted the new Formative adaptation. Was the Archaic economy really that different than the Formative adaptation? If not, then why were sites with substantial Archaic deposits like Laguna de On Island and Caye Coco not occupied in the Formative and Classic periods? Although I do not attempt to answer these questions here, what we need is a site occupied during both Archaic and Formative periods. Such a site may have been discovered at San Estevan.



Figure 7. Excavations in 2000, Suboperation 40b in foreground with Archaic pit next to upright meter stick. Subop 40 and 40a in background contained no orange soil horizon

Caye Coco - Subop 26b

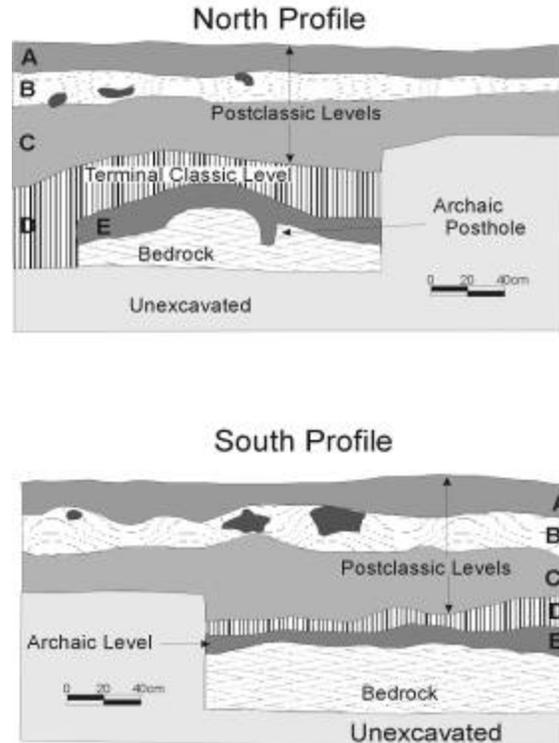


Figure 8. North and south profile drawing of Suboperation 26b with stratigraphy described in text labeled.



Figure 9. Photo of Suboperation 26a, 26b and 26c before excavation the Archaic orange soil horizon in Suboperation 26c in 2001.



Figure 10. Photo of surface of the bulldozed section of the Fred Smith site in 2001. Suboperation 1 prior to excavation in foreground (see Figure 11) and Caye Coco across the water in background.

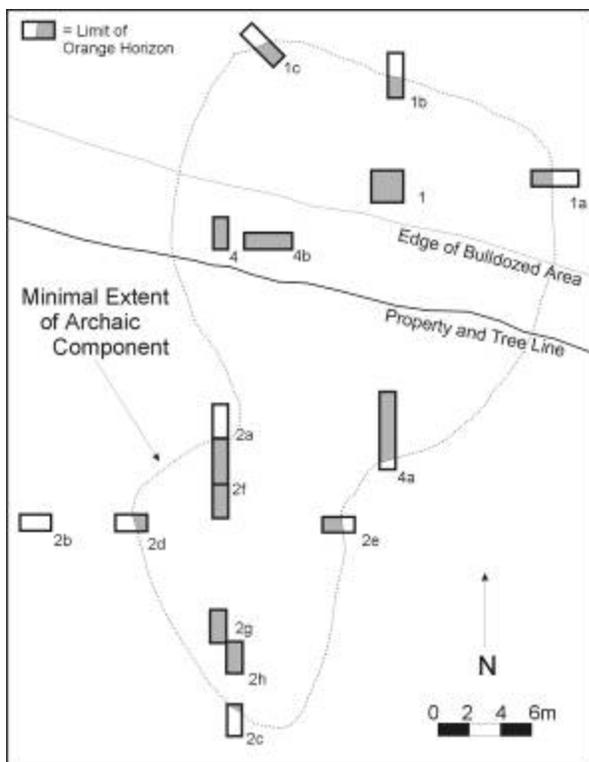


Figure 11. Map of the Fred Smith site with the extents of the Archaic orange soil horizon indicated.

San Estevan

The excavations reported here represent the result of work at the base of the

large central mound at the site core of the San Estevan site. This mound is located approximately 1 km from the New River, 1 km from the modern town of the same name (Figure 1). Excavations at this site were previously carried out by Laura Levi (2002), who documented primarily Late Formative and Classic period occupation.

Due to modern land disturbance, several hectares of what was previously the site core was excavated by heavy machinery down two meters below bedrock. The site's ballcourt and several elite mound groups were quarried and carted away as road fill and backhoes continued to excavate until the marl bedrock became too hard to remove. In 2000, the village of San Estevan established their dump in the crater left by the quarrying activities. In 2001 the author, along with Marilyn Masson and twenty field school students, visited the site and noticed a distinctive orange soil horizon in a 30 m section of the profiles created by the quarrying activities. This orange horizon intrigued us as it resembled those containing Archaic materials at numerous sites around Progresso Lagoon (Rosenzweig and Masson 2001).



Figure 12. Photo of San Estevan dump with the 9 m profile documented in 2002.

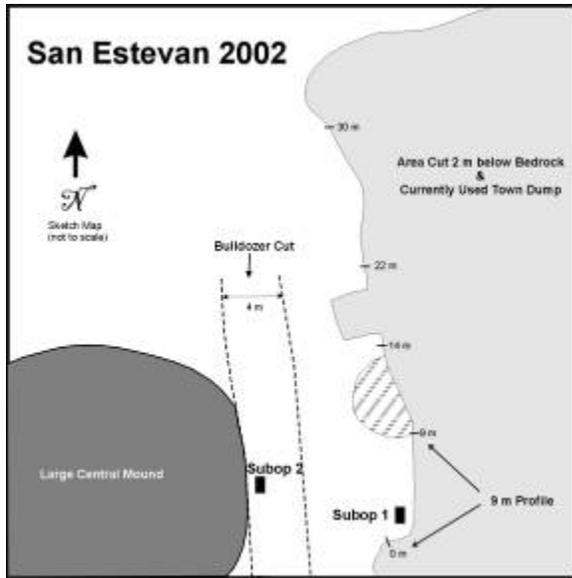


Figure 13. San Estevan with the locations of excavation units and 9 m profile.

In July 2002, I returned to the site and scrapped down the 30 m section of profile that contained the orange soil horizon (Figure 12 and 13). With the resulting increased visibility of the stratigraphy, a 9 m section was selected to be profiled. This section was directly east of San Estevan's large central mound, it also contained the most complex stratigraphy and the thickest section of the orange soil horizon. One meter west of the profile a 1 x 2 m unit was excavated as Suboperation 1 to provide a sample of materials from each stratigraphic level (Figure 14). A second 1 x 2 m unit was excavated as Suboperation 2 in a bulldozer cut right at the eastern base of the large central mound (see Figure 13).

Figure 15 represents the profile of the east wall of Suboperation 1. Level 1 was 40 cm thick and began as a dark humic layer of soil that had built up since the area was bulldozed and faded into a tan fill. Level 2 was 20 cm thick and was arbitrarily divided from Level 1 to bring the unit to within 10 cm of a plaster floor. Levels 1 and 2 contain modern garbage and so we screened every other bucket to recover a 50% sample of the

ceramics from the fill. These ceramics included Late Formative red and orange waxy wares as well as 2 shards with polychrome painting.

Level 3 was indistinguishable from the level above in terms of soil color and also contained Late Formative ceramics, but no modern garbage. The level was 10-12 cm thick and terminates on a hard marl floor. This was the first intact, undisturbed level and we screened 100% of the matrix from here down. In addition, a 1 liter soil sample was collected for flotation. Level 4 corresponds to the plaster floor as well as approximately 10 cm of subfloor materials. The plaster floor angles at a different direction from what was documented in the 9 m profile, and so, this appears to represent ancient disturbance. Flotations sample were collected both from the plaster floor itself and



Figure 14. Photograph of San Estevan profiled cut, indicating the Middle Formative stone floor and the location of Suboperation 1.

from the subfloor matrix. Level 5 (Stratum C) was separated once the matrix became a darker brown. The bottom of this level was defined by a layer of medium sized cobbles with a layer of burnt limestone chunks laying on, and directly above, them. These stone cobbles were defined in the 9 m profile (Figure 14) and documented in the south third of this Suboperation. Large cobble stone surfaces were documented at Cuello associated with Swazey phase structures (Hammond et al. 1991: 30-32; Cartwright and Hammond 1991: 99) and at Cahal Pech with Kanluk (aka Jenny Creek) phase deposits (Cheetham 1996: 5-19). The layer of small, burnt limestone chunks continued across the north two-thirds of the Suboperation (where there were cobbles) and defined the bottom of Level 5. Therefore, Level 5 was a distinct, dark stratigraphic layer between the marl subfloor above and the stone floor below and contained Middle Formative ceramics. A flotation sample was collected from this matrix and from each subsequent lot.

Further excavations were reduced to the northern two-thirds of the unit so as not to disturb the medium sized cobbles that forms a floor. Level 6 was 3 to 5 cm thick and consisted of burnt limestone chunks and surrounding matrix in the north two-thirds of the unit. The first 5 cm of dark matrix below the cobble floor was removed as Level 7. The following 5 cm of the same dark matrix was removed as Level 8 and these two levels contain Middle Formative ceramics and correspond to Stratum D in the 9 m profile.

Level 9 was between 7 and 11 cm thick corresponds to the orange horizon as defined in the 9 m profile (Stratum E) but was hard to define as we came down on it. The matrix was a very dark grayish brown (10YR 3/2) with orange and gray inclusions. Level 10 consisted of a light orange soil with limestone eroding from the bedrock below. The designation yellowish red (5YR 5/8) is the closest color to this level contained in a

standard Munsel color book but the actual color is more orange. Levels 9 and 10 contained no artifacts.

The final lot excavated as Level 11 (Lot 17) consisted of a pit that we first detected in Level 10 and extends under the cobble surface in the south of the unit (see Figure 5). This pit was 40 cm in diameter at the top and 30 cm deep. Lot 17 consisted of the north half of the pit. The pit was cross-sectioned and the north half of the matrix was excavated. Sixteen lithic flakes and four ceramic body shards were recovered from the pit that originated in the Middle Formative levels above. A 1-liter flotation sample, as well as a number of pieces of carbon, were collected from the matrix within this pit.

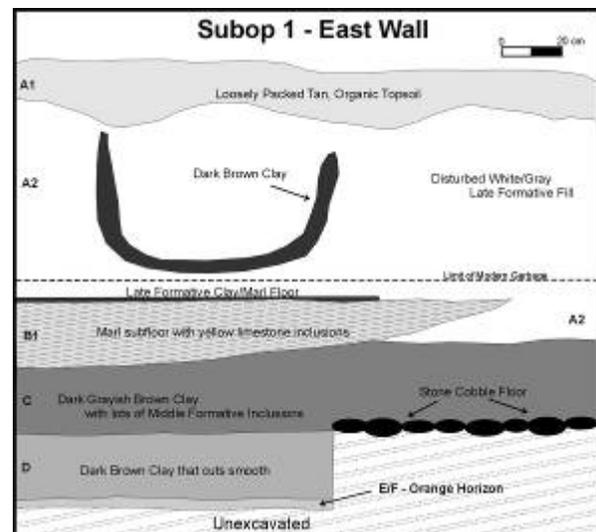


Figure 15. Profile map of Suboperation 1, east profile.

Conclusion

The mid-Holocene transition from foraging to a more sedentary horticultural adaptation approximately 4 to 5 thousand years ago is poorly understood in Mesoamerica, especially in the tropical lowlands. Perhaps the lack of archaeological material from this period is the result of Mesoamerican archaeologists' preoccupation

with the pyramids and pretty ceramics that overlie such deposits. Recent paleoenvironmental reconstruction has outstripped archaeological evidence. The data presented in this paper shed some light on this crucial transition by providing excavation data from the sites of Laguna de On Island, Caye Coco, Fred Smith and San Estevan. Ongoing work at these, and other, sites will hopefully contribute to an understanding of the conditions under which settled life and ceramic use developed and why this transition took so long to occur in the Maya lowlands relative to the rest of Mesoamerica

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**SECTION THREE: CENTRAL, COASTAL AND
SOUTHERN BELIZE**



21 THE IMPORTANCE OF COLHA IN BELIZE ARCHAEOLOGY

Palma Buttles

The archaeological site of Colha is located south of Orange Walk along the Old Northern Highway. Research at Colha has had a long history beginning in the 1970's and continues today through various material culture studies. An overview of the history of investigations at Colha, a culture history summary beginning with pre-Maya occupation (ca. 3400 B.C.), and the importance of Colha in Belize's register of archaeological sites are presented. No other site investigated in Belize has presented such a long culture history of almost continuous occupation. The "tourism value" of Colha will be generally addressed in terms of useful information that may be revealed to the general public

Introduction

The archaeological site of Colha and the adjacent Cobweb Swamp are located in the Orange Walk District of northern Belize along the Old Northern Highway. The site is positioned approximately 20 km east of the Caribbean Sea and is bisected by Rancho Creek, which drains into the wetland area of Cobweb Swamp (Figure 1).

Colha has long been recognized and is best known, as a site where large-scale lithic craft-specialization occurred for much of its prehistoric Maya occupation. What is not often recognized is Colha's importance as one of only a handful of sites whose archaeological record indicate "almost" continuous prehistoric activity that spanned nearly 5,000 years (ca. 3400 B.C. – A.D. 1400). Colha's long history of occupation has provided researchers a unique opportunity to view ecological, cultural, and material culture changes as they are manifested over a 5,000 year period.

A History of Archaeological Research of Archaeological Colha

The site of Colha was first reported, named, mapped, and tested in 1973 as part of the British Museum-Cambridge University Corozal Project directed by

Norman Hammond (1973). An additional season of testing was conducted at Colha by the Corozal Project in 1975 (Hammond 1973, 1982; Wilk 1973, 1975, 1976). It was at this time that survey and testing activities exposed the presence of large deposits of chert debitage and revealed ceramic data that was suggestive of a long occupational sequence (Hammond 1973; Wilk 1976).

In 1976, during the first Maya Lithic Conference, the site of Colha and its potential for providing important information regarding ancient Maya lithic technology and craft specialization was first acknowledged and addressed (Hester and Hammond 1976). Part of the outcome of the conference was that the site of Colha warranted long-term intensive investigation (Hester and Hammond 1976). It was suggested that Thomas R. Hester and Harry J. Shafer, because of their expertise in lithic technology, should seek to undertake the task of investigating the site (Hester et al. 1979:2).

Under the umbrella of the "Colha Project", which was begun in 1979 and co-directed by Thomas R. Hester and Harry J. Shafer, 14 seasons of multi-disciplinary investigations were conducted at Colha. The results of these efforts are found in

(Hester 1979, 1983, 1985a 1994; Hester et al. 1979, 1980a, 1980b, 1982a, 1982b, 1983, 1994, 1996; Valdez in prep; Valdez and Hester 1990). Research conducted at the site have contributed to the understanding of

the prehistoric environment, the people that inhabited and manipulated it, the cultural and economic systems that sustained it, and the material culture that functioned within it.



Figure 1. Map of the Maya area with Colha and major archaeological sites indicated, (after Houk 1996:3).

Culture History of Colha

Archaeological evidence from Colha allows the interpretation of occupation from the early Preceramic (3400 – 1900 B.C.) to Middle Postclassic (A.D. 1150 – 1300) with documented population peaks occurring in the Late Preclassic (400 B.C. – A.D. 100) and again in the Late Classic (A.D. 600 – 850) (Eaton 1980a; Iceland 1997; Valdez 1987, 1994:10). Late Postclassic data is evident only through Mayapan-style censers associated with ritual visitation activities and arrow points (Hester 1982; Valdez 1994:15).

The chronological periods of Maya occupation are based upon Colha's ceramic complexes as identified by Adams and Valdez (1979a, 1979b, 1980a, 1980b; Valdez 1987, 1994; Tables 1 and 2). A total of 10 complexes have been defined, nine that are functionally complete (Valdez, 1994:9). The Preceramic periods of occupation are defined by the lithic assemblage, the palynological record, and their associated radiocarbon dates (Hester et al. 1996; Iceland 1997; Jacobs 1992, 1995; Jones 1991; Lohse 1993; Wood 1990).

Preceramic (3400 – 900 B.C.)

The earliest evidence of occupation at Colha is associated with the Preceramic which is represented by two periods of occupation, early Preceramic (3400 – 1900 B.C.) and late Preceramic (1500 – 900 B.C.). The 400 year gap between these two periods (1900 – 1500 B.C.) is due to the absence of radiocarbon dates. To date, no other site has demonstrated such an extensive Preceramic occupation. Evidence of occupation is derived from the stratigraphic recovery of lithic materials and the palynological record. These early occupants were probably drawn to the Colha/Cobweb Swamp area for its rich

agricultural lands and the availability of good quality chert.

The appearance of Cheno-Ams in addition to cultigens suggest landscape modification and possible horticulture were occurring at Colha and the adjacent Cobweb Swamp during the early Preceramic (3400 – 1900 B.C.). The early Preceramic tool assemblage included macroblades, smaller blades, Lowe points, and possibly pointed unifaces (Iceland 1997:201).

By the late Preceramic, the pollen record indicates intensification of horticultural activity (Jones 1991). Macroblade production continues and two new tool forms appear in the assemblage, small biface celts and constricted unifaces (Iceland 1997:288). Use-wear analysis of the constricted uniface suggests that it was used as percussion tool on wood and as a ground-working tool (Hester et al. 1996; Iceland 1997).

Preclassic (900 B.C – A.D. 250)

The Preclassic at Colha is represented by three phases, Middle Preclassic, 900 – 400 B.C., Late Preclassic, 400 B.C. – A.D. 100, and Protoclassic, A.D. 100 – 250. The Middle Preclassic is comprised of early and late ceramic complexes, Bolay and Chiwa respectively. Within the Chiwa complex further refinements of early and late facets have been posited.

In general, the Preclassic can be characterized as a period of establishment and growth. This period also exhibits signs of developing social, economic, and cultural complexity. The first evidence of settled Maya occupation at Colha dates to the early Middle Preclassic, Bolay (900 – 600 B.C.). At this time, the site was probably composed of a series of dispersed, but interactive households (Potter et al. n.d.; King and Potter 1994).

Burial data suggests that these early occupants practiced a common ideology, maintained a sense of community, and participated in a system(s) of regional exchange (Buttles 2002). The behavior of caching is also known for this early period and marks the first use of a ceramic vessel as a cache containment unit (Buttles 2002; Potter 1980, 1982). By the late Middle Preclassic (600 – 400 B.C.), Chiwa complex(or Mamom phase) settlement patterns suggest that the early Middle Preclassic interactive households became unified. Burial data continue to illustrate a community with a common ideology and sense of belonging. An increase in sumptuary goods/trade items suggest a greater participation in a system(s) of exchange (Buttles 2002).

During the Late Preclassic and into the Protoclassic, Colha experienced a marked increase in population as well as cultural, social, ideological, economic, and settlement complexity (Hester and Shafer 1994). The ability to support a growing community and workforce enabled Colha to engage in craft-specialization and erect public monumental architecture. This is manifested archaeologically in the discovery of multiple (36) lithic workshops, the appearance of temple structures with platforms, a ballcourt, and formal plazas (Eaton 1982a). The ability to execute and support these efforts suggests the emergence of social stratification probably in the form of a ruling elite class.

Several cache deposits, including the Strat 55 “blood-letting” cache, and supporting data from burial contexts indicate that the inhabitants of Colha had developed a complex ideological system fully integrated with that seen throughout the Maya area (Potter 1994). The Late Preclassic and Protoclassic are periods associated with the development of a writing and mathematical system (Adams 1991).

Evidence of such a system exists at Colha in the form of post-fired incised glyphs in the interior base of two Protoclassic Laguna Verde Incised cache vessels (Valdez 1987).

Classic (A.D. 250 – 875)

The Classic period at Colha is represented by three occupational phases and ceramic complexes, the Early Classic Cobweb complex, (A.D. 250 – 600), the Late Classic Bomba complex, (A.D. 600 – 700), and the Terminal Classic Masson complex, (A.D. 700 – 875). Faceting of the ceramic complexes are found within the Bomba and Masson segments. The Classic period represents a time in which Colha attained its second florescence and its demise.

The Early Classic is one of the least understood periods of occupation at Colha. There is little evidence of construction and no lithic workshops have been identified for this period. Early Classic ceramics do occur throughout the site (cf. Eaton 1994:104) however, their numbers represent the smallest complex at Colha (Valdez 1994:13). It is highly probable that much of the Late Preclassic and Protoclassic material culture including ceramics and lithics may actually continue in style and form into the Early Classic, thus making it hard to distinguish between the two periods (Sullivan and Valdez n.d.; Valdez 1987).

The Late Classic (A.D. 600 – 700) Bomba complex, brought with it a resurgence in population, lithic production, construction episodes, and ritual activity. In some cases, this florescence surpasses that which occurred during the Late Preclassic. Population is estimated to be about 1,000 persons residing within the 1-km² central site core area and 4,000 persons within a 6-km² radius (Eaton 1982a). New construction of both domestic and public architecture occurred throughout the site and much of the site as it appears today is

TIME	MAJOR PERIODS	UAXACTUN	COLHA	ALTAR DE SACRIFICIOS	BARTON RAMIE	
1400	POST- Late		RANAS		NEW TOWN LF	
1300			CANOS			
1200			YALAM			
1100	CLASSIC Early			JIMBA	EF	
1000						
900	C L A S S I C T E R M I N A L	TEPEU	3	BOCA	SPANISH LOOKOUT	
800			2	MASSON		LF
700			1	BOMBA		EF
600	E A R L Y	TZAKOL	3	PASION	TIGER RUN	
500			2	CHIXOY		LF
400			1	COBWEB		EF
300	P R E C L A S S I C	CHICANEL	BLOSSOM BANK	SALINAS	HERMITAGE	
200			ONECIMO	PLANCHA		
100						
AD BC	L A T E	MAMOM	CHIWA	SAN FELIX	BARTON CREEK	
100			LF	LF		
200	M I D D L E		BOLAY	XE	JENNEY CREEK	
300						
400	E A R L Y				EF?	
500						
600						
700						
800						
900						
1000						
1100						
1200						
1300						
1400						

Table 1. The Colha Ceramic Complexes (after Valdez 1994:10)

attributed to this period. Evidence from Cobweb Swamp suggests a Late Classic date for the raised field system at this locale (Jacob 1992, 1995).

Lithic production on a large scale was again occurring during the Late Classic at Colha. The number of Late Classic and Terminal Classic workshops reported exceeds those of the Preclassic (Hester and Shafer 1994). There are several major differences between the Preclassic and Late Classic workshops. In terms of location, Late Classic workshops are scattered throughout the site while Late Preclassic/Protoclassic workshops were concentrated in the central core area (Hester and Shafer 1994; King 2001). The Late Classic workshops also tend to be associated with residential structures. Another aspect of the Late Classic is the occurrence of workshop specialization. Workshops tended to specialize in a particular stage, type, and mode of production (King 2000:141).

The Terminal Classic (A.D. 700 – 875) Masson complex brought with it a cessation in new construction, intentional architectural destruction, and a termination of occupation (Hester 1985a; Valdez 1994:14). By the Terminal Classic, the dispersed population of the Late Classic period begins to draw inwards towards the central core area of the site. Evidence of intentional destruction of architecture is seen at several locations across the site (Eaton 1994). The inclusion of new types in the ceramic and lithic assemblage suggests changes in cultural and political interaction spheres. The recovery of Petkanche Orange-polychrome indicates a switch to the north in ceramic material culture affiliation. The inclusion of Yucatan trade wares (Ticul Thin Slate) in the assemblage has leads Valdez (1994:14) to suggest that this affiliation is with Yucatan.

The termination of Classic period occupation at Colha is best illustrated through the recovered evidence of “destructive” activities. At the base of the ritual platform structure at Operation 2012 were recovered hundreds of large Palmar Orange-polychrome plate fragments, obsidian, a greenstone artifact, and a primary deposit of the disarticulated remains of 25 individuals (Barrett and Scherer 2002; Potter 1980, 1982; Scherer n.d.; Valdez, personal communication 2001). In the restricted alleyway at Operation 2025, an elite structure, a similar deposit of fragmented Palmar Orange-polychrome plates was recovered (Eaton 1982b).

In 1980, excavations at Operation 2011 revealed a unique deposit at the site of Colha. This consisted of an 80 cm by 110 cm pit containing the decapitated and burned skulls of 10 children, 10 adult males, and 10 adult females (Eaton 1980b; Steele et al. 1980; Massey 1989, 1994). The individuals represented in the skull pit exhibit cranial shaping and filed teeth, both likely signs of elite level personages (Massey 1989, 1994). The pit was located in the marl plaster surface just east of the central staircase of an elite structure. All three destructive events seem to be directed at the “elites” of the site. It is unknown if these three events were executed simultaneously or over a period of unknown length.

Postclassic (A.D. 950 –1400)

Following the apparent violent end of Colha during the Terminal Classic, the site remained unoccupied for a period of 50-100 years or until around A.D. 950. During this hiatus, Colha and the surrounding area were reclaimed by the natural environment. Material culture, faunal, and pollen analysis further support both a hiatus and regeneration of the landscape (Jacob

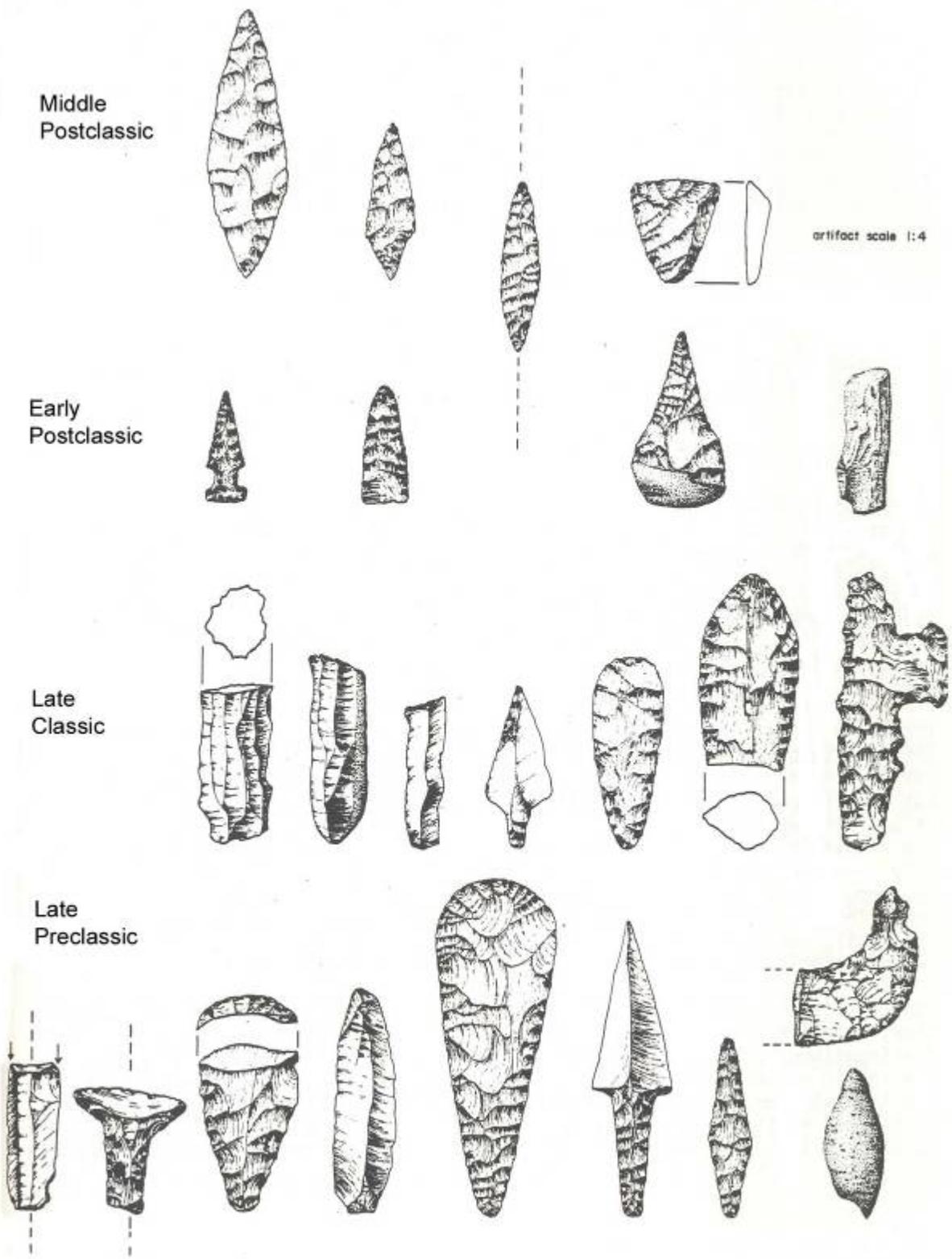


Table 2. Lithic Assemblages at Colha (After Hester 1982:45).

1992:70; Jones 1991:61; Shaw and Mangan 1994). The renewed landscape brought with it re-occupation by a new cultural group manifested through different traditions in material culture. In general, the Postclassic assemblage illustrates a strong affiliation direct, or indirect with northern Yucatan (Hester and Shafer 1991, 1994; Valdez 1987, 1994).

The Postclassic at Colha is represented by three ceramic complexes, Early Postclassic Yalam (A.D. 950 - 1150), Middle Postclassic Canos (A.D. 1150 - 1300), and Late Postclassic Ranas (A.D. 1300 - 1400). With the exception of the Ranas complex, the Postclassic ceramic complexes of Colha are considered to be functionally complete (Valdez 1987, 1994). The Ranas complex is represented only by Mayapan-style (visitation) censers, Chen Mul Modeled (Valdez 1994).

The major differences between the two phases of the Postclassic are found in the lithic, ceramic, and faunal assemblages. Settlement patterns appear to be ubiquitous throughout the Postclassic at Colha. An interesting feature of the Postclassic is its midden deposits, a few associated with lithic production, that are located around the monumental center and in particular its southern section.

Summary And Consideration of the Tourism Value of Colha

As previously stated, only a handful of sites in the entire Maya area have such a long history, nearly 5,000 years, of almost continuous prehistoric activity. While driving down the Old Northern Highway one can catch glimpses of small mounds and surface outcroppings of chert. The near invisible site along the old highway is, as we know, the once significant and much desired location for settlement. This summary is

presented as a series of statements useful in the classroom and in tourism interests.

Colha has one of the best sources of quality chert in the Maya lowlands. The site has been exploited for its resources at least since 3500 B.C. It remains uncertain as to “who” the occupants in the Preceramic were or who they became... that is, did they become the Maya? Were the earliest occupants of Colha overtaken by the Maya? Did the earliest Colha inhabitants and Maya arrivals intermix?

The people we can identify as Maya are defined at Colha as those who used pottery, settled into permanent village life, and produced certain lithic tool forms. These latter attributes beginning about 1000 B.C. The earliest Maya occupation begins a period known as the Preclassic. The Preclassic at Colha is continuously occupied through A.D. 250. By the end of the Preclassic the Maya of this northern Belize community were building monumental structures, producing very elaborate pottery similar to other lowland Maya communities, and intensively producing lithic tools for many other Maya societies.

The Classic Period at Colha follows the similar developments known for other Maya sites with general growth. The end of the Classic about A.D. 800-850, like most other locations, saw very difficult times. Colha witnessed a very violent end to occupation that led to an abandonment of the site.

Colha was re-occupied in the Early Postclassic by a “new” Maya group likely from Yucatan. The production and utilization of new ceramic styles, new lithic forms, and a different exploitation strategy of the local resources may best explain that the new occupants are foreigners. After Colha was abandoned in the Postclassic, it remained uninhabited into the historic era. It serves as good example of a site whose

occupants through manipulation of the landscape and harvesting of its natural resources nourished and sustained a society that enabled/supported the development of craft-specialization (Hester 1985b, 1982; Hester and Shafer 1984; Jacob 1992; Jones 1991; Shafer 1982, 1994; Shafer and Hester 1983, 1991). The strategies employed by the inhabitants of Colha provided for a nearly continuous 5,000 years of prehistoric occupation at this very important location in the Maya world.

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22 THE DEEP HISTORY OF THE SIBUN RIVER VALLEY

Patricia A. McAnany, Satoru Murata, Ben S. Thomas, Sandra L. López Varela, Daniel Finamore, and David G. Buck

A prominent and navigable river valley of Belize, the Sibun Valley has attracted visitors to its caves and cacao groves for over fifteen years. The archaeological imprints of settlement, cave ritual and political expansionism has been preserved, albeit in a highly fragile state, in the house mounds, circular shrines, pyramid, and caves that border the most volatile and flood prone river of Belize. Since 1997, the Xibun Archaeological Research Project (XARP) directed by Patricia McAnany has documented material remains – located between the base of the Gorge and Freetown Sibun – that date from British Colonial times back to the Archaic period (3000 B.C.). Most populous during the Terminal Classic period (A.D. 750-950), Sibun valley sites exhibit exuberant growth simultaneous with the collapse of the Peten kingdoms to the west. The cause and configuration of this florescence is detailed and linked to cave visitation. Traces of earlier human presence in the valley are discussed as well as recently unearthed Spanish-Colonial artifacts from Gracy Rock Area. The latter suggest that the fabled seventeenth-century Xibun mission was founded at the seaward entrance to the Sibun-Manatee karst.

Introduction

Framing a prominent and navigable river of Belize, the Sibun valley has attracted visitors to its caves, cacao groves, and shrines for over fifteen hundred years. The archaeological imprint of pilgrimage, settlement, and colonial expansion is preserved, albeit in a highly fragile state, in the caverns, middens, house mounds, circular shrines, and pyramids that borders this most volatile, flood-prone river of Belize. Since 1997, members of the Xibun Archaeological Research Project (XARP) have documented material remains that date from British Colonial times back to the Archaic period (McAnany 1998; McAnany 2002; McAnany and Thomas 2003). Most populous during the Terminal Classic period (A.D. 830-950), Sibun valley sites exhibit exuberant growth simultaneous with the collapse of the Peten kingdoms to the west. Iconographically and architecturally linked to the Terminal Classic colossus of the north—Chichen Itza—lower valley Sibun settlements provide new spatial parameters to the term “sphere of imperial influence.” Well-known for its cave deposits, the Sibun-

Manatee and Hummingbird karst have provided evidence not only of Preclassic and Early Classic ritual pilgrimage (unmatched by adjacent settlement chronologies) but also of profound variability in Late-Terminal Classic cave ritual. The earliest evidence of human presence dates to the Archaic period and was found near the base of the Sibun Gorge. At the opposite end of the valley—in the lower reaches near Gracy Rock—Colonial occupation has been identified, demarcating the final phase in the valley’s deep history.

Since the total length of the Sibun drainage exceeds 100 km, we chose five survey transects that crosscut the valley at strategic points beginning at the base of the Gorge and ending at Freetown Sibun in the lower reaches of the valley (for location of transects, see Thomas, Figure 1, this volume). Within these five transects, we have surveyed and instrument-mapped twenty-two surface sites (all located on alluvial terraces) and conducted test excavations at nine of those sites (for further site details, see Thomas, Table 1, this volume). Within the karstic portion of the

survey units, we mapped eighteen caves and surface collected within twelve caves and two rockshelters. While graduate student, Ben Thomas is building a GIS program to manage and analyze these site data with particular emphasis on surface sites, Polly Peterson is basing her dissertation on information from the caves.

The Xibun Project was initiated in response to a conversation with the late Mr. Harriot Topsey in 1995. Since that time, the project has been dedicated to constructing a Sibun timeline, placing people in the archaeological landscapes of the valley, and crafting a narrative of the valley that captures the complexities of its deep history and the agency of those who called this valley their home.

Archaic Times in the Upper Valley

In 2001, survey along an old Pleistocene alluvial terrace near the base of the Sibun Gorge resulted in the discovery of a rare, Archaic-period projectile point (Figure 1). More commonly reported from the Ladyville-Sand Hill area, this so-called Lowe point is named after its initial site of Archaic-period projectile point (Figure 1). More commonly reported from the Ladyville-Sand Hill area, this so-called Lowe point is named after its initial site of discovery at Lowe Ranch (Kelly 1993:205). Tentatively dated by the late Tom Kelly to the period between 2500 and 1900 B.C. (Kelly 1993:215), this 4,000-year old tool was made by Late Archaic people who likely followed a mixed subsistence strategy that combined hunting with fishing, plant collecting, and some farming (Zeitlin and Zeitlin 1999:87). Pollen cores from northern Belize suggest that maize was present during Late Archaic times (Jones 1994; Pohl et al. 1996). Kelly (1993:215) notes that the large barbed form of the Lowe

point “suggests their use as harpoons or heavy thrusting spears rather than as atlatl darts.” John Clark and David Cheetham (2002:304) disagree and point to the alternate beveling along the margins of the points as evidence that Lowe points are the “durable portion of hafted knives.”

Whether its function was thrusting, cutting, or both, this tool is the sole Sibun artifact found to date from this shadowy, pre-Maya time in Belizean history. Hopefully, future survey of the Pleistocene terraces will result in the discovery of a Late Archaic seasonal village and ongoing analysis of pollen cores will bring into focus the plant environment and cultigens of this distant time period.

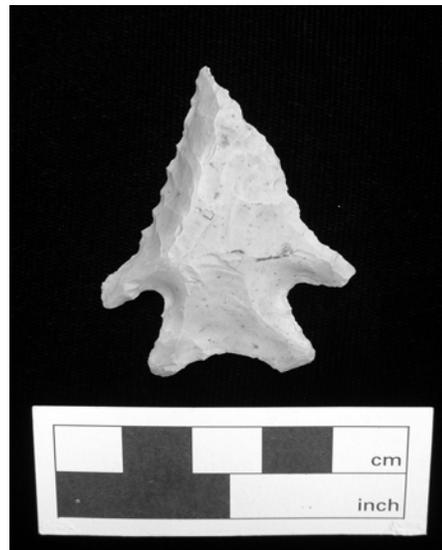


Figure 1. Archaic-period Lowe Point found near the base of the Sibun Gorge. Photo by P. A. McAnany.

Preclassic and Early Classic Pilgrimage to Xibun Caves

Programs of excavation at nine settlement sites in the Sibun valley have failed to yield any stratified deposits older than the Late Classic period. Pottery that



Figure 2. Terminal Classic red-necked jars from Usrey Cave. Photo by P. A. McAnany.

pre-dates the 7th century A.D., has been collected, however, from several Xibun caves. Project ceramicist, Sandra L. López Varela, identified Preclassic pottery types from the 1st through 3rd centuries A.D. such as Hillbank Red and Sapote Striated from Actun Chanona, located at the base of the Gorge. Farther downstream, caves located in the middle section of the valley—Actun Ik, Ek' Waynal, Actun Ibach, and Glenwood—have yielded similar Terminal Preclassic types in addition to 3rd through 6th centuries Early Classic pottery types such as Actuncan Orange and Dos Arroyos polychromes, and Lucha Incised. As Brady (1997:610) has noted for the Petexbatun, pottery found in caves tends to include material that is older than collections from adjacent settlements. This pattern may be attributable to the inaccessibility of early and deeply buried deposits at surface sites. But it is equally likely that early pottery in the Sibun caves indicates pilgrimage from more distant sites,

perhaps those to the north or northwest where substantial Preclassic and Early Classic populations once thrived.

The Sibun-Manatee karst arcs across Belize from east to west, presenting a formidable saw-tooth feature with nothing comparable between it and the Bay of Chetumal to the north. Given the symbolic significance of caves in Maya cosmology, we doubt that the remarkable caverns of the Sibun-Manatee and Hummingbird karst went unnoticed by Preclassic and Early Classic Maya. Visitation via pilgrimage would have been particularly attractive if the valley was only sparsely populated. Ongoing dissertation research by Polly Peterson explores the differences—in cave location and depositional pattern—between early pottery and Late-to-Terminal Classic pottery that is coincident with the population maximum within the valley.

Settlement Boom of the Late-to-Terminal Classic Period

Before Patricia McAnany initiated the Sibun project, most project members had acquired prior excavation experience in northern Belize where the terrain of gently rolling hills and wetlands supported a substantial Preclassic population that thrived in many locations through the Terminal Classic period and beyond. Sites such as K'axob (McAnany 2004), Cuello (Hammond 1991), Cerros (Robertson and Freidel 1986), Colha (see Buttles, this volume; Shafer and Hester 1991), and Lamanai (see Graham, this volume; Pendergast 1981) are but a few of the many Preclassic settlements, highly variable in size and complexity, that filled the countryside of northern Belize. Practically every Classic period house platform in the north represents an amplification of a Preclassic core structure. In the upper Belize valley, Jaime Awe and others (Healy and Awe 1995, 1996; Garber and Brown, this volume) have demonstrated the tremendous time depth of sites such as Cahal Pech and Blackman Eddy that likely exceeds the antiquity of northern Belizean sites.

Why should the settlement trajectory of the Sibun valley differ so dramatically from the Belize valley and points farther north? This question becomes more perplexing when one considers the proximity of caves that are reputed to be a powerful magnet for settlement (Brady 1997:602). We suspect that the answer lies in the landforms and dominant geomorphic processes operative in the valley. Many years ago, A.C.S. Wright and others (1959:192) characterized the Sibun River as “more liable to quick-rising floods than any other river in the country.” This volatility, in addition to the relatively small floodplain over which waters can spread, translates into a flooding regime that is devastating to small-scale subsistence farmers—the backbone of Preclassic and Classic-period Maya

populations. Today, much of the Sibun valley is planted in citrus and cacao trees that can withstand the high-velocity waters of overbank events (if the waters recede quickly) and benefit from the rich alluvium deposited by floodwaters. This type of farming—orchard agriculture—may provide an analog for understanding the settlement history of the Sibun valley. Specifically, the opportunity to grow a valuable orchard species—such as cacao—likely provided a stimulus for the relatively rapid Classic-period settlement of a valley that largely had been ignored by Preclassic farmers who chose instead to settle locations optimal for maize cultivation.

Significantly, if orchard farming of a luxury crop such as cacao did provide a stimulus to Classic-period settlement in the valley, then the pollen record of land use should differ dramatically from the typical Peten pollen spectrum. In the Peten, pollen and sedimentary studies indicate that few stands of high canopy remained in that area by the Late Classic period (Brenner et al. 1990:250-251). Given the fact that older Mesoamerican varieties of cacao require high-canopy shade trees and that high rates of pollination can be sustained only if a tropical forest ecology is maintained, it is likely that, in ancient times, successful cacao orchards were “environmentally friendly.” By coring several oxbows along the course of the Sibun River, palynologist John Jones (2003) is building a vegetation history of the valley that should allow us to evaluate the degree of forestation in the Sibun and whether or not orchard cultivation, specifically cacao-farming, existed during the Late-Terminal Classic period. If this situation can be demonstrated, then Xibun cacao-farmers would constitute the earliest known example of Belizean environmentalists.

Whatever the stimulus to settlement, it is worth considering whether the construction boom of the Late-to-Terminal Classic period

(A.D. 600-950) constituted an organized expansion from the west. Analogous to the Peten expansion into the Petexbatun region, a Sibun valley immigrant population would have differed in several respects as indicated by the absence of royal trappings and lack of an imperialistic agenda, both exhibited by the Petexbatun breakaway faction from Tikal. The pottery associated with the majority of construction along the Sibun compares favorably with Tepeu 2 and 3 ceramic spheres and, more proximately, with the Late-to-Terminal Classic ceramic complexes (specifically, Tiger Run and Spanish Lookout) defined by Gifford (1976) at Barton Ramie. Cambio and Encanto jars, Tinaja types, and Saxche and Palmar polychromes are found both in settlements and caves. Regionally distinctive redwares such as Dolphin Head Red and Roaring Creek Red appear during the Late Classic period with the latter also a frequent type of Terminal Classic times. Other pottery types that are distinctive to Belize, such as red-necked jars (Figure 2) and modeled-carved vessels (the latter a local emulation of Pabellon Modeled-carved fine paste vessels of the Usumacinta region) also are represented in late deposits within Sibun settlements and caves.

During the Late Classic, the largest site ever constructed in the valley was established in a pocket of rich alluvial bottomland at the base of the Sibun Gorge. Called Hershey due to the fact that the cacao orchard surrounding the structures once was owned by Hershey Foods of Pennsylvania, this site features two pyramid plazas and several smaller residential groups. Enigmatically situated on land that today is part of the active floodplain of the river, the main plaza held five feet of floodwater during the torrential rains of 2002. Geomorphologist Tom Bullard (2003) is examining the possibility that a substantially different flooding regime prevailed locally during the latter part of the Classic period—a premise

with empirical support from climatologists (Hodell, Curtis, and Brenner 1995).

Substantial amounts of limestone were transported to the valley floor in order to construct the two pyramid plazas of the Hershey site, suggesting access to a sizeable labor force. The total area of the site has been difficult to determine as the thick mantle of alluvium that covers the Hershey floodplain obscures many smaller platforms. Nevertheless, we have documented evidence of a dispersed population across the Sibun pocket and extending up tributary drainages such as Silver Creek and Echo valleys (see Thomas, this volume). Primarily quadrilateral in layout, the Hershey site displays architectural features common to sites farther west, the most notable of which is a small (20 m long) ballcourt (for a site map, see Thomas, Figure 3, this volume). The two parallel platforms were constructed in the shadow of the main pyramid in a manner evocative of Tikal and Xunantunich. A further link with the Peten is suggested by a pottery sherd recently excavated from the front face of the Group B pyramid (Figure 3). Stephen Houston (personal communication, May 20, 2003) has identified the finely incised lines of this sherd as a fragment of the Naranjo emblem glyph with the familiar crossed bands capped by a late variant of the *ajaw* logograph. Naranjo, which in the earlier part of the Late Classic functioned as the much-beleaguered gateway to the rich resources of the Caribbean watershed, is thought to have extended its influence into the upper Belize valley (specifically to Xunantunich and Buenavista; LeCount et al. 2002; Taschek and Ball 1992). Now, it seems possible that those tentacles wrapped around the northeastern flank of the Maya Mountains and extended into the Sibun valley as well.

Whatever valley-wide supremacy the Hershey site enjoyed during the Late Classic (circa A.D. 600-830), that position seems to

have been challenged by a coastal intrusion that brought significant changes to the valley which are increasingly evident in architecture and ritual deposits of the Terminal Classic period (circa A.D. 830-950). Although the Hershey site retained its primate ranking as the only site in the valley with pyramidal and ballcourt architecture, smaller down-river sites began to incorporate circular shrines into their plaza plans. Thus far, two locales near Freetown Sibun—Samuel Oshon (Figure 4) and Augustine Obispo sites—are known to contain circular shrines with an



Figure 3. Incised sherd showing a portion of what likely is the Naranjo emblem glyph, excavated from the front face of pyramidal Structure 514 (Operation 56) at the Hershey site. Photo by P. A. McAnany.

additional shrine documented farther upriver at the site of Pechtun Ha (for site locations, see Thomas, Figure 1, this volume). Sites located at and beyond the confluence of Indian Creek with the Sibun River—Pakal

Na, for instance—do not appear to contain circular shrines and, most significantly, none has been found at the Hershey site.

Clearly associated with Late-to-Terminal Classic pottery with a limited admixture of Early Postclassic types, circular shrines bespeak an emphatic societal re-orientation, moving away from the waning power structures of the Peten and towards the increasingly powerful capitals to the north. Most notable among them is Chichen Itza, where the familiar Caracol stands as a Venus observatory, rife with allusions to the highland deity and culture hero, Quetzalcoatl (known as *K'uk'ulkan* in Yukatek Mayan). The more diminutive 6-7 m diameter buildings of the Sibun valley do not appear to have been astronomical observatories; their doorways can face either west or east but, in each of the three examples, the shrines were built on the river-side of their respective plazas. Although these shrines represent the terminal construction phases at Oshon, Obispo, and Pechtun Ha, they are far from single-episodal constructions. Each was built as a single room with free-standing stone walls of undetermined height. Later, each room was in-filled and the structure converted into a circular platform—often with an associated stela or two that had been shallowly implanted along the front line of the platform. At the Augustine Obispo site, Eleanor Harrison was able to define the full circle of an earlier shrine beneath the surficial construction. Conch shells, the proverbial symbol of wind or *ik'* that is an aspect of Quetzalcoatl, are ubiquitous within the extramural collapse debris and likely once provided architectural embellishment and acoustical effects. Jeremy A. Sabloff (personal communication, April 9, 2003) describes a circular structure on Cozumel Island in which the conch shells were still mortared into the walls of the shrine and trumpeted as the on-shore breeze passed



Figure 4. Circular shrine structure (Operation 23) at the Oshon Site. Photo by K. A. Berry.

Compelling questions arise regarding the significance of this architectural form. Clearly, these shrines provide evidence that—during the Terminal Classic period—the lower Sibun valley participated in a northern focused sphere of interaction, but was that influence predicated upon mercantile transactions embedded within messianic militarism as Ringle, Gallaretta and Bey (1998) would suggest? With cacao pods on the trees and political turmoil to the west, the more coastal-focused settlements may have cultivated a relationship with the north, possibly with the understanding that distance precluded military incursion. Imagery from Chichen Itza—such as the capstone from the Temple of the Owls (Structure 5C7) on which cacao pods are prominently shown—indicates

a clear interest in cacao. In the drier north, however, this crop could be grown only in small quantities in wetter micro-environments such as collapsed sinkholes or *rejolladas* (Gomez-Pompa et al. 1989; Perez Romero 1988). For the Sibun sites, both mercantile and martial interaction with northern Yucatan can be supported by evidence collected to date.

Along the eastern side of the Yucatan Peninsula, circular structures are found at strategic locations which, in Belize, include Nohmul (Chase and Chase 1982), Progreso Lagoon (Rosenswig and Masson 2002), and Ambergris Cay (Guderjan 1995). As part of her dissertation research, Eleanor Harrison is studying the distribution, architecture, and associated ceramic assemblages of Terminal

Classic circular structures in order to contextualize the Sibun shrines within a larger ideological and economic framework.

Why are there no circular shrines at the primate valley center of Hershey? Given its upriver location and links with the Peten, it is tempting to characterize the rulership structure of Hershey as irredeemably aligned with the “old guard”, as hostile to the new “wind” blowing in from the shore. In fact, a newly completed excavation at the Hershey site provides evidence that alludes to martial

Structure 501 yielded disarticulated human remains that were scattered on top of the terminal floor surface just beneath the collapse debris. There is cranial material from both children and adults. The privileged social status of these casually disposed remains is confirmed by the discovery of an incisor filed to a T-shape and inlaid with jadeite. K'inich Ajaw, the Maya sun god, also sported front teeth filed to the shape of a “T”. Mary Miller (1999:74-75) notes that during Late Classic times some Maya lords filed their incisors into a T-shape and inlaid them with jade to better project their wealth and prestige and, we might add, their likeness to the radiant K'inich Ajaw. If this scatter of human bone deposited in the sacred center of the site and coincident with termination of site occupation contains the skeletal elements of a deposed ruling family, then this deposit may signal the end of “home rule” in the Sibun valley.



Figure 5. Human mandible carved with animal cartouches from Pakal Na, Operation 22 (Burial 1). Photo by P. A. McAnany.

conflict and sacrifice during the Terminal Classic at the very center of the site. Specifically, a narrow passageway that links the main plaza with the east face of pyramidal



Figure 6. Torch holder found in a midden (Operation 16) adjacent to Structure 130, Pakal Na. Photo by P. A. McAnany.

The Terminal Classic pottery of the Sibun valley can be characterized as a continuation of the Late Classic tradition, albeit with some modifications, innovations, and introduction of a few new wares, such as fine paste. In general, few of the northern types common to the Sotuta and Cehpech ceramic spheres have been found in the Sibun valley. There is one deposit, however, that violates this generalization and that is Burial 1 at Pakal Na. The mid-valley site of Pakal Na sits astride the confluence of Indian Creek with the Sibun River and occupies the hinge point in the distribution of circular shrines, i.e., there are no documented shrines upriver from Pakal Na.

Towards the end of the 1999 field season, a routine axial trench in Structure 130—a 3-meter tall, elongated mound that likely functioned as an elite residence—exposed the southern end of a burial pit. When the excavation was completed in 2001, the huge yawning intrusive pit measured over 1.5 m in depth, 5 m in length, and over 2.5 m in width. The remains of at least 5 individuals have been identified with one primary, extended male surrounded by the bundled remains of several others. Project osteologist, Rebecca Storey, notes that the focal male was exceptionally tall and muscular—perhaps a canoe paddler, a ball-player, or a warrior. The last occupation is supported by the presence of a trophy skull mask in which the frontal bone was carved into a mat design with a *k'ak'* (fire/smoke) glyph. Four cartouches had been carved into the jawbone: two avian images and two feline or canine images (Figure 5). These carvings are evocative of martial sodality imagery as seen at Chichen Itza and elsewhere. This link is bolstered further by the presence of a redware vessel in the popular Yucatecan pyriform shape. This vessel appears black only because it and all other bone and pottery directly associated with the primary interment were subjected to an intense fire ritual before the deep pit was

finally in-filled. Using carbon isotope and strontium analysis, we currently are evaluating whether the isotopic signature of this warrior matches that of other Sibun valley residents or more closely with skeletons from the area of Chichen Itza.

From top of Pakal Na Structure 130 (in which the putative warrior was interred), the rising sun is clearly visible as it climbs above the karstic limestone range on the eastern side of the river. Well-known Daylight and Darknight caves lie only a short distance up Indian Creek. The significance of these and other portals to the Underworld to the ritual life of Sibun residents is suggested by the placement of two speleothems in the large burial pit and by the presence of a cave torch that had been broken and discarded in a nearby midden. This ceramic torch holder (Figure 6, shown here refitted) once held a smoky, flaming pine bough and is similar to those found in St. Margaret's Cave and so-called Pothunter Cave (both in Belize) as well as the Guatemalan cave of Naj Tunich (Brady 1989:257-258; Graham, McNatt, and Gutchen 1980:169; Stone 1995:14). This discovery—as well as that of speleothems from residential architecture, burials, and circular shrines—serves to accentuate the integration of Sibun caves with surface sites.

Role of Caves in the Ritual Performance of Sibun Valley Residents

Caves are an archaeological resource in a class of their own. From a resource-management perspective, they are an endangered species, highly vulnerable to predation by pot-hunters and to degradation by flocks of visitors. The caves of the Sibun-Manatee and Hummingbird karsts are no exception and, in fact, have been visited by archaeologists, local hikers, and, unfortunately, pot-hunters since the 1960s and earlier. It was caves such as Actun Polbilche (Pendergast 1974) that put the Sibun valley on the archaeological map. Despite this attention and the more systematic

cave study that we have undertaken, there is much about cave utilization that remains unknown. Basic questions regarding the types of ritual—whether positive and negative in intent—performed within caves and whether females participated in these subterranean rituals are actively under investigation by cave archaeologists (see Awe, this volume). Cave ritual has a deep history that continues even today. Similar to the ancient Maya, many contemporary Maya people view caves as dangerous and powerful places. They still serve for some as places of ritual, prayers, and offerings.



Figure 7. Drum fragment from Chanona Cave. Photo by P. A. McAnany

In the Sibun valley, there is one cave that trumps all others in terms of size, scale of internal construction, and artifact content. That cave is Actun Chanona. Situated at the mouth of the Gorge, this cavern is the companion cave to the Hershey site that is distanced only 6 km to the northeast. A cave with cathedral ceilings that is nearly 300 meters long, Actun Chanona has a symbolically significant east-west orientation

with a magnificent eastern entrance that is evocative of the open maw of a *wits* monster. Near the center of the cave, a great platform measuring 15 x 20 m and achieving a height of 7 meters was constructed by leveling a breakdown slope. Around the perimeter of the platform, cave walls and “forests” of speleothems show intensive burning likely to have resulted from ritual burning events conducted over a thousand years ago. Fragments of a drum (Figure 7) found near the torched areas allude to the sound effects that may have accompanied the *k’ak’* or fire/smoke events.

The only human bone recorded in Sibun caves was found at Chanona in a disarticulated form. The singularity of the human bone is joined by a fragment of a ballplayer figurine, the only one documented from Sibun caves just as the ballcourt at nearby Hershey is the only known court in the valley. The large scale of construction and burning within Actun Chanona suggests that sizeable groups entered the cave to perform and/or observe rituals. The presence of human remains and the ballplayer figurine are redolent of sacrifice and the Underworld. Altogether, these artifacts point to the enactment of large-scale ritual performance likely with political overtones. As cave archaeologist, James Brady is fond of saying, “Size matters (in reference to caves).” In the Sibun valley, we seem to have confirmation of this fact.

Between the confluence of Indian Creek and Gracy Rock, there are scores of additional caves that tend to cluster within areas of suitable bedrock and hydrology. These cave districts include Glenwood, the Thumb, Tiger Sandy Bay, and Gracy Rock (for location of districts, see Thomas, Figure 1, this volume). In the middle section of the valley, caves tend to be smaller and to exhibit more subtle structural modifications in the form of terracing, altar constructions, walls, and pathway enhancements. Cave ritual is

present in these caverns on a smaller scale and reasons for visitation may be more directly related to farmers' concerns with rainfall and crop fertility rather than larger scale political pageantry.

As the drum fragment from Actun Chanona attests, Maya ritual specialists did not overlook the haunting acoustical properties of caves. In one of the smaller caves of the Tiger Cave District, a compound flute and maraca—capable of producing both wind and percussion effects—was discovered cached on a rock ledge. The rituals enacted to these musical accompaniments may have included long-term fasting or shamanic trances. Specifically, survey within both the Thumb and Tiger Sandy Bay districts has revealed the presence of wall pictographs. Not representational, these images fall into a category that William Haviland (1995:296-298) has characterized as *entoptic* imagery—generally produced while in a trance state. Designs include lattices and branching structures that are common in the graffiti etched into the plastered walls of buildings at Tikal (Haviland 1995:Figures 2-7; Trik and Kampen 1983). The charcoal images of Actun Ik were carefully sampled by caver, Allan Cobb, and submitted to Marvin Rowe at Texas A&M University for processing prior to accelerator mass spectroscopy dating. The 1-sigma calibrated age range for the Actun Ik pictographs is AD 890-1030 (CAMS-54930; Rowe et al. 2002), right at the cusp separating the Terminal Classic from the Early Postclassic periods.

What of the pottery that tends to be the target of unscrupulous pothunters? The Sibun caves contain ample examples of complete ceramics—jars (see Figure 1), plates, and bowls—as well as nearly complete but “killed” vessels. A total of 115 ceramic vessels from the caves have been documented both in situ and within the artifact archives of the Institute of Archaeology. Furthermore, heavy densities

of pottery sherds litter the floors of most caves. This last category of pottery is perhaps the most intriguing as it hints at a complex chain of activities that may include production as well as transport, breakage, re-use, and scattering of pottery sherds that may have been considered too symbolically charged to be returned to the residence.

Postclassic Waning of Sibun Settlement

As Elizabeth Graham (1987) has noted, the *segue* from the Terminal to the Early Postclassic period is so subtle at many Belizean sites as to exacerbate chronological separation. With 26 radiocarbon samples currently undergoing processing at the University of Arizona AMS lab, we hopefully will be in a position to shed light on this transition. Contexts with pure Early Postclassic pottery, including plumbate, have not been found in the Sibun valley and, with the exception of one Postclassic ritual deposit of *incensarios* around an altar at the Augustine Obispo site, settlement in the valley appears to have shrunk during the early part of the Postclassic period. Likewise, the hallmark of Late Postclassic presence—Chen Mul-style *incensarios*—is absent from the valley although the site of Cedar Bank—located near Gracy Rock—contains other Postclassic pottery types such as Payil Red, Tulum Red, and Cehac Hunacti.

A Spanish *Visita* for the Xibun Maya

At the end of the sixteenth century, a Spanish *visita* or chapel—complete with a bell—was built in the valley (Jones 1989:200). During this time, the Spanish Crown gave to an unknown Spaniard a grant of land and labor (or *encomienda*). In return, the grantee was obliged to build a small church for a visiting friar and to promote the Christian conversion of the Xibun Maya. Structures such as the one located and excavated at Tipu (Graham et al. 1989) were built—albeit pretty ephemeral constructions

by the standards of Maya archaeology. During 1630, the community was deserted at which time disillusioned Xibun Maya took the church bell. After 1635, the Spanish archival trail of the Xibun Maya runs cold for this area.

In an effort to locate on-the-ground this significant Spanish Colonial chapel, we first examined the area proximate to the Sibun Gorge with negative results. At the end of the 2001 season, we placed a 2 x 2 m test unit at the base of the largest platform structure at Cedar Bank. This preliminary excavation unearthed seventeenth through nineteenth century artifacts, a few of which rarely have been seen in Belize, including Sevilla blue-on-blue, Columbia plainware, olive jar sherds, and a hand-cut metal star (Figure 8).

The Cedar Bank location is extraordinary due to several factors. If one travels upriver by canoe, the coastal mangrove slowly yields to higher ground and the riverbanks grow taller until towering limestone hills enclose the river on both sides. This transition signals the entrance to the Sibun-Manatee karst and the local communities of Cedar Bank and Gracy Rock—places of settlement today and also during ancient Maya and Colonial times. Unfortunately, the Hollywood film crew for Harrison Ford's *Mosquito Coast* also took a liking to this locale and to the camera advantages afforded by the many Maya platform mounds that had already been constructed.

In 2003, we returned to Cedar Bank, now the focus of dissertation research by Steve Morandi. Expansion of our original test unit yielded additional seventeenth-nineteenth century artifacts but excavations in surrounding mounds and plaza surfaces failed to yield structural evidence of the chapel. The wealth of Spanish Colonial artifacts suggests, however, that a *visita* is not far away and may still await discovery.

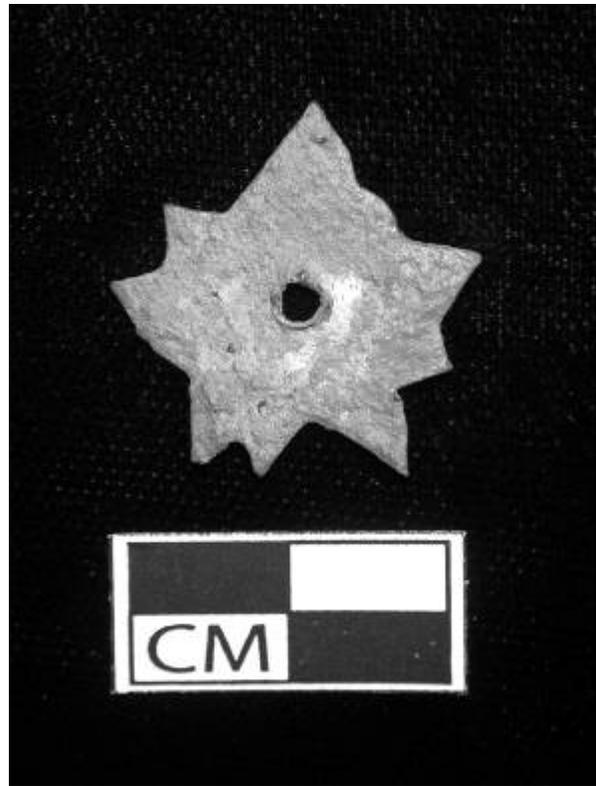


Figure 8. Hand cut and perforated metal star from a Spanish Colonial deposit at Cedar Bank (Operation 40). Photo by P. A. McAnany.

The overprint upon such an ephemeral structure, however, has been severe and includes centuries of massive flooding, a strong British colonial occupation, and destruction wrought by the *Mosquito Coast* film crew. The Hollywood culprits could have destroyed the *visita* either during set construction of the village or during clean up in the aftermath of torching “on location” the fabled icehouse. If Spanish-Colonial records are any indication, the archaeological traces of Spanish-Colonial presence at Cedar Bank are only the tip of the iceberg.

Extracting Mahogany from Sibun forests

In 1999, a Freetown Sibun elder by the name of Samuel Oshon agreed to an interview. Now blind but still swinging a machete, Samuel Oshon told us of the first time he saw a plane fly over the skies of Belize. When it landed, a man by the name

of Charles Lindbergh jumped out, he said. He also related the time he spent logging mahogany and living in remote camps of the upper Sibun drainage. Like many Belizeans before him, much of his life had been spent felling mahogany trees for the extraction of this valued timber was central to Belizean Colonial history



Figure 9. Wine bottle from the mid-eighteenth century found by Lance Usher in the Sibun River near Cedar Bank. Photo by P. A. McAnany.

The north shore of the Sibun valley officially was annexed to the growing British-Colonial timber-extracting colony in 1786. Not surprisingly, project historical archaeologist, Daniel Finamore, has identified a British wine bottle from Cedar Bank that predates this annexation by 30-60 years (Figure 9). Thus, it is reasonable to suggest that some “illegal logging” preceded the Anglo-Spanish Treaty. Shortly after 1786, David Lamb produced a map of land-claims. This map and more recent versions found by Daniel Finamore in the London Public Record Office (PRO CO700 BH no. 14, 1787) show the location of small houses and lumber “works” along the Sibun River. Icons are accompanied by the names of individuals claiming the land, most likely for the purpose of lumbering mahogany with slave crews of African ancestry. Names

include those of William Tucker, Grace Taylor, and Colonial English, among many others. The holding of Grace Taylor (the sole female name) was located directly below Gracy Rock; thus, the story that this area was named after a woman named Grace who frequently was seen laundering her clothes on a rock near the river may not be apocryphal. William Tucker claimed the Cedar Bank area and likely maintained a seasonal camp on top of the main Maya platform mound at Cedar Bank. Excavations at that locale yielded primarily eighteenth and nineteenth-century artifacts while the midden at the base of the structure contained a mixture of Spanish and British Colonial artifacts, the former described above. Early loggers found a ready market for their wood in the British colonies to the north. In the archives of the Rhode Island Historical Society, Daniel Finamore found an account of a purchase prior to 1770 of 2,000 board feet of wood from “Mr. Willaim Tucker in Sheeboon” (RIHS James Card Papers, MSS 9001C, Box 1).

For nineteenth century British Honduras, there are scattered references to Maroon settlements established by slaves who escaped the shackles of slavery and sought to live independently in isolated but habitable locales. In Volume One of *Archives of British Honduras*, Sir John Alder Burdon (1935:v.2, 184) referred to a report from 1816 of a Maroon community “near Sheboon River, very difficult to discover, and guarded by poisonous Stakes [sic].” This report was followed by a letter dated 1820 (written by Superintendent Arthur to a Mr. Bathurst) which mentioned the existence of “two Slave Towns, which it appears have long been formed in the Blue Mountains to the Northward of Sibun” (cited in Bolland 1988:63). Historical sociologist Nigel Bolland (1988:40, 63) suggests that the community noted by Burdon may have been located in the Runaway Creek tributary, just upriver from Gracy Rock. During the 2003

season, we reconnoitered Runaway Creek and found that this somewhat remote and constricted drainage does not contain any hidden pockets of habitable land. Strategically connecting the Sibun River with the old Manatee Road, the drainage may have served as a vital exit corridor for escaping slaves rather than a final destination.

Summary

Four seasons of fieldwork in the Sibun drainage have enhanced dramatically our knowledge of the deep history of this prominent valley of Belize. We are bringing into focus a narrative that includes Late Archaic hunting, Preclassic pilgrimage to the sacred landscapes of the Sibun caverns, and heavy Classic-period settlement imprint on the alluvial terraces. Around the edges of that sharp focus hover the putative role of cacao in the Classic-period settlement, the enigma of the continued prosperity of the valley through the turbulent times of the Terminal Classic period, and the spotty distribution of Postclassic remains. For the more recent history of the Spanish and British Colonial periods, archaeology and archival sources together are revealing complementary information regarding Xibun Maya identity and resistance to Spanish domination. For the British Colonial period, both sources indicate aggressive and early colonization of the valley in defiance of international treaty boundaries. While much research remains to be done, we have begun to place people in the archaeological landscapes of the valley and to unravel the complexities of its deep history.

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23 ***VISUALIZING THE POLITICAL LANDSCAPE OF THE SIBUN RIVER***

Ben Thomas

Since 1997 the Xibun Archaeological Research Project (XARP) has located, surveyed, and mapped twenty-two ancient sites and eighteen caves along the Sibun River in Central Belize. This research has greatly enhanced our knowledge of the ancient settlements in the region and has led to the creation of a GIS database to effectively manage and analyze these data. This paper is a preliminary examination of the relationships among the sites along the Sibun, and identifies changes over time as they are reflected in settlement patterns. The ultimate objective is to assess whether sites interacted with each other as equals or whether political and economic hierarchies can be discerned in the settlement patterns.

Introduction

Over the years archaeologists working in Belize have explored many of the country's major drainages for evidence of ancient habitations. While extensive regional surveys had been carried out along the Belize River (Wiley et al. 1965, Ford 1990, Ford and Fedick 1992), New River (Hammond 1975, Turner and Harrison 1983), Rio Bravo (Guderjan 1991), and Stann Creek (Graham 1994), the Sibun River in Central Belize was largely neglected. Prior to 1997 only three sites, Oshon (MacNeish et al. 1980), Balam Ha (Abrams 1987), and Hershey, and two caves, Actun Polbilche (Pendergast 1974) and Actun Chanona, had been officially recorded and only Balam Ha had been archaeologically tested (Abrams 1987). Excavations at Balam Ha were minimal and undertaken in advance of development that subsequently destroyed the site. The lack of archaeological information from the Sibun stood in direct and stark contrast to the results of extensive work that had been carried out in other areas of Belize.

In 1997 the Xibun Archaeological Research Project (XARP) initiated by Dr. Patricia A. McAnany of Boston University, with a group of graduate students and

specialists, proposed to address the lack of data from the Sibun River Valley by conducting a holistic, long-term study of the river, its environs, its ecology, and its archaeological history. A major portion of the study entailed a systematic survey of the river from its headwaters to its mouth in an effort to locate archaeological sites. Since time and resources would not permit complete coverage of the entire area, a sampling strategy was employed that demarcated five spatially distinct transects within the river valley (Figure 1). We believed that intensive work within these transects would yield a representative sample of general occupation along the river. To date we have completed four seasons of fieldwork (1997, 1999, 2001, and 2003). Our surveys have located 22 ancient sites, that range in size and scale from large complex centers such as the Hershey site to isolated structures such as Pedro's Mound (Table 1). Nine of these sites have been tested and preliminary results are detailed in three reports on file at the Institute of Archaeology in Belmopan. In addition to mapping and excavating surface settlements, we have investigated and mapped 18 caves.

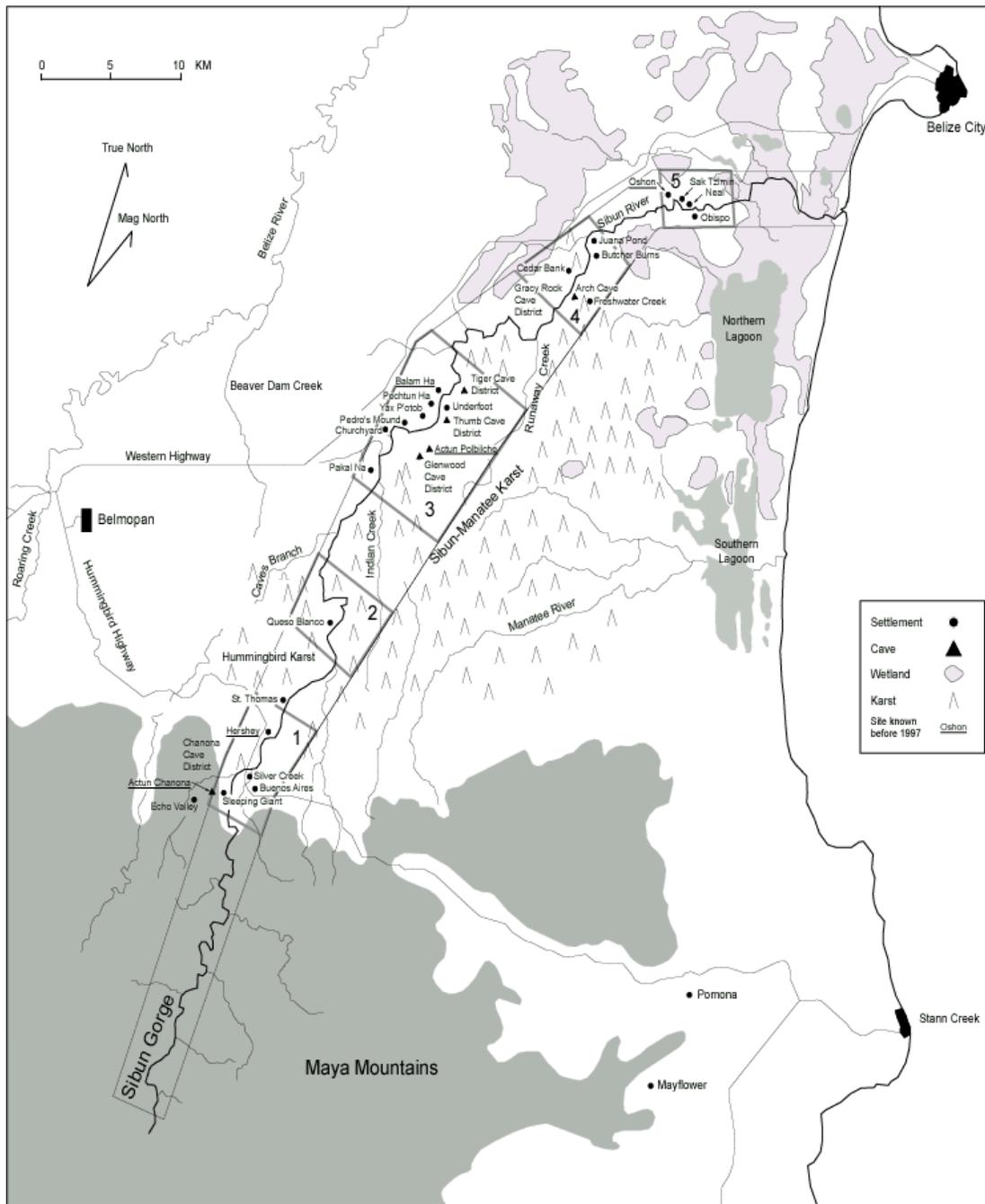


Figure 1. XARP survey area with transects, sites, and caves.

My personal goals were to expand the database of Sibun settlements, to outline the relationships among sites along the river, and

to identify changes over time as reflected in the settlement patterns. The ultimate question I wanted to answer was whether

sites in the Sibun River interacted with each other as equals in a heterarchical relationship (Crumley 1995) or whether hierarchical models would better explain the politics in the valley. Also, if the sites were organized in a hierarchical arrangement, I wanted to determine who the main players were and which site or sites influenced others in the valley.

Two plausible scenarios in the case of hierarchical relationships along the Sibun River were that external powers, probably from the Belize River or the Peten, controlled the sites, or that political hierarchy in the valley had developed internally as certain sites were able to gain greater control of key resources in the valley. The reality of the situation probably lay somewhere between the two ends of this continuum and was likely more symptomatic of Joyce Marcus' (1998) "dynamic model." This model argued for the existence of both hierarchical and heterarchical relationships, and posited that the complex sites with several plaza groups and buildings with clearly non-residential functions. Isolated mounds are rare and only one site, Pedro's Mound, appears to be a truly isolated structure. Pedro's Mound is a high rise in an otherwise flat pocket of alluvium close to the rivers edge in the middle reaches. Excavations at this site revealed a natural shelf of rocks and cobbles that elevated the area above the surrounding terrain. This natural elevation made the spot appealing to settlers both ancient and modern. While we did find traces of ancient Maya occupation at this site most of the remains related to a modern structure that had been occupied by the late Pedro Reyes, who placed his house there because it stayed dry during the floods.

In general, sites in the Sibun can be separated into two broad categories: those with plaza groups and those without. Sites lacking plaza groups tend to be groups of single platforms arrayed linearly along a high ridge (Yax P'otob, Balam Ha, and Sak

Tzimin) or in areas between large natural features as in the case of Echo Valley located between karst hills and an unnamed stream that flows into the Sibun (Figure 2). Sites with plaza groups can be further divided into two categories; those with a single plaza group and those with multiple plaza groups (Figure 3). In sites with plaza groups, single, non-plaza structures tend to cluster around the main plazas. Only one site with plaza groups, Pakal Na, is arranged linearly along a high bank extending along the Sibun for approximately one kilometer. Sites lacking plaza groups do not have buildings with obvious non-residential functions and the structures within these sites are fairly undifferentiated. Only sites with plaza groups appear to have buildings with clearly non-residential or special functions. However, it is important to point out that not all sites with plaza groups contain special function buildings

Sites that lack non-residential structures generally are proximate to sites that have non-residential or special function structures. Thus sites with non-residential buildings may have been centers that fulfilled the civic and religious functions for a local area. With this thought in mind, we can divide the settlements along the Sibun into three settlement clusters (Figure 4). In the upper reaches the residential sites are located within walking or canoeing distance of the Hershey Site that features clearly non-residential architecture. In the middle reaches the largest site appears to be Pakal Na. The Oshon Site dominates the lower reaches but appears to be part of an architectural style that differs from sites upriver.

Table 1. Known Sites along the Sibun detailing history and plan of investigation.

Site	Structures	Type	Status	History of Investigation
Transect 1				
Buenos Aires	2	Low platforms	In pasture	Mapped with GPS in 2001.
Echo Valley	15	Informal groups, one double platform, and single platforms in a linear arrangement	In citrus orchard	Mapped with GPS in 2001. Soil profiles and descriptions were produced.
Hershey	39	Two pyramidal plazas with surrounding large plaza groups and outliers	In cacao orchard, but structures are under bush	Mapped in 2001 and conducted excavations in one pyramidal group and two plaza groups. Further work in 2003 at Groups A and B included the examination of a ball court and passageway connecting the main pyramid to the Group A plaza.
Silver Creek	5	Isolated single platforms	In orchard and pasture	Mapped in 2001
Sleeping Giant	4	One double platform and two single platforms	In citrus, all of the mounds have been damaged by bulldozer activity	Mapped with GPS in 2001
Transect 2				
Queso Blanco	≈40	Linear arrangement of low, single platforms.	In bush	Mapped with GPS in 2003 and tested.
Transect 3				
Balam Ha	30	Linear arrangement, low single platforms	Destroyed	Mapped and tested by Abrams in 1986.
Bradstar	2	Low platforms	In pasture	Mapped with GPS in 1999.
Churchyard	15	Plaza group	Destroyed after 1997	Mapped in 1997.
Pakal Na	23	Plaza groups and low single platforms	In citrus orchard	Mapped and tested in 1999. Two excavations started in 1999; one completed in 2001. Two further excavations were conducted in 2001.

Site	Structures	Type	Status	History/Plan of Investigation
Transect 3 (continued)				
Pechtun Ha	13	Plaza group with two stone monuments and outlying single platforms	In bush	Mapped and tested in 1997. Three more excavations in 1999. Total of 6 operations and two areas of posthole testing. Uncovered a circular structure in 1999.
Pedro's Mound	1	Isolated mound	In pasture	One large test excavation conducted in 1997.
Underfoot	3	Linear arrangement, low single platforms	In bush within flood plain	Mapped in 1999
Yax P'otob	10	Linear arrangement of low, single platforms	In bush	Mapped and tested in 1997.
Transect 4				
Butcher Burns	9	One plaza group and single platforms	In bush	Mapped with GPS in 2001.
Cedar Bank	≈30	Two plaza groups and single platforms	In mixture of bush, pasture, and orchard	Mapped with GPS in 2001. Main plaza was tested. Rectified map was made of plaza groups. Further work was done in 2003 to understand Colonial occupation of the area.
Freshwater Creek	5	One plaza group	In bush	Mapped with GPS in 2001. Rectified map was produced.
Juana Pond	7	One plaza group and two single platforms	In bush	Mapped with GPS in 2001. Rectified map was produced.
Transect 5				
Neal	4	Large mounded basal platform and three possible small single platforms	Large mound is being used by present landowner	Main mound was mapped in 1999. Possible single platforms were almost completely destroyed by trees growing on them. They were located but not mapped in 2001.
Obispo	7	Plaza group and outliers with two stone monuments	In orchard	Mapped in 1999. Two excavations were conducted in 2001: one on the main mound and the other around a stone monument. Excavations in 2003 revealed a circular structure.
Oshon	36	Two plaza groups with two stone monuments and several outlying platforms.	Partially in bush and partially under cultivation	Mapped and tested in 1999. One additional excavation in 2001 revealed a circular structure. Work in 2001 included recording and cleaning of the monuments. Further testing at an outlying structure in 2003.
Sak Tzimin	20	Informal clusters of low, single platforms	In pasture	Mapped in 1999.

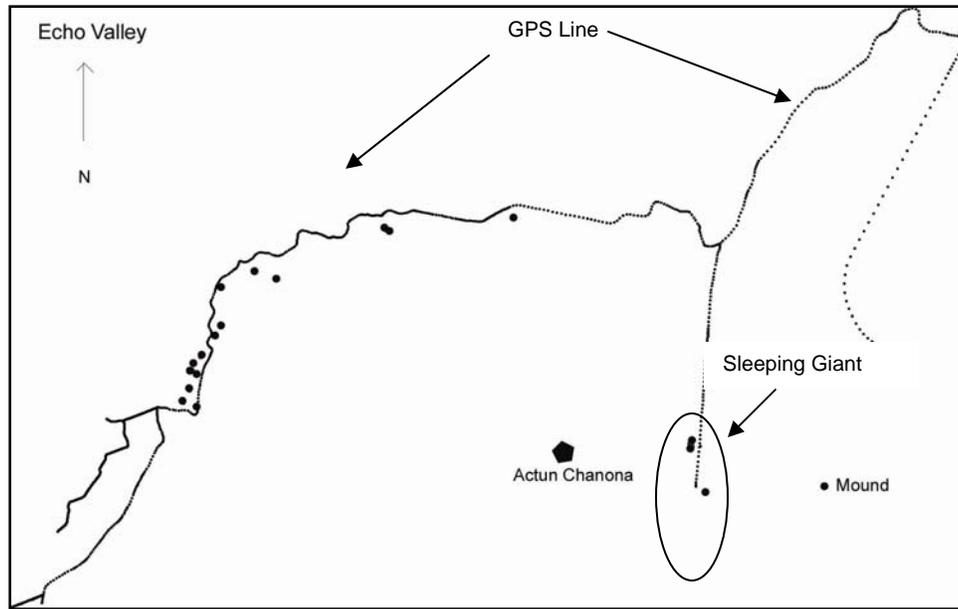


Figure 2. Linear arrangement of structures at the sites of Echo Valley and Sleeping Giant, both of which lack plaza groups

This architectural style seen at Oshon and two other sites, Obispo and Pechtun Ha, is distinguished by the presence of round structures and stone monuments. Pechtun Ha, at the edge of the middle reaches is the farthest upriver extension of these features and even large sites further upriver do not have round structures or stone monuments.

The sites of Transect 4, although located in the lower reaches, are anomalous in that they contain plaza groups but do not conform to the style of the Oshon Site or of the sites upriver. They do not have round structures, stone monuments, pyramidal structures, or clearly non-residential buildings. They also do not mimic the Hershey Site in architectural layout. Most of the sites in Transect 4 are single plaza groups with a few outlying single platforms. Cedar Bank, the largest of the sites in Transect 4 has a large plaza group that appears to be an elaborate residential group. Arrayed around this plaza group are numerous single platforms. Oshon and Obispo are the only sites in the lower reaches that have obviously non-residential buildings and may have

served as the civic and religious centers for the sites in Transects 4 and 5.

Apart from the above mentioned differences in settlement layout, further distinctions can be drawn among the settlements of the Sibun River based on the choice of building materials. Materials used in the construction of the many platforms along the Sibun were locally available and specific to the different geographic regions along the river. While the builders of the Hershey site utilized limestone to create facades for their building, the interior mass of the structures was created through the prodigious use of river cobbles. These were taken directly from the river and used without much modification.

In the middle reaches where these large stones were not as readily available the residents created earthen platforms often without stone facades. Only the largest buildings appear to have used limestone facing blocks. Even at these larger buildings, the use of dressed limestone was restricted to the facades of the platforms. Sites in the lower reaches used a combination of stones

and silt but also utilized a larger percentage of locally available chert in the fill. There was, however, still the need to keep up appearances and most of the sites in the lower reaches veneered their rubble and earth filled buildings with dressed limestone.

Influences affecting settlements in the Sibun River Valley

Ancient settlements in the Sibun River Valley appear to have had at least two distinct influences affecting their construction and layout. Upriver, the dominant site, Hershey conforms in its layout to sites in the Peten and the Belize River. The site had a strong central alignment (N 32 E) along which buildings were laid out and the closed, rectangular plaza groups resemble those found at sites like Xunantunich, La Milpa, and Cahal Pech. The main group at Hershey, Group A, is a restricted plaza, dominated by a pyramidal structure at the southern end of the plaza. A ballcourt, accessed from the main plaza via a constricted passageway attaches to

the back of this pyramid. The discovery of human remains of at least one high-status individual and a child in this passageway may indicate that this was the focus of some important ritual.

None of the other settlements near the Hershey Site have plaza groups and most are either linear arrangements of structures such as those in Echo Valley or are informal groupings of mounds as at Silver Creek. It is possible then that these sites looked to the Hershey Site for government and ritual and may have been under the control of this modest regional center. The resemblance of the Hershey Site to other sites in the Belize River and the Peten may indicate that this site was part of the larger Peten sphere of influence. The discovery of a sherd with what may be the Naranjo emblem glyph (see McAnany et al., Figure 3, this volume) may indicate that the influence of this large Classic period Maya center may have extended into the Sibun River Valley.

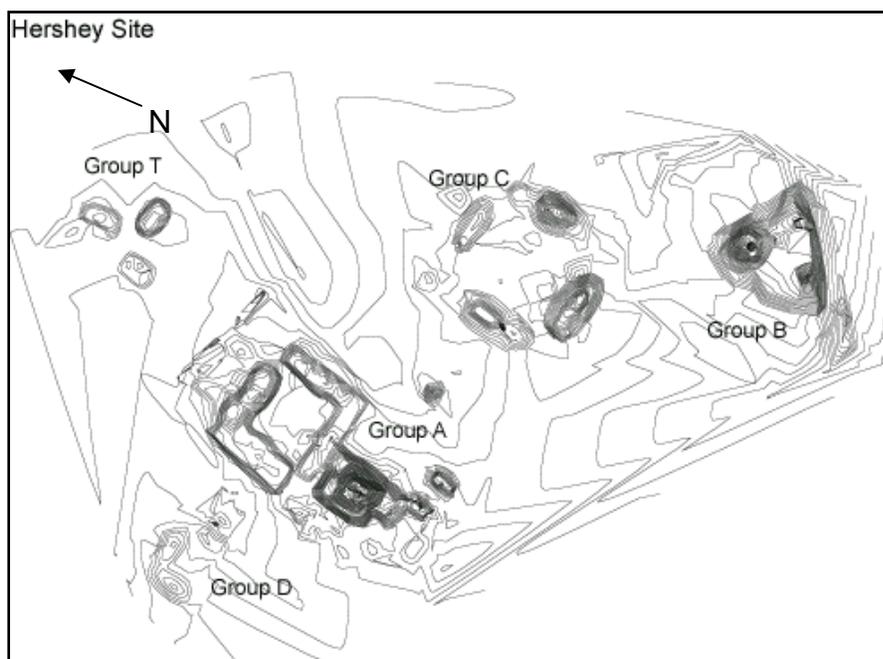


Figure 3. Hershey Site with multiple plaza groups.

A factor in the importance of the Hershey Site to the larger Maya world may have been its location. The site is situated between the Belize River Valley and Stann Creek along a route that led from the Peten to the Caribbean. This strategic location may have helped to create external interest in the area. The site is also located in the first pocket of alluvium that is habitable when descending from the Maya Mountains. It was thus in a position to control resources that came from the mountains such as the pink granite that is found in the Sibun Gorge. The use of granite in construction and the discovery of a number of granite *manos* and *metates* at the site indicate that the occupants of the site had access to this important resource. But while granite was important to the Maya, trade in this resource may have been secondary to the fact that the Hershey settlers had access to lands that were suitable for cacao plantation. It is possible that the cacao economy was the primary concern of the Maya who lived at the Hershey Site.

While the Peten may have been the primary influence at upriver sites, a different tradition influenced sites in the lower reaches. Oshon, Obispo, and Pechtun Ha were part of this opposing tradition characterized by round temples and stone monuments. The Oshon site is the largest and most elaborate of the three. Significant amounts of Terminal and Postclassic remains found at these sites indicate that they may have flourished later in time than the upriver sites. Sites in the lower reaches probably were connected to the Postclassic Maya trade routes that were focused along the coast of the Yucatan.

Just as the Hershey Site was located in an economically and ecologically significant location, the major sites downriver appear to have occupied strategically significant points along the Sibun. Pakal Na, in the middle reaches, is located at the confluence of Indian Creek and the Sibun River. Its ability to overlook the transition

from a significant waterway like Indian Creek into the primary transport route to the Caribbean may have been a factor in its relative importance, wealth, and success. Similarly, the location of the Oshon District near the entrance of the Sibun from the Caribbean likely facilitated monitoring and transfer of goods up and down the river. Such movement is evident in the discovery of parrotfish bones at the Hershey Site. Parrotfish is a marine fish that inhabits the coral reef off the coast of Belize.

Political Economy along the River

A key factor in reconstructing the political landscape of the Sibun is the chronology of settlement. It is clear that there were three large settlements in the valley, namely, the Hershey Site, the Oshon Site, and Pakal Na. Of these, Hershey and Oshon were the largest, most complex, and the sites that anchored the two ends of the valley. The earliest pottery from the area that does not come from a cave comes from the Hershey Site (López Varela 2003). In architectural layout and material culture, Hershey appears to have been a part of the Late Classic period florescence of sites in the Maya region and was connected to the Peten sphere of influence. At the end of the Classic period and into the Terminal Classic the Hershey site was a large complex site and was probably the biggest player in the Sibun River Valley. Hershey's influence may have extended along the entire river.

In the Terminal Classic and into the Postclassic there appears to have been a change in the politics of the river. With the collapse of sites in the Peten, the Hershey Site may have lost its powerful political backers. At this time, several sites with shared features emerged at the mouth of the Sibun and their influence spread upriver. These sites may have taken advantage of a new economy that emphasized coastal trade and opened the Sibun and its cacao

production to the Yucatan. Thus, at the end of the Terminal Classic and into the Postclassic influence and power in the valley may have shifted from the Hershey Site to the sites downriver.

On the whole, the sites in the Sibun never achieved the scale and complexity of their neighbors in the Belize River. As a region they may have been part of a “middle level” in the continuum of rural complexity evidenced in the Maya region. Yet the fact that they continued past the collapse of the Peten sites may indicate that they had resources of value and were adaptable enough to make the changes necessary to take advantage of changing realities.

Summary Evaluation of Models of Interaction

Finally, let us evaluate the models of interaction that were set out at the beginning of this paper. It must be emphasized that analytical work continues and this paper is by no means the final word on the subject. The range in size and complexity among sites on the Sibun would indicate that while there may have been heterarchical relationships between some of the larger sites, such as Hershey and Oshon, there were a number of smaller sites that were probably subservient to the larger ones. The fact that non-residential architecture is only found at some of the larger sites indicates that these sites may have served as civic and religious centers for their local region.

Were the larger sites in a heterarchical relationship with each other? The issue of heterarchy is complicated by chronological issues. While the Hershey Site was thriving in Late and Terminal Classic times, it appears to have been less of a presence from Terminal Classic to Postclassic times. At this time the sites downriver were thriving and created their own identity characterized by round temples and stone monuments. This new tradition does not appear to have spread

upriver beyond the middle reaches. It is possible then that the spread of the new tradition was held in check by the older established power upriver.

The apparent lack of activity at the Hershey Site towards the end of the Terminal Classic and into the Postclassic, however, tends to favor an interpretation of changing fortunes over time. While the Hershey Site may have been a significant force from Late Classic to Terminal Classic times, it may not have been much of an influence at the transition from the Terminal Classic to Postclassic times. Thus, the largest sites in the valley may never have interacted with each other as equals, but rather one was replaced by the other as the influential force in the valley.

Turning then to the evaluation of hierarchical models as explanations for the political strategies along the river we are confronted with the question of whether the hierarchy was internal or if outside powers influenced settlement in the valley? The fact that the sites in the Sibun never achieved the architectural scale and political complexity of their neighbors may indicate that the valley in Classic times was subservient to larger sites in the Belize River Valley and by extension the Peten. Within this exalted sphere the Sibun sites were minor players. External interest in the settlements along the Sibun river may have risen from two factors: the Sibun Valley was on the route from Peten to the coast and, Sibun settlements had access to cacao producing lands.

There is no doubt that a strong force, whether internal or external, governed Hershey as witnessed in the strict adherence to an architectural plan that resulted in structures being built along a common orientation. This planning is not seen in the neighboring sites of Echo Valley, Silver Creek, or Queso Blanco which appear to have grown and expanded organically along natural features. This apparently unplanned

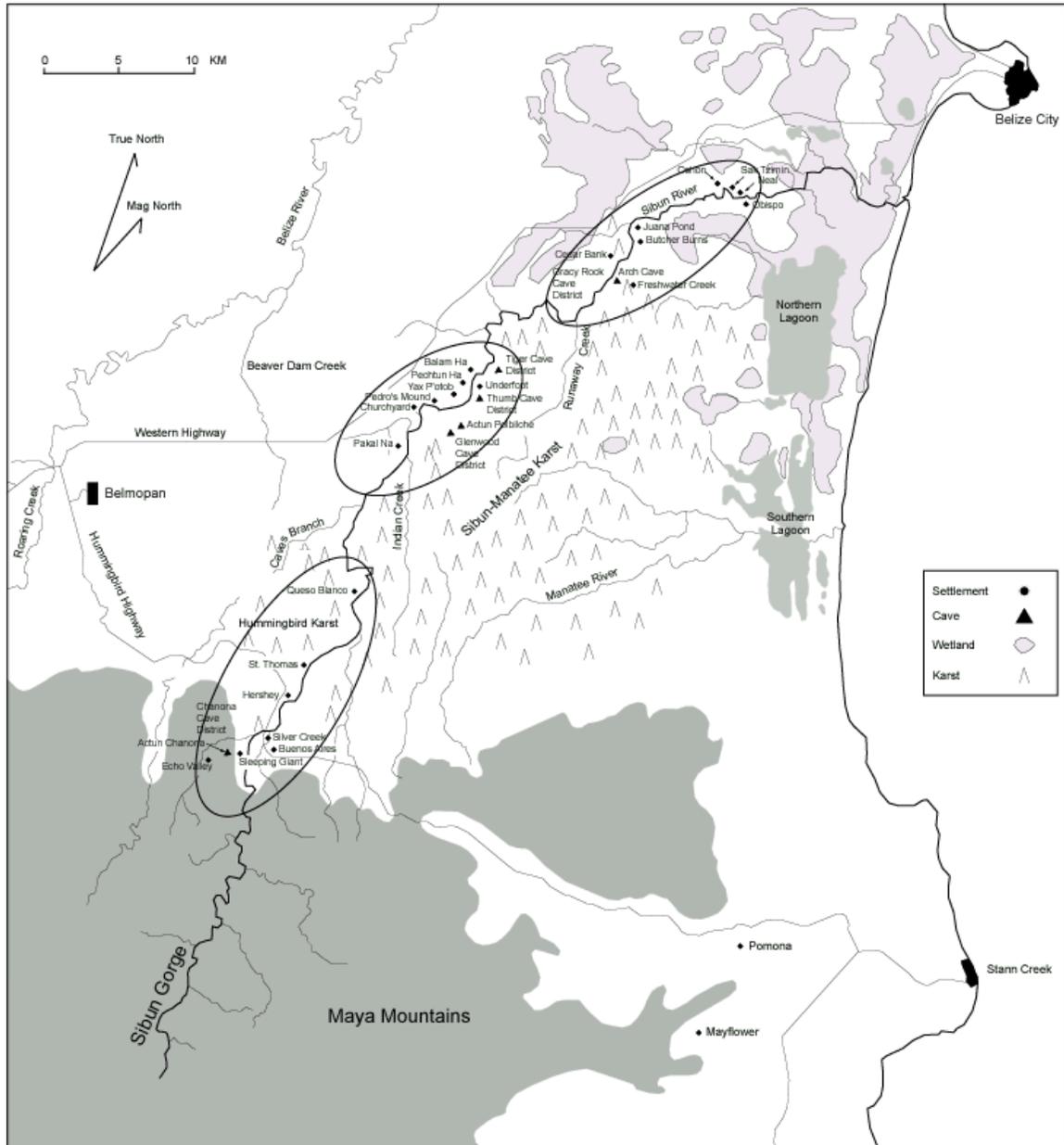


Figure 4. Sibun River Valley settlement clusters.

development also is seen further down river at sites such as Balam Ha, Yax P'otob, and Sak Tzimin that all lack non-residential buildings and do not have plaza groups.

Sites downriver do not appear to emulate the Peten or Belize River Valley sites. Sites in the lower reaches appear to have been influenced by a new tradition that

may have been coming into the Sibun from the Yucatan at the end of the Classic and into the Postclassic periods. It is, however, unclear at this time whether these new influences downriver were a result of colonization or whether local sites adopted these traits as they were incorporated into a

new sphere of influence that was moving along the coast of the Yucatan at this time.

The political picture in the Sibun River Valley remains murky at this time. It is clear that several large sites existed in the valley. At different times these larger sites may have interacted as equals but it does appear that Hershey may have had a greater influence at the transition from the late Classic into the Terminal Classic period. Later in the Terminal Classic period the sites downriver may have had a greater influence along the valley.

The history of the Sibun shows the ability of the Maya to adapt to their environment and the connectedness of the settlers to the landscape that they inhabited. Our investigation of the Sibun Valley continues. The greatest hindrances to a complete study of the river are its volatile nature and the spread of modern development. The annual flooding events have destroyed sites and buried others. Clearing and transforming land for citrus has destroyed several sites. Where development is absent, thick undergrowth including second-growth forest rife with spiny plants makes survey of the river challenging. Yet, despite these limitations XARP continues to contribute significant new insights about the Maya who lived along the banks of the Sibun River in Central Belize.

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24 **RECENT RESEARCH AT MAYFLOWER, STANN CREEK DISTRICT, BELIZE**

Jeffrey Stomper, Wendy Brown, and Elizabeth Pope

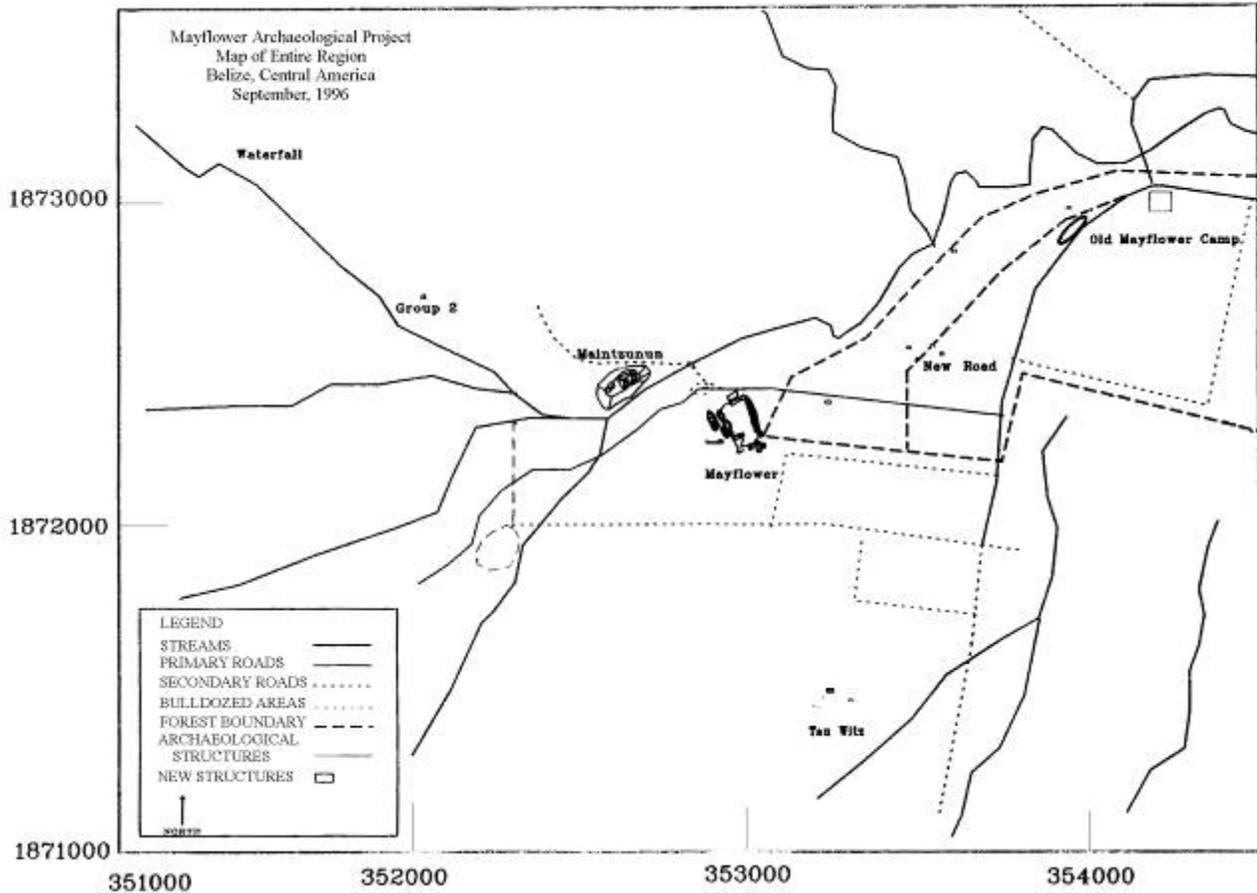
After the completion of five years of summer research, the Mayflower Archaeology Project (MAP) has slowly revealed the nature of the Late/Terminal Classic Maya site of Mayflower, Stann Creek District, Belize. The Research focus of the first few years centered on preliminary reconnaissance of the area and limited excavations. The last two years has seen the partial excavations of two structures – Structure A-10, a small ceremonial platform and Structure A-12, a newly discovered house platform near mayflower main group. The paper recaps the previous archaeological research and highlights some of the work that lead to the establishment of the Mayflower Archaeological Reserve and the Bowawina national Park.

Introduction

Located in the Stann Creek District of Belize are a group of three small Maya sites - Mayflower, Maintzunun and T'au Witz, collectively referred to as Mayflower. This group of sites is situated along Silk Grass Creek near the foothills of the Maya Mountains. Over twenty years ago, Elizabeth Graham (1976, 1977, 1983, 1985, 1994) conducted a survey and mapping project of the entire Stann Creek District and supervised limited excavations at the Mayflower sites, which revealed their long history of occupation and their location along potentially strategic trade routes (Graham 1994). Apart from Graham's district survey, the only other extensive work done in the Stann Creek District was by Jeff MacKinnon (1985, 1986, 1989a, 1989b, 1990, 1991a, 1991b). MacKinnon's research was carried out at the coastal site of Point Placencia located in the extreme southern region of the district. Although Graham stressed the necessity for further intensive research in the region, the Mayflower sites received little archaeological attention until the inception of the Mayflower Archaeology Project (MAP) in 1996 (Williamson and Stomper 1996).

In the summer of 1996, MAP began a long-term, multi-disciplinary study of the Mayflower sites and their surrounding area. Much of the first two seasons concentrated on logistical concerns, but also included pedestrian surveys, mapping, and test excavations. The limited surveys both in the core and periphery of the site uncovered numerous structures, plaza groups, and hilltop settlements that had not been documented previously. Mapping and test excavations demonstrated conclusively that Mayflower, Maintzunun, and T'au Witz were not separate sites (Figure 1), but were three components of a single site that is centered around the Mayflower plaza group (Williamson and Stomper 1996). During the construction of an access road to these lands in July of 1996 numerous small mounds, platforms, and previously hidden structures were discovered. Further pedestrian survey revealed additional mound groups and isolated mounds. The presence of these mounds, located from 500 m to 2 km from the site core, indicate that Mayflower was much larger than previously thought and suggests a need for further investigation in this peripheral area.

Figure 1. Map of the Mayflower Area



While Maya sites such as Copan and Tikal will always get the glory—National Geographic spreads and Discovery Channel documentaries—the examination of sites like Mayflower present an opportunity to examine the way in which a smaller community functioned within its local environment and how it was integrated into the social and economic fabric of the larger Maya world. A considerable amount of work has been done on coastal Maya trade in Belize at sites on the Cayes or on the coast (Graham 1989; Jackson and McKillop 1989; MacKinnon 1989; McKillop 1989), and even more data have been collected on non-local goods and trade items from the major sites inland such as Caracol (Chase 1991, 1992; Chase and Chase

1989), Lamanai (Loten 1985; Pendergast 1984, 1985, 1992), Cahal Pech, (Awe, Conlon, and Campbell 1991; Awe and Healy 1994) and sites in the Peten. What is less known is the exact nature of the exchange system from the coast to inland sites, and specifically what items traveled which routes.

Mayflower was originally thought to be a link in the coastal-inland trade network, but preliminary analysis of the artifacts uncovered during 1996 and 1997 indicate that this was probably not the case. A more probable scenario is as follows: The site is situated at the mouth of a box canyon in the foothills of the Maya Mountains (possibly controlling the flow of goods into and out of the canyon) a few kilometers south of the

route to the Hummingbird Gap (part of the coastal-inland trade route). The site core and surrounding settlement are located on a river terrace, a few hundred meters from a creek with year round flow. Also, the site is the only locale between the foothills and the coast that is not prone to substantial flooding during the rainy season. Hence, this may explain why, in spite of the limited amount of cultivable land in the area, Mayflower was the locus of extensive settlement from Middle Pre-Classic to Postclassic times (Graham 1994). The location of Mayflower at the entrance to the canyon and T'au Witz and Maintzunun on the surrounding ridges clearly indicate that anyone wishing to enter the canyon as well as goods leaving, must pass this population center. As of this date, slate, granite and quartz have been found in great abundance and may have been the main resources that were controlled by the Mayflower population.

Evidence of fish net weights uncovered at Mayflower indicate that it was associated with coastal exploitation. The degree of coastal -Mayflower interaction needs to further investigated. In order to comprehend Mayflower's role in coastal-inland trade the settlement patterning of the ancient population, the size and complexity of the site, and its long history of occupation must first be understood. This can be accomplished through a program of survey and excavation in the site core and surrounding area.

Survey and Excavations: 1996 – 2002

Outside of Graham's limited survey and excavation, little else was known about Mayflower until the inception of MAP. In 1996 the Mayflower Archaeology Project Survey (MAPS) created the first detailed map showing the relationships between the sites (Figure 2); corrected minor inaccuracies on

Graham's initial maps (Figure 3); and uncovered numerous new structures and features within 1 km of the site core. During the 1997 field season the pedestrian survey continued, with the focus on enlarging the map of the core area through a strategy of systematic mapping of visible features near the Mayflower complex of ruins. In addition, a detailed topographic map of the Mayflower core was created (Figure 4). Several structures were mapped in high detail including Structures A-8, A-9 and A-10 in order to facilitate the 1998 field season excavations of those structures.

Using Graham's excavations as a guide, several areas of the site core, primarily the structures at Mayflower and Maintzunun, were investigated through a series of shovel test pits and controlled 2m x 2m test excavations. These limited excavations revealed new information pertaining to the extent, orientation, and occupation of the core area (Williamson and Stomper 1996). The project continued to explore the core area in 1997 with additional shovel test pits, new 2m x 2m test excavations, and an expansion of 1996's test excavations. There were several reasons for continuing this activity. First, the spatial orientation, building size, and archaeological information from Graham's and the 1996 and 1997 MAP excavations indicated that parts of the Mayflower site were used as residences while others were more ceremonial in nature. Second, little is known about the function of the structures comprising of Maintzunun. Third, the area between Maintzunun and Mayflower was unexplored and undocumented, and evidence of features or occupation in this area would enable a better understanding of the relationship between Maintzunun and Mayflower. We performed test excavations at several locations at Maintzunun—near the

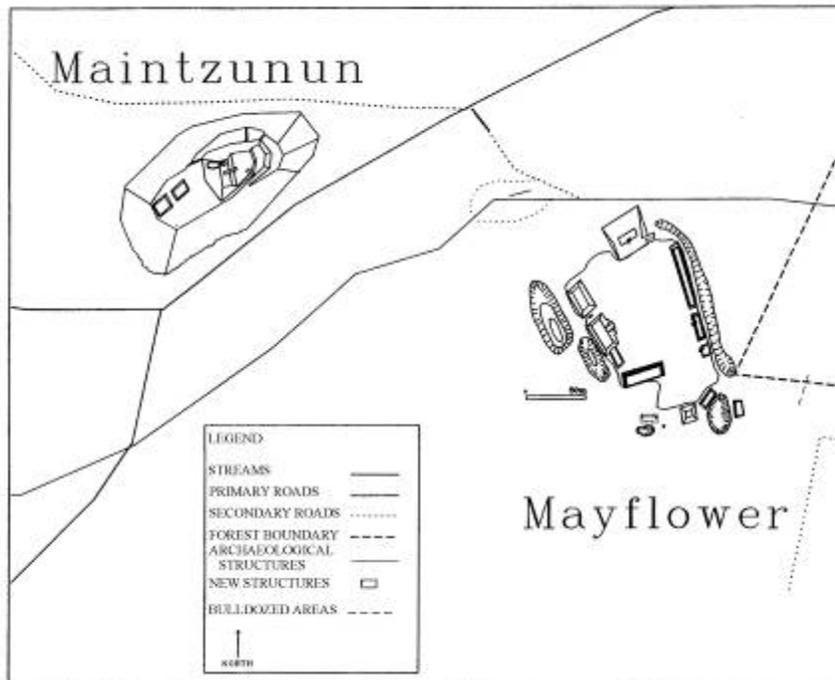


Figure 2: Map of Mayflower and Maintzunun

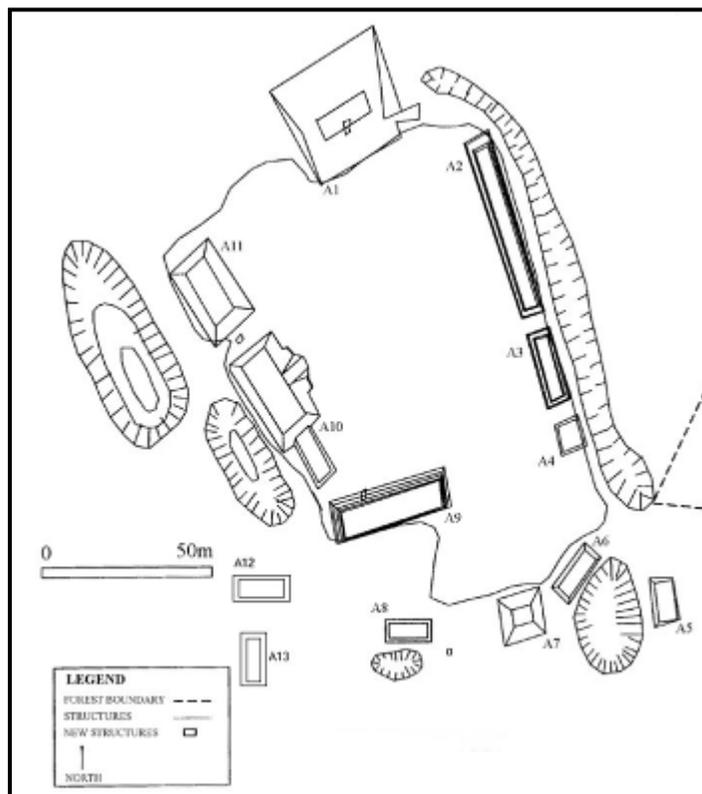


Figure 3: Map of Mayflower Main Group (after Graham 1976, with additions)

top of the mound and in the small plaza platform comprising the southwest side. In both locales our results were inconclusive as to whether these areas served a domestic function. Based on the location, size, and layout of Maintzunun we postulate that it may have served as a small ritual center or shrine. Several pedestrian transects were made connecting Mayflower to Maintzunun. No buildings were found and very little in the way of cultural material was uncovered. The only feature of major importance was a series of terraces leading from the Mayflower Main Group northwest towards Silk Grass Creek.

In July of 1996, improvements to the site's access road revealed a number of mounds and features located 200m-1 km from the site core. These were mapped and surface collections were made wherever possible. Several features were subsurface, artifact scatter suggests that the occupation and activity areas of this region might be much higher than expected. In 1997, 1998 and 1999, due to the re-growth of the banana plants in that area no further work was done. Plans for additional work in the future are dependent on the condition of the terrain and amount of re-growth in the area. If conditions permit, survey and conduct some test excavations at several small domestic groups in the area may provide additional, valuable information.

The 1998 field season continued several of the programs from previous years. Pedestrian survey was continued in the area south/southwest of the Mayflower core area and additional excavations were conducted in the Mayflower Main Plaza. This was done to determine the size and extent of the settlement and to construct an accurate culture history of the area before answering questions of how the site and its people were integrated into the larger social and economic framework of the Maya coastal-inland trade network. Creating this solid foundation of

archaeological evidence pertaining to settlement and culture history would enhance future investigations of trade, exchange, economy, subsistence, and social and political organization at Mayflower.

The 1998 field season built upon previous work by concentrating its efforts on the excavation of 2 structures in the Mayflower group - Structures A-9 and A-10. A series of 2m x 2m excavation units were placed at the base of and atop each structure. The goal was to locate a larger and better-preserved ceramic and artifact sample. This was done for three reasons. First, excavations near the base and atop the selected structures should yield larger ceramics and possibly complete vessels. Throughout the Maya area ceramic vessels and other artifacts were usually cached atop or near the base of completed structures. Thus, ceramics found in these locations will enable us to better understand the ceramic types and sequence of the Mayflower area. Second, the ceramics and other artifacts uncovered from any caches or the fill will help secure the construction dates of the various construction phases of the Mayflower complex buildings. Last, with the construction of a visitors/interpretive center a soon to be reality, any complete vessels, large assemblages, or other artifacts (such as chert, obsidian, or stone) could provide future visitors or researchers an idea of what the Mayflower Maya ceramic and lithic styles were like.

During the excavation, a large artifact midden was uncovered at the base of Structure A-10. Though eight square meters of it were excavated, its extent is still not completely known. In addition to the ceramics, a large amount of slate was found near the base of Structure A-10. Subsequent excavations revealed that the slate was used as a surfacing material for the stairs and the top of the platform. Excavations near the top of the A-10 platform revealed in-situ slate

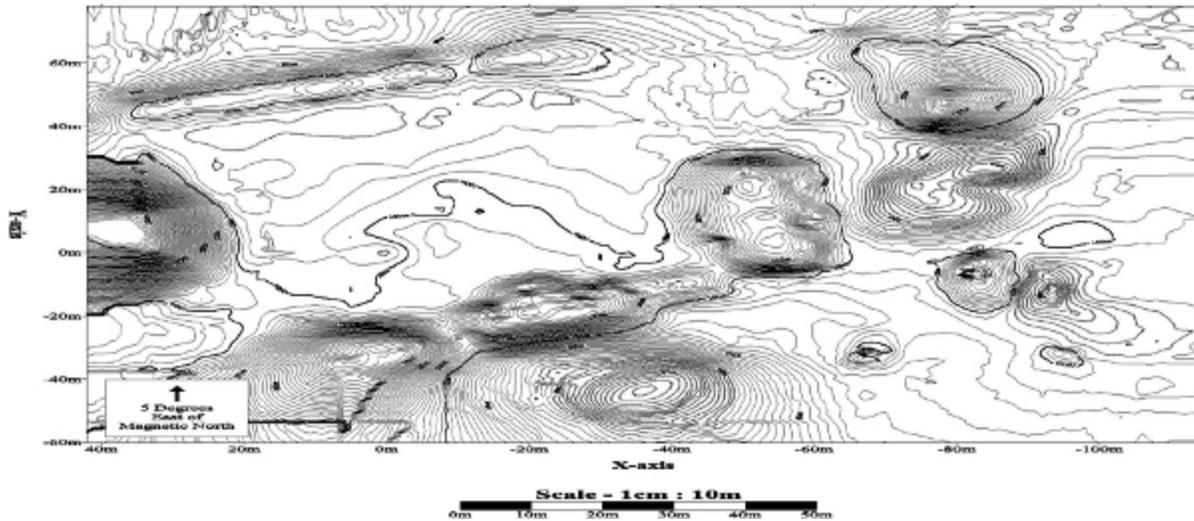


Figure 4: Topographic map of Mayflower Main Group

and numerous architectural features. Preliminary analysis indicates that Structure A-10 underwent at least two remodeling, possibly more. Excavations of Structure A-9 were less conclusive. Structure A-9 exhibited the same surface features as A-10, and excavations showed that it was in a much worse state of preservation than previously thought. An abundance of slate was also found at its base and it is assumed to have the same purpose as the slate found in structure ten. In addition, several of our deeper test excavations were able to help confirm what we had expected about the composition of the larger mounds of Mayflower. Unlike larger mounds at many other sites that consist mainly of rubble core faced with cut stone, Mayflower mounds are almost entirely earthen in nature. They are faced with cut stone and in many areas the surfaces were covered in a thin layer of slate. This unfortunately does not aid in their preservation—the hydraulic pressure easily forces walls to collapse. The earthen composition of the Mayflower mounds then may help explain why there are a number of large and small depressions ringing the small group.

The 1999 and 2000 field seasons saw the nearly complete excavation of Structure

A-10. These excavations confirmed that the structure was remodeled at least twice. The initial structure was a low, single terraced platform with a stairway along the central axis of the east side—facing the Main Plaza. Sometime after the initial construction, a large, low platform was added to the south side. This abuts the main portion of the structure. The second remodeling added another level to the top of the structure, the original surface became the first terrace. The stairway was raised and widened at this time. It is likely that during this remodeling that the large, low platform was added to the south side of the structure. The main platform was surfaced with slabs of slate (large and small), most of which washed off the top of the platform after abandonment. This is a common pattern in the collapse of the structures that we have found with other buildings at the site. In addition to the excavations of Structure A-10, MAP also excavated what we call “the stelae cache,” located near the center of the plaza. Most of the pieces were uncovered by Graham but were left where found. We succeeded in reconstructing several of the stelae and altars. Each piece was mapped in-situ, drawn and photographed. These were then joined up to reconstruct the monuments. Six large stelae

and altars were restored and numerous fragments of others were placed in an observation area open to viewing by the public.

The 2000 field season concentrated on finishing the Structure A-10 excavations. The main focus of the work was the low platform that abuts the south side of A-10. The platform consists of two to three courses of faced stone creating a large flat platform. There was no evidence of a slate surfacing material, but any material may have washed off the top. Like A-10 it was comprised of nearly solid earthen core. We are uncertain as to the exact purpose of this platform but its position on the south side of A-10 would help constrict access to the Main Plaza as the platform comes very close to the west side of Structure A-9. The general layout of the Plaza buildings as well as the depressions behind several of them (A-10 and A-11 are good examples) serves to control access to the Main Plaza (and obviously as construction fill). This control would not be for defensive purposes but rather to control the flow of people into and through the plaza making sure they see or pass by the appropriate points.

While conducting excavations on Structure A-10 we began to clear the area to the southwest of the structure. This area bordered by A-10 to the east, A-8 to the south, and the depressions to the north were flat and devoid of nearly any surface features. A large pit was excavated sometime between Graham's work and our arrival in 1996 and located in this area. Near this pit were a few faced stones on the surface. Subsurface probing with a 30 cm metal pin located additional stones. The location of these subsurface stones and visible faced stones indicated a rectangular pattern of approximately 6 meters by 10 meters. After further clearing it was apparent that this was a low platform and designated Structure A-12. Further clearing [to] the south of this new

structure and to the west of Structure A-8 revealed a smaller platform similar to the new Structure A-12. This platform was designated Structure A-13.

The discovery of Structures A-12 and A-13 were made near the end of the 2000 field season. We were able to conduct some limited test excavations on both of these structures. On structure A-12 we were able to excavate four 2x2m test units that were on or adjacent to the structure as well as two additional units located approximately two meters from the structure. All of the A-12 units were excavated to a depth of at least 40cm and one to a depth of 60cm. All units yielded an abundant sample of lithics and ceramics. For Structure A-13 we opened two 2x2m test units to a depth of 20cm. These also produced ceramic and lithic samples. This preliminary information has lead us to believe that this area would be an excellent location for research.

In 2001, we began an intensive investigation of Structure A-12. Our excavations quickly revealed that its function was domestic in nature. The foundation of the platform consisted of two courses of roughly faced stone that held an earthen core. There was a two-step front access located at the mid-point along the north side. The only evidence of a superstructure atop the platform was the uniform distribution of burnt daub (adobe) all over the excavated area. A large number of artifacts were recovered in the 2001 excavations. In fact, this was the most artifact-rich excavation to date. Numerous Late Classic and Terminal Classic ceramics were found and at least one midden was partially excavated at the base of the south side of the platform. In addition to a large quantity of ceramics, the midden also contained a variety of chert blade and blade fragments and other lithic tools. While clearing the area and preparing to excavate Structure A-12 we uncovered another low platform just to the south. This structure, A-

13 has its long access perpendicular to Structure A-12 and along with Structure A-8 creates a small plaza group just off the Main Plaza. We have been unable to return for additional fieldwork since 2001 but plan return to Mayflower in 2004 to finish the excavations of Structures A-12 and A-13 and continue to analyze the archaeological material uncovered to date.

Summary and Overview

Over the past six years we have slowly uncovered bits and pieces of ancient Mayflower. We have begun to answer some basic questions about Mayflower and its inhabitants: When was Mayflower occupied? What function did it serve? Why is it located where it is? The ceramic data indicate that the site was occupied for about 200 years beginning in the mid to late 9th century. The Maya world was in a state of change during this time. Sites throughout the region were experiencing short, sudden periods of expansion and contraction. Located almost between two larger sites (Pomona and Kendall) Mayflower may have functioned as a type of suburb, beholden to one, both or neither larger sites. Mayflower shares many characteristics with sites in the Southern Maya Mountains (Dunham, personal communication) and may have been exploiting a local resource functioning as a self-sufficient community producing what they needed. We have only begun to scratch the surface here at Mayflower and additional field seasons will hopefully reveal additional information.

Acknowledgements This archaeology work is not be undertaken in a vacuum. A number of organizations have recognized the importance of Mayflower and the surrounding area as a potential tourist destination. The designation of the Mayflower Archaeology preserve and the creation of the Mayflower/Bocawina National Park in 2001 were the products hard

work by groups at the local and national level. These groups have worked very hard to protect and promote Mayflower—building a visitor's center, analyzing the flora and fauna of the area, and managing the interests of the nearby communities. Mayflower presents an opportunity to combine tourism, natural history, and cultural history in a single locale and a chance to educate visitors to this area. The Mayflower Archaeology Project is only one of many groups at Mayflower working towards preserving the past for the future.

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25 **RECENT ARCHAEOLOGICAL AND EPIGRAPHIC RESEARCH AT PUSILHA, BELIZE: REPORT ON THE 2001 AND 2002 FIELD SEASONS**

Geoffrey Braswell, Christian M. Prager, Cassandra R. Bill, and Sonja Schwake

The ancient city of Pusilha, located in the extreme southern corner of Toledo District, was one of the first Maya sites in Belize to be subject to intensive archaeological exploration. Early investigators discovered more than 20 stelae, zoomorphic altars, and ceramics that suggested strong ties with Copan and Quirigua. More recently, it has been suggested that Pusilha – like Quirigua – was incorporated briefly as province in an expanding Copan State. The Pusilha Archaeological Project, now in its third season, is investigating this possibility from both archaeological and epigraphic perspectives.

Introduction

Pusilha is located in southwestern Belize, just east of the Guatemalan border and about 30 km from Modesto Mendez and San Luis Peten, Guatemala (Figure 1). Although Lubaantun and Nim Li Punit, two other sites located in Toledo District, have been subject to more intense archaeological investigation, there can be little doubt that Pusilha was the largest and politically dominant city of the region throughout much of the Classic period. Since the rediscovery of Pusilha in the late 1920s (Gruning 1930, 1931; Joyce 1929; Joyce et al. 1928; Morley 1938), a connection of some sort has been posited between the site and Copan and Quirigua. Evidence for this connection consists of a shared tradition of carved-in-the-round zoomorphic altars, similarities between the Pusilha and Quirigua emblem glyphs, apparent references in Pusilha texts to one or possibly two important kings of Copan, and parallels between the political trajectories of Pusilha and Quirigua.

These similarities have led Marcus (1992, 1994) to suggest that Pusilha began as an independent polity in the Early Classic period, was annexed by Copan (perhaps during the lifetime of that site's dynastic founder K'inich Yax K'uk' Mo' [Marcus

2003:95]), and reasserted its independence at the death of Copan Ruler 13, the famed Waxaklajun Ub'ah K'awil. In sum, Marcus sees this cycle of events as an example of her Dynamic Model. Alternatively, during the 7th century, Pusilha may have fallen within the political orbit of Copan – and indirectly of Tikal – as suggested by Martin and Grube (2000). Finally, as we now suspect, Pusilha may have always been an autonomous polity whose external cultural and economic ties shifted between the Copan and Quirigua region, the Rio Pasion and Petexbatun regions, and western Belize.

The goal of the Pusilha Archaeological Project, which has completed two seasons of investigation, is to examine a small polity located in a peripheral area between much larger neighbors. The specific aims of our project are: (1) to develop a more complete understanding of the political history of Pusilha through a thorough study of the site's hieroglyphic texts; (2) to test opposing political models – particularly Marcus' Dynamic Model and Martin and Grube's hegemonic “superstate” model – using hieroglyphic evidence; and (3) to investigate the economic consequences of these political events on both commoners and elites at Pusilha.

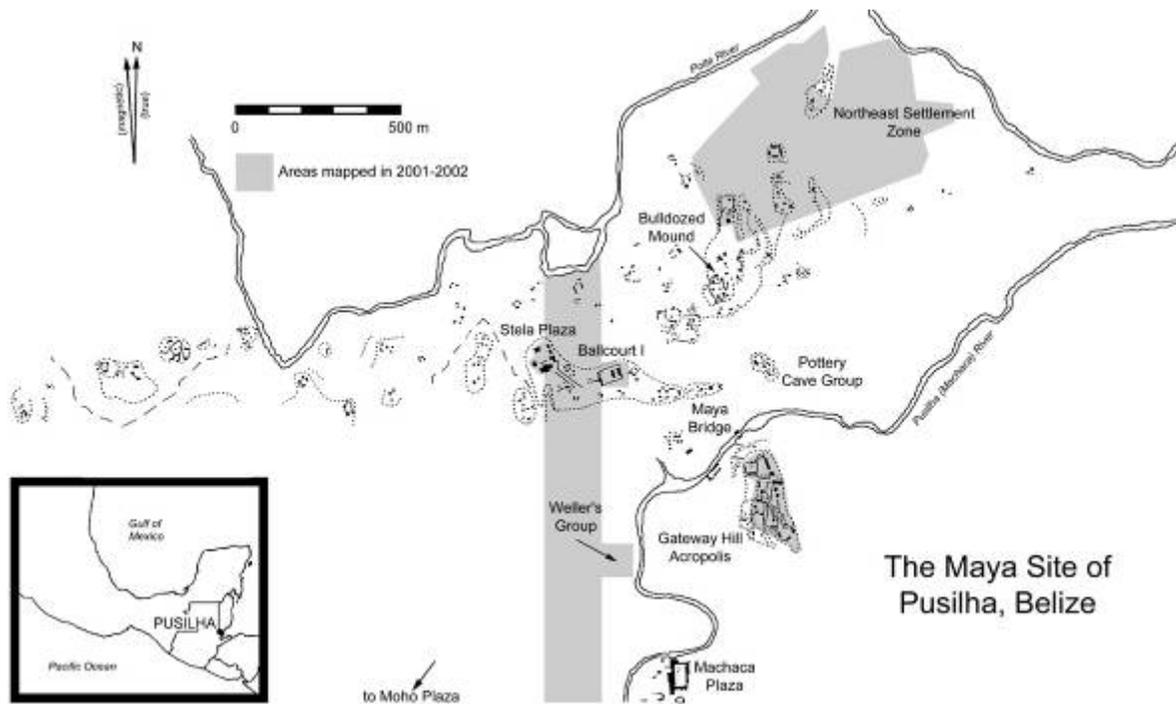


Figure 1. The Maya site of Putilha, Belize (based on Leventhal 1990:Figure 8.1).

The 2001 and 2002 Field Seasons

Our research program consists of five components: (1) systematic mapping of the entire 6-9 km² site; (2) test pit and salvage excavations; (3) architectural consolidation; (4) artifact analysis; and (5) epigraphic and iconographic analysis of the 46 carved monuments and monument fragments known from Putilha.

Settlement Studies

Thus far, our mapping has focused on four known architectural groups: (1) the Stela Plaza, where most of the hieroglyphic monuments were once located; (2) Ballcourt I; (3) Moho Plaza, a large outlying group containing a hieroglyphic stair and two of the four ballcourts known at the site; and (4) the Gateway Hill Acropolis, which was the royal dynastic center of the site. We also began systematic full-coverage survey in an area that we refer to as the Northeast Settlement Zone, and surveyed a 200-m wide by 1.5 km

long transect between the Machaca and Poite rivers.

Stela Plaza.

Before our first season, Prager, our Project Epigrapher, visited the British Museum and redrew both the texts and pictorial content of all the monuments brought to London in 1930 and 1931. Prager's initial assessment was that at least 20 fragments carrying inscriptions were missing. Since the stelae were found and cut up *in situ*, these fragments presumably were left by the British Museum project in the Stela Plaza. Our work in the Stela Plaza began with vegetation clearing for detailed mapping not only of structures, but also of remaining monument fragments. In the course of three weeks, we located 88 monument fragments and plotted the position of each (Figure 2). Currently, we are analyzing their depositional pattern in order to determine to which of the previously

known 21 stelae, three zoomorphic altars, and an unknown quantity of round altars the fragments belong. Each carved fragment has been illustrated and many have been photographed in both natural and oblique-angle artificial light. We are now beginning the painstaking work of comparing these illustrations with drawings and photographs of incomplete monuments in the British Museum.

The Stela Plaza is connected by a *sacbe* to Ballcourt I (Figure 3). Near the middle of the *sacbe* are several smaller architectural groups that appear to be residential in character. Together, these portions of the site center exemplify cosmological concepts of site planning described by Wendy Ashmore (1991). The Stela Group itself is linked conceptually to the north, the sun at its zenith, the heavens, and the veneration of divine royal ancestors through the stela cult. The Ballcourt is located to the south (actually southeast), and is associated with the ballgame, the underworld, darkness, the sun at night, and death. Thus the *sacbe*, like the world tree, symbolically connects the underworld to the heavens and passes through a residential zone that may symbolize our own world.

Moho Plaza.

Another focus of both mapping and monument documentation is the Moho Plaza, located 2 km southwest of the Stela Plaza. With the exception of the Gateway Hill Acropolis, this is the largest single group yet found at the site, measuring some 120 m to a side (Figure 4). The largest ballcourt known in southern Belize is located at the north end of Moho Plaza, and the south end is delimited by a large range structure containing a hieroglyphic stair. We believe that the calendar round date that dedicates the stair and structure – 4 Ak'b'al 2 Sotz' – corresponds to 9.18.7.10.3, or A.D. 798. Our working hypothesis is that this elite group

was occupied at the end of the history of Pusilha, possibly at a time after the dynastic collapse. Artifacts recovered from test pits placed behind mounds and in off-plaza contexts during our 2002 season are allowing us to evaluate the hypothesis that Moho Plaza was extensively occupied during the Terminal Classic period.

Gateway Hill Acropolis.

The dynastic center and palace complex of Pusilha, called the Gateway Hill Acropolis, also was mapped during the 2001 field season (Figure 6). The acropolis is much larger and more complex than previously thought, and entirely fills the oxbow in which Gateway Hill is located. In all, it rises some 70 m above the river in a series of terraces containing stone platforms. Figure 6 displays the terraces and pyramidal mounds that constitute the center of the acropolis. Detailed, scaled plans have been made of the features forming the rest of the complex, but the architecture and topography remain to be surveyed by total station.

Northeast Settlement Zone.

A particularly important facet of our first season was the beginning of systematic mapping. Full-coverage mapping (including detailed topographic mapping) was conducted in the three groups already described, as well as in a portion of the northeastern quadrant of the site. This last area, measuring 33 hectares in size, was completely cleared when a *milpa* fire burned out of control. The area was covered by Leventhal's (1990:Figure 8.1) transects, but the fire exposed many more groups that do not appear in his pace-and-compass map. Although the older map shows 25 structures, we mapped 84 (for a density of 255/km²) and many terrace features (Figure 7). The structure density implies a population density of approximately 1,300 people/km². The significance of this find is that the

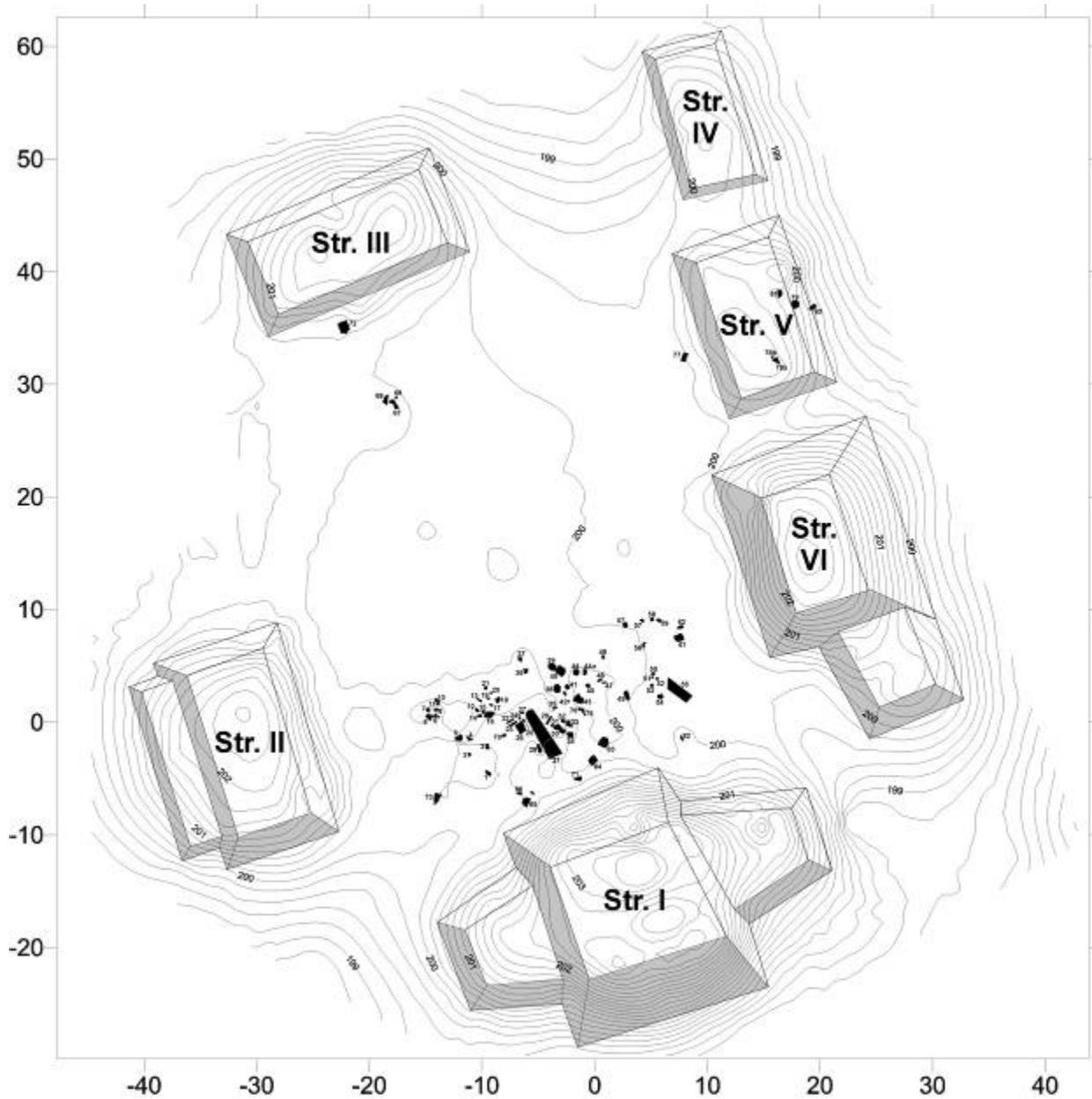


Figure 2. Stela Plaza, showing location of *in situ* monument fragments.

northeast settlement zone is well within the site center, and that the urban area of Pusilha is larger than once thought.

In 2002, we also surveyed a north-south transect measuring 200 m across by 1.5 km in length. The transect passes through the Stela Plaza, and runs to both the Poite and

Machaca rivers. In all, 93 mounds and 41 terrace features were found in this 0.3 km² survey area, for an overall density of 310 structures/km² and 140 terraces/km². The density of structures is greatest on natural ridge tops, but also is high within 100 m of either river.

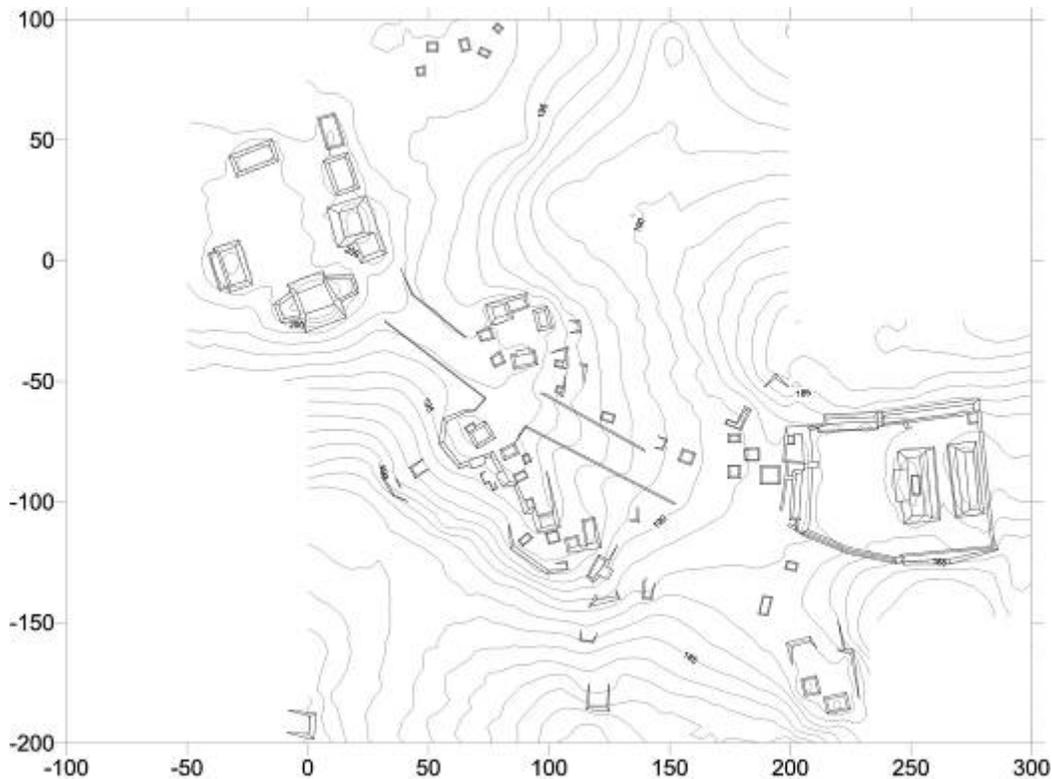


Figure 3. Stela Plaza (upper left) and Ballcourt I (lower right).

The purpose of our settlement survey is to understand the spatial distribution of elites and commoners in Pusilha, and to determine how the site grew over time. We are using the results of survey to plan test-pitting operations for the 2004 season, with the goal of sampling residential and special-function groups occupied by different segments of the population throughout the history of the site.

Excavations

During the 2002 field season, a total of 24 test pits and several extensions were excavated in off-mound, non-architectural contexts in the Stela Plaza, the Moho Plaza, a residential group that we have dubbed Weller's Plaza, and below the Pottery Cave Group. Sherds recovered from these contexts

have allowed us to build the first multi-phase ceramic chronology for an inland site in Toledo District. Pottery and other artifacts are also providing us with insights regarding the function of various groups. For example, samples from the Pottery Cave Group, Weller's Group, and an excavated mound that we call the Bulldozed Structure, all contain a wide range of cooking and storage vessels, as well as copious amounts of *jute* shell and animal bone. The assemblages, therefore, suggest to us that these three groups were largely residential in character. In contrast, many more incense burners and far fewer cooking and storage vessels – as well as almost no *jute* or animal bone – were recovered from test pits in the Stela Plaza and Moho Plaza. We suspect, therefore, that these two groups were largely ceremonial in

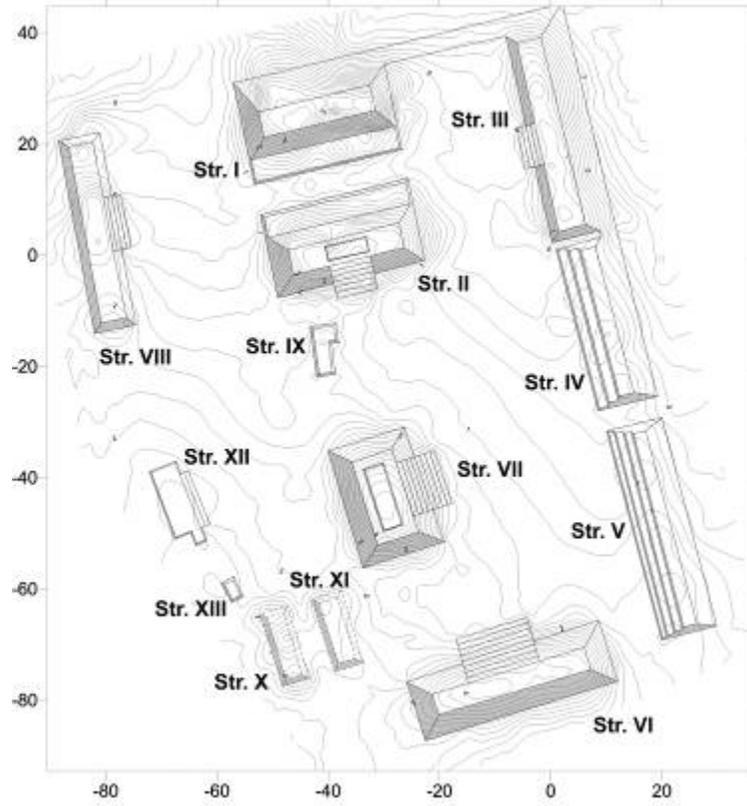


Figure 4. Moho Plaza, hieroglyphic stair located on Structure VI

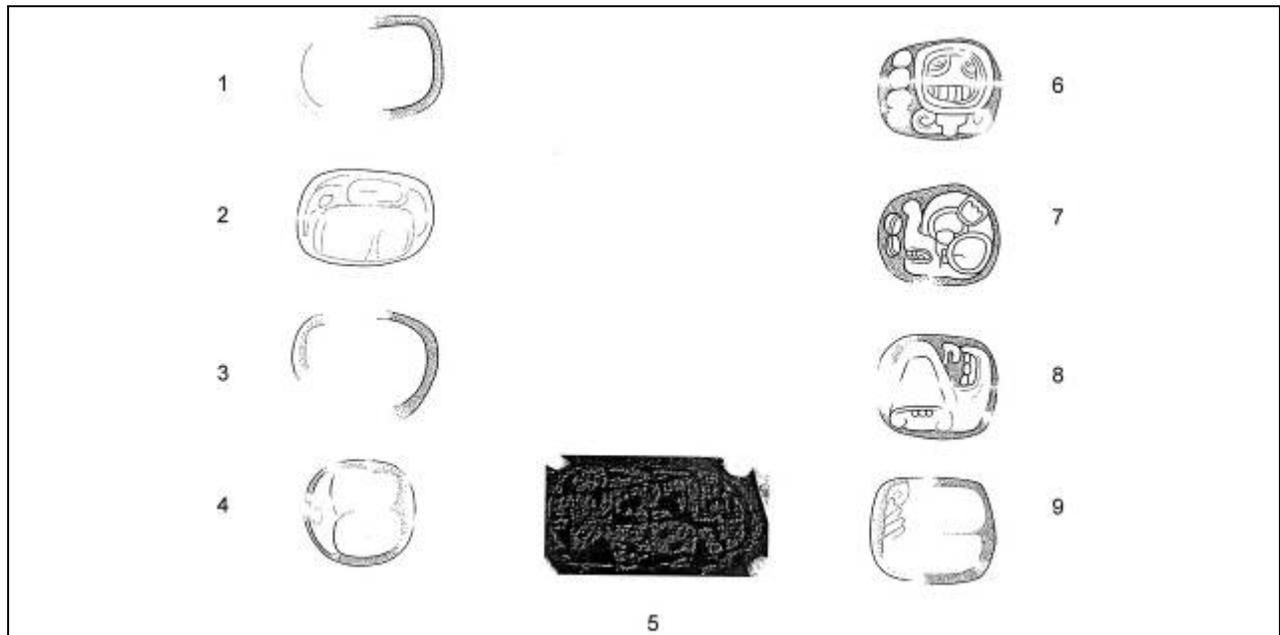


Figure 5. Hieroglyphic stair, Structure VI, Moho Plaza (drawing by C. Prager).

nature, and – what is more – that ritual feasting was not a significant activity in them.

In addition to the test-pitting program, in April and May of 2002 we conducted extensive salvage operations in a structure located in the center of the village of San Benito Poite, approximately 500 m east of the Stela Plaza. This structure was partially destroyed, and two others completely leveled, by a bulldozer sent to the community the week before Easter (Figure 8). Excavations in the Bulldozed Mound revealed an earlier substructure containing one preserved side, a partially preserved front, and a fragmentary stair that had been partially demolished by the ancient Maya. After consulting with the Department of Archaeology, we decided to remove all of the destroyed final structure and conserve the partially preserved substructure. This, we hope, will serve as a permanent reminder that the village of San Benito Poite is located on an important archaeological site.

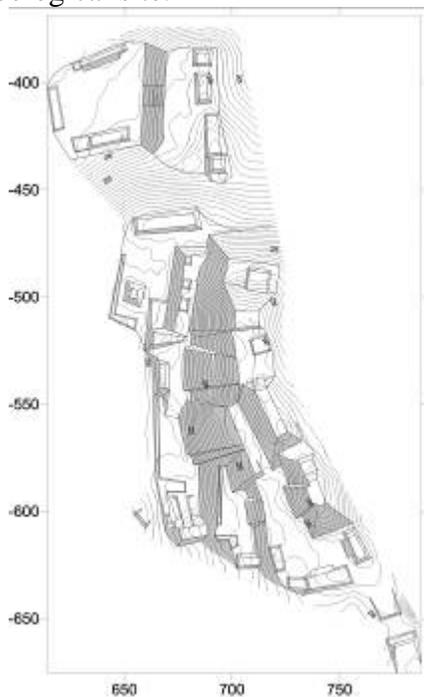


Figure 6. Gateway Hill Acropolis.

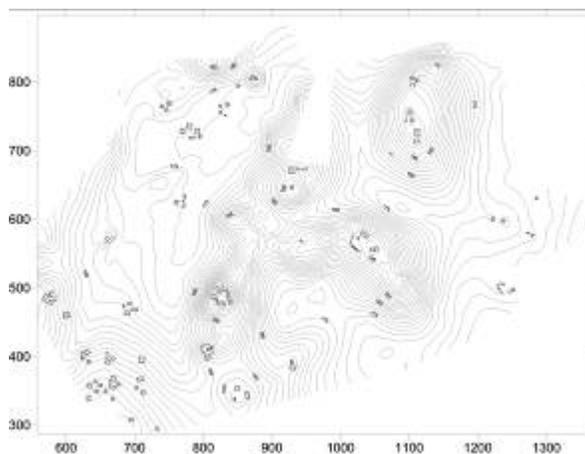


Figure 7. Northeast Settlement Zone.

The architectural style of the final stage of the Bulldozed Mound is quite late. A late date for both the construction and occupation of the final stage is strongly supported by analyses of both ceramic and obsidian artifacts recovered from the mound. Ceramics from the surface of the final stage structure include Fine Orange and crude utilitarian types strikingly related to the Ejar complex of Early Postclassic Copan. These, along with the presence of central Mexican obsidian from the Zaragoza and Pachuca sources, changes in the technology of prismatic blade production, and the replacement of El Chayal obsidian by material from the Ixtepeque source, allow us to confidently cross-date use of the final-stage structure to A.D. 950 ± 125 years.

Epigraphic Analyses

At least 46 sculpted monuments and monument fragments have been found at Pusilha. This corpus includes at least 21 carved stelae and stela fragments (Stelae A, A1, B-H, K-U, and Z), three zoomorphic altars (V-X), three ballcourt monuments (BSc 1-3), a hieroglyphic and figural stair (HS 1), and 18 carved fragments (Fragments 1-18). This last category includes pieces of what

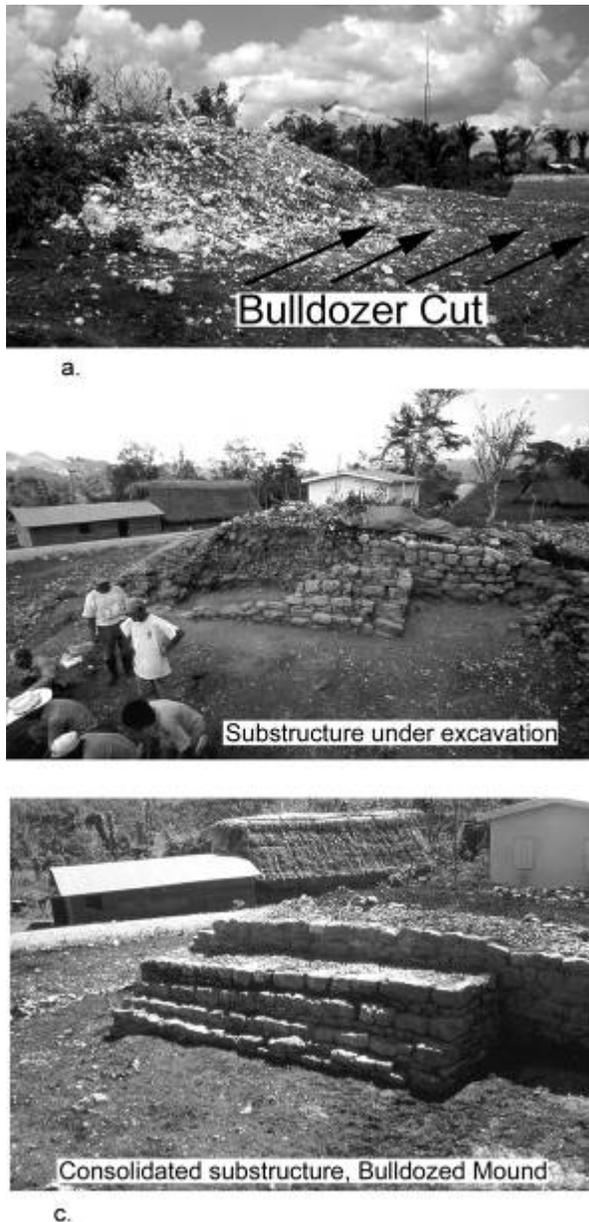


Figure 8. Photos of the Bulldozed Mound: (a) before excavation; (b) during excavation, showing partially destroyed substructure; (c) after consolidation.

appear to be a fourth zoomorphic altar and at least one additional stela. In addition to these sculpted monuments, two plain stelae, an unknown quantity of round altars, and numerous uncarved monument fragments have been found in the Stela Plaza, the Gateway Hill Acropolis, the Big Tree Group, and the Plain Stela Group. Twenty-two of the

carved monuments and fragments (Stelae C, D, E, F, H, K, M, N, O, P, Q and U, BSc 1, HS 1, Frag 1, 3, 7, 8, 10, 12, 14, 16, 17) contain hieroglyphic texts. Prager (2002) has presented a detailed epigraphic analysis of the inscriptions of Pusilha, which is summarized here.

The two earliest dates recorded on the monuments are 8.2.0.0.0 5 Ajaw 8 Sak (A.D. 81) and 8.6.0.0.0 10 Ajaw 13 Ch'en (A.D. 159). References to legendary events on these days are found on two stelae (P and K) that date to the Late Classic (Figures 9-10). The first historic date is 9.6.17.8.18 (A.D. 570) and is recorded on Stela P. The latest securely identified date is 9.16.0.0.0 2 Ajaw 13 Tzek (A.D. 751; Stela F), but two other monuments – including the hieroglyphic stair – contain dates that may be as late as A.D. 798. Thus, the historical events described in the Pusilha corpus took place over a period of 181 to 228 years, and the chronology of legendary and historic events spans 670 to 717 years.

A total of 38 individuals, of which 21 are chronologically embedded in the history of Pusilha, have so far been identified. Eleven individuals bear the title *k'uhul un ajaw* (divine ruler of Pusilha), and can be identified as kings and queens of Pusilha. In this paper, we focus on the reigns of seven lords and ladies who ruled between A.D. 570 and A.D. 731 or so (Figures 11-12). The historic account at Pusilha starts with Ruler A whose name glyph is read *k'awil chan k'inich* (Stelae P and D). He ascended the throne on 9.6.17.8.18 (Stela P), and celebrated the 9.8.0.0.0 period ending as a 4 *k'atun ajaw* (i.e., he was between 60 and 80 years of age). Ruler A erected Stelae O and Q in order to celebrate the *k'atun* endings of 9.7.0.0.0 and 9.8.0.0.0. Both of these monuments may have been shattered by enemies who attacked Pusilha on 9.8.1.12.8 (A.D.594). Stela D (Figure 13:D11-C12, D13-C14) mentions that

“stelae were broken” (*k’asay lakam tuun*) and the “flint and shield

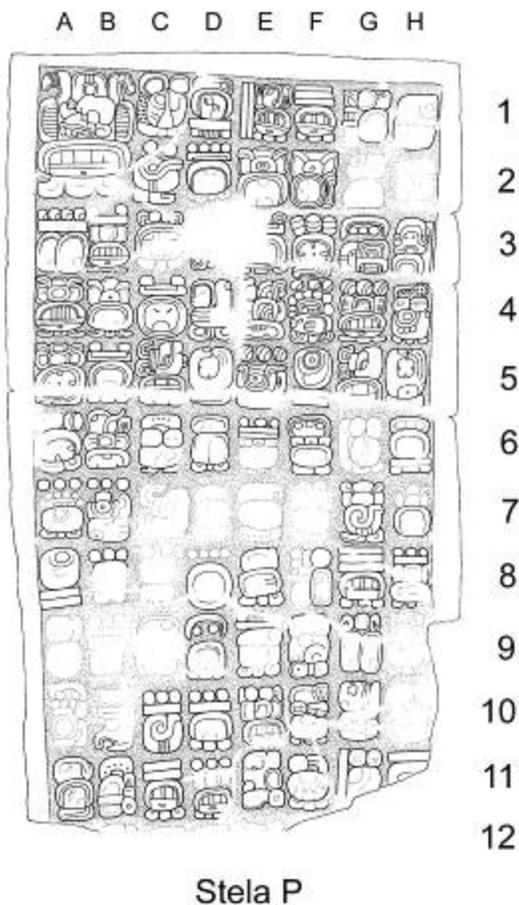


Figure 9. Putilha Stela P (drawing by C. Prager).

was downed” (*jub’u:y utok’ upakal*) on this date by an individual whose origin is not known, but whose name includes a glyph commonly found in much later texts from the Petexbatun and Pasion regions. The date of the defeat of Putilha falls within the reign of one of Copan’s greatest kings – Ruler 11, nicknamed B’utz Chan – but it is important to stress that there is no evidence linking Copan to this action.

Ruler A’s successor was called *k’ak’uti’ chan*, and is nicknamed Ruler B. His hieroglyphic name is identical to that of Copan Ruler 11, which has raised the possibility that they were one and the same person. But since Ruler B was still living at

9.10.15.0.0 (Stelae P and D), some 20 years after the death of his namesake at Copan, they could not have been the same individual. Moreover, Stela P describes Ruler B as the “first sprout” or first son of Ruler A of Putilha. Nevertheless, hieroglyphic and iconographic evidence point to the fact that Putilha was under the cultural influence of Copan during the reign of Ruler B. But it seems that Copan symbolism was only shortly integrated into the iconography of Putilha, because Ruler B’s successors made no use of borrowed iconography. According to the final passage on Stela P, Ruler B’s deeds are linked to events that happened in A.D. 81 at the legendary “*Chi-Throne-Place*” (Figura 9:G10), a sacred location tied to early divine kingship in the southern Maya lowlands. This reference to the legendary past legitimizes Ruler B’s reign.

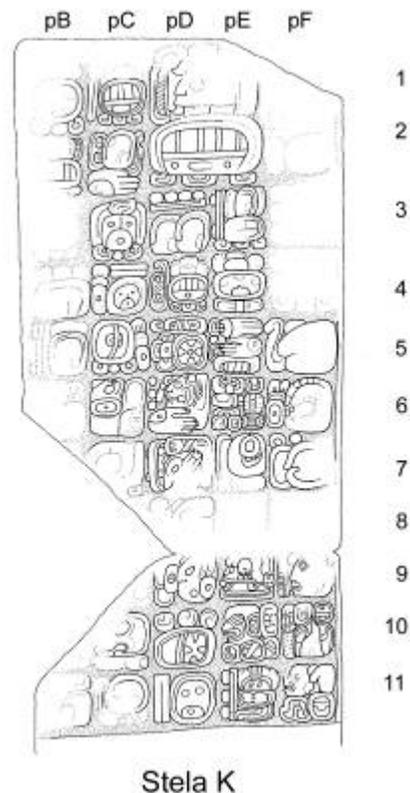


Figure 10. Putilha Stela K (drawing by C. Prager).

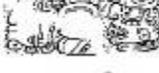
Ruler	Stelas	Birth	Accession/Reign	Death
A 	O, Q	9.4.0.0.1-9.4.19.17.19	9.6.17.8.18?	9.8.0.0.1-9.10.14.17.19
B 	P, D	9.7.4.9.12? 9.8.15.0.1-9.9.14.17.19	9.8.15.0.1-9.9.14.17.19	9.10.15.0.1-9.11.0.0.0
C 	H	9.7.12.6.7	9.11.0.0.0	9.11.0.0.1-9.12.0.0.0
D 	K		9.11.0.0.1-9.12.0.0.0	9.12.0.0.1-9.14.0.0.0
E 	M		9.12.0.0.1-9.14.0.0.0	9.14.0.0.1-9.15.0.0.0
F 	-		9.14.0.0.1-9.14.19.17.19	
G 	E		9.14.0.0.1-9.15.0.0.0	

Figure 11. Partial list of rulers of Pusilha (prepared by C. Prager).

Ruler C acceded to power and celebrated the *k'atun* ending 9.11.0.0.0 (Stela H). He was born less than eight years after Ruler B, and may have been his brother. Ruler C's reign was short, and Ruler D (NE' ... SAK K'UK' JUN ... AJ ...) celebrated the 9.12.0.0.0 *k'atun* ending (Stela K). Stela K links this event to a legendary celebration that took place in 8.6.0.0.0 at the already mentioned "Chi-Throne-Place". The actor in this mythical celebration is "Foliated Ajaw" (Figure 10:pC3), a legendary person mentioned at Copan, Tikal, and elsewhere. By re-enacting this legendary *k'atun* celebration, an event also discussed at powerful Copan, Ruler D legitimized his power.

There is no information available about the dynastic and political history of Pusilha between 9.12.0.0.0 and 9.14.0.0.0 (A.D. 672-711). This hiatus corresponds to the last 23 years of the reign of Smoke Imix God K (Ruler 12) and the first 17 years of the reign of Waxaklajun Ub'ah K'awil (Ruler 13) – the height of Copan's power in the southeast Maya lowlands. On 9.14.0.0.0, however, an individual nicknamed Ruler E set up Stela M. We do not know when he ascended to power or if his father was a divine ruler of Pusilha. After the death of

Ruler E a woman named *ix ich'ak ... k'inich* (nicknamed Ruler F) became divine lord of Pusilha. Given that her parents are not mentioned, it remains unclear if Ruler F was

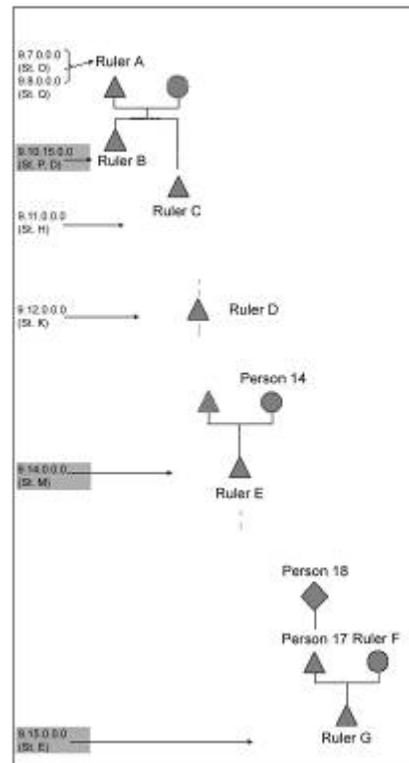


Figure 12. Genealogy of some Pusilha rulers (prepared by C. Prager).

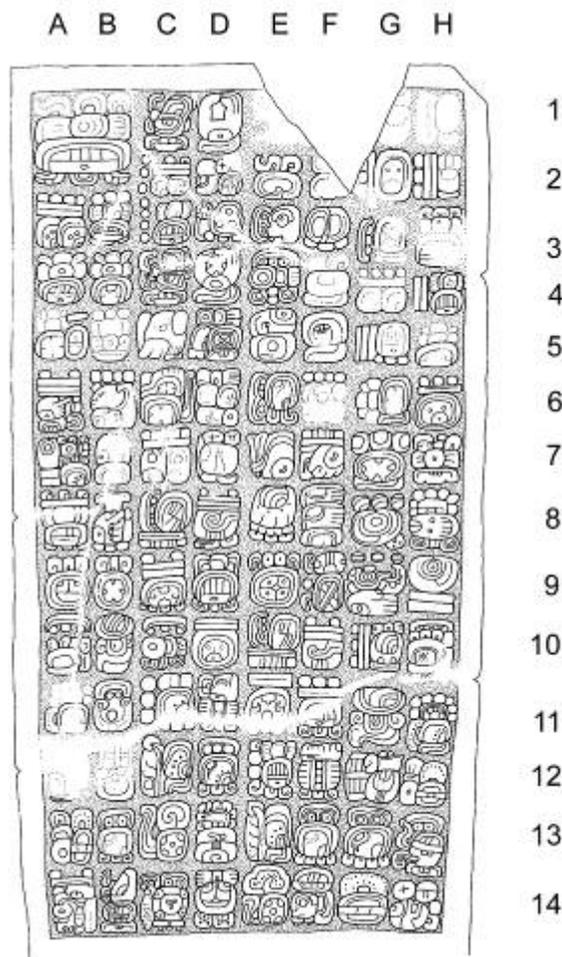


Figure 13. Pusilha Stela D (drawing by C. Prager).

the daughter of Ruler E. She probably reigned only until her son, Ruler G, was old enough to ascend to the throne.

Ruler G erected Stela E, which describes his descent. Ruler G's father was named *k'inich bakis mo' lahun...*, and was a non-royal noble of unknown origin. The paternal grandfather of Ruler G was named *hun ew chak muyal chan yoaat ?ti' k'awil*, and was an important noble. Segments of this name phrase appear also at Naranjo, Copan, and Quirigua, suggesting that he came from an unknown site in the eastern or southeastern lowlands.

Two other individuals who may have been rulers are mentioned on Stela F and the hieroglyphic stair. The text of the first of

these monuments states that a person named *k'ak' kal ...* (Figure 14:A5) scattered liquid in celebration of the *k'atun* ending 9.16.0.0.0. (A.D. 751). A final individual whose name is not legible is mentioned on the hieroglyphic stair, which probably dates to 9.18.7.10.3 (A.D. 798). The text, read from glyphs 6-9 and then 1-4, says that the stair was dedicated on that date, perhaps by an individual (Figure 5:1) linked to the Pusilha emblem glyph.

The political history of Pusilha stands out for its antagonistic nature. There is textual and iconographic evidence of at least eight conflicts between 9.8.1.12.8 and 9.15.0.0.0. Unfortunately, the names of only a few of Pusilha's enemies have survived, and these are all small polities whose locations are unknown. For example, a new fragment found in 2001 depicts a kneeling captive who comes from a place called *b'alam*.

It is curious that the emblem glyphs of Copan, Quirigua, Tikal, Caracol, and other major powers do not appear at Pusilha. Nevertheless, hieroglyphic evidence suggests that Pusilha had significant contacts with sites north of the Maya Mountains, in the Petexbatun and Pasion region, and to the southeast. Stela Q of Pusilha is given a proper name identical to that of Caracol Stela 1, both of which were erected on 9.8.0.0.0. This hints that Pusilha maintained cultural contacts with Caracol. On Stela D the "Water-Scroll" toponym – seen so often in inscriptions from Aguateca and Seibal – is mentioned twice. Again, a name connected with the 9.8.1.12.8 event contains an element also seen in later inscriptions from that region. With the accession of B'utz' Chan (Ruler 11), an important and powerful ruler of Copan, cultural contacts with the southeast also become visible in the iconography and texts of Pusilha. In fact, Ruler B may even have been named after the great Copan lord.

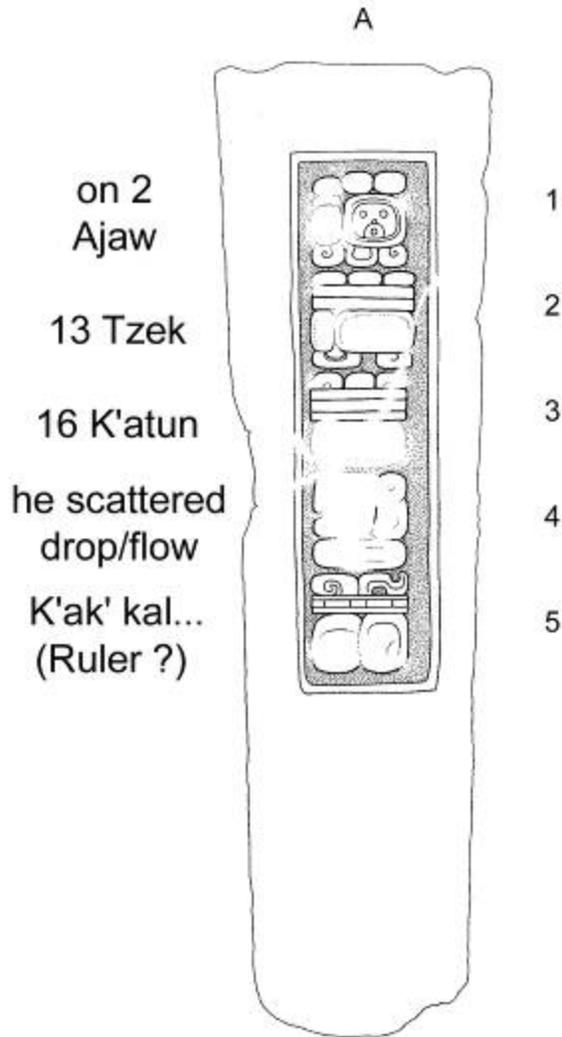


Figure 14. Pusilha Stela F (drawing by C. Prager).

Conclusions

Epigraphic, ceramic, and other artifact data have allowed us to extend our knowledge of the occupation of Pusilha from the end of the Early Classic well into the Early Postclassic period. Although we initially expected to find many indications of Copan supremacy, our epigraphic and artifact analyses point to a wide variety of influences from the southeastern lowlands, western Belize, and even the Petexbatun and Rio Pasion regions. None of these cultural influences – be they expressed in art, texts, or objects of material culture – argue strongly that Pusilha was a secondary polity beneath

the political and economic hegemony of any foreign power, except, conjecturally, during the years immediately following the 9.8.1.12.8 warfare event and during a brief 40 year hiatus of monument erection at the end of the 7th century. Our project, of course, has only just begun, and it is entirely possible that our excavations of 24 test pits and one very late structure have missed critical data. During the next five years, in fact, we plan to continue to search for such data.

Nevertheless, after two seasons we are less certain that Pusilha was annexed by Copan and later asserted its independence (as suggested by the Dynamic Model of state formation) or that Pusilha was a secondary pawn in a centuries-long conflict fought between Tikal and Calakmul. That the many and lengthy hieroglyphic texts do not even once mention these sites – let alone Copan, Quirigua, or even nearby Nim li Punit – suggests that Pusilha maintained its independence in a rather peripheral region of the Maya world throughout its long history.

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26 THE CORAL FOUNDATIONS OF COASTAL MAYA ARCHITECTURE

Heather McKillop, Aline Magnoni, Rachel Watson, Sharon Ascher, Terrance Winemiller, and Bryan Tucker

Excavations at Frenchman's Cay in the Port Honduras of southern Belize revealed a similar coastal architectural tradition as at the nearby trading port of Wild Cane Cay. Instead of the limestone or sandstone used as foundations for buildings of the mainland Maya, the coastal Maya on Frenchman's Cay and Wild Cane Cay used coral. Coral rock was quarried from the sea as foundations, with finger coral used as a sub-floor for structures built of perishable materials. Following the mainland Maya tradition, structures were rebuilt over time on the same location and they were used to inter family members.

Introduction

Differential wealth and power have been measured in ancient Maya architecture from the effort placed in the construction of domestic and public buildings (Abrams 1994), the size of buildings (Carmean 1991; Webster and Gonlin 1988), and the presence and elaboration of cut stone facades, masks, or carved or painted decoration (Fash et al. 1992; Harrison 1999). While modest by mainland standards, the stone architecture at several island communities in the Port Honduras of southern Belize is qualitatively and quantitatively different than the perishable structures of pole and thatch common to the area (Figures 1-2). Often referred to as 'invisible structures' (D. Chase 1990; McKillop 1994a; Pyburn 1990; Steiner 1994), they are recognized in the Port Honduras region by the distribution of household middens, often including thatch-impressed clay. By way of contrast, excavations in Fighting Conch mound at Wild Cane Cay revealed a distinctive coastal building tradition in which coral rock was used as the construction material (McKillop 2004a). While on the mainland limestone or sandstone was quarried from nearby bedrock, neither was available on the Port Honduras cays. The use of coral rock for the Port

Honduras cays follows the Maya tradition of using locally available materials in construction and rebuilding structures on the same location over time.

The stone architecture at Wild Cane Cay was associated with the dramatic increase in sea trade in the Postclassic (A. D. 900-1500) and the consequent wealth acquired and deposited in graves at this trading port (McKillop 2004a). The occurrence of stone architecture and the surface presence of trade goods, notably obsidian and Tohil Plumbate pottery at nearby Frenchman's Cay suggested that perhaps that island also was a trading port. However, the proximity of two island ports was perplexing: If Frenchman's Cay was a trading port, perhaps its prominence in sea trade did not coincide with that of Wild Cane Cay, which developed as a trading port in the Late Classic (A. D. 600-900) but expanded tremendously in the Postclassic (McKillop 1989, 1996a). Alternatively, if Frenchman's Cay was not a trading port, then the community may have been supplied with obsidian and other trade goods through trade with Wild Cane Cay.



Figure 1. Frenchman's Cay from the leeward side showing ancient Maya site on the right. (Photo by Heather McKillop).



Figure 2. Map of Port Honduras in southern Belize. (Drawing by Mary Lee Eggart).

The Political Geography of the Port Honduras in Southern Belize

The political geography of southern Belize is poorly known until the Late Classic when there was significant settlement at both inland cities and coastal communities. A Protoclassic shell midden at Butterfly Wing (McKillop 1996a) attests to coastal settlement before the Late Classic and there was some earlier settlement inland as well. Coastal archaeology in southern Belize has focused on the Port Honduras region between the modern towns of Punta Gorda and Punta Negra since 1982 (Figure 2). The Port Honduras is a coastal bight containing some 200 islands aligned along an inner range and an outer range, paralleling the mainland coast. Several rivers that flow into the Port Honduras were transportation corridors during the Classic between Nim Li Punit, Uxbenka, and Lubaantun and the coastal Maya of the Port Honduras. Major waterways include Deep River, Golden Stream, and Middle River. The Rio Grande, which provides access to Lubaantun 25 km inland, is located just south of the Port Honduras. Punta Ycacos Lagoon, with its Late Classic salt works, forms the northern boundary of the Port Honduras (McKillop 2002). The coastal zone includes the Port Honduras Marine Reserve and Paynes Creek National Park, the latter including Punta Ycacos Lagoon.

Most of the islands and the mainland coast of the Port Honduras consist of mangroves without dry land that contribute to the virtual absence of modern human settlement. Rising sea level submerged many ancient Maya sites and created the mangrove landscape, dominated by red mangroves (*Rhizophora mangle*), with their phenyphores that grow in the sea (McKillop 1996a, 2002). Limited areas of dry land on the coast and cays provided a haven for settlement historically, including nineteenth century log workers (McKillop 1994a, 1996a, 2004a;

McKillop and Roberts 2003). Plant remains preserved in the waterlogged ancient archaeological deposits include trees that are adapted to dry land and do not tolerate inundated, salty soils. They include several species of native palms, including cohune (*Orbigyna cohune*), coyol (*Acrocomia mexicana*), and poknobby (*Bactris major*), as well as avocado (*Persea americana*), and crabbo (*Byrsonima crassifolia*; McKillop 1994b, 1996b, 2002).

Relations between the coastal and inland Maya in southern Belize were complicated by the distribution of desired resources, the political economy of the lowland Maya, and skills necessary for canoe transportation. Desired resources include coastal salt and other marine resources, as well as materials from farther away, such as obsidian and chert. The political economy of the Late Classic Maya lowlands is variously described as centralized (Chase and Chase 1996; Marcus 1992) or more fragmented into some 80 regional polities without an overarching central power (Dunham et al. 1989; Leventhal 1990; Martin and Grube 2000; McKillop 2004b). Still, at some level, the political landscape was divided into regional polities, whose dynastic leaders dominated their particular regions and negotiated with head of state in other regions through marriage and trade alliances, war, and intimidation. The royal Maya dominated their polities by dynastic authority, with important events of their lives and accomplishments proclaimed on stone monuments in their capital cities. Their authority was reinforced through blood sacrifice and vision quests (Reents-Budet 1994) that often coincided with ritually important calendrical dates, arguably tied to celestial events, and certainly reinforced through the story of creation and the adventures of the hero twins in the underworld (McKillop 2004b; Tedlock 1985).

Fieldwork in the Port Honduras since 1982 indicates the coast and offshore islands were intensively settled during the Late Classic and Postclassic periods and that the coast was economically and politically autonomous from the adjacent inland cities of southern Belize (McKillop 1989, 1996a, 2002, 2004a). This view of coastal autonomy contrasts with Hammond's (1975) model that includes the Port Honduras coast and cays in the 'realm of Lubaantun.' Leventhal's (1990: Figure 8.1) map of southern Belize shows an absence of sites in the Port Honduras, with his focus on his inland research at Pusilha, Nim Li Punit, and Uxbenka (see also Dunham et al. 1989).

During the Classic period, coastal autonomy was empowered by their supply of exotic and nearby marine resources to the inland city folk. In particular, the inland demand for salt—basic to daily human existence—was a critical resource for the inland Maya. The inland demand for salt from the Punta Ycacos salt works tied the economies and politics of inland cities and coastal communities (McKillop 2002). The salt works were specialized workshops where brine was boiled in pots over fires to produce loose salt or salt cakes. The workshops were not associated with Maya settlements but instead were located near the source of salt, the sea. The artifacts recovered from the salt workshops include those used in the production of salt, including the salt boiling pots and water jars for storing the brine before processing.

Other marine resources were extracted from the coastal waters of southern Belize and traded inland, including ritual and utilitarian items, as well as seafood. Ritual objects included stingray spines used in bloodletting ceremonies depicted on painted pottery vessels and carved monuments. Royal Maya kings and queens drew blood as part of vision quests associated with various ceremonies. Carved monuments at Nim Li

Punit show blood dripping from the fingers of individuals onto paper in braziers (Jackson and McKillop 1985). The coastal Maya also supplied conch shells used as trumpets, manatee bones for carving figurines (McKillop 1985, 2003), and fish.

Wild Cane Cay served as a trading port where canoe traders brought obsidian from El Chayal and Ixtepeque in the southern Maya highlands, and high-quality chert from northern Belize (McKillop 1996a, 2004a; McKillop et al. 1988). This island may also have served as an entrepôt for the inland trade of salt from Punta Ycacos Lagoon.

The end of the Classic period witnessed the abandonment of the inland cities of Lubaantun, Nim Li Punit, and Uxbenka, but a surge in settlement at Wild Cane Cay. As opportunistic traders, the Wild Cane Cay Maya changed their political and economic allegiances to engage in coastal sea trade linking Chichen Itza with the eastern seaboard of the Yucatan and to points beyond in the southern Maya highlands, central Mexico, and Honduras. Trade goods include Mexican obsidian from Ucareo and Pachuca, Maya highland obsidian from Ixtepeque and El Chayal, Honduran obsidian from La Esperanza, and copper, and other resources of great interest to the Postclassic urban Maya (McKillop 1989, 2004a; McKillop et al. 1988).

The abandonment of the inland cities of southern Belize and adjacent Guatemala at the end of the Late Classic period meant that, by default, the coastal Maya of the Port Honduras coast were independent. In fact, the coastal economy changed dramatically, but instead of collapsing along with the nearby inland cities, the coast fluoresced during the Postclassic. The collapse of the inland polities and abandonment of urban settings meant the inland demand for Punta Ycacos salt ceased and the salt works were abandoned (McKillop 2002). The economy drove the abandonment of the salt works due

to a lack of inland consumers, just as the economy drove the exponential increase in coastal canoe commerce at Wild Cane Cay in the Early Postclassic (McKillop 1996a, 2002).

Power and Wealth on Frenchman's Cay

Most of the 30 acres of Frenchman's Cay consists of low-lying mangrove swamp dominated by red mangroves (Figure 1). The ancient site is located on the southwestern end of the island where there is some coconut woodland. The site area is seasonally inundated in the rainy season but still supports European-introduced coconut palms (*Cocos nucifera*) and mango trees (*Mango* *rangifera*), as well as native guava trees. Since other sites in the Port Honduras region had been submerged by sea level rise (McKillop 1995, 2002), this also was expected for Frenchman's Cay.

Most of the Maya on Frenchman's Cay lived in perishable structures without stone foundations, as indicated by transect excavations in household middens (Figure 3; McKillop and Winemiller 2003). Excavations were carried out along four transects in 1994 to find the ancient boundaries of the site which from the surface distribution of artifacts extended into the mangrove swamp. Either the site was partly submerged by sea-level rise or the artifacts were distributed over the ground surface by hurricanes or other agents. Excavation of each transect continued until no artifacts were recovered. Excavations extended beyond the island and into the sea along the northwest (NW), southwest (SW), and southeast (SE) transects and into the mangrove swamp along the northeast (NE) transect. Excavations revealed deeply buried archaeological deposits in the mangrove swamp and in areas that are seasonally flooded. The spatial distribution and depth of Maya pottery sherds in the transect excavations indicated the ancient settlement covered an area about 300

X 100 m and that it had been inundated by sea-level rise.

Frenchman's Cay has three mounds arranged around a plaza, including Great White Lucine on the east, Crown Conch on the south, and Spondylus on the west (Figure 3). They contain the remains of stone buildings that were qualitatively and quantitatively different from the pole and thatch structures elsewhere in the community. Excavations were carried out to investigate coral construction, such as those, which were previously been investigated at Wild Cane Cay (McKillop 2004a). Excavations also were designed to investigate the relationship between the construction of coral architecture and sea-level rise (Magnoni 1999; McKillop 2004a; Watson 1999; www.lsu.edu/Maya_Night.htm). Shell habitats were used to help identify the quarry location from which the Maya gathered large quantities of coral rock and finger coral for their building foundations (McKillop and Winemiller 2003). It was anticipated that construction episodes would be assigned dates by the style of pottery vessels with interments associated with particular buildings, as was the case at Wild Cane Cay and commonly found at inland Maya communities. Unfortunately, no burial vessels were found, perhaps due to extensive looting, so the buildings were assigned ages based on the latest pottery sherds in their foundations and floors.

Excavations in Great White Lucine revealed three sequential building platforms faced with a limestone façade (McKillop 2004a). The platforms were composed of a foundation of coral rock. A thin layer of finger coral was applied to the rough surface created by the pile of coral rock, with an earthen floor placed on the finger coral. The buildings were made of pole and thatch, which has not preserved, but is suggested by the recovery of thatch-impressed clay from the excavations. Three contiguous trenches were excavated 16 m across the mound

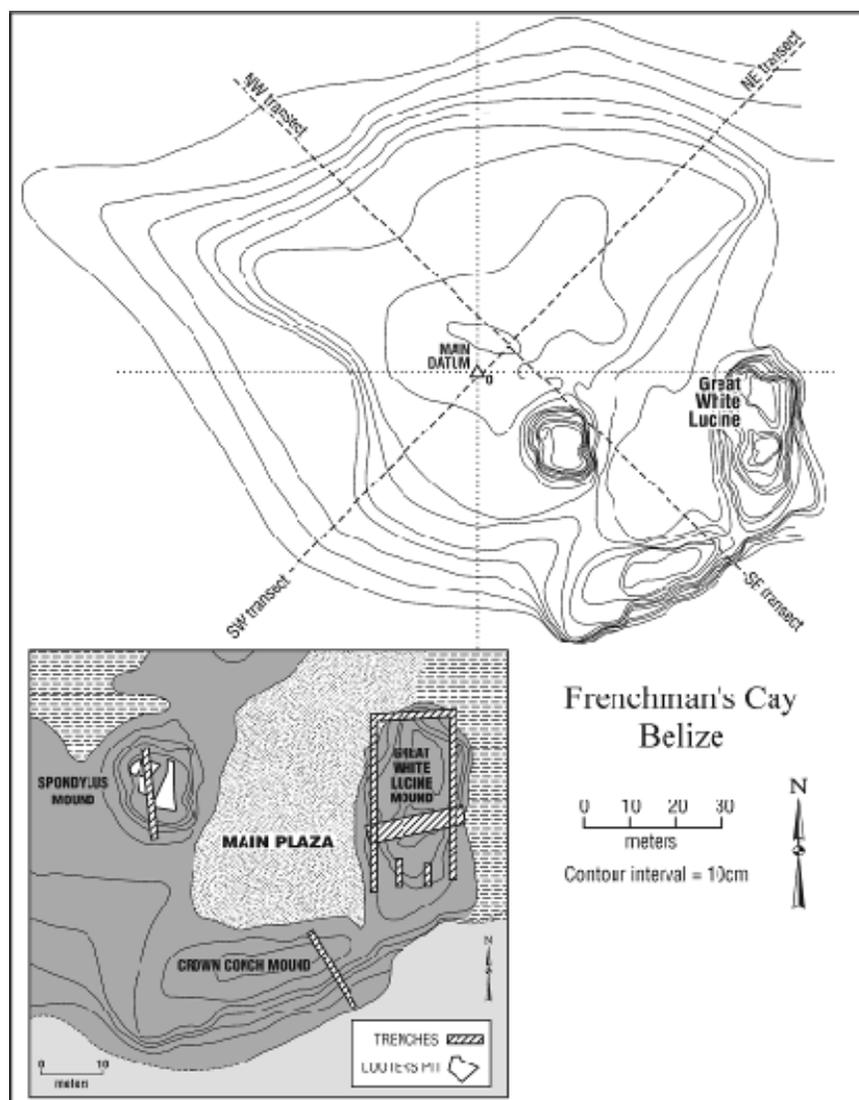


Figure 3. Map of Ancient Maya Site on Frenchman’s Cay showing location of 1994 transect excavations, with insert showing location of 1994-1997 trenches in coral architecture. (Drawings by Mary Lee Eggart from maps from transit maps by Heather McKillop and digitized map by Brad Duplantis).

exposing the exterior limestone façade on opposing sides of the mound. The façade was exposed along three sides of the mound, revealing a rectangular platform. Trenching along the fourth, seaward side of the mound did not reveal the facade on that side, which apparently has been eroded into the sea or otherwise destroyed in the past. For the main excavation across the mound, each of the three trenches was one meter wide and divided into 16 excavation units, each

measuring 1 x 1 m. Beginning at the surface of the mound, we excavated the uppermost layer (Layer A), which was coral rock, and recorded artifacts in each unit. The uppermost coral rock layer was interpreted as the stone foundation for a floor that had been eroded. Below the coral rock layer, we found an earthen floor (Layer B), supported by a finger coral sub-floor (Layer C). Layer C rested on a thick coral rock foundation, Layer D. Below Layer D, we found another earthen

floor which was supported by another coral rock foundation (Layer E). The lower part of Great White Lucine is below the modern water table, including layers D and E. Household midden deposits were encountered below the lowest coral rock foundation.

An initial 1 X 3 meter trench of Spondylus Mound in 1994 revealed a coral rock foundation resting on Late Classic household midden deposits. The coral rock had finger coral placed on top as a sub-floor, with a red dirt floor. Extension of the trench 16 m across the mound in 1997 indicated it had been extensively looted and backfilled. Only traces of the original construction remained (Watson 1999). Two coral rock foundations were discovered, with traces of the finger coral sub-floor and red dirt floor on the lower foundation. Isolated areas of limestone façade were noticed in looters' pits. Late Classic pottery sherds date the construction no earlier than that time.

A 16-meter long by one-meter wide trench was placed across Crown Conch mound from the sea to the main plaza (Magnoni 1999). The trench was divided into one by one meter units. Crown Conch had the remains of two buildings. Large coral rocks were used as foundations, with finger coral on top as a leveler, and then a dirt floor. The walls and roof were evidently made of perishable materials. The base of the coral rock foundation was 80 cm below the water table, indicating sea-level rise. The construction was dated no earlier than the Late Classic period on the basis of pottery sherds.

A burial of 2 individuals was discovered in waterlogged midden deposits under the lower coral rock foundation in the unit closest to the sea (Magnoni 1999; Tucker 2001). The fragmentary and poorly preserved skeletal remains of an adult male and an adult female were identified. Overall, the two individuals were in good health when alive. The female had evidence of mild iron

deficiency anemia, indicated by tiny holes of porotic hyperostosis on the parietal bones of her skull. The teeth have light to moderate wear, with cavities in 63% of a total of 11 teeth. There is some evidence of calculus (plaque). Cavities were in the premolars and molars but not in the three incisors, which may have been protected by significant calculus. The female had a jade inlay in the front of each of three lower incisors, a common decorative practice of the ancient Maya.

The burial is interpreted as two separate events into the same pit. The bones of the two individuals differ greatly in weight and appearance. The bones of the female are tan, light, and brittle, which are characteristics common to archaeologically recovered bone. The male's bones are grey, dense, and hard, having taken on an almost rock-like consistency. The difference in the bones indicates that different taphonomic forces were at work, or were at work for different periods of time. Furthermore, the skull of the second individual was located near the hip bones of the first, indicating they were not interred side by side as may have been likely if the burials are viewed as a single event.

Quarry Sources for Coral Rock

The habitats of the coral do not provide specific information on where the coral was quarried or gathered. The coral rock consists mainly of star corals, brain corals, staghorn coral, and rose coral. Their habitats range the shallow to deep waters that characterize much of the region from the coast to the barrier reef, which is some 40 km offshore. The habitats of the shells that were gathered with the coral include some shells that were attached to the rock. They provide a better understanding of the origin of the coral used for construction (McKillop and Winemiller 2003).

Shells from the coral foundations include environmental indicators of the shallow to moderately deep-water origin of the coral building material. The dominance of shells from shallow water suggests harvesting of fresh coral or quarrying of dead coral from the sea around the island. Since some of the shell species were from moderately deep water, some of the coral was likely gathered in the moderately deep water farther away from the island. In particular, a work party may be identifiable from the restricted spatial distribution of moderately deep-water shells in one of the foundations. Some of the shells may also have been gathered on storm beaches, when they were locally available after major storms or hurricanes. The absence of shells from mangrove mudflats reinforces the limited nearby extent of red mangroves during the settlement of the village, as also seen in the transect excavations. The occurrence of shells from mangrove roots in many of the units in the upper two building foundations of Great White Lucine reflects the modern inundated soil of the mangrove swamp, which has encroached on the mound.

Shell data support the interpretation of a drier landscape during the construction of Great White Lucine and subsequent encroachment of mangroves due to rising sea level. During the ancient Maya use of Frenchman's Cay, their garbage helped keep the island above the rising seas. Sea level continued to rise following the abandonment of the community. The once dry land of the ancient community is permanently waterlogged and even the coral architecture is below the modern water table. Without continuing settlement, the site is being submerged by rising seas and buried under mangrove swamp.

Settlement History

The ancient community on Frenchman's Cay included three buildings

with stone foundations that formed a plaza group, with additional buildings of pole and thatch that have left no mounded remains, placing them in the category of 'invisible architecture.' The population estimate based on the typical method of multiplying the number of mounds by an average Maya family size of 5.6 individuals suggests a community of 16.8 people, which is much lower than the extensive non-mound settlement indicates. The presence of household midden deposits covering an area of 300 X 100 m to at least 1 m in depth indicates the population of Frenchman's Cay was much larger. The problem of underestimating population size of Maya communities based on mound counts has been observed elsewhere (D. Chase 1990; McKillop 1989; Pyburn 1990; Steiner 1994).

Analysis of pottery sherds from the coral rock foundations and floors of the mounds indicates the buildings were constructed no earlier than the Late Classic. Early Postclassic construction or re-use of the most recent buildings on Crown Conch and Great White Lucine is indicated by later pottery. The Maya on Frenchman's Cay participated in the same ceramic tradition as others in the Port Honduras region, which included local pottery as well as vessels that were traded from elsewhere or local copies (McKillop 2001, 2002). Late Classic pottery types include Moho Red (a volcanic ash tempered pottery similar to Belize Red), Village Farm mold made figurine whistles (similar to those from Lubaantun), Polonio Polychrome vase and bowl sherds with exterior painting, Cattle Landing polychrome open bowls with interior decoration, and several utilitarian jar and bowl types, including Paynes Creek Unslipped, Bedford Unslipped, and Punta Ycacos Unslipped. The presence of Early Postclassic pottery elsewhere on Frenchman's Cay indicates the settlement continued after the Late Classic.

What was the role of Frenchman's Cay in the ancient Maya world?

Frenchman's Cay and Wild Cane Cay

These sites had extensive Late Classic settlement evidence in terms of household middens. Frenchman's Cay and Wild Cane Cay participated in sea trade, as indicated by obsidian and other trade goods. The Maya on Wild Cane Cay dominated coastal trade through the Port Honduras during the Postclassic, overshadowing their neighbors on Frenchman's Cay.

Frenchman's Cay and Wild Cane Cay had greater wealth and power than other communities in the Port Honduras, based on the investment in stone architecture. The use of coral for building construction by the ancient Maya on the Belizean cays is not surprising considering it was locally available, in contrast to limestone which had to be brought from the mainland by boat. The ancient Maya on Frenchman's Cay and Wild Cane Cay quarried brain coral, boulder coral, and other large coral rocks from the shallow waters around the islands to construct stone foundations for buildings. The foundations were faced with limestone brought from quarries on the mainland or from outcrops in rivers that empty into the Port Honduras. In addition, finger coral was quarried from the shallow seawaters or gathered from storm beaches. The finger coral was poured on the coral rock foundation, leveling the surface and acting as a sub floor for buildings. Portions of hard-packed earth floors were evident in each of the three Frenchman's Cay. The earth floors were very noticeable at Wild Cane Cay, where six construction episodes were excavated in Fighting Conch mound (McKillop 2004a). Following the same tradition as on the mainland, the Frenchman's Cay and Wild Cane Cay Maya buried their deceased family members in the foundations and under the floors of their houses

(McKillop 2004a). Sixteen burials, some including multiple individuals, were interred in the excavated portion of Fighting Conch Mound on Wild Cane Cay (McKillop 2004a). Only one burial, of two individuals, was excavated from the coral architecture at Frenchman's Cay (Magnoni 1999; Tucker 2001).

The quarrying of coral rock and limestone for construction of the stone foundations of buildings on Frenchman's Cay and Wild Cane Cay was a significant amount of labor. Most of the ancient Maya sites in the Port Honduras and in adjacent Punta Ycacos Lagoon coastal area have no mounds. In addition to the six coral mounds at Wild Cane Cay and the three coral mounds at Frenchman's Cay, there are three coral mounds at Green Vine Snake, and one chert cobble mound at Arvin's Landing on Joe Taylor Creek. The ancient Maya at other coastal and island communities in the region built their houses and other buildings directly on the ground, leaving no mounded remains. That 'invisible' structures existed is attested by the recovery of abundant artifacts from shovel tests, larger excavations, and occasionally on the ground surface or surface of the sea floor. Shovel tests on Frenchman's Cay indicated extensive buried midden deposits on the island in areas without mounds. Other researchers have noted the presence of 'invisible' structures, notably at Santa Rita Corozal (D. Chase 1990), Nohmul (Pyburn 1990), and Copan (Webster and Gonlin 1988). The widespread occurrence of invisible structures in the Port Honduras coastal region underscores one of the problems of estimating ancient population from mound counts and means that there were undoubtedly far more ancient Maya in Belize than indicated by the distribution of ancient house mounds (McKillop 1994a; Steiner 1994). Frenchman's Cay had highly visible coral architecture and 'invisible' structures only evident from excavations. The

coral foundations on Frenchman's Cay were used by ancient Maya who had the power to enlist others to quarry and haul rock for constructing the foundations, as well as the need to display their higher status in the community in contrast to those lower status Maya living in structures without stone foundations, the 'invisible' Maya.

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Coral Foundations of Coastal Architecture

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27 **MAYA TRADERS ON THE NORTH CENTRAL BELIZE COAST**

Shirley Boteler Mock

Investigations of the 1987-2002 Northern Belize Coastal Project (NBCP) have located a number of previously unknown sites involved in salt making by sal cocida (A.D.600-900). Sal cocida, due to the evaporative technology, requires fossil fuels that may have stretched the resources of a community and forced movement of populations from site to site. In addition to salt production the sites examined specialized in the production of shell tools, ornaments, blanks, and marine products such as salted fish for exchange with close-by interior sites or other coastal sites. Three different types of consumer/producer sites have been documented in the NBCP for the Late to Terminal Classic period: transshipment sites; independent salt making sites; and ephemeral workstations. Material culture evidence points to transshipment sites such as NRL and Saktunja not only involved in producer/consumer relationships with interior sites but as key players in broader intraregional exchange.

Extensive areas of mangrove swamp ... extend inland for a mile or two in some places; these are impenetrable except by shallow-draught boats which navigate the narrow and winding channels bisecting the swamps. Archaeological sites sometimes occur as islands of occupation areas, which are surrounded on all sides by mangrove, swamp and are virtually unreachable at the present time except by dugout canoe. [Bennyhoff and Meighan field notes 1952]

Introduction

In the 1950s two idealistic, young archaeology graduate students, James Bennyhoff and Clement Meighan, booked passage on a banana boat to Belize, then British Honduras, with the intention to investigate coastal sites north of Belize City. Instead of concentrating on sites with monumental architecture, they decided to excavate midden deposits at small, remote Maya sites such as Pott's Creek Landing and the Weston sites immediately north of Belize City (Mock 1994, 1998) with the expectations of recovering Postclassic sites.

However, Meighan and Bennyhoff discovered that the sites they found were affluent villages involved in coastal/inland trade during the Late-Terminal Classic period

(AD 680-950). They did not have the advantage of refined ceramic typologies since Smith's 1961 Uaxactun report was not yet out and used Thompson's San Jose (1940) report as a primary comparative tool. Meighan and Bennyhoff could not know at the time that the crude sandy paste pottery and strange clay "pot rests" they recovered at these coastal sites were, in fact, evidence of extensive *sal cocida* (salt boiling) production in the Late Classic--a realization other archaeologists would not reach for 30 years--a discovery that would challenge reigning assumptions about the lack of variability in lowland Maya resources, (e.g., Rathje 1971; see also Andrews and Mock 2002; Graham 1987; Hammond 1982) revise our interpretations of Maya society on the periphery, and add fuel to arguments on the organization of Maya political economies.

Background of Coastal Research

Since Meighan and Bennyhoff's pioneering coastal excavations in the 1950s, Maya archaeology has been characterized by exciting new revelations and discoveries, stimulated by recent epigraphic

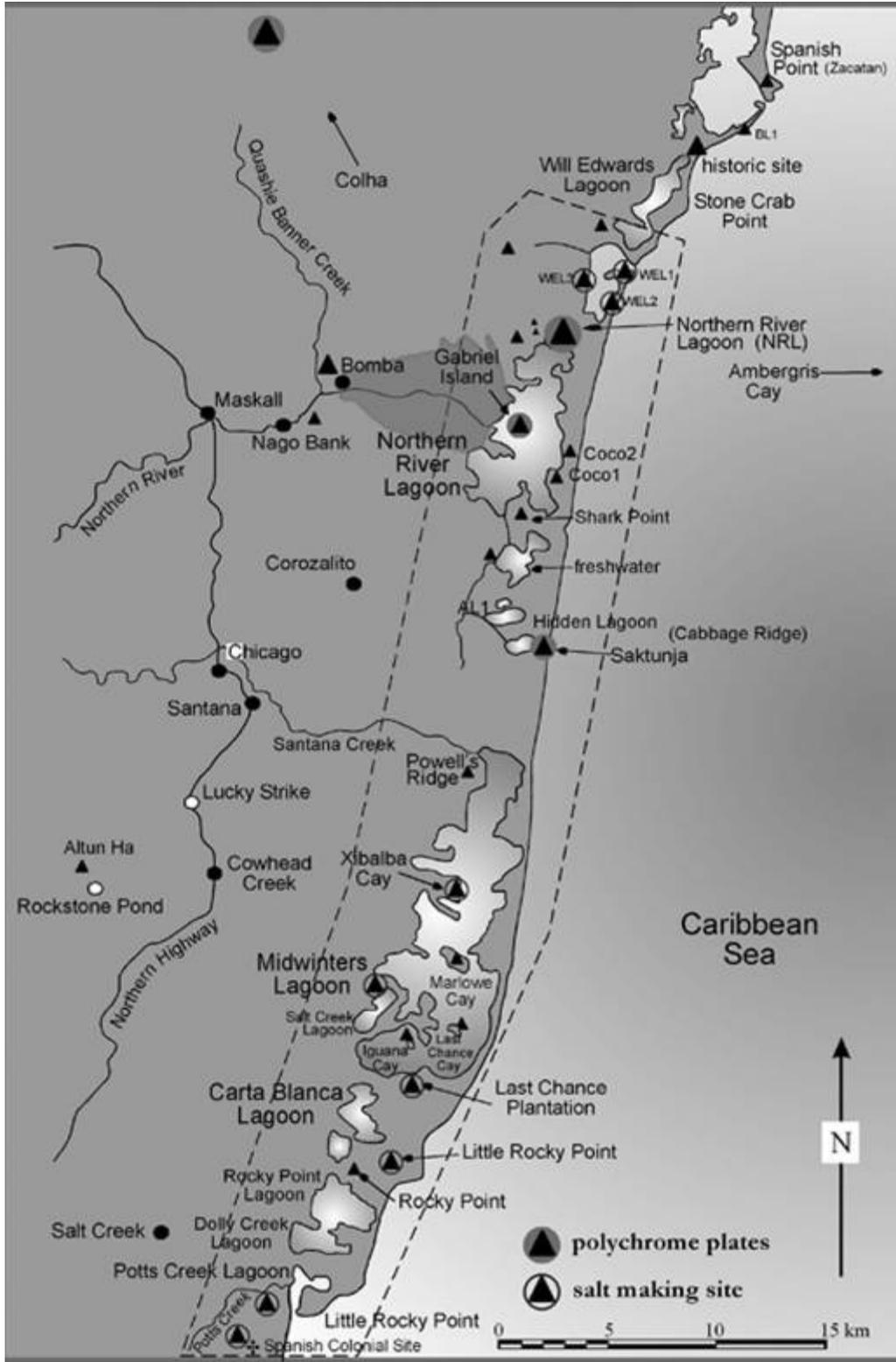


Figure 1. Northern Belize Coastal Project (NBCP)

breakthroughs and the contributions of ecological and ethnographic studies. Like our own contemporary society we now know Maya society was heterogeneous, composed of different ethnic groups, classes, occupations, genealogical registers, and prophets with political ambitions. We have learned that it was a society forged in conflicts and wars, political intrigue and prophetic visions.

However, we still know little about the socioeconomic mechanisms that fueled and refueled Maya society over time. Proposed trading/exchange models (e.g., Andrews 1990; Guderjan 1995; Guderjan and Garber 1991; McKillop 1989; Rathje 1972; Rathje et al. 1978; Rice 1987), although providing useful springboards to interpretation, have generally been too broad or lacked the necessary data to address the complex, multi-tiered matrixes of political economies and exchange. Recent coastal research such as McKillop's (1995, 1996) work in southern Belize and Graham and Pendergast's (1989) work on Ambergris Caye serves to fine-tune our interpretations as we learn more about the mid-range levels of Late Classic Maya society.

Following in Meighan and Bennyhoff's footsteps, and on the coattails of the Colha Project Regional Survey (e.g., Hester, Shafer, and Eaton 1982; Kelly 1980, 1982) I initiated the Northern Belize Coastal Project (NBCP) in 1993 (Figure 1). My enthusiasm to work in this remote area was stimulated by unexpected numbers of large, well preserved Late-Terminal Classic utility and decorated wares as well as lithics recovered from the site of Northern River Lagoon (NRL) that highlighted its role as a vital trading site. The production of salt by the *sal cocida* process also was indicated by the presence of distinctive clay cylinder fragments and crude ceramics (Figures 2), [also see Andrews and Mock 2002: Figure 11.3; also see Graham 1994:155-156 for

discussion of Coconut Walk Unslipped]. The 1993 season of field research documented the presence of salt production beyond the needs of the local populace, and lent support to NRL's role in an inland/coastal coastal interaction sphere as a transshipment node or port with the site of Colha.

A prominent goal of the NBCP from 1993 to 2002 has been to continue to locate additional sites and determine chronological placement in relation to NRL. With the exception of Cabbage Ridge (Saktunja) (see Figure 1), a working plantation owned by Mr. Hilly Martinez of Belize City, surveys have revealed no present-day habitation on this area of the coast. As one travels north by boat from Belize City, sites are distinguished by their height and canopy of forest vegetation nourished by ancient anthropogenic soils. However once disembarking, one inevitably discovers that these sites are fringed by dense, sometimes impenetrable mangrove swamps leading to questions about ecological changes and settlement in this coastal arena. Access is difficult and progress is slow requiring extensive cutting or canoe dugout travel. The extreme difficulties in reconnaissance, surveying, and testing are outweighed by the great potential of these sites to provide new evidence to nourish our models of ancient Maya economies and settlement.

Unfortunately there are tell tale traces of looters everywhere-mysterious marked trails and hastily dug holes into the sides of mounds. Since 1993, goals of the NBCP also have expanded to include the size and distribution of these sites relative to other coastal/inland sites. A related objective has been to examine the presence and extent of salt production and other extractive economies embedded in local and intraregional/interregional exchange networks. Ethnographic and ethno historical evidence argue for the presence of other seasonally specific activities conducted in



Figure 2. Clay Cylinders used in Salt Production

conjunction with salt production that may not be visible in the archaeological record. For example, net or rope fabrication, ceramic production, or canoe manufacture can only be inferred (Mock 1994).

Early Classic Salt Production

New evidence points to this coastal area of seaside lagoons as a locus for populations engaged in salt production as early as A.D. 300 in the Late Preclassic-Early Classic transition period (see Graham 2002 for discussion). This presence is indicated by features recovered from waterlogged deposits at NRL containing expended salt making ceramics and a spouted jar (Mock 1994; Figure 2). In addition while examining sites in Will Edward's Lagoon in 2001 (see Figure 1), we discovered a *plazuela*

compound (WEL 1) built up on salt making debris, with evidence of the distinctive cylinders used in the *sal cocida* process (Figure 2). It appears to have been a cayce open to the sea at one time. Diagnostic ceramic types recovered include Aguila Orange, Teotihuacan-style vessels, White Cliff Striated, Dos Arroyos Polychrome, and Balanza Black, placing the site in the Early Classic circa AD 300-500.

Late Classic to Terminal Classic Period Salt Production Sites

The NBCP has documented an increase in the settlement and utilization of coastal sites in Belize during the Late to Terminal Classic (circa A.D. 680-900) period (i.e., Andrews and Mock 2002; Guderjan 1994; 1997; Mock 1994, 1999b, 2000a; Vail 1988:

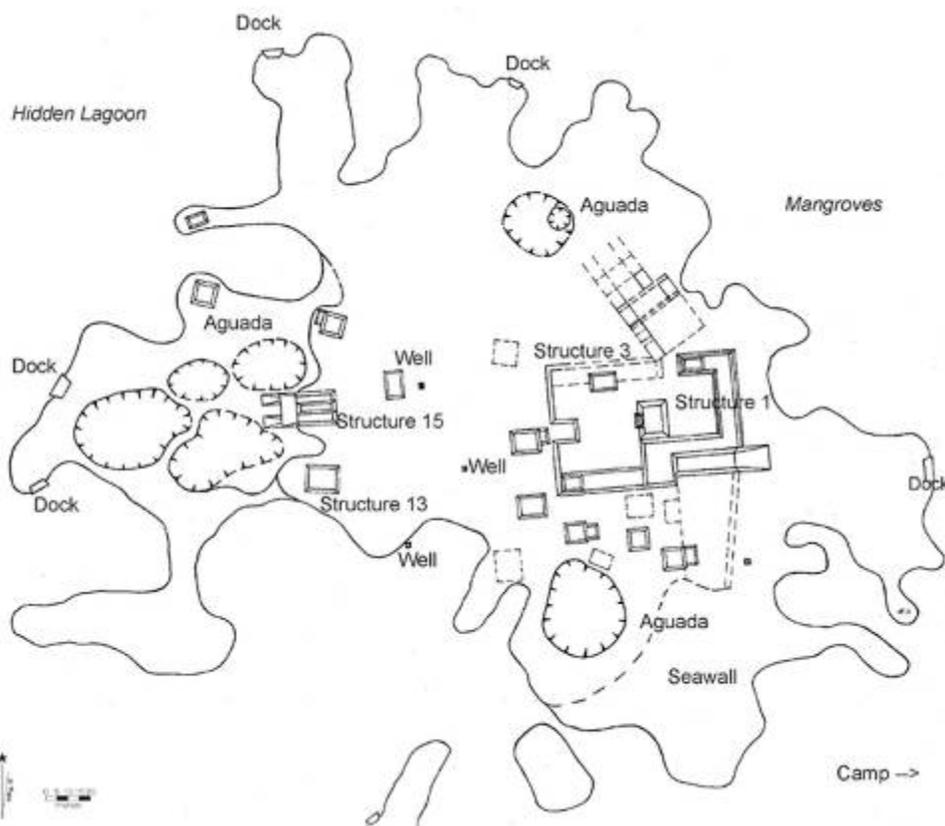


Figure 3. Map of Saktunja, 1999. Northern Belize Coastal Project

96; Valdez and Mock 1987). Fossil fuel shortages elsewhere due to overexploitation, civil unrest due to political reorganizations, and land shortages due to inheritance practices (e.g., McAnany 1993; Masson and Mock 2003; Mock 1994, 2000a, 2000b, Demarest 1997; Demarest et al. 1997; Foias and Bishop 1997; Sabloff and Andrews V 1985 for various interpretations) may have triggered these migrations to the coast.

Evidence recovered from the NBCP suggests a cautionary note in terms of posing population estimates for a given period. “Leap frog” movements along the coast due to migrations or land disenfranchisement may have included initial colonization, secondary colonization, or even recolonization. Like agricultural fields left to fallow, I believe that some of these settlements were abandoned and reoccupied periodically pending reforestation since *sal cocida* involves high

expenditure of fossil fuels and the dependability of human labor. Additional land changes due to storms and sea-level changes also may have been a factor (e.g., Graham and Pendergast 1989) in these “leap frog” movements. These vagaries of occupation created variable distributions in time and space, which are often difficult to discern in the archaeological record.

Evidence of hydraulic (stone-lined causeways and a canal) and water management features (stone-lined *aguadas*) have been recovered at both Saktunja and NRL, the two largest sites dating to the Late to Terminal Classic period. NBCP excavations at Saktunja (Figure 3), the smaller of the two sites, uncovered a substantial sea wall and ten cobble-filled, ten-meter-wide boat slips on the edge of a now-dry lagoon (Mock 1999a, 1999b). Such labor intensive features point to a stratum of

managerial elite who had the power, knowledge, and skills to maximize settlement and control resource extraction and distribution in this fragile ecosystem. These reoriented elite must have undergone what David Pendergast (1992:72) has described as “painfully quick job of retraining” at this time of a disintegration of traditional elite control in the Maya lowlands.

Attendant with a coterie of migrating elites and extended kin would have been a population of retainers, servants, slaves, and crafts people. This labor force may have been “paternalistically” (McAnany 1989) appropriated to build and maintain this cultural landscape. However, regardless of status, requisites of shelter, food, and water were required in this fragile and uncertain environment. Whoever provided access to these resources had a “tethered” labor supply. Thus the power of these new coastal rulers no longer rested on bloodlines alone---they had to be managers, engineers, weather forecasters, and maritime experts to control labor and maintain power in this difficult environment. As King (2003) has argued, power may have rested on the control of labor, not necessarily resources, especially with the labor-intensive *sal cocida* method.

It was not an easy life on the coast. Changing ecological processes characteristic of coastal sites, such as oscillation in sea levels, progradive sedimentation, mangrove colonization, tropical storms, and salinization of the fresh water table are directly relevant to salt production, settlement patterns, and trade. Both Saktunja and NRL like WEL 3 and other sites today are literally choked by mangrove colonies, and appear to have been cays open to the sea during the Late to Terminal Classic period (Mock 1994; Mock 1999b), geographical locations that facilitated their role in intraregional or interregional exchange networks. Clearly the production of salt by the *sal cocida* process was a central economic activity and embedded in trade.

However, as alluded to earlier, we may add the manufacture of other undetectable specialized activities crucial to the involvement of these sites in exchange networks. Evidence from household middens from both large and small sites evinces a surprising variety of tasks performed in one locale. Specialization in different tasks from site to site is also in evidence. Saktunja craftspeople were producing shell blanks while NRL was fashioning shell ornaments, perhaps from Saktunja derived blanks during the Late to Terminal Classic period. Quartz smoothing stones recovered at Saktunja suggest the manufacture of utility wares at the site. The crude CWU salt making ceramics were certainly produced on site.

However, they are not burnished so we may assume that burnishing tools were used for other pottery. Certainly prestige ceramics were not a focus of production in this unlikely environment. Large jars would have been a critical necessity to store or collect freshwater on the coast (see also Graham 1994) whether obtained from wells or springs. Additionally, when filled with local products such as manatee oil or fish the jars could have traveled by coastal or inland waterways (Mock 1994), or even by land (e.g., Reina and Hill 1978: 225-227), ultimately to be utilized again in transporting products or in another task such as storage. An example of this reuse of jars occurred in the Roman Empire. Freight costs were costly and products were brought to the export harbor by their producers in clay amphorae to be shipped to destinations. Export harbors such as Brindisi or Pompeii in Italy controlled the production and distribution of these liquid exports in amphorae (Will 1992) and were highly competitive. Like the later Spanish olive jars in the post contact Maya lowlands, the distribution and disposal of depleted amphorae included reuse in other capacities. Thus, the great numbers of jar fragments found at coastal sites, may be due

also to recycling patterns rather than increased production.

By necessity, economic tasks at coastal sites also were scheduled seasonally during the wet or dry season. Salt making and pottery manufacture by their very nature probably overlapped and required a dry production period. Since large-scale agriculture, other than a kitchen garden, was impractical on the highly saline soils of the coast, fishing was the staple year round, maximizing the seasonality of certain species (with different extraction techniques). Trade, whether in local bartering or exchange with itinerant canoe-laden merchants was a prominent activity during the dry season by land or sea. However, wet season activities may have included the portage by canoe of dry season manufactured products for tribute, barter, or exchange through a system of canals, lagoon waterways and flowing creeks to interior sites such as Colha.

Excavations at Saktunja, but in particular at NRL, have revealed unusually heavy concentrations of the distinctive Colha-manufactured stemmed chert blades (both non-utilized and utilized) (Hester and Shafer 1984; Hester, Shafer and Eaton 1994; Kelly 1981, 1982; Mock 1994, 1999b, 2000a; Shafer and Hester 1983). Some stone tool manufacture is documented at Saktunja (Speal 2003) along with the acquisition of Colha chert nodules and modification of Colha-produced tools. The great numbers of chert blades recovered intact at NRL though suggests that this site was a major distribution link for the manufacturing site of Colha (e.g., Andrews 1990; Mock 1994; see McAnany 1991 for discussion). The stemmed points were a valuable commodity in demand at this time of conflicts and wars. Both NRL and Saktunja are distinguished by deep lenses of ceramics, composed primarily of Tepeu III types with a small admixture of Tepeu II types.

Significantly, the representation of a wide variety of status-related ceramics and recovery of a functionally complete complex of ceramics at sites such as NRL and Saktunja are in marked contrast to other salt making sites on the coast of Belize (MacKinnon and Kepecs 1989; McKillop 1995). At NRL some of the dense layers of ceramics suggest that they were “banked” at certain structures on the perimeter of the site as potential trade items (Mock 1994). Significantly these “banked” ceramics include both the ubiquitous red-slipped wares such as Tinaja Red and prestige wares. The co-occurrence calls into question the notion that utility and prestige ceramics traveled under different systems of exchange. Mixed in with these ceramics are Cehpech-related (see also Nohmul and Santa Rita [Chase 1982: pp. 502-503; A. Chase and D. Chase 1987]; Cerros [Walker 1990]; Becan [Ball 1977] and Colha [Valdez 1987] ceramics that reflect intensified contact with traders from the northern lowlands at this time. I have argued that portable goods, in particular, ceramics gained new status as flexible modes of communication (Mock 1997, n.d.p.) and form of ideological currency. Because of their accessibility to migratory, on-the-move populations, the ceramics played an active role reinforcing newly aligned socioeconomic relationships and political boundaries during the Late to Terminal Classic period.

Distinctive Palmar Orange-polychrome plates with beveled rims and monkey designs to date have been recovered only at Saktunja, NRL, Gabriel’s Island, and the inland sites of Colha and Kichpanha (Figure 4a-b). Again, considering the unsuitability of coastal sites for large-scale ceramic production the ceramics were probably manufactured at Colha (Mock 1994) and were transported via Rancho Creek and the Northern River to the

coast (Figure 3). Because of their site-wide accessibility it appears that the Palmar Orange-polychrome plates played a central role in community wide rituals, a characteristic of Codex style ceramic patterns elsewhere (Reents-Budet 1994:153). I have argued previously that the plates, imbued with distinctive iconography, were intended to strengthen group allegiance and reinforce a coastal/inland interaction sphere (Mock 1994, 1997, n.d.p.). As Ball (2000:100) observes, “style functions as a visual index of social relations and may even be regarded as representing a particular corporate community or social unit. “This exclusivity then suggests the great need to symbolize local identities and signify formal ties of relation” (Ball 1993:263).

Here in Belize this stylistic sphere was oriented northwest to southeast along the Northern River drainage (Mock 1994) (Figure 3). This accessibility may have guaranteed “middle” tier labor to support the complex production/distribution activities at these coastal sites (e.g., Junker 2003:296). With the accumulation of new data through the NBCP I have defined a “working” nexus of sites, according to geographical location, size, artifact classes present, economies, and presence or absence of certain architecture or features to assist in future interpolations of sociopolitical or economic interrelations on this cultural landscape. Coastal sites range from isolated salt making stations and independent dispersed house mounds suggestive of single-family, salt making economic units (Mock 1994, 2000b, 2001) to households located on fresh water (e.g., Alligator Lagoon) that were not producing salt. An upper tier of larger sites such as NRL and Saktunja may have been in a sort of tribute relationship with these independent producers who may have brought in their “fish catch of the day.” salt or shell obtained from the reefs (see S. Coe 1994: 157). Finally, coastal sites examined in the NBCP

have provided additional information pertinent to Postclassic settlement and political economies. NRL and Saktunja appear to have been abandoned by around AD 950.

The presence of Postclassic ceramics suggests a small reoccupation or visitation around AD 1100 at both sites. Saktunja, however, has a site-wide distribution of Middle to Late Postclassic ceramics suggesting a population boom up until Spanish contact. The presence of Postclassic diagnostics has been noted also at other sites examined in the NBCP such as Zacatan on Will Bennett’s Lagoon, Xibalba Caye in Midwinters Lagoon, and the large site of Rocky Point (Figure 3) further south, which also appears to have been a major coastal node at this time.

Discussion and Summary

In regard to the NBCP goals, the ceramics and lithics recovered from the NBCP (1987-2003) surveys have facilitated a chronological framework for this coastal zone within a larger regional framework. Temporal ordering has permitted some additional interpretations of site economies and settlement that perhaps varied over time due to local ecological changes or political events. Moreover, perhaps investigations of these sites may cause us to reconsider some of our assumptions about the dynamics of Maya culture.

The recovery of Late Preclassic dates, features and artifacts at NRL suggests that salt production by *sal cocida* occurred earlier than commonly believed. Discovery of a prosperous Early Classic salt making site in Will Edward’s Lagoon (WEL 3) has the potential to provide additional evidence earlier settlement patterns, economies, and potential connections to interior sites such as Altun Ha. Their presence also suggests that other Early Classic sites may be discovered in future NBCP investigations. Salt production

intensifies during the Late to Terminal Classic period, and ceases during the Postclassic at Saktunja and NRL. Whether this cessation is caused by invasions, population changes, access to new sources, or sea-level changes will be a question to address in future investigations. The abundance of well-preserved ceramics should provide some clues as to this change. In addition, the presence or absence of certain ceramics at both interior and other coastal sites may provide additional evidence about exchange patterns and site economies. For instance, polychromes and prestige goods were recovered in abundance at Saktunja and NRL but were not found in independent dispersed house mounds located in the surveys. The presence of utility wares such as Subin Red at these second level sites, suggests these Maya were involved in a more localized exchange system providing subsistence goods and other necessities such as stone tools—perhaps by another level of mercantile middlemen or in smaller market systems (see, for example Earle and Ericson 1977; Freidel 1983).

Whether this autonomy will bear out in future investigations remains to be seen. The Colha-produced Late-Terminal Classic Palmar Orange-polychromes, accessed by elite and “mid-level” members of the populace only at Saktunja and NRL, supports an interior/coastal relationship with Colha. Other ceramics such as slate wares may have been accessed by other mechanisms unique to coastal communities such as itinerant merchants plying canoes along sea routes from the north. Different systems of exchange may have been operating on the coast that may not be necessarily reflected elsewhere. The evidence suggests that settlement was flexible due to climatic changes, deforestation, or presence of marketable economic specialties. Shell products such as blanks or ornaments as well as salted meat (Mock 1994, 1999b), may

have been traveled along different paths, in part depending on demand (Mock 2000a; see also Graham 2002).

Finally, different salt or certain salted products may have become involved in regional trade networks as prestige items. As an example, in our own culture sea salt has become an epicurean prestige food (see also Graham 2002). In sum the NBCP is lending evidence to assist in reassessing current models of economic production, political economies, and sociopolitical relationships among coastal communities in north central Belize. Meighan and Bennyhoff would be surprised to know that their 1950 project to understand settlement in relation to economies continues into the 21st century, expanding our knowledge of more heterogeneous, mercantile communities who do not fit into the classic Maya mold.

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