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DOCUMENTING CULTURAL TRANSITION THROUGH CONTACT
ARCHAEOLOGY IN TÍHOO, MÉRIDA, YUCATÁN

by

Rhianna C. Rogers

A Dissertation Submitted to the Faculty of
The Dorothy F. Schmidt College of Arts and Letters
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

Florida Atlantic University

Boca Raton, FL

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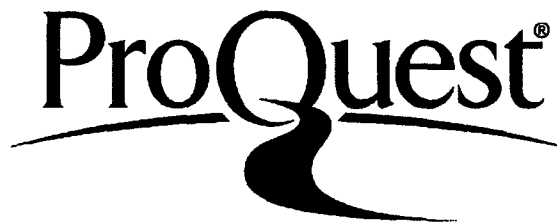
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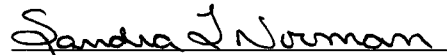
ARCHAEOLOGY IN TÍHOO, MÉRIDA, YUCATÁN

by

Rhianna C. Rogers

This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Sandra L. Norman, Department of History, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the Dorothy F. Schmidt College of Arts and Letters and was accepted in partial fulfillment for the requirements for the degree of Doctor of Philosophy.

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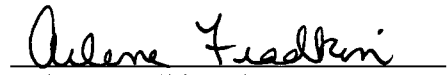
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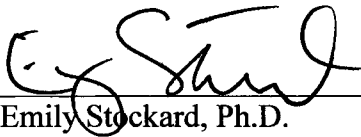
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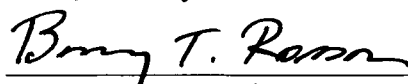
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ABSTRACT

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Archaeology in Tíhoo, Mérida, Yucatán
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This dissertation is concerned with the role material culture played in transformation and/or retention of Maya authority, just prior to and after Spanish contact (A.D. 1100–1800s). The primary research data used to discuss this transition was derived from the author’s analysis of precolumbian and colonial artifacts from the *Ciudadela* Structure (YUC 2) in Tíhoo, Mérida, and Yucatán—an assemblage originally collected by John Goggin in 1956 and 1957 and currently housed at the University of Florida—Florida Museum of Natural History. As one of the last standing structures in the Maya site of Tíhoo, now buried beneath the Spanish capital city Mérida, the *Ciudadela* collection represents a rare glimpse into a significant, yet understudied, Type 1 archaeological site.

Included in this project are a general examination of Maya studies in the Northwestern Yucatán Corridor and the results of my preliminary classification and

discussion of materials represented in the YUC 2 assemblage. It is important to note that as a part of this project, I created the first comprehensive catalogs for the YUC 2 Ciudadela collection, entitled *FMNH YUC 2: Catalog of Artifacts*, *FMNH YUC 2: Ceramic Stylistic Catalog* and *FMNH YUC 2: Non-Ceramic Catalog*.

Results of the archaeological component of this study illustrated that there was little change in production of indigenous pottery after the fall of Mayapan (*ca.* A.D. 1441–1461), as inhabitants of precolumbian Tihoo continued to use preexisting wares from their former capital, particularly those within the Mayapan Red Ware and Mayapan Unslipped Ware classifications, well into the Colonial period. In the Post-Colonial period, a significant change in wares occurred as native inhabitants incorporated foreign ceramic types into their society. Ceramics from Spain, Italy, and England, and porcelains from China and Japan, combined with colonial Mexican Majolica and preexisting Mayapan wares, illustrate the interaction of native inhabitants with European immigrants and their import goods. Although the YUC 2 collection supported the transformation of material culture after Spanish contact, the Maya, through religious practices, militaristic resistance, and oral/written traditions, were able to retain significant aspects of their precolumbian power into the colonial era and beyond.

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ARCHAEOLOGY IN TÍHOO, MÉRIDA, YUCATÁN

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CHAPTER 1

INTRODUCTION

This dissertation is concerned with the role material culture played in transformation and/or retention of Maya authority, just prior to and after Spanish contact. Focusing on Tihoo/Mérida, an understudied archaeological site in the Northwestern Maya Lowlands, this project uses artifacts from the Yucatán precolumbian (A.D. 800/900–1550) and Historic periods (A.D. 1550–1800s) to illustrate cultural change and adaptation. As part of this study, I provide the first preliminary description and analysis of the *Ciudadela* (YUC 2) archaeological assemblage, collected from Tihoo/Mérida by Dr. John Goggin in 1956 and 1957 and currently housed at the University of Florida–Florida Museum of Natural History, J. C. Dickinson Hall Research Center (hereafter referred to as FLMNH). I analyzed the YUC 2 collection in order to develop a tentative chronological sequence for the site’s cultural occupations, to determine the impacts of Spanish contact, and to illustrate the material connections between the communities occupying the site. I described and quantified formal and decorative elements of style in precolumbian and historic remains and grouped them into pre-existing cultural and artifact chronologies in order to identify site function, use, and historical patterns of interaction.

In order to discuss the impacts of material exchange in Tihoo/Mérida, I used the *Ciudadela* archaeological assemblage to comment on cultural interactions occurring at

this site. Stylistic analyses of ceramic and non-ceramic items were used in conjunction with pre-established chronologies and ceramic sociology to discuss the transformation and/or retention of Maya culture. I contend that the syncretic nature of Maya life, as reflected in the stylistic and typological analyses of artifacts in the YUC 2 collection and reaffirmed by precolumbian and colonial narratives for the site, enabled the Maya of Tíhoo/Mérida to manipulate Spanish cultural practices and religious customs in a way that served their immediate interests and allowed them to retain authority. This notion challenges the traditional view posed since the early historical Spanish narratives, which depicted the Maya as a conquered and pacified people who acted in accordance with Spanish law and Church regulations (Landa 1941 [1566]). Like their predecessors, the colonial Maya remained involved with the same, if not similar, activities that gave them power and authority in the precolumbian era. Thus, the Maya were able to overcome certain restrictions in Spanish law and colonial Church regulations through their ability to exploit the malleability of these institutions and retain significant authority and regionalized power (particularly at the local level). This dissertation will attest to this fact through the analysis of material culture from the *Ciudadela* collection and the synthesis of historical documentation from the Yucatán Peninsula. Ultimately, this project will contribute to the emerging dialogue of transitional archaeology, referred to by some as Contact Archaeology, as well as initiate a much-needed discussion about the role of Tíhoo/Mérida in Maya historical and archaeological studies.

Objectives of Study

Archaeological Research Justification. This dissertation has two main objectives. The first is to make previously unreported data from the *Ciudadela* collection available to

scholars, primarily archaeologists and historians. My typological classification of ceramics and material culture from the YUC 2 collection will facilitate its use by all. The second objective is to illustrate the impacts of material exchange at the site in order to support (or refute) the historical record. The stylistic analyses of items in this collection provide insights into the cultural occupation of the site as well as illustrate the importance of the *Ciudadela* collection within a regional historical and ethnographic context. The Spanish and Maya historical narratives suggest that Tíhoo/Mérida was a regional center for both cultures. Defining a temporal framework for this site, as well as establishing site function and use for the *Ciudadela* structure, will provide important information about the socio-cultural and socio-religious patterns encountered by its inhabitants. This study constitutes one of the first attempts to reconstruct a cultural sequence for a structure in Tíhoo/Mérida, which establishes it as a basis for making comparisons with other structures/sites within the lowland Maya region. Based on these goals, I developed the following research question:

- How did precolumbian and historical exchange impact Maya material culture in Tíhoo/Mérida, Yucatán?

With this research question in mind, I then used the following research strategies to address the proposed question:

1. Construct a localized chronology for the *Ciudadela* (YUC 2) artifact assemblage in order to explain how this site fits into the archaeological and historical records currently used in the Northwestern Corridor of the Northern Maya Lowlands.

2. Identify artifact forms, decorative styles and, if possible, comment on function and production at this site in order to place the YUC 2 assemblage into pre-established, precolumbian and historical chronologies.
3. Identify site function for each cultural occupation represented at this site and determine its relation to the socio-cultural and socio-religious histories of the area.
4. Determine what, if any, changes occurred to the production of material culture in the pre- and post-Spanish contact periods.

At the same time, the YUC 2 collection may also clarify some theoretical points currently unsettled in lowland Maya ceramic studies. For the precolumbian era, Smith's (1971) *The Pottery of Mayapan* classified the post-Mayapan/colonial phase into two large complexes, the Chinkinchel ceramic complex (A.D. 1450–1550) and the Chauaca ceramic complex (A.D. 1550–1880). In recent years, however, most researchers in the United States and abroad have challenged Smith's assertions (Brown 1999). For example, Agustín Peña Castillo, Teresa Ceballos Gallareta, and Socorro Jiménez Álvarez's work (2000), entitled *Informe de las Cerámicas Recuperadas durante los Trabajos del Salvamento Arqueológico del Centro Histórico de la Ciudad de Mérida "La Catedral" Pozo Estratigráfico No. 1*, reclassified Smith's complexes into three larger archaeological horizons: the Cehpech/Sotuta (A.D. 550/600–1000), the Hocaba/Tases (A.D. 1000–1545), and the Colonial Period (A.D. 1545–1800s) horizons (Peña Castillo et al. 2000:Table 1). They, and other Maya ceramic scholars, have argued that Smith's arbitrary dating of ceramic wares into set chronological complexes limited the scope of

Maya ceramic production to arbitrarily defined time periods that, in turn, hindered the classification of ceramics and negated the potential for contemporaneous wares spanning an indefinable length of time (Brown 1999). Rather than quantifying the sherds into Smith's specifically defined categories, modern Mayanists have created new categories that allow for broader classification. In light of this new research, I had to assess whether these new classifications were more accurate. Thus, as a part of this project, I have commented on Smith's 1960s model, the modern updates to his typology, and the current application of these typological classifications to Tihoo/Mérida.

Unlike precolumbian Maya ceramic chronologies, which change frequently over time, historical ceramic chronologies appear to be more stable in their classification of wares. Reasons for this coincidence include: (1) few archaeologists are developing conflicting chronologies in the historical period like those in the precolumbian, (2) researchers are unaware of conflicting chronologies because of language barriers, and (3) there are larger amounts of historical documentation supporting the origins of these wares across the world. The underlying fact is that precolumbian ceramic studies are plagued with more challenges than their historical counterparts. This is not to say that precolumbian ceramic studies are not grounded in thorough, systematic research; rather, they have more potential for reclassifications and change due to their lack of historical verifications that resulted from the colonial destruction of precolumbian Maya codices and texts. Based on the wealth of literature supporting historical ceramic analysis, archaeological researchers at the FLMNH have been able to establish the Historical Archaeology Type Collection (HATC), the Illustrated Collection (IC), and, with the generous donation from archaeologists Florence and Robert Lister, develop the Lister

Type Collection (LC).¹ Arguably, the most significant contribution to historical archaeology by the FLMNH has been the IC, which is an online searchable database that includes ceramic photographs, chronologies, descriptions, and research notes for ceramics represented in the HATC and LC type collections and other research collections. I have used these reference tools, quite successfully, to analyze wares and to place them in set, well-defined chronologies. An expansive project spearheaded by Kathleen Deagan in the 1980s and continued today, the FLMNH ceramic collections and associated database(s) are quickly becoming the premier reference tools for colonial ceramic studies of Latin America, the Caribbean, and the Southeastern U.S. regions. In reference to the establishment of the HATC and the IC, the FLMNH has set itself apart as the leader, at least in the United States and Europe, in current historical archaeology research. No such database currently exists for Maya precolumbian wares; however, Barbara and Justin Kerr (2009), with funding from the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI), are in the process of creating an online precolumbian ceramic database entitled *Maya Vase Database* for research use. At the completion of this dissertation, the data collected from the YUC 2 collection will be incorporated into the IC database for use by other researchers.

Organization of Dissertation

This dissertation is divided into seven chapters. **Chapter 2** presents both archaeological and historical research previously conducted on the occupation of the Northwestern Corridor, the site of Tihoo/Mérida, and, more specifically, the *Ciudadela*

¹ The LC, which I used for comparison with the YUC 2 collection, is comprised of Florence and Robert Lister's ceramic collections, which include a large collection of historic Spanish colonial wares (Deagan et al. 2009).

structure. **Chapter 3** examines the precolumbian setting and the role material culture played in Maya life and society. It specifically provides a context for both the environmental and cultural setting of the precolumbian Maya. **Chapter 4** discusses the Spanish worldview and how it led to changes in post-contact Maya religious, political, and social relationships. I also discuss the colonial and post-colonial settings and the various factors contributing to the transformation and resilience of Maya roles since the sixteenth century. The unique interaction between the Spanish and the Maya in the Northern Lowlands resulted more in a synthesis of cultures than in the complete eradication of Maya systems, as was experienced in other regions across New Spain.

Chapter 5 presents the materials and laboratory methods used for the archaeological component of this study. This chapter describes how ceramics and non-ceramic remains were quantified using pre-established chronologies; how formal and decorative artifact styles were identified using Type-Variety, Historical Archaeology Type Collection, and Non-Ceramic methods; and how current Mexican and U.S. research methods were combined to provide the most up-to-date interpretation of this site. Details about the *FMNH YUC 2: Catalog of Artifacts* are highlighted as well as justifications of the sorting of remains into both the *FMNH YUC 2: Ceramic Stylistic Catalog* and the *FMNH YUC 2: Non-Ceramic Catalog*. Ceramic and non-ceramic descriptions for representative remains from both the precolumbian and historical periods are provided and described. **Chapter 6** presents the artifact data and analysis of the *Ciudadela* collection. All materials are quantified and formal and decorative elements of style are recorded in the *FMNH YUC 2: Ceramic Stylistic Catalog* and the *FMNH YUC 2: Non-Ceramic Catalog*. Tables are provided for ceramic and non-ceramic types in order to

explain their representation in the collection. Tentative summaries are provided for artifact classifications in order to explain their importance and group them into respective chronological sequences. **Chapter 7** summarizes the overall exchange process occurring at the *Ciudadela* site in the precolumbian and colonial eras. It provides summaries for the YUC 2 artifact analysis and its relation to the historical record as well as addresses the retention and/or adaptation of Maya sustainability and power. **Appendixes A-E** provide additional resources for interpreting data sets from this project, including definitions, artifact descriptions, tables, photographs, and drawings.

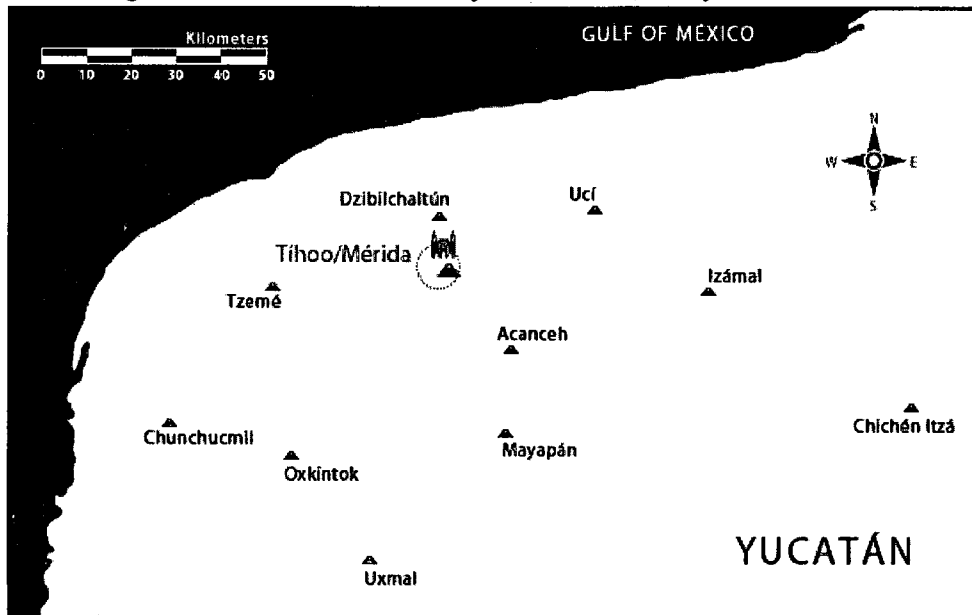
CHAPTER 2

PREVIOUS RESEARCH

Archaeological Literature Review

Tíhoo is an archeological site located within the modern Mexican municipality of Mérida, the capital of the State of Yucatán. Tíhoo/Mérida is part of the northern Yucatán peninsula in what archaeologists refer to as the Northern Maya Lowlands. It has been considered a multi-component site, occupied through precolumbian and modern eras (Ligorred 2005). Tíhoo is listed in the *Atlas Arqueológico del Estado de Yucatán* as a type one (1) site, the highest classification for sites in the Yucatán Peninsula (Kurjack and Garza 1980).²

Figure 2-1. The Northern Maya Lowlands, Early Post Contact.



Source: Artistic rendering courtesy of Dennise Rodríguez-Ávila.

² Type 1 refers to the largest and most complex ranked site in Kurjack and Garza's site classification system. This estimation is based on Garza and Kurjack's widely accepted four-tier hierarchy, which classifies sites by illustrating the relationship between settlement size (population) and rank (its numerical position in an ordered series of categorical groupings that denote sites from large to small).

In the 1940s and 1950s, E. H. Thompson wrote the first archaeological works to address Tíhoo. Thompson conducted surface collections and documented both colonial and precolumbian structures in and around the site (Brainerd 1958:25; Thompson 1951). During his survey, Thompson collected twelve, precolumbian potsherds (Peabody Collection C-20, 77) from a site he named “Mound Near Mérida.” In the mid-1950s, George W. Brainerd returned to the site in order to relocate the mound structure Thompson had documented and to make additional surface collections; however, Brainerd’s attempt to relocate Thompson’s mound was unsuccessful. Nonetheless, as Brainerd stated in his text, *The Archaeological Ceramics of the Yucatán* (1958), he was able to reexamine Thompson’s twelve sherds stored at the Peabody Museum at Harvard and determine their cultural affiliations. Brainerd concluded that these wares represented the Yucatán Late Formative and Yucatán Regional stages, which correspond in modern precolumbian ceramic chronologies to the Cohuah/Tzakol Horizon-Early Nabanché and Anicabil phases (A.D. 300–550/600), and Cehpech/Sotuta Horizon phase (A.D. 550/600–1000), respectively (Brainerd 1958:25–26; Peña Castillo et al. 2000:Table 1). Based on these classifications, Brainerd determined that Tíhoo was a site occupied since the Late Formative (Late Pre-Classic) Period (Brainerd 1958:25). In the mid-1950s, Edwin Shook and Tatiana Proskouriakoff (1951: 236–237; Shook 1955:290–291) returned to Mérida and excavated structures in Tíhoo under the guidance of the Carnegie Institute. Shook and Proskouriakoff were the first to formally document the *Ciudadela* structure during their 1951–1956 field seasons. Unfortunately, their artifact yield was minimal and, thus, the *Ciudadela* component of the project was abandoned. During the summer of 1956, John Goggin returned to the *Ciudadela* structure as the principal investigator for another

Carnegie Institute project entitled the *Carnegie Survey of Maya and Colonial Sites* (1956). During this project, which was mostly concentrated on precolumbian and colonial structures in the city of Mérida, Goggin and his team collected 67 majolica sherds from the *Ciudadela* structure. Based on his surface findings and interest in majolica, Goggin returned to the *Ciudadela* structure in 1957 (sponsored by the Carnegie Institute and the University of Florida) to excavate a 1.5 m by 6.1 m (5 ft by 20 ft) trench along its outer edge. After Goggin's excavation, the city removed the remainder of the structure for road construction and expansion of the modern San Benito marketplace (Alcalá Erosa 1998:52). Since the 1960s, archaeological research at Tíhoo has been the result of salvage archaeology projects conducted by the City of Mérida and the *Instituto Nacional de Antropología e Historia* (National Institute of Anthropology and History or INAH). I have used the results of this recent research extensively during this project.

In addition to the aforementioned research in Tíhoo, other archaeological studies in the Northern Maya Lowlands have been important for this project. Fernando Robles Castellanos and Anthony P. Andrews' (2003) research in the Northwestern Corridor was used to ascribe a tentative cultural sequence to the site of Tíhoo/Mérida. Robert Smith's (1971) work at precolumbian Mayapán (A.D. 1250–1450) has been used as the baseline for determining all precolumbian Maya ceramic classifications. His research has been supplemented with the more recent archaeological works of Andrews (1990), Brown (1999), Peña Castillo et al. (2000), and Robles and Andrews (2003, 2008) in order to provide an updated ceramic chronology for the site. In the historic period, I have used F. Rafael Burgos Villanueva's (in Robles and Andrews 2003) tentative historical ceramic chronology for the region, Kathleen Deagan's (1987, 2002) research on Spanish import

goods, and the FLMNH–Historical Archaeology Type Collections (digital and physical collections) to determine ceramic and non-ceramic classifications. All non-ceramic classifications not identified by the historic classification method(s) were analyzed using Sutton and Arkush’s (2002) general precolumbian and historic period classifications. It is also important to note that one of the most vital works to this project was Peña Castillo’s et al. (2000) work in the modern Spanish plaza of Mérida. Their research has greatly contributed to the understanding of Tíhoo’s ceremonial center and its relation to the greater Northern Maya Lowlands. This research, along with others previously mentioned, has been crucial for determining the importance of this site and its relation to the greater Maya cultural sequence.

The Archaeological Marginalization of Tíhoo. As one of the last standing structures of precolumbian Tíhoo and as the last major Maya platform in Tíhoo’s ceremonial center, the destruction of the *Ciudadela* site in the years after Goggin’s excavation led to an almost instant decrease in United States and European research in the city of Mérida. As such, since the late 1950s, Tíhoo has not been considered of major archaeological interest to researchers outside the peninsula. Additionally, few projects (outside of INAH’s salvage archaeology) dealing specifically with the precolumbian site of Tíhoo have been written in the past 50 years. Beyond Mexico’s academia, only one dissertation, written by an architecture student at the University of Florida, stands out as a major contribution to the understanding of this precolumbian site. Although not written from an archaeological perspective, Mark Childress Lindsay’s dissertation entitled *Spanish Mérida Overlaying the Maya City* (1999) dealt with the fusion of architectural styles and building patterns in Mérida, pre- and post-Spanish contact (Lindsay 1999). His

dissertation was the first to compile and partially translate historical documents on Tíhoo/Mérida to English. In addition, Lindsay was the first U.S. scholar to describe and illustrate the three cultural occupations of the *Ciudadela* complex: the precolumbian Maya occupation consisting of a religious platform, the Franciscan occupation consisting of multiple religious edifices, and the Spanish/Mexican Military occupation consisting of a citadel (which gave its current name to the site). A year later, art historian C. Cody Barteet (2000) briefly commented on Tíhoo in his own doctoral dissertation when he used Lindsay's historical analysis to support his artistic and architectural interpretation of the façades on conquistador Francisco de Montejo's mansion. As of this writing, neither a U.S. institution nor unaffiliated non-Mexican researcher has conducted archaeological research at this site since Goggin's excavation in the late 1950s.

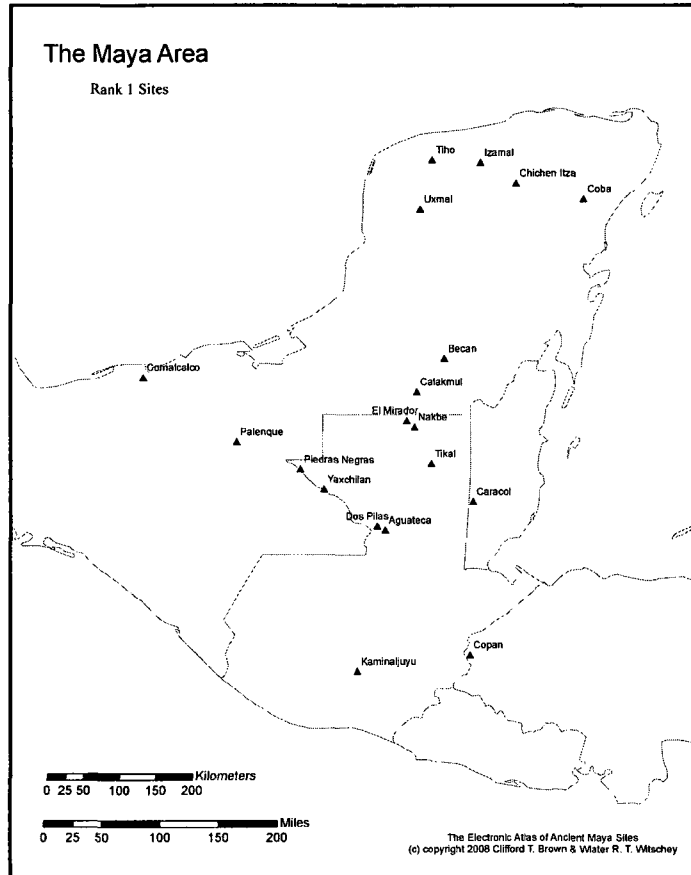
Since 1957, most of the archaeological work performed in Tíhoo has been the result of rescue archaeology projects initiated by INAH, the city council of Mérida, and research projects created by academics at the *Universidad Autónoma de Yucatán* (Reyes Gutiérrez, personal communication 2009). Specifically, Mexican researchers such as Fernando Robles, José Ligorred Perramón, Marcos Noé Pool Cab, Carlos Peraza Lope, Agustín Peña Castillo, Socorro Jiménez Álvarez, Raul Alcalá Erosa, and Teresa Ceballos Gallareta, have built tremendously upon the research sponsored by the Carnegie Institute and the University of Florida in the 1950s. Their contributions have provided additional information about the socio-cultural makeup of Tíhoo and the material culture it produced. The majority of their works, however, have concentrated solely on the precolumbian components of the site, which has perpetuated problems with contact period ceramic classifications and the analysis of historical material culture, ideas

discussed in detail in Chapters 5 and 6. In addition, few of these works have been translated into English, which has resulted in an absence of Tíhoo from most English language Maya research and academic literature.

In spite of this academic lacuna, many U.S. and European archaeologists recognize Tíhoo as one of the most important sites in the Northern Maya Lowlands. Generally recognized as the basis for Maya site classification, Silvia Garza Tarazona and Edward Barna Kurjack Basco's reference text, *Atlas Arqueológico del Estado de Yucatán*, listed Tíhoo as one of only four type one (1) sites in the Yucatán.³ In their text, Garza and Kurjack only attribute this level of importance to the well-documented Uxmal, Chichén Itzá, and Coba sites (Kurjack and Garza 1980). As is commonly known, the other type (1) sites have been extensively excavated and documented for the better part of the twentieth and twenty-first centuries and are considered, in modern times, major tourist destinations. In 2008, Clifford Brown and Walter R. T. Witschey updated Kurjack and Garza's listing of type (1) sites by adding Izamal to the four previously listed sites in the Northern Maya Lowlands; in addition, Brown and Witschey (2008) created a comprehensive map for all type (1) sites currently known in the Maya region (Figure 2-2). Although included in both publications, the precolumbian site of Tíhoo has remained obscure in Mexican and other Maya studies and is mentioned sparingly in most U.S. conducted research in the Maya region, possibly because it has been destroyed in modern times. The exclusion of Tíhoo in modern scholarship has left a void in Maya archaeological understanding that this dissertation seeks to ameliorate.

³ Archaeological site ranking can be defined as "an empirical observation that expresses the relationship between settlement size (population) and rank (its numerical position in the series created by ordering all the settlements in the system from largest to smallest" (Brown and Witschey 2001:5).

Figure 2-2. The Yucatán Peninsula and Vicinity, Type (1) Maya Sites.



Source: © 2001, 2002, 2005, 2008, 2009, 2010 Clifford T. Brown and Walter R. T. Witschey, *The Electronic Atlas of Ancient American Sites*. Updated 01/31/2010. Electronic map, http://mayagis.smv.org/maps_of_the_maya_area.htm, accessed December 21, 2009.

The marginalization of Tíhoo by non-Mexican archaeologists has been further compounded by its continual destruction, following Spanish contact.⁴ The colonial narratives depicted Tíhoo as both a rich Maya religious center (in both precolumbian and colonial times) and a Spanish stronghold in their New World Empire (Low 1995:757–758). Ironically, in modern Mérida, few “remaining vestiges of monumental Maya buildings” still exist, which seems to contradict the documented post-contact importance

⁴ The phrase “non-Mexican archaeologists” refers to researchers from the U.S. and Europe working in the Northern Maya Lowland regions of Mexico.

(Lindsay 1999:236). Lindsay proposed an interesting argument for the destruction of Tihoo and its continued importance in the post-contact years. He argued that, beginning in colonial times and continuing through the modern era, the Hispanization process occurring in Tihoo/Mérida encouraged cultural syncretism, often involving the implementation of the symbiotic elements of symbolism and cultural paradox, which ultimately fused the Spanish and Maya heritages and architectural styles. More specifically, he inferred through his analysis of building patterns that the fusion of Maya and Spanish cultures resulted in a shared architecture style, thus illustrating a marked alliance between both groups, which, he argued, helped them to forge a reciprocating relationship between their cultures and religious worldviews (Lindsay 1999:236–241). As Lindsay stated:

[The] Maya believed that their relationship with Spaniards was an alliance among equal parties, not “conquest” . . . In the Maya documents, the Spaniards were described as welcomed by the Maya; Spanish religion was adopted voluntarily and integrated into the old religion for prophetic reasons; and the Maya city never ceased to be Maya even with major Spanish buildings being built in the center (Lindsay 1999:239).

Lindsay’s arguments support the historical assertion of Maya resilience. In essence, the Maya were able to overcome Spanish colonization through their ability to adapt to and manipulate the Hispanization process. A uniquely syncretic relationship with the Spanish allowed the Maya to exploit various colonial institutions and integrate elements of Spanish culture with their own, thus enabling Maya to retain significant authority and regionalized power. As will be illustrated in the following chapters, the material culture from the *Ciudadela* collection supports this notion of mutual reciprocity

between the Maya and Spanish, thus challenging the historical narrative, which tended to relegate the Maya to subservience.

The History of the Ciudadela (YUC 2) Collection. John M. Goggin (1916–1963), Professor of Anthropology at the University of Florida, originally collected the *Ciudadela* collection during the 1956 and 1957 field seasons. Goggin, one of the founders of historical archaeology in the U.S., pursued this research as part of a larger, fourteen-year project dedicated to the classification of Spanish majolica in the New World. For this project, Goggin conducted archaeological work at numerous sites in Florida, Spain, and Latin America, from 1949 until his death in 1963 (Weismann 2002). His primary research interest focused on the analysis of European wares recovered from Spanish settlement sites and not on precolumbian wares and non-ceramic material culture (which constitutes a significant portion of the *Ciudadela* collection). As part of Goggin's expansive majolica project, in the later part of his career, he carried out a number of extensive archaeological studies within Mesoamerica and, specifically, in the Northern Maya Lowlands. Due to his premature death at age 47, however, Goggin was never able to publish his magnum opus on the subject. As such, much of the materials from his excavations remain unreported, undocumented, or unanalyzed. Today, many of these collections remain untouched in storage at the FLMNH. Goggin's estate turned over a large portion of his majolica research, post-mortem, to Irving Rouse in order to convert it into a publishable manuscript (Goggin 1968). Over a five-year period, Rouse was able to edit Goggin's work into two groundbreaking publications, analyzing New World and European majolica, Spanish ceramics, and colonial olive jars (Goggin 1964, 1968). Both

publications are still considered to be the foundations for historical Spanish ceramic research (Deagan 1987; Lister and Lister 1982:198).

Although pivotal for the field of historical archaeology, Goggin's emphasis on Spanish and European ceramics led him to exclude a large amount of information about precolumbian wares and historical non-ceramic artifacts recovered during his excavations. This point is clearly evident in his notes on the *Ciudadela* collection. Upon reviewing Goggin's unpublished field notebook, I discovered that, although Goggin requested and was granted permission by INAH to excavate and collect precolumbian and colonial ceramics from the *Ciudadela* structure, he limited his research to tabulating rough calculations for the Spanish and European wares recovered from the site (Alberto Ruz L. to J. Goggin, letter, 14 August 1957, John M. Goggin Papers 1912–1963, George A. Smathers Library–Department of Special and Area Studies Collections, Gainesville, Florida). As Goggin stated, “the quantities of Indian and Spanish earthenware, Oriental porcelain, and European chinawares and porcelains will not be listed. These and other artifacts, omitted in this majolica study, will be considered in the final report on the Mexican work” (Goggin 1968:50–51). Goggin anticipated that he would publish his other ceramic findings in subsequent works, but his sudden death did not afford him that opportunity. In addition, Rouse stated in the foreword to Goggin's work (1968) that he was unable to locate a *Ciudadela* site report, either because it had been misplaced or never written (Goggin 1968:iii). To date, Goggin's Mexico report has not been located. It is worth noting, that among Goggin's unpublished papers, field notes, excavation cards, and photographs, I have identified and recorded observations made during both his 1956

reconnaissance survey and 1957 excavation of the site; I have included these observations throughout this study.

Additionally, based on my review of his unpublished records, Goggin was never able to complete his analysis of precolumbian wares, non-majolica colonial wares, or Oriental wares, nor was he able to complete the analysis of any of the other collected material goods he excavated from the *Ciudadela* site. In addition, neither Goggin's notes for his 1957 excavation nor his tentative analysis of colonial ceramic wares were ever published. Among Goggin's published works, only five paragraphs in his 1968 text *Spanish Majolica in the New World* are dedicated to his *Ciudadela* investigation, of which only 67 majolica sherds are mentioned from the 1956 reconnaissance survey, and none of the approximately 20,000 items are mentioned from his 1957 stratigraphic excavation. As such, this dissertation will provide the first published data for Goggin's *Ciudadela* (YUC 2) collection, including the analysis of a large sample of 10,765 items currently stored in the *Ciudadela* artifact assemblage.

For the record, it is important to note that Goggin's collection was not always stored at the FLMNH. During the 1950s and 1960s, the collection was maintained by the Department of Anthropology at the University of Florida (Deagan, personal communication 2009). After the FLMNH–J.C. Dickinson Hall Research Center was opened in 1970, all Department of Anthropology research collections were transferred to the facility, including Goggin's *Ciudadela* collection. Once moved to Dickinson Hall, Goggin's Maya collections were accessioned into the museum's catalog under the following eight headings:

Table 2-1. FLMNH Goggin Yucatán Collections.

ACCESSION NO.	COLLECTION'S SITE OF ORIGIN
YUC 1	Izamal
YUC 2	Ciudadela
YUC 3	Convento de Sisal
YUC 4	Merida
YUC 5	Cenote de Mani
YUC 6	Dzibilchaltun
YUC 7	Hunucuma
YUC 8	Sisal

Most of the ceramics in these collections never have been counted, nor have their contents been documented, and only three of the collections currently are listed on the museum website as research collections (YUC 2, YUC 5, and YUC 8). In relation to the *Ciudadela* collection, specifically, the museum accession webpage entitled *Latin American Historical Archaeological Sites* currently lists only 2,360 ceramics in the collection (Deagan et al. 2010). This most likely denotes the historical ceramic wares Goggin tentatively accessioned but never published into the collection in 1956 and re-accessioned in 1958 (Florida Museum of History–Dickenson Hall, Gainesville, Florida, Goggin’s Ciudadela Ceramic Analysis Cards 1956–1958, Historical Type Collection Files). During a six-week research trip to Gainesville, Florida in 2009, I viewed all eight collections and photographed representative sherds from each of them. The majority of time, however, I devoted to sorting, cataloging, and analyzing the 20,000 items currently stored in the *Ciudadela* YUC 2 collection. I also had access to unpublished primary source materials dealing with Goggin’s research from the 1950s, which are currently

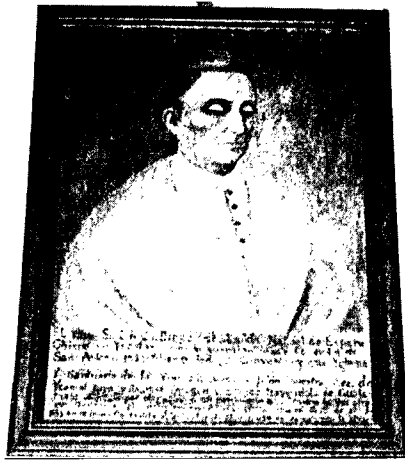
archived at the University of Florida–George A. Smathers Library (Special and Area Studies Collections) and the FLMNH–Historical Archaeology Lab Files.

Historical Literature Review

When discussing the historical conquest and colonization of the Yucatán, most information comes from sixteenth century Spanish accounts.⁵ The *Relaciones histórico-geográficas de la gobernación de Yucatán* (Garza 1983) mentioned that the Yucatán Peninsula first was reported to the Crown in 1517 by Hernández de Córdoba, explored by Juan de Grijalva in 1518, and traversed by Hernán Cortés in 1519. Diego de Landa's (1941[1566]) *Relación de las Cosas de Yucatán* and Pietro Martire d' Anghiera's (1966 [1555]) *The Decades of the Newe Worlde or West India* provide detailed descriptions of the Royal Orders given by the Crown to Francisco de Montejo I (1526), instructing him to colonize the Yucatán and found its capital city, Mérida. Two decades later, Landa and Martín de Palomar (*ca.* 1580) reported to the Crown the political and social make-up of Mérida in the texts *Documentos Inéditos de Ultramar* (vols. 11 and 13). Written one hundred years later, Diego López de Cogolludo's (2006 [1688]) *Historia de Yucatán* summarized the founding and planning of Mérida. Although all of these works have contributed to the understanding of the Maya, the foundations for the historical understanding of post-contact Maya comes primarily from the works of Bishop Landa. The irony of this lies in the fact that, in addition to his contributions to Maya understanding, Landa also is credited with the destruction of roughly ninety percent of all Mayan codices and glyphs (Restall 1997:4).

⁵ In addition to the Spanish chronicles cited, avid chroniclers Gonzalo Fernández de Oviedo y Valdés (1527) in *Historia general y natural de las Indias* and Bernal Díaz del Castillo (1554?–1568) in *Verdadera historia de la conquista del Nueva España* documented the conquest of the Yucatán and briefly mentioned the entrance of the Spanish into the city of Mérida (see Farriss 1984:412, ft.23).

Figure 2-3. Portrait of Diego de Landa (Sixteenth Century).



Source: Located at the Chapel in Izamal, Yucatán. (Photograph by author.)

At present, only four Maya codices dating prior to Spanish contact remain, the *Dresden Codex* (A.D. ~1100–1530), the *Madrid Codex* (A.D. ~1300/1400–1530), the *Paris Codex* (A.D. ~1200–1850), and the controversial *Grolier Codex*, carbon dated to A.D. 1230 (Coe 2005). As Farriss stated:

[T]he loss of the [majority] of these “books of the devil” [and] the gradual extinction of a [Maya] priestly class who could interpret them, and the general decline in literacy after the conquest (including a total loss of the ability to decipher the pre-Columbian glyphs) all facilitated innovation and adaptation [on the part of the colonial Maya], as oral tradition began to replace written texts in the transmission of sacred lore (Farriss 1984:313).

Although the Maya maintained an air of resistance despite Landa’s destruction of their writings, the overall ramifications of Landa’s actions ultimately changed the understanding and interpretation of Maya history. For example, Landa’s orthography of the Mayan language,⁶ entitled *La Relación de las Cosas de Yucatán* (1941 [1566]), intentionally manipulated the Asiatic-like Mayan written and spoken languages into a

⁶ Both historians and anthropologists have used Landa’s transcriptions of the Mayan language to decipher Mayan glyphs and spoken language. Although this has helped both fields tremendously, it also has contributed to problems with Mayan language decipherment.

Latinized language structure. As would be expected, the conversion of Mayan language to this Latinized form erroneously recorded Mayan writing and speech and ultimately transformed its intended meanings.⁷ As Landa stated in the *Relación*:

They (the friars) learned to read and write in the language of the Indians, which was brought so well into the form of a [Mayan] grammar that it was like Latin And considering that they [the Maya] had different characters for [certain letters and words], there was no necessity of inventing new forms of letters, but rather to make use of the Latin letters, so that the use of them should be common to all (Landa 1966 [1566]:74).

Although Landa's alphabet intentionally transformed the traditional Mayan language and its meaning by applying foreign concepts to its structure, for nearly five hundred years, Landa's text was (and continues to be) one of the most influential texts for understanding Maya cultural and linguistic history.

With the popularization of John Lloyd Stephens and Fredrick Catherwood's (2008 [1841]) *Incidents of Travel in Central America, Chiapas, and Yucatán*, interest in the Maya and its culture(s) increased. Toward the beginning of the twentieth century, scholars Eduard Seler, Ernst Förstemann, and J. T. Goodman began to tentatively translate the Maya calendar and glyphic systems. Around the same time, scholars Alfred Maudslay and Teobert Maler published detailed photographs and drawings of Maya sites, which further popularized the culture in the U.S. and Europe. Scholar Herbert Spinden's (1913) translation of Maya inscriptions at Yaxchilán and Sylvanus Morley's (1915)

⁷ Orthographies in this case refer to the traditional spelling system developed by Spanish friars to transcribe Mesoamerican languages. It is important to note that Holy Roman Emperor Charles V (the emperor of Spain during the conquest of the New World mainland, r. 1516–1556) and his son Phillip II (the King of Spain, r. 1556–1598 during the colonization of the New World) encouraged the continued usage of Mesoamerican languages by the natives. Unfortunately, the use of these languages was expected to fit the Spanish written structure and a Latin alphabetical format, which ultimately diluted traditional meanings and structures of many New World languages, including the Maya.

Introduction to the Study of Maya Hieroglyphic Writing added to an increased interest in the area through their introduction of the Maya to the masses.

Due primarily to the popularization of the theory of human evolution and Aristotelian mentalities of primitiveness in the late 1800s, early Mayanists viewed Maya culture, language, and writing much as the Spaniards had—primitive and biologically inferior (Tylor 1888:179; Restall 1997:6). For example, Mayanist Sylvanus Morley proposed societies passed through an evolutionary development of writing based on the concept of “primitive to civilized.” In his theory, he argued that writing went through three stages:

Stage one: writing is pictographic, the object or idea being given by a drawing, painting or some such; nothing is meant by the picture itself except what is depicted. Stage two: ideographic writing appears, in which the idea or object is given a sign having no resemblance or only a distant similarity to it. . . . Stage three: phonetic writing appears, in which signs lose all resemblance to the original images of objects and denote only sounds; syllabic signs appear first . . . with alphabetic one appearing later . . . [In essence] we [Europeanized countries] have phonetic writing and the alphabet and they (all those savages, barbarians, and Chinese don't) (Coe 1999:25).

Some early Mayanists unintentionally incorporated the Darwinian concept of evolutionary progression and Aristotelian mentality of cultural superiority, yet the legacy of their actions relegated the Maya “irrelevant to their own pursuits” (Restall 1997:6).

Beginning in the 1930s and 1940s, the interpretation of Maya culture began to change under the tutelage of the Washington-based Carnegie Institute. Sponsored research conducted by Frances Scholes and Robert Chamberlain (dealing with the translation of sixteenth century Spanish documents), and Ralph Roys and Eric Thompson (dealing with Maya texts and hieroglyphics), produced important works in Maya research, many of which still are considered standards in the field today. Arguably, the

most prolific early twentieth century writer of the Maya was Ralph Roys, who published over fifty articles, monographs, and essays between 1920 and 1965 (Restall 1997:6). Roys, one of the few early researchers who learned the Maya language, translated a number of the colonial documents into English, including the *Books of Chilam Balam* (1967[1933], 1949) and the *Rituals of the Bacabs* (1965). However, not all Mayanists used Mayan texts to understand their past. As Michael Coe stated:

Thompson could neither speak nor read Yucatec or any other member of the Mayan language family; he relied on Ralph Roys, Carnegie's authority on Yucatec, when he thought he needed some linguistic expertise, which given his conviction that the glyphs has little of nothing to do with spoken Maya, was seldom indeed. As the leading scholar in the field of Mayan hieroglyphic studies, Thompson's views about linguistic scholarship impeded the analysis of Mayan spoken and written language for the better part of the twentieth century (Coe 2005:199).

As Schele and Freidel (1990:47) argued, “[i]t was unfortunate for the field that [Thompson] was so elegant in expressing his ideas, for the few who argued with him never matched the persuasiveness of his rhetoric.” As it happened, Thompson's monopoly of Mayan linguistics was short-lived. Beginning in the late 1950s-60s, anthropologists Tatiana Proskouriakoff and Yuri Valentinovich Knorosov successfully argued and promoted a more accurate interpretation of Maya languages, histories, and culture. Arguing that Thompsonian biases hindered objectivity in Mayan linguistics, these scholars worked to develop a more accurate portrayal of the Maya precolumbian past. One of the most important accomplishments in modern Mayan linguistics was the formalized acceptance of both the written and spoken languages as necessary tools for interpreting the Mayan past, an idea that Thompson argued was unimportant (Rogers 2008). As linguistic anthropologist George Kubler stated:

[Mayan written] text and images . . . both work as complementary components, feeding on each other's representation of time (text) and in space (image) . . . Understanding that most Mayan records are divided on such [lines makes the modern analysis of both invaluable] (Kubler 1969:4).

In essence, modern scholarship promotes that one must understand both the written and spoken forms of a particular language in order to create an accurate understanding of its users. The misrepresentation of Maya language and culture has been a common occurrence, one which recent scholarship has attempted to rectify.

Yuri Valentinovich Knorosov's linguistic research, in the late 1950s–1960s, further clarified the Maya past through his explanation of the logo-syllabic script in Mayan written texts. Knorosov was the first to systematically challenge Landa's *Relación* by arguing that, unlike Landa's corrupted Latinized Maya alphabet, which stressed Maya speech in terms of alphabetic letters (Coe 1999:148), the pre-contact Mayan glyphic system organized information around a central element, the main sign, at the center of the glyph and attached semantic determinatives, phonetic expressions, and phonetic complements around it in order to construct sentences, words, and ideas, resulting in a complete glyph block (Rogers 2008). Illustrating the complexity of the language in both its spoken and written forms, Knorosov's work helped to clarify the Mayan language, something that the Spanish chroniclers and early Mayan linguists had not done. At the same time, it shed light on the inaccuracies in previous linguistic studies, including those conducted by Knorosov's colleague (and sometimes rival) Eric Thompson.

The Knorosov-Thompson linguistic debate triggered one of the most important Maya linguistic discoveries of all time when it led to archaeologist Tatiana Proskouriakoff's discovery and translation of historical information within Maya glyphic inscriptions at Piedras Negras during the 1950s–1970s. Arguing against Thompson's

assertion that Maya writing only denoted chronological passages of time, Proskouriakoff's work convincingly illustrated that glyphs also were used to record historical and military information about Maya rulers and nobility. Analyzing Maya glyphs in Piedras Negras, Proskouriakoff determined that the subject matter of the monumental texts, stelae, and lintels were a form of history rather than solely the listing of astronomical, religious, and prophesized events, as earlier scholars had argued. As Coe states:

[T]his extraordinary woman had cut the Gordian knot of Maya epigraphy, and opened up a world of dynastic rivalry, royal marriages, taking of captives, and all the other elite doings which have held the attention of kingdoms around the world. . . . The figures on the stelae and lintels . . . were mortal men and women, not gods, or even priests . . . [Resulting from her work] the Maya had become real human beings [rather than distant images of the past] (Coe 1999:171).

The improvements in Mayan linguistics and Roys' translation of regionalized post-conquest accounts of the *Books of Chilam Balam* and various translations of the *Popol Vuh* (most notably Tedlock's version from 1985) have expanded our cultural and historical understanding of the Maya past. Adding to this growing body of Maya literary knowledge, in the past sixty years, researchers also have attempted to transcribe Maya oral narratives (passed down generationally through the Maya priestly class since the colonial era), as well as translate precolumbian carved stelae and Classic Maya glyphs in order to add to Maya's fragmented history. From this information, Coe (2005:212) suggests that precolumbian Maya mostly likely documented "histories, prophecies, songs, 'sciences,' and genealogies [in their now destroyed texts; however, this is only speculative. From what researchers can now translate, the remaining Dresden, Madrid, Paris, and Grolier Codices] are completely ritual, or ritual-astronomical, works compiled

in the Northern Area during the Post-Classic.” Coe (2005:212) asserts that looking at all of these documents, carvings, and oral traditions together, “it can readily be seen that Maya life was deeply imbued with religious feeling, and that ritual behavior gave meaning and a sense of security to all strata of Maya society.” In sum, modern research in the area of Mayan linguistics provides a more complete understanding of the Maya past and gives voice to those cultural and religious histories now destroyed.

Adding to these works, scholars such as Nancy Farriss, Michael Coe, Linda Schele, James Lockhart, Manuela Cristina García Bernal, Marta Hunt, and David Freidel have helped to popularize the Mayan culture in both the public and academic realms. In the 1970s, Hunt (1974) and García Bernal (1978) were among the first to interpret the *encomienda* system in the colonial Yucatán. In the early 1990s, Robert Patch (1993) expanded on their work to include the impacts of landownership post-1650. From the 1960s through today, Michael Coe’s popular books, *The Maya* (now in its seventh edition) and *Mexico: From the Olmecs to the Aztecs* (now in its sixth edition) are used by both researchers and the general public to understand the history and archaeology of Mesoamerican cultures. Similarly, Schele’s and Freidel’s numerous works have brought to light, for both scholarly and mainstream audiences, the complex ideas associated with Maya culture and religion.

Until recently, the majority of historical literature on Maya life came primarily from Spanish accounts compiled post-contact. The translation of Maya texts over the last half century has expanded scholarship in this area, but quality scholarship from an indigenous perspective remains limited. Recent works, most notably conducted by James Lockhart, Matthew Restall, Nancy Farriss, Inga Clendinnen, and Grant Jones, have

expanded the use of Spanish scholarship to include new perspectives in Maya historical interpretation. As Restall (1997:8) stated, “[r]ecognizing that Spanish texts treat the Maya as ‘objects,’ these scholars have attempted to reinterpret the sources emphasizing the Maya as ‘subjects.’ ” The most important work to synthesize the plight of the colonial Maya is Farriss’s *Maya Society Under Colonial Rule* (1984). Since its publication, Mayanists considered her book the foundational study for understanding the colonial Maya (ca. 1500–1850) under Spanish rule. Farriss was one of the first to provide a thorough history of Spanish conquest and colonization and their occupation of the Maya regions. Scholars like Restall, however, have argued that Farriss’s work relied too heavily on Spanish texts for her analyses of the Maya. James Lockhart’s subsequent work entitled *Three Experiences of Cultural Contact: Nahua, Maya, and Quechua* (1998:31–54) attempted to alleviate that problem through his use of Mayan texts and writings as the focal point of Spanish-Maya interactions. Matthew Restall’s text, *The Maya World: Yucatec Culture and Society, 1500–1850* (1997), further expanded Lockhart’s study and offered an interdisciplinary approach to the study of the colonial Maya. Using Maya texts translated by Roys, Lockhart, Munro Edmonson, Allen Burns, William Hanks, and by archaeologist Victoria Bricker and her student Philip Thompson, Restall’s book expanded Farriss’ interpretation of the colonial Maya to incorporate native interpretations of the same events (Restall 1997:8–10). Bridging the gap between history and anthropology, Restall’s work illustrated the usefulness of interdisciplinary approaches to the study of the Maya past. Through their studies, these scholars have been able to expose the modern world to the complexities of the Maya people. Supported by such Maya scholarship, this

dissertation provides a constructive interdisciplinary approach to the understudied site of Tihoo/Mérida.

CHAPTER 3

THE PRECOLUMBIAN SETTING

Environmental Context

The Yucatán peninsula is a 75,000 km² platform of Tertiary and Cretaceous soils and bedrock. The northern portion of the peninsula is known for its ring of sinkholes (*cenotes*), which researchers argue was caused by the 65 My *Chicxulub* impact crater that struck the area between the Tertiary and Cretaceous periods (Beach 1998). Tihoo/Mérida is located at coordinates 20°31' and 21°17' N latitude, and 90°27' and 87°40' W longitude in the Northwestern portion of the peninsula, in a region commonly referred to as the Northern Maya Lowlands. The Northwestern portion of the Maya Lowlands is comprised of five vegetative zones: Swamp/Estuary, Savanna/Mangrove, Northern Plains, Puuc Hills, and Sand (Hixson 2005; Sweetwood 2008). "From west to east, the vegetation changes from low thorn scrub near the coast, to tall deciduous forest in the tzekel, to low deciduous forest with grasses and sedges in the savanna, and then to taller deciduous forest in the karst plain" (Sweetwood 2008:1). Tihoo is found within the Northern Plains vegetative zone (Figure 3-1). This zone is surrounded by portions of the north and western Yucatecan coastlines as well as by hill, swamp, and sand environments. It is a region characterized by its "low-lying Tertiary limestone . . . [and its] solution features including, depressions, cavers, lakes, and water-filled sinkholes (*cenotes*)" (Curtis et al. 1996:37; Wilson 1984). Researchers typically refer to this zone

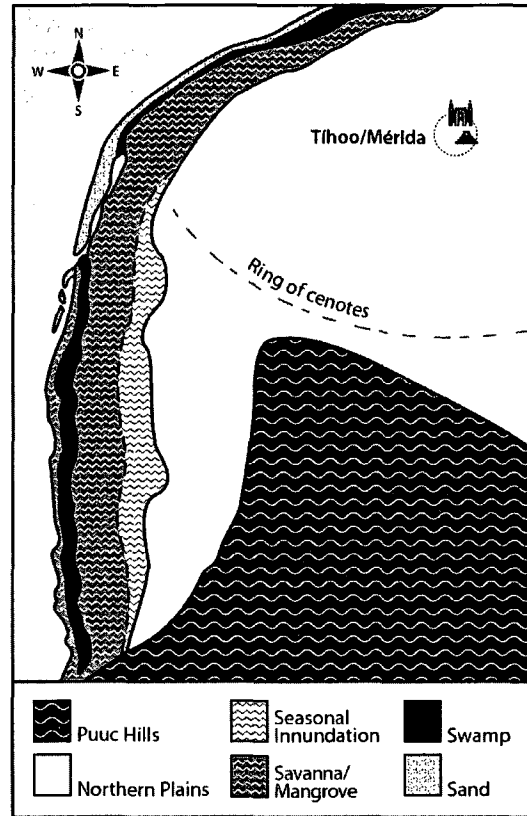
as “dry and harsh with thin soils [and/] or bedrock covering most of the flat karst terrain” (Sweetwood 2008:1). It averages less than 700–1000 mm of rainfall annually and has an evaporation rate of 600–800 mm, which results in annual water/moisture deficits in the region (Beach 1998). Seasonal rainfall occurs disproportionately throughout the year with most rainfall occurring between May through October (80–90%, respectively) (INEGI 1981). Soils tend to be shallow, making agricultural production and site sustainability difficult, one of the main reasons why archaeologists have been amazed by the denseness of Maya settlements in this region.

For the past thirty years, scientists have conducted soil and agricultural research in Northern Maya Lowlands to illustrate the connections between Maya settlement and the Yucatecan environment (Beach 1998; Brenner 1983; Brenner et al. 2002; Curtis et al. 1996; Dahlin 1983; Gundy et al. 1991; Hastenrath 1984; Leyden 1987; Leyden et al. 1996). One of the most important projects to deal with this question in the Northwestern Maya Lowlands was Bruce Dahlin’s (1996–2006) ten-year archaeological project entitled the *Pakbeh Regional Economy Program*. As a member of the final field season of this project (2006), I worked as part of Dahlin’s research team studying Northwestern Maya Lowland settlement patterns and environmental context(s) in and around Chunchucmil, Yucatán (a site locate approximately 66 km to the southwest of Tihoo/Mérida).

A major contribution of this project was its formalization of the Northwestern Maya environmental zones. Dahlin’s interest in cultural ecology made environmental studies a major component of the *Pakbeh Regional Economy Program*. Cultural sustainability studies in the areas around Chunchucmil, and specifically in the Northern Plains vegetative zone, frequently were conducted in order to determine the site and

region's population potential. Timothy Beach (1998) and researchers from the Department of Plant and Wildlife Sciences at Brigham Young University associated with this project (2005, 2006) have been particularly important for the advancement and understanding of the Northwestern Maya environment. Beach (1998) argued the Maya were able to sustain living in the Northern Plains vegetative region through their use of the region's shallow water table (currently 2-3 m below the ground surface), exploitation of surrounding environmental zones, and their use of moist silty and clay loam soils found in deep limestone pockets and *cenotes* for plant cultivation (Beach 1998). Since the site of Tihoo is buried beneath Mérida, regionalized studies like those completed by Dahlin and his research team(s) help provide insight into this once vibrant, now destroyed precolumbian site. Building on Beach's concept, Ryan Van Sweetwood's 2008 M.A. thesis, *The Maya Footprint: Soil Resources of Chunchucmil, Yucatán, Mexico* explored the relationship between Northwestern Maya vegetative zones and soil classes (i.e., *boxlu'um*, *saklu'um*, and *kancab*) in order to determine Maya site sustainability in the region. Conducted during the final season of *Pakbeh Region Survey Program* (2006), Sweetwood's thesis is one of the most up-to-date sources for environmental studies in this region. As such, I have drawn heavily from his work and Timothy Beach's (1998) research in order to contextualize the environment of Tihoo/Mérida.

Figure 3-1. Yucatán Environmental Zones.

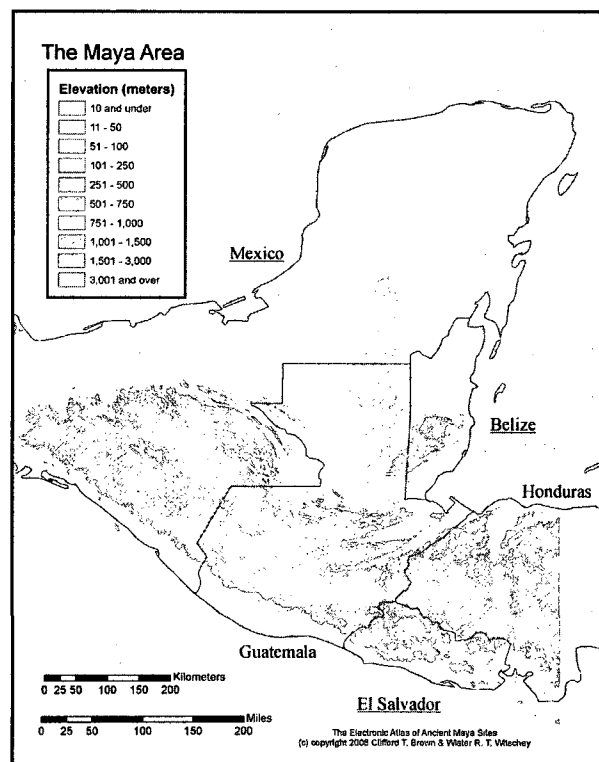


Source: Adapted from Hixson 2009.
(Courtesy of Dennise Rodríguez-Ávila.)

The location of Tihoo/Mérida in the Northern Plains vegetative zone greatly affected its settlement and sustainability. However, as Tihoo has shown, the environment did not hinder the people of this region from developing large sites and dense populations. This occurred in spite of the fact that this zone is comprised of karst porous limestone covered by a thick layer of dense, vegetative growth, and poor, shallow soils (Dahlin et al. 2005; Sweetwood 2008). Rather than moving from what appears to be an inhospitable region, the Classic Maya seemed to prefer to settle in this zone, a point that will be expanded on in the cultural chronology section. Sweetwood (2008) argued in his study that dense populations may have been able to sustain themselves in this region due

to a low frequency of soil erosion that resulted from the area's absorbent slop and clayey soils; meaning that agriculture was difficult but not impossible (see Table 3-2). As a result, the Classic Maya, much the same as their modern Maya counterparts, found ways to cope with their immediate environment and use its limited resources to their advantage. As this section suggested, it must be understood that the Maya of Tihoo were involved in a complex relationship with their environment, one that dictated settlement patterns, site sustainability, and subsistence.

Figure 3-2. Yucatán Elevation Levels.



Source: © 2001, 2002, 2005, 2008, 2009, 2010. Clifford T. Brown and Walter R. T. Witschey. The Electronic Atlas of Ancient American Sites. Updated 01/31/2010. 2008 Electronic map, http://mayagis.smv.org/maps_of_the_maya_area.htm, accessed January 10, 2010.

Geography of Northern Plains Region. Understanding the geological history of the Yucatán peninsula allows archaeologists to determine why the Maya lived in various

regions. In recent years, PEMEX (Petroleo Mexicanos), members of the Quintana Roo Speleological Survey (QRSS), and others engaged in paleolimnology have taken part in drilling operations to determine the transition of geological zones in the Northern Plains Region (Caves 2001). As part of these recent regional projects, exploratory cores (often in excess of -2000 m in depth) were excavated from various lake beds in order to determine soil types, chemical and mineral deposits, prehistoric floral and fauna, and climatic changes represented in the geological strata. Data collected from these cores has helped illustrate the various geological and climatic changes occurring in this region over time (Caves 2001; Ward and Weidie 1978; Weidie 1985). Although the geological history of the Yucatán peninsula still is incomplete and more studies are needed to fill the gaps in regionalized geological development, studies have shown that the modern Yucatecan platform has maintained its karst features since the end of the Cretaceous period, thus providing the Maya and the inhabitants of Tíhoo a suitable and dry area to settle.

Paleoenvironment and Paleovegetation. The environmental history of the Yucatán has been used by researchers to discuss the interaction of climate, humans, and the ecology. Archaeologists have used it to explain the various ways that the Maya settled and manipulated their environments (Dahlin 1983; Folan et al. 1983), while agronomic studies have used it to shed light on Maya subsistence and agricultural use in the region (Flannery 1982; Harrison and Turner 1978). However, the most important disciplinary study to provide context for the Yucatán paleo-environment has been completed by paleolimnologists (Brenner et al. 2002; Covich 1976, 1978; Cowgill et al. 1996). Specifically in the Northern Pitted Karst physiographic environment, Edward S.

Deevey's *Central Peten Historical Ecology Project* (beginning in the 1970s) is considered the most important research project to provide insight into this region's paleo-environment and paleo-vegetation. Sediment cores excavated from Lake San Jose Chulchaca in the Northwestern Corridor have added to the understanding of this area by expanding paleolimnological studies beyond the Peten and into the Northwestern Maya Lowlands (Curtis et al. 1996). Sediment core data from Lake San Jose Chulchaca has been somewhat incomplete paleo-climatically; however, researchers tend to agree that generalities can be made from the data collected in other paleo-environments to create a general environmental chronology across the entire northern peninsula (Brenner et al. 2002; Sweetwood 2008).⁸

It appears that during the late-Holocene Period that the environment in the Maya Lowlands began to take on a more modern appearance. Shortly after the Classic Maya collapse, vegetative growth continued to increase in both the Maya Lowlands and Peten regions; however, exact dates for this floral resurgence and their regional occurrences still are unknown. Brenner et al. (2002) argue that this period triggered the resurgence in aquatic vegetation and fresh water deposits. As such "these primary producers may then [have been] exploited by aquatic herbivores, which are in turn consumed by carnivores [and humans]" (Brenner et al. 2002:148). The increase in floral and fauna in the region suggests a higher probability for human occupation, which also may account for the resurgence of Maya culture during this time. Brenner et al. (2002) added that this period

⁸ It also is important to note that environmental reconstruction relies upon a myriad of data sources. In addition to the aforementioned studies, a broad range of data regarding paleoclimatic modeling is available for research through the following institutions: the *Instituto Nacional de Estadística* (INEGI), the North Central Regional Agricultural Experiment Stations, the National Environmental and Information Service (NOAA), and the National Geophysical Data Center in Boulder Colorado.

(analogous to the Classic and early Postclassic Maya cultural periods *ca.* A.D. 250–1200) appeared to be somewhat drier than the years before and after. This may have occurred as the Maya adopted new deforestation practices during their resettlement process. Research conducted by Curtis et al. (1996) supports my hypothesis. By sampling lake cores in the Northern Lowlands, Curtis and his team were able to document a significant decrease in terrestrial wood specimens from A.D. 683–1368, a time that roughly corresponds to the late Holocene Maya cultural resurgence in the region through to the occupation of Mayapán (Curtis et al. 1996:40). The decrease in wood specimens suggests that during this period, the Maya began to re-implement deforestation practices and the removal of flora and vegetation from the Yucatán landscape to build settled communities. One can assume that the results of Maya deforestation caused the Yucatán to become increasingly drier and agriculture production more difficult in the region. Ironically, as environmental conditions continued to deteriorate, Maya population continued to grow in the Northwestern Lowland region. Archaeologists note that agricultural production and its associated technology intensified in this region, which may indicate inhabitants were adapting to changes to their environmental conditions.

Figure 3-3. The Maya Area.



Source: © 2001, 2002, 2005, 2008, 2009, 2010. Clifford T. Brown and Walter R. T. Witschey. The Electronic Atlas of Ancient American Sites. Updated 01/31/2010. 2008 electronic map, http://mayagis.smv.org/maps_of_the_maya_area.htm, accessed January 21, 2010.

Cultural Context

Pre Columbian Maya Cultural and Ceramic Chronologies. In order to understand the history of Tíhoo/Mérida, it is important to provide a region framework for settlement in the Northwestern Maya Lowlands. Smith's (1971) general ceramic chronology and Coe's (2005) cultural chronology are undoubtedly the most frequently used by modern Mayanists in this region. Recent studies, however, have highlighted the flaws in Smith's chronology and have attempted to rectify them through the development of broader, more inclusive ceramic horizons (Brown 1999; Robles 1990; Robles and Andrews 2003, 2008). Additionally, Coe's current chronology (2005) does not include the recent research in the Northwestern Corridor (2000–2009) currently being produced. To address this issue, I have combined a number of pre-established and current cultural and ceramic

chronologies to complete this research project. The following cultural chronologies have been applied to this current study with this more inclusive perspective in mind: Linda Schele and David Friedel's cultural chronology presented in their text *A Forest of Kings* (1990) and Michael Coe's popularized Maya chronology (2005). I have combined these cultural chronologies with precolumbian Maya ceramic chronologies currently documented in Tihoo/Mérida. The following pre-established ceramic chronologies were applied to this study: Robert Smith's (1971) and Clifford Brown's (1999) ceramic chronology from Mayapán; Fernando C. Robles's (1990) and Anthony P. Andrews and Fernando C. Robles' (2008) ceramic chronologies from Coba and the Northwest Yucatán; and Peña Castillo et al. (2000) ceramic chronology from Tihoo/Mérida. Table 3-1 below provides a brief summary of these combined chronologies.

Table 3-1. Pre-Columbian Northern Maya Lowland Chronology.

Cultural Period	Relative Dating	Ceramic Chronology
Archaic (Incipient Farming) Period	7,000± –1000/2000± B.C.	N/A
Early Preclassic/Early Formative Period	1500/1800–900 B.C.	Early Nabanché (?) ⁹ (~1000–800/700 B.C.)
Middle Preclassic/Middle Formative Period	900–300 B.C.	Early Nabanché/Mamon Ceramic Horizon (~800/700–200 B.C. – 400/300–200 A.D.)
Late Preclassic/Late Formative Period	300 B.C. –A.D. 300	Cochuah/Tzakol Horizon Early Nabanché (A.D. ~200–550/600)
Early Classic Period	A.D. 250–600	Anicabil (A.D. ~250–550/600)
Late Classic Period	A.D. 600–900	Cehpech/Sotuta Ceramic Horizon (A.D. 550/600–1100)
Terminal Classic Period	A.D. 800/900–1000	
Early Postclassic Period	A.D. 900–1200	Hocaba/ Western Tases Ceramic Horizon (A.D. ~1100/1200–1450)
Late Postclassic Period	A.D. 1200–1542	

⁹ Andrews and Robles (2008) stated the Early Nabanche phase may not have extended into the Early Preclassic period. However, they have tentatively assigned it to this cultural period with the hope of creating a more formalized dating when they completed the “analysis of all the lots from past and future excavations in the northwest corner of the Yucatán, process their radiocarbon dates, complete a review of radiocarbon dates in the northern lowlands . . . and explain and rectify the current inconsistencies within ceramic chronologies of the area.”

The subsections below provide a brief description of each aforementioned chronology as it relates to the inhabitants of the Northwestern Yucatán and the eventual settlement and occupation at the site of Tihoo.

Archaic Period (Incipient Farming) Period (7,000± –1000/2000± B.C). In the Northern Maya Lowlands, the first traces of human occupation seem to appear along the western Yucatán coastline, circa 7000± B.C. Evidence of knives, scrapers, and projectile points suggest that these early hunter-gatherers moved following large game animals shortly after the warming and drying of the peninsula during the Holocene Period (McKillop 2004; Schele and Friedel 1990). This evidence clearly can be seen along the Belizean coastline, where archaeological excavations conducted by Richard MacNeish (1982) uncovered stone artifacts and Clovis points dating to this period. Climate change and the extinction of ice age animals ushered in a new phase of faunal history as smaller game animals moved into the region; however, at present, the exact dating of this change currently is unknown (Coe 2005; McKillop 2004; Schele and Friedel 1990). Sedimentary cores collected from the western Yucatán peninsula illustrated that maize (*Zea mays*) was being grown by Archaic inhabitants near Lake Petenxil circa 2000 B.C. (Brenner et al. 2002; Coe 2005). In the coastal plains of Chiapas and Guatemala, excavations conducted by John Clark (1991) in the province of Xoconochco (modern Soconusco) suggest that “shell middens [left by Archaic peoples] in mangrove-lined estuaries [may have] represented seasonal occupation by non-farming groups [circa 1800 B.C.]” (Coe 1999:47). It appears that these people lived a semi-nomadic lifestyle and took part in seasonal farming. That practiced seemed to intensify between 1500 and 1000 B.C. when

Archaic peoples began to develop year-round sedentary communities and regularly take part in agricultural practices. As Schele and Friedel stated:

Continuities in their tool making techniques suggest these people gradually developed village societies . . . at least in the eastern Caribbean coastlands of Belize, where there is a gradual shift toward settled village life along the shores of the rivers (Schele and Friedel 1990:421, f. 21).

By 1000 B.C., these people appear to have begun their transition from hunter-gatherers to sedentary agriculturalists. Coe (2005) noted, however, that recent research at the Late Archaic period sites in Northern Belize, suggest that these people developed seasonally farming/semi-nomadic lifestyles rather than living in villages, as Schele and Freidel suggested. Either way, this subtle transition to agriculturalism marked the beginning of the Maya Preclassic period(s) and the end of the Archaic (Incipient Farming) period.

Early Preclassic/Early Formative Period (1500/1800–900 B.C.). The first phase of the Preclassic period saw a drastic increase in densely populated villages and agricultural-based communities across the Maya Lowlands. Maize, manioc, and cassava were cultivated by early Maya farmers and aquatic and terrestrial resources were gathered regularly to support their growing populations. Along the Pacific coastal and inland regions of Chiapas, Guatemala, and western El Salvador, the Maya established complex sedentary communities made up of thatch roofed houses near river systems. In addition to the complex societal structures established during this time, these people also are credited with the development of the Mayan language.¹⁰

¹⁰ A major contribution of the southern Maya group came from their development of the Mayan language. Coe (1999) proposed that prior to 2000 B.C., there existed only one language, the Proto-Maya, which originated somewhere near modern day Guatemala. This language family divided into two subfamilies, Huastecan and Mayan Proper (also known as Yucatecan), with the Huastecan speakers

It is important to note that, at present, there is no conclusive evidence suggesting significant occupation of the Northern Maya Lowlands at this time. Recent archaeological research conducted by Andrews and Robles (2008) in the Northwestern Corridor of the Yucatán , however, suggests that ceramic-producing people may have occupied this area as part of the Early Nabaché phase (~1000-800/700–400/300 B.C.) of the Northwestern Xanilá Ceramic Complex (~1000-800/700 B.C. –250 A.D.). Andrews and Robles (2008:12) described this pottery as “thick-walled bowls with rounded and inverted rims and a waxy slip of the Joventud (red), Dzudzuquil (mottled), and Chunhinta (Ucú Black) groups.” At present, their chronology still is tentative. Until they complete the analysis of all ceramics from this project area and compare them to other ceramic complexes across the peninsula, they cannot be certain that the Early Nabaché phase began in this period or in the subsequent Middle Preclassic phase.

Coe (2005) suggests that the lack of conclusive pottery evidence in the Northern Lowlands may be the result of site reuse during the Maya Classic period. It is a well-known fact that the Classic Maya regularly covered earlier structures and sites with new constructions (for trade, demographic, political, or religious purposes). It would not be difficult to assume that this practice may have extended to the sites once occupied by Early Preclassic peoples in this region. As Coe (2005:55) explains “[t]he lowland Maya almost always built their temples over older ones, so that in the course of centuries the earliest constructions would eventually come to be deeply buried within the towering accretions of Classic period rubber and plaster.” Coe’s hypothesis still is currently

moving to the Gulf Coast and Mayan speakers moving to the Yucatán peninsula (Coe 1999; Rogers 2008). However, this scenario currently does not match the archaeological record. In spite of this fact, it can be assumed that the southern Maya of the Preclassic period were the originators of the Mayan language.

speculative and has yet to be verified by archaeological data; however, if Andrews and Robles's assertions are confirmed, Coe's claims may carry more weight.

Although the use of pottery in the Northwestern Maya Lowlands still is uncertain, along the coastal plan of Chiapas and Guatemala, the Soconusco Maya developed Barra ceramics (1800–1700 B.C.), the oldest known Maya pottery to date (Coe 2005; Hammond 1991; McKillop 2004). Coe described Barra ceramics as:

thin-walled, neckless jars (called *tecomates*) and . . . deep bowls. Vessel surfaces include monochromes, bichromes, and trichromes, and have been manipulated by the potter by grooving, incising, and modeling . . . Barra also marked the beginning of fired clay figurines [mostly female] . . . [believed to be religiously associated with fertility and crops] (Coe 2005:47; emphasis added).

Interestingly enough, Barra ceramics appear to resemble the ceramic types from the Early Nabaché phase in the northwest, which may suggest contact between these regions or a gradual migration of Barra peoples westward. Despite the speculative nature of current data, evidence recovered during the Barra phase, and the subsequent Locona (1700–1500 B.C.) and Ocós (1500–1400 B.C.) phases, illustrated the sophistication of the Early Preclassic Maya. It was during this time that the Maya of the Peten began the development of complex social, cultural, and religious systems. This period also marked a time of great regional contact. For example, Coe (2005) noted that the later Ocós peoples appeared to be influenced heavily by the Olmec civilization and its “capital” San Lorenzo. These foreign influences and peninsular contacts ultimately would be strengthened in the Middle Preclassic period.

Middle Preclassic/Middle Formative Period (900–300 B.C.). After the Ocós phase ended along the Pacific coast, the Preclassic Maya appeared to have had a break in internal cultural development. The continued expansion of the Olmec civilization along

the Gulf Coast in the Early/Middle Preclassic periods, however, specifically at the site of La Venta, introduced Maya peoples to Olmec art, architecture, pottery types, and hierarchical systems that they proceeded to adopt into Maya culture (Coe 1999; Schele and Friedel 1990). In the C opan Valley, for example, the southern Maya utilized Olmec-style burials to denote social stratification within their society. Exotic goods, jade, and other precious items were placed with elite burials in public structures while lower status individuals were buried humbly beneath house mounds to represent their differentiated status and social accomplishments (Schele and Friedel 1990). Pacific lowland Maya at the site of Kaminaljuyu also began to utilize Olmec iconography to display royal lineages, social hierarchies, and religion, which they placed on publicly erected stelae and buildings.¹¹

Coe (2005) argued that similarities between Xe phase ceramics, located in the western Peten region, and Olmec pottery also could have illustrated interactions between the Peten Maya and La Venta culture during this time. Additionally, Norman Hammond's (1977, 1982) excavations at the site of Cuello in Belize illustrated that the exchange of trade goods with Olmec influenced groups. Hammond contributed to this discussion by suggesting that similarities between artifacts in Cuello and southern Maya sites may reflect the relocation of Pacific coastal peoples to the Northern Maya Lowlands during this time. Based on the establishment of inter- and intra-communal trade, Schele and Freidel (1990) suggested that Lowland Maya peoples began to develop tribal

¹¹ Viewed as one of the best Preclassic archaeological sites in the Maya region, Kaminaljuyu has provided archaeologists with some of the best assemblages from this period. Data from excavations at this site have been divided into two cultural phases, Ar valo and Las Charcas, which specifically denoted transitions in pottery types. Specifically, Kaminaljuyu saw a change from *tecomate* pottery in the Ar valo phase to a variety of complex jars, bowls, figurines, and religious vessels in the later Las Charcas phase (Coe, 1999).

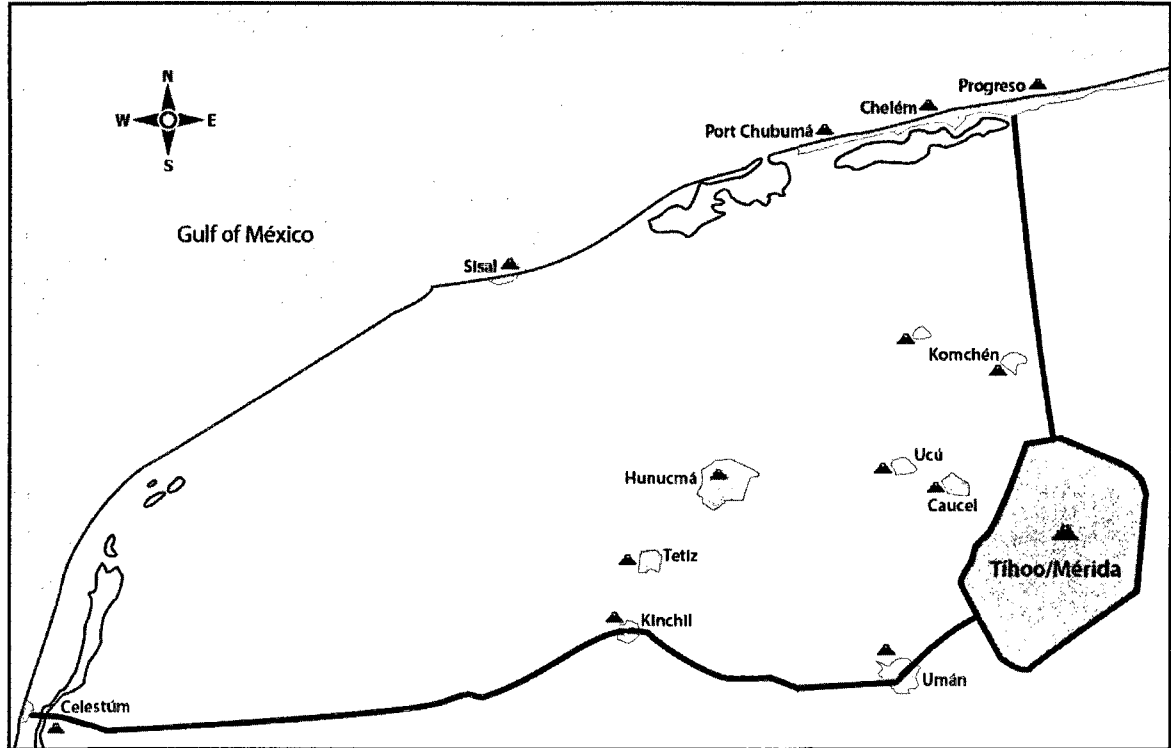
confederacies and loosely aligned chiefdoms to regulate activities and interactions with regional and foreign peoples. At the close of the Xe phase, the Peten Maya transitioned into a number of complex cultural phases. During the subsequent Swasey/Bladen phase, the Peten Maya refined their agricultural techniques and pottery production as seen through the creation and/or adoption of red and mottled orange ceramics and their expansion beyond maize cultivation to root crops “such as native yam (*Dioscorea*), cocoyam (*Xanthosoma*), and possibly manioc” (Coe 1999:54). Arguably, the close of the Swasey/Bladen phase ushered in what could be considered the beginning of Maya complex culture in the Northwestern Lowlands.

Andrews and Robles (2008) argued that pottery making peoples might have appeared in the Northwestern Maya Lowlands sometime between the Early and Middle Preclassic periods. It has been well documented that, during the Mamom/Nabanché phase (900/700–400/300 B.C.), Lowland Maya began to transition from village mound communities to complex chiefdoms. Arguably, this transition was brought about by the development of trade networks across the Northern Maya Lowlands. In the Peten region, excavations at Nakbe and Tikal illustrated both sites used and traded similar style Mamom ceramics. Stone tools manufactured in Colhá, a site located in Northern Belize, began to appear in other sites across the peninsula during this time (Foster and Mathews 2005:32). Evidence suggests that the establishment of regionalized trade networks brought pottery, religious iconography, social hierarchies, and complex architecture to the Northwestern Maya Lowlands at this time (Robles and Andrews 2004). Robles and Andrews (2003) and Andrews and Robles (2008) argued that the migrant Maya groups moving to the Northwestern Corridor during either the Early or Middle Preclassic periods

were the first to introduce advanced social and cultural organizations and the elaborate Mamom/Nabanché ceramic types to this region. The spread of the Mamom ceramic tradition from the Peten, as evidenced by the development of the Nabanché regionalized ceramic sphere in the Northwestern Yucatán, illustrated cultural connections and trading between Middle Preclassic peoples that had not existed prior to this time. Ultimately, this expansion ushered in a new phase of technology, production, and regional trade, which allowed larger sedentary sites to appear in the Northwestern Yucatán.

One of the most important studies to address Maya settlement patterns in the Northwestern Yucatán Corridor was Fernando Robles and Anthony Andrews's (2000, 2001, 2003) three-year archaeological project entitled the *Proyecto Costa Maya*. During this project, Robles and Andrews plotted known and unknown sites in a 2221 km region of the Northwestern Yucatán that covered all areas between the western port of Celestun, the inland site of Tihoo/Mérida, and the northern port of Progreso (Robles and Andrews 2004:41), as depicted in Figure 3-4.

Figure 3-4. Map of the *Proyecto Costa Maya* and the Northwestern Corridor.



Source: Adapted from Uriate 2006 in Andrews and Robles 2008:4.
(Courtesy of Dennise Rodríguez-Ávila.)

It is well known that the sites of Komchen and Dzibilchaltún were founded during this time and the Loltún Cave continued to be occupied. During this project, however, Robles and Andrews uncovered 116 previously undocumented, Middle Preclassic period sites (Anderson 2003). They noted that the majority of sites were concentrated in the area between what is today the modern city of Mérida and the pueblo of Hunucmá (Robles and Andrews 2004:43). Many of the large and middle tiered sites contained public architecture (platforms, pyramids, causeways) and 23 of these sites contained ball courts, illustrating the region's well developed social infrastructure (Andrews and Robles 2008).

A significant "spin-off" project from the greater *Proyecto* is David S. Anderson's (2009) dissertation research at the middle Preclassic site of Xtobó 1, one of the newly

discovered sites in the Northwestern Lowlands (Anderson 2004). Robles and Andrews (2004) argued that this site represented the first substantive evidence for a regional trade center in the Northwestern Yucatán during this period. Anderson supported this claim through his documentation of Nakbe-style Peten architecture in the site center Xtobó 1, which may suggest either the influence of regionalized trade and/or the potential migration of Peten peoples to the northwest during the Middle Preclassic period. Adding to the importance of Anderson's research, Christopher von Nagy's (2003) identification of Nabanché phase pottery from the Northwestern Yucatán in recent excavations at the Olmec site of La Venta provides another illustration of exchange and contact between Middle Preclassic peoples. As Schele and Friedel (1990) argued, the development of Northwestern Maya Lowland tribal confederacies during the Middle Preclassic period meant segmented tribal groups, through their regional patriarchs, could sustain large, egalitarian societies for the first time in this region. Ultimately, this type of organization helped usher in the later formalized kinships and the segmented state organizations that characterized Lowland city-states governmental systems during the Late Preclassic and Classic periods.

In addition to the important data currently being discovered in the Northwestern Corridor, recent salvage archaeology in Mérida, initiated by the *Instituto Nacional de Antropología e Historia* (INAH), has illustrated that Tíhoo most likely was founded during the Middle Preclassic period, a fact that contradicts the majority of cultural chronologies previously associated with this site (Robles and Andrews 2004). Excavations conducted by Peña Castillo et al. (2000) in the primary ceremonial center of Tíhoo (at the *atrio* in front of *La Catedral*) uncovered Middle Preclassic period

Mamom/Nabanché ceramics likened to the Uaxactun-Nolo variety found in the Peten region.¹² Other notable salvage projects across the modern city of Mérida have confirmed Tíhoo's occupation during this period (Fernández del Valle 1991, 1992; Gallareta and Callaghan 1979; González-Yturbe and Ligorred 1999; Ojeda and Suárez 1994). It is important to note that Tíhoo, although occupied in the Middle Preclassic period, did not become a significant settlement until the Late Preclassic period, when it transitioned into one of the region's dominant trade centers (Robles and Andrews 2004). There still is a great deal of research needed in this region to appreciate the full extent of Maya expansion during the Middle Preclassic period; hopefully, in the years to come, more investigations in Lowland Maya settlements will be conducted to fill this current void in archaeological knowledge.

Late Preclassic/Late Formative Period (300 B.C.–A.D. 300). The beginning of the Late Preclassic period marked the rapid establishment and spread of complex chiefdoms (*ahauob*) and kingships (*ahau*) in the Maya Lowlands. Coe (2005) identified this period as a sort of “proto-Classic” period where typical Classic Maya features such as stone masonry architecture, naturalistic paintings and relief styles, and the Long Count and calendar systems initially were adopted by the Lowland Maya. Izapan influence coming from the Veracruz Coast, most likely derived from the earlier Olmec culture, moved into the Maya Lowlands as well during this time, as evidenced by the Izapan-style human relief figures and monumental sculptures in the Loltún caves of the Northern Yucatán (Coe 2005:79). The assimilation of Izapan/Olmec culture into Maya Lowlands

¹² Robles (1990) argued that the Mamom variant found in the Northwestern Yucatán be called Nabanché; however, as Peña Castillo's et al. (2000) use of Mamom suggests, the application of this terminology has not been universal.

led the Late Preclassic Peten Maya to incorporate their own variation of the greater Mesoamerican glyphic and calendrical systems and to begin to formally document their histories, religious rituals, and regionalized tribal warfare. Regional lords erected elaborate stone monuments to themselves and carved narratives dedicated to their religious and political prowess. In the Northwestern Maya Lowlands, salvage archaeology conducted in Mérida uncovered evidence that Tíhoo became a regional site center during this period. Combining a general increase in population with the acculturation of Peten and Olmec-ized architecture in the region, the inhabitants of Tíhoo began to erect monumental architecture in the ceremonial center to reflect their newly acquired regional status (Fernández del Valle 1992; Peña Castillo et al. 2000; Robles and Andrews 2004; Sierra and Vargas 1990; Vargas and Sierra 1991). Robles and Andrews (2003) speculated that the rise of Tíhoo was the result of an increased demand for trade goods by the region's inhabitants. As Robles stated:

Así, es probable que durante el Preclásico Tardío y el Clásico Temprano, la creciente demanda de servicios y de mano de obra propició que la mayor parte de los habitantes de noroeste de Yucatán terminara radicando en los grandes centros de población como T'ho y Komchen, mientras que el resto de la región se transformó en una zona rural. [It is probable that during the Late Preclassic and Early Classic the increased demand of services and manual labor caused the majority of inhabitants of the Northwestern Yucatán to inhabit the great centers of population like Tíhoo and Komchen. As a result of this migration to regional centers,] the rest of the region was transformed into a rural zone.] (Robles and Andrews 2003:53).

With the concentration of populations into regional centers (e.g. Dzibilchaltún, Acanceh, Tíhoo, and Komchen), the Maya of the Northwestern Lowlands began to develop somewhat of a regionalized culture and religion. Coe (2005) suggested that a

widespread Chikanel culture dominated the Central and Northern Lowlands at this time.¹³ In the Northwest Maya Lowlands, excavations at the sites of Tzemé and Dzibilchaltún illustrated the growing advancements in regional architecture and social organization. Excavations at the site of Tizikul illustrated that regional trade routes were established between this coastal center, which reached 1.5 km² in size at this time, and other sites in the Northwestern Corridor, the Peten, and Veracruz. Robles and Andrews (2004) noted that the complexity of this site already was apparent as evidenced through its construction of an enclosed plaza (100 m in length), large edifices, a ball court, a circular bath structure, and agricultural farm lands presumably for communal and commercial use. It is easy to assume that the regional capitals Dzibilchaltún and Tzemé took part in coastal trading with this site during this time. This has been evidenced by the fact that Dzibilchaltún constructed monumental architecture and religious temples dedicated to acculturated/regionalized gods during this time.

Adding to the complexity of these peoples, David Freidel's ten year *Yaxuna Archaeological Project* (1986-1996) found a similarly complex settlement at Yaxuna on the periphery of the Northwestern Yucatán zone. During the course of this project, he and his team mapped residential mounds, the North and Eastern Acropolises, the War Council House, religious temples, house mounds, and others structures within the 1.75 km² area of the site. Religious connections between the mythical Hero Twins mentioned in the *Popol Vuh* at Yaxuna's K'iche' religious platform (reminiscent of San Bartolo's earlier

¹³ William Saturno's (2001) well-publicized recent discovery of the Late Preclassic San Bartolo wall paintings (dedicated to the Maize God) in the Peten region illustrated the beauty and religious sophistication held by the Maya of this time. Tentative translations currently being completed by Heather Hurst suggest religious connections between the mythical Hero Twins mentioned in the *Popol Vuh* and the Peten Maya, which illustrates that a well developed religious pantheon already was established, although previously undocumented pictorially (Coe 2005:85).

wall murals) suggest that the Maya of the Late Preclassic adhered to a uniform, although slightly regionalized, religion during this time (Coe 2005; Friedel et al. 1998). At Yaxuna, the presence of the War Council House also suggests the practice of regionalized tribal warfare in the Northern Maya Lowlands, a feature already well established in the Peten and Pacific Maya regions. It is difficult to tell exactly what this transition meant to the inhabitants of the Northern Maya Lowlands; however, it is clear that toward the end of this phase the Northwestern Lowlands Maya valued the importance of monumental artwork, social systems, religion, warfare, and political hierarchies much the same as their Peten and southern Maya counterparts.

Early Classic Period (A.D. 250–600). Coe (2005:81) defines the Classic period as “the span of time associated with the use of the Long Count in the Maya Lowlands.” However, it is important to note that the exact date for the implementation of the Long Count in the Northwestern Yucatán still is currently unknown. Archaeologists have yet to uncover intact stelae from this region; however, with the increase in recent archaeological interest that possibility is not out of the question for the near future. Despite its lack of written data, like the rest of the peninsula during the Classic period, the Northern Maya Lowlands achieved intellectual, religious, and artistic heights that it had never experienced before.

During the Early Classic period, Peten, Teotihuacan/Toltec, and Puuc style architecture spread throughout the western portion of the central Maya Lowlands and into the Northwestern territories. The Northwestern coastal site of Tzikul became a principle port for the initiation of this exchange, through its spread of commercial trade between the Northwestern Maya Lowlands and greater Mesoamerica. Robles and Andrews (2003)

suggested that Tzikul was part of a maritime enclave of coastal Yucatán/Campeche sites referred to as the *Barrio de los Comerciantes* that established contact with Teotihuacán in the Mexican region and other groups throughout the peninsula. This hypothesis has been supported by the recent discovery of Northern Maya Lowland ceramics in Teotihuacán and in other sites across the Maya Lowlands (Ceballos Gallareta et al. 2008; Rattray 1991 in Robles and Andrews 2004). As a regional center during this time, Tíhoo most likely acted as one of Tzikul's principal contacts in the interior of the Yucatán northwest. Building on relationships established in the Late Preclassic period, Robles and Andrews (2004) argued that Early Classic regional inhabitants of the Northern Maya Lowlands looked to Tíhoo for the regionalized exchange of commerce and trade. Their presumption was that as demand increased for imported goods, the population of Tíhoo rose to support the site's thriving market economy. To meet the needs of this increased population, archaeologists estimate that Tíhoo expanded to 9 km² during this period and was comprised of peoples engaged in complex trade networks, highly sophisticated political and religious systems, and well-developed social hierarchies (Fernández del Valle 1992; Ligorred 1996, 2005; Peña Castillo et al. 2000; Vargas and Sierra 1991). Following the rise of population, Robles and Andrews (2003) indicated that Tíhoo engaged in the construction of "megalithic" style monumental architecture with vaults (presumably in the Puuc style) and erected massive platforms and public buildings in its respective ceremonial center(s). Excavations conducted by Peña Castillo et al. (2000) in the primary ceremonial center of Tíhoo uncovered Early Classic period Cochuah/Tzakol/Anicabil ceramics representing ceramic varieties from areas as far as the religious centers of Zaci (Valladolid) to the east and Oxkintok to the west. The importation of wares across

expansive trade routes by the inhabitants of Tíhoo attests to the perceived importance of cultural exchange at this site during this time. It also is important to note that the *Ciudadela* platform, where Goggin's YUC 2 1957 excavation was located, most likely was the remnant of one of these massive Classic period, megalithic constructions. As mentioned in Chapter 1, Goggin stated that the *Ciudadela* platform once covered a two-square-block area and stood approximately 4.572 m (15 feet) tall (Goggin 1968:61). To date, archaeologists have yet to discover evidence suggesting that megalithic structures were erected outside of the Classic period at this site. Therefore, it is not a stretch to assume that the *Ciudadela* platform originally was constructed during Tíhoo's Early and/or Late Classic occupation(s) and used through Spanish occupation.

Late Classic Period (A.D. 600–900). During the Late Classic Period, Puuc style architecture dominated the Northwestern Maya Lowlands. This style is characterized by very precise veneer masonry with well-constructed squared blocks, corbelled vaults, decorated cornices, round columns in doorways, engaged columns, and elaborate facade designs and geometric figures above the medial moldings (e.g. stone masks, geometric, step-fret motifs, and anthropomorphic figures) (Rogers n.d.). Typically, below the medial molding, as opposed to the elaborate artistic characteristics usually found above it, veneer style masonry dominates (Pollock 1980). Sites in this tradition tend to have columns between the facades, and in some cases (e.g. Kuluba, Labna, and Sayil) above the medial molding. Pyramids typically are associated with groupings of residential structures. Representations of typical Puuc style Late Classic structures can be seen at the sites of Uxmal, Kabah, Labna, Sayil, Xlapak, Kuluba, and Chichén Itzá respectively. However, certain sites with a long history of occupation, like Tíhoo, contain both Puuc and other

architectural characteristics, like those typically associated with the Peten and Mexican (e.g. Olmec, Teotihuacan, and Toltec) styles. It is important to note, however, that the dividing line between the architectural styles is very complex, and encompasses multiple stylistic changes and architectural assimilations occurring over a long period of time throughout the region (Rogers n.d.). As such, more research is needed in the Northwestern Corridor to determine the various influences that the inhabitants of Tihoo encountered.

As current research in the area has shown, many of the Northwestern sites in the Late Classic and Terminal Classic periods contained architectural characteristics that resembled both Puuc and Peten styles. This is not to say that certain sites were not occupied predominantly by a specific architectural style; rather many of the sites contained a mixture of stylistic traits that they incorporated or acculturated from their neighboring communities and mixed with their traditional architectural styles (Bey III et al. 1997).

It was within this complex framework that Tihoo firmly established its status as one of the regional capitals of the Northwestern Yucatán. Robles and Andrews (2004) suggested that Tihoo and its surrounding subsidiaries constructed large habitation platforms and vaulted public buildings comprised of mixed architectural styles on top of previously constructed Early Classic basal structures. Researchers suggested that these structures showed little regional variability between them and were primarily copies of the dominant Puuc traditions. Other architectural traditions were represented at these sites but in less frequency (Fernández del Valle 1992; Noe Pool Cab 1997; Vargas and Sierra 1991 in Robles and Andrews 2004). As others already have noted (e.g. Wes Andrews IV,

George Bey III, Clifford T. Brown, and Eric Thompson), architectural variability in Classic period Maya architecture represented both the assimilation of regional traits as well as their stylistic and interpretive differences (Rogers n.d.). Regional and even site specific art and pottery dominated the region at this time. Attesting to this fact, excavations conducted by Peña Castillo et al. (2000) in the ceremonial center of Tihoo uncovered Early Classic period ceramics representing varieties from as far as Zaci (Valladolid) to the east and Oxkintok to the west.

The religiosity of the region and the assimilation of a universal, although sometimes regionalized, pantheon of gods during the Classic period in Tihoo also supported the organization of a highly complex society. For example, Pérez Ruiz (2004) conducted research with infant burials in the Northern Yucatán that suggested a potential regional practice of placing deceased infants into vessels during the Late/Terminal Classic periods. As part of the *Chichén Itzá Project*, Pérez Ruiz (2004) commented on the potential pattern between infant burials in Tihoo, Chichén Itzá, and the greater Northern Lowland region. As part of their study, they compared their discovery of an infant burial encased in a Late Classic Yabnal/Motul complex jar (A.D. 600–800/830) to a contemporaneous infant burial discovered within a Chubuma Brown jar (*ca.* A.D. 300–600) from the Colonia San Pablo Oriente in Tihoo (Concepcion Hernandez, personal communication in Pérez Ruiz 2004). Therefore, it can be assumed that Tihoo, as a regional center, was engaged in complex inter- and intra-cultural and religious connections within the inhabitants of greater Northern Yucatán.

As with Northwestern architecture, pottery increasingly became more a reflection of the region, site, and/or potter than of the overall Maya culture itself. One of the first

known ceramic types to have originated in Tihoo, the Oxil type, was first produced during this time. As Coe stated:

Late Classic Maya art evolves directly out of that of the early half of the period, but . . . there is very little [evidence to suggest] outside influences [overseeing its production]. Maya artists now were free to go their own way, developing a remarkably sophisticated style . . . [As a result] pottery objects of the Late Classic manufacture run the gamut from crude, mold-made figurines and the ordinary pots and pans of everyday life to real works of art (Coe 2005:142-143).

The freedom for artistic expression seems to have been internalized by the artists and potters of Tihoo. For example, 17% of the total Late Classic period ceramics collected by Peña Castillo's et al. (2000) during their excavation were identified as the Tihoo-Oxil type. What makes this fact interesting is that in this assemblage, the Oxil type is second only to the religiously significant Chubuma Brown and Kukulá Cream types, both of which are expected representations of a religiously significant ceremonial structure (see Peña Castillo et al. 2000:Table 1). Thus, it appears that the inhabitants of Tihoo, like other Late Classic Maya peoples, were interested in developing a stylistic character uniquely their own, one which they valued as much as the imported religious wares typically associated with ceremonial structures in the Northern Lowland sites.

Terminal Classic Period (A.D. 800/900–1000). During the Terminal Classic period, excavations conducted by Peña Castillo et al. (2000) illustrated that Tihoo remained the region's primary regional center. Inhabitants of this site continued to acquire and produce both Cehpech/Sotuta (A.D. 550/600–1100) and Hocaba/Western Tases (A.D. ~1100/1200–1450) ceramics as well as build Puuc style monumental architecture. Coe (2005) argued that during this time, Puuc influence from the southwestern Puuc Hills region continued to increase. Sites like Uxmal, Kabah, Labna, and Sayil established themselves as separate, yet united, capitals. As had occurred in the

previous Late Classic period, Puuc peoples appear to have continued their leniency with peripheral communities/regional centers through their hands-off approach to the region. It appears that Tíhoo was allowed to regulate its own regional domains, which ultimately enabled it to expand enormously during this time. It appears that Tíhoo experienced a major cultural boom, as it saw its influence span across the entirety of the Northwestern Corridor and through other parts of the peninsula. This point has been supported by excavations conducted by Coggins and Shane (1984) in Chichén Itzá where researchers discovered Terminal Classic Tíhoo-originated Slatewares in ceremonial offerings at the *Cenote de los Sacrificio*.

At some unknown point during the Classic period (potential during the Late/Terminal Classic transition), it appears that the Tíhoo gained the political title of “the seated *katun*” (Edmonson 2008 [1986]). Controlling the *katun* (which represented both the 20-year calendar cycle and the rise and fall of kinships) in Tíhoo during this time illustrated that, although other regional centers may have been gaining power, the people of the region viewed Tíhoo as its dominant religious and political center. Albert Ruz’s discovery of Tíhoo related iconography at the Terminal Classic site of Uxmal (the *katun* seat for the Xiu family) further substantiates this point. Ruz noted what appeared to be the remnants of a ceremonial quadrangle group including an altar, jaguar, and column representing the World Tree (*Wakah-Kan*), which he suggested depicted Tíhoo as its axis. The World Tree, as described by Schele and Friedel, is considered the center of the Maya cosmos.

The four cardinal directions provided the fundamental grid for the Maya community and for the surface of the world . . . Each direction of the compass had a special tree, a bird, a color, gods associated with its domain, and rituals associated with those gods . . . The four cardinal directions were also seen in relationship to the center, which also had its color (blue-green), its gods, its bird, and its tree [*Wakah-Kan/Waklom-Chann*]. Running through this center, the Maya envisioned an axis called *Wacah Chan* (“six sky” or “raised up sky”). The tree, which symbolized this axis, coexisted in all three vertical domains. Its trunk went through the Middleworld; its roots plunged to the nadir in the watery Underworld region of the Otherworld, and its branches soared to the zenith in the highest layer of the heavenly region of the Otherworld (Schele and Friedel 1990:66-67; emphasis in the original).

The World Tree “called the *Wakah-Kan* by the Maya of the southern lowlands [was described in] a sixteenth century Yucatecan dictionary [as] the *Waklom-Chann* [translated as] idols from Ichkansiho [Tihoo]” (Ruiz quoted in Schele and Friedel 1990:285). Thus, assigning the World Tree to the site of Tihoo during the Classic period illustrated not only the general importance of the site but its overall importance in the Maya cosmos.

Towards the end of the Late/Terminal Classic periods, the site of Dzibilchaltún possibly replaced Tihoo as the dominant Northwestern regional center (Maldonado et al. 2002 in Robles and Andrews 2004). Excavations conducted by Peña Castillo et al. (2000) in the primary ceremonial center of Tihoo, however, determined that this transition was gradual, as inhabitants of this site continued to acquire and produce both Cehpech/Sotuta (A.D. 550/600–1100) and Hocaba/Western Tases (A.D.~1100/1200–1450) ceramics as well as build monumental architecture until the end of the Terminal Classic period. A greater testament to Tihoo’s religious significance and continued power was located at the site of Dzibilchaltún by Maldonado et al. (2002 in Robles and Andrews 2004). During their excavations they discovered that the Dzibilchaltún ruler Ch’iy Chan T’ho’ used ancestral claims to Tihoo and its royal lineage to validate his newly acquired control

of the region (Robles and Andrews 2004). Although Tíhoo remained a dominant force in the area, towards the end of the Terminal Classic period, Puuc influence appears to have decreased as invading Toltecs from Mexico began to take control of the region. It appears that these invaders re-concentrated administrative control from regional centers like Dzibilchaltún and Tíhoo and re-established it under a united capital at Chichén Itzá, *ca.* A.D. 987. It is important to note that all sites initially were not taken under the Chichén 's control; recent research show that Ek Balaam (A.D. 770–896), a site approximately 53 km to the northeast of Chichén Itzá, maintained an independent large acropolis at this time with its own sovereign rulership (Coe 2005:172–173). Their independent rule was cut short, however, by the invading Toltec armies from Chichén, circa A.D. 896.

Early Postclassic (A.D. 900–1200) and Late Postclassic Periods (A.D. 1200–1542). By A.D. 987, Chichén Itzá became the most dominant power in the Northern Maya Lowlands. During the Early Postclassic Period, Tíhoo appears to have been succeeded by the regional center Dzibilchaltún and, as a result, the site appears to have been partially abandoned. It still managed, however, to maintain its *katun* seat in the Maya cosmological tradition. Tíhoo was considered the principle regional center in both the Late/Terminal Classic periods; meaning that in order to claim rightful possession of power in the region during the Postclassic period, Dzibilchaltún, following the Mesoamerican tradition of succession, needed to illustrate their ancestral and political connections to the rulers of Tíhoo. As Robles and Andrews (2003) stated:

[Como resultado] durante el Clásico Tardío/Terminal Dzibilchaltún substituyera a T'hó como sede rectora de su comarca, cuyo nombre ancestral, o el de sus sedes políticas, parece haber sido *Ch'iy Chan Ti'ho'* (Maldonado et al. 2002). [As a result, during the Late/Terminal Classic period Dzibilchaltún substituted Tíhoo, as the regional capital, whose ancestral name and political seat seems to have been *Ch'iy Chan Ti'ho'*] (Robles and Andrews 2003:110).

As this quote illustrates, Dzibilchaltún recognized Tíhoo's power as the regional *katun* and claimed rulership to the region through its formal connection to the site's pre-existing political and cosmological importance. With the establishment of Dzibilchaltún as the new regional capital during the Postclassic periods, the site expanded its construction of monumental architecture, which included the construction of the astronomical/cosmological buildings associated with the "Group E" (Anderson 2003). It appears that with the fall of Tíhoo, regional power in the Northwestern Corridor was divided between the sites of Dzibilchaltún and Tzemé; however, as Chichén's power grew, both regional capitals became subsidiaries of the new Itza imperial capital.

Andrews and Robles (2008) noted that as Chichén's power rose, the Cehpech/Sotuta Horizons began to appear in more frequency at the smaller occupied Tíhoo and other Northwestern sites. This was validated by the appearance of Slate Muna and Chichén Slate Wares both in the analysis of Early Postclassic ceramics from the *Ciudadela* YUC 2 collection and in Peña Castillo's (2000) analysis of ceramics from the ceremonial center of Tíhoo. However, the low frequency of Chichén style wares recovered from both collections suggests that Tíhoo was inhabited by a very small population and was not a major religious or political player in the Maya Lowlands during this time. It appears that as Chichén Itzá grew and became dominant, power once afforded to peripheral regional centers by the Puuc peoples (e.g. Dzibilchaltún and Tíhoo) were reduced and reorganized around a universal Toltec-Itza worldview of politics, religion, and life. The Chichén worldview dominated the peninsula until A.D. 1224 when the Toltec power began to wane and new invaders, the Itza, fought for the control of the Northern Lowlands. It is important to note that Toltec and Itza influences in the

Northwestern Corridor are considered topics of debate. Current research by Andrews and Robles speculated that the Itza appeared to have been a migrating group of westerners from “the lower reaches of the Usumacinta and Grijalva river systems” while Coe suggests that they most likely migrated from “Champoton on the coast of Campeche” (Andrews and Robles quoted in Coe 2005:192); however, traditional perspectives believe the Itza emerged from the mixture of Toltec and Northern Maya peoples at the site of Chichén. Whatever the case may be, the Itza settled in Chichén and occupied the site until its destruction in A.D. 1244 (Coe 2005:193). After the fall of Chichén Itzá, a band of Itza relocated to the walled city of Mayapán.

The site of Mayapán originally was founded by the Itza in A.D. 1263 under the rulership of Kukulcan II (Coe 2005; Schele and Friedel 1990:361–362). As Coe (2005:193) stated, “the wily K’uk’ulkan II populated his city with provincial rulers and their families, thus ensuring a dominion over much of the peninsula.” After Kukulcan II’s death in A.D. 1283, however, power struggles arose for possession of the city, led by the revolting Itza lineage of the Cocom and their allies, the Mexican mercenaries from Tabasco, the Kanul. Warring in the region terminated when the Cocom claimed control of Mayapán and ascended to power in approximately A.D. 1283. It was during this time that Mayapán officially became the capital of the Yucatán. Over the next 250 years, the Cocom lineage regularly conquered and held hostage rulers who opposed their dominance, which resulted in intense animosity in the region and within the capital city itself. As emotions intensified, various groups began to argue over who rightfully controlled the city and the Yucatán peninsula, the invading Itzás or the ancestral Mayas. Believing power belonged to the region’s original occupants, Maya nobles in Mayapán,

with the help of Mexican migrants from the Puuc Hills region, the Xiu, organized a revolt to oust the Cocom from power. The revolt ultimately reached its boiling point when, in A.D. 1441, Ah Xupan, leader of the Xiu family, successfully defeated the ruling Cocom. At the end of this battle at Mayapán, many of the Cocom leaders were put to death, and the city of Mayapán was sacked, burned, and ultimately abandoned by both the Xiu and Cocom. The conclusion of this battle resulted in a warring states period, where communities of the Northern Lowlands fought with each other for regional power and wealth. During this time, it appears that the Cocom relocated to the province of Sotuta and the Xiu to the Northwestern Corridor and the site of Tihoo around A.D. 1450. Andrews and Robles (2008) noted that, at this time, regional ceramic varieties in the Northwestern Corridor began to mimic Mayapán traditions, as clearly reflected in Tihoo's utilization of Mayapan Red Ware and Mayapan Unslipped Ware, both of which were found in abundance in the *Ciudadela* YUC 2 collection. These regional variants began to mix with already present ceramic spheres, which form what Andrews and Robles refer to as the Western Tases Horizon (comprised of wares traditionally documented in Tases/Hocaba Horzions).

As contact increased between groups of the Northwestern Corridor and the greater Yucatán peninsula, ceramic use and production became more regionalized. Although many used the greater *campechano-tabasqueño* ceramic tradition as their model, communities of the Late/Terminal Classic periods implemented ceramic traditions reflecting their own, unique cultural development (Ball 1977; Peña Castillo et al. 2000). Contact established between the *puertos-islotas* (island ports) of El Cerrito, located in Progreso's sea inlet, and Xlabarco, located to the north of Celestun's inlet, encouraged

the people of the Northwestern Corridor to develop trade and close connections with the *campechano* sites and mimic their political organization. In approximately A.D. 700, the regional center of Xcambó 1 was abandoned and the political make-up of the Northwestern Corridor changed. As such, for approximately 200 years, island and coastal ports (e.g. El Cerrito, Xlabarco, and Cerros de Caracoles) lost importance in the region and trade with outside coastal *campechano* communities decreased; however, as trade along the coast decreased, new contacts were established with regional inland centers, like Chichén Itzá and Sotuta, which began to modify the ceramic traditions of the Northwestern Corridor. Around A.D. ~900/1100, the establishment of new coastal ports like Progreso and Xcopté (located 5 km to the west of Chuburná) and the re-establishment of Xlabarco marked the return of the *campechano-tabasqueño* ceramic tradition in the region. In sum, these points suggest that before the fall of Chichén Itzá, the communities of the Northwestern Corridor were involved in a very complex long-distance trade network that spanned from Chichén to the Mexican Gulf. Towards the end of the Classic period (A.D. 1100–1542), however, the majority of the Northwestern Corridor appeared to have been depopulated and/or abandoned. Based on Andrews and Robles's (2003) research, they hypothesized that the loss of regional power and trade triggered by the rise of the Itza caused communities of the Northwestern Corridor to relocate to larger settlements, possibly to other areas outside of the region. The larger regional sites like Tíhoo and Tzemé, however, appear to have remained occupied, as evidenced by the discovering of Mama Red Type and Yácmána Striated Type dating to strata of this period. In addition, this situation appeared to have been further aggravated by adverse weather conditions between the tenth and twelfth centuries. A series of intense

droughts hit the Northern Maya Lowlands, which also depopulated the area. This phenomenon was followed by an unanticipated rise in sea level that covered part of the Northwestern Corridor, which Robles and Andrews approximate to be more than 1 m above the previous levels in the region. The rise in seawater may have resulted in the contamination of freshwater aquifers, which could have inhibited continual occupation along the Northwestern coast during this time. In sum, Andrews & Robles argued that between the tenth and sixteenth centuries, the Northwestern Corridor remained predominately depopulated with the exception of a few occupied sites (e.g. Kinchil, Tetíz, Hunucmá, Ucu, Caucel, and Oxcúm). These small communities depended heavily on resources acquired through contacts with settlements in the interior peninsula. In addition to these small inland communities, historical records indicate that fishing villages and salt quarries appeared along the coast during the Postclassic (e.g. at the ports of Churbuná and Sisal) (Robles and Andrews 2003:110).

The Northern Western Maya Lowlands and the site of Tíhoo experienced considerable changes prior to Spanish contact. The results of religious syncretisms, the establishment of social hierarchies, the development of complex rival chiefdoms, and the ultimately results of warring between city-states led to the development of complex socio-cultural and socio-religious systems in the Northern Maya Lowlands. Conflicts originating between these groups, particularly those of the Late Postclassic period (i.e. the Xiu and Cocom), ultimately would contribute and eventually lead to Spain's successful conquest of the region.

Material Culture and the Maya Cosmos

The Maya lived in a world that derived meaning from centuries of cultural exchange, the adopted and combination of various religion and political beliefs, and their constantly changing interaction with the environment. Dating back to at least the Lowlands expansion period in the Maya Late Preclassic period, Mesoamerican spirituality became an integral part of the Maya way of life. Like all Mesoamerican peoples, the Maya were deeply spiritual. They viewed their spirituality as the basis for all actions, including the development of social and political hierarchies.

The structure of the Mayan religious cosmos was based on a general belief in sacred forces, prophecies, cycles of creation and destruction, and their interaction with the environment. The Maya believed that the world was constructed around the physical and spiritual characteristics of the environment. Plants, animals, humans (both men and women), and gods all coexisted within this multi-tiered cosmos. As such, humans were expected to interact with spiritual and physical objects in order to maintain the natural balance between life, the spirit world, and nature. The gods bequeathed the world to natives, providing they maintain the balance of nature (i.e. caring for, protecting, and keeping the world sacred). As such, the Maya interacted with the world (both spiritually and physically) in order to ensure its longevity and please the gods. The Maya believed that the cosmological balance of the world resided in people's ability to protect and worship the earth as well as the gods who watched over it. As stated in the *Popol Vuh*, the Ki'che' Maya's book of religion and prophecy:

[H]uman beings, [their actions on earth] will be followed by dawning [in the afterlife]... [Humans should be] beings who will walk, work, and talk in an articulate and measured way, visiting shrines, giving offerings, and call upon their

makers by name [e.g. The Maker, the Heart of the Earth, the Sovereign Feathered Serpent, and The Raw Thunderbolt] (Tedlock 1985:34; emphasis added).

In essence, the Maya believed that the world was a sacred place given to them by their gods and it was to be guarded and cared for. As the *Popol Vuh* suggests, the basis of life was to please the gods and the environment that the gods created for them. To show their obedience, the Maya were instructed to build religious structures (e.g. shrines, temples, platforms, mounds), carve and write religious based mythologies and texts, and give ritualistic offerings as a testament to their continued submission to gods. In many cases, religious offerings to the gods and to the human intercessors who communicated with them (e.g. rulers and shamans) were in the form of material artifacts, specifically pottery. In the Northwestern Lowlands, Smith (1971) noted that ceremonial pottery forms were extensions of common utilitarian type wares already used in everyday life, such as unslipped, red, black, cream, and buff colored bowls, jars, and vases. In the Late Classic period, religious offerings seem to have expanded to include fine orange wares and plumbate. It is important to note that Smith (1971) argued that although the later pieces were found as components of ceremonial offerings, fine orange wares and plumbate may have been used more to reflect political and social status of the elite than religious piety. It is possible that elites in Lowland society viewed these items as luxury goods and, as a function of status rather than for their religious importance, used them to symbolize the important and symbolic occasions, including religious-based ceremonies.

Generally speaking, ritualistic pottery ranged greatly in style and decoration. At the site of Mayapán, from which the largest percentage of religious pottery represented in the *Ciudadela* YUC 2 collection appears to have derived, religious vessels were comprised of what Smith (1971:104) classifies as “censers including effigy, ladle, tripod

jars, and pedestal-base jars; cups which may be tripod, pedestal-base, and rarely flat-base; effigy vessels; figurines; pedestal-base vases; drums and masks.” During the Late Classic to Late Postclassic Periods, many of these religious vessels types were classified as Mayapan Unslipped Ware and Mayapan Red Ware. Interestingly enough, in the *Ciudadela* YUC 2 collection, both of these wares represented the largest concentration of pre-Columbian wares represented in the entirety of the collection, with a significant portion directly classified as religiously and ceremonially associated types (e.g. Chen Mul Modeled and Thul Appliqué). Thus, it is my opinion that the large distribution and percentage of these wares at the *Ciudadela* structure indicates that this site had, at least during the pre-Contact period, a tremendous amount of religious and ceremonial significance to the Maya. The destruction of the platform in modern times makes it somewhat difficult to determine if this site once contained shrines, colonnades, or temples on its large basal structure. However, the erection of both the *Convento de San Francisco* and the *Ciudadela de San Benito* by the Franciscans on this platform circa 1550 suggests that the Spanish recognized the religious significance of this structure and felt it the best place to direct their Christianization process of the Maya in Tíhoo.

The Basics of Maya Cosmology. In order to understand the everyday occurrences in the world, the Maya dedicated a large amount of time to deciphering the apparently unexplainable environmental factors around them. The Maya attempted to justify and explain these occurrences through the creation of complex stories, religious beliefs, and rituals. In essence, natives ascribed complex explanations for the environment conditions in order to justify the changing conditions around them. In order to ensure that environmental changes, presumably dictated by their gods, were not caused by the

occupation of man, the Maya created numerous documents, paintings, reliefs, and ceramic objects to illustrate their spiritual connections and protection of the environment around them. Forged out of this mentality, the Maya believed that for life to properly function, a spiritual and physical balance between the environment and humans, as represented through their material culture and pottery, was essential for the continuation of their world. This balance, known as cosmic dualism,¹⁴ focused on a hierarchical view of life, which reflected the balance and reciprocal nature of the world and the creatures who occupied it. In order to show the gods their respect, both spiritual and natural worlds had to interact in mutually reciprocating ways. For example, the *Popol Vuh* explains the creation of the earth in terms of both spiritual and natural (human) traits, a process they deemed as overseen and initiated by the gods:

[The] world [originally had] nothing but an empty sky above and a calm sea below. [The gods of the sky and of the earth] . . . engaged in a dialogue, and in the course of it, they conceive the emergence of the earth from the water and the growth of plants and people on its surface (Tedlock 1985:31).

In essence, the creation of the world was a direct result of a “divine conception.” The manifestation of a female process into the foundations of Mayan religion illustrates the importance of humans in both the spiritual and natural order of their world. Noting that women created new life by giving birth in the natural world, the Maya deduced that the creation or “birth” of the world must have come from the birthing process of a pre-existing potentially female entity or being. As a result, they viewed the creation of the world through birth as a process initiated by the gods. The emergence of humans is presented as a “birthing” process as well as a religious function; that is, they emerged

¹⁴ The term cosmic dualism is defined here as the reciprocating nature between the spiritual and natural worlds. Humans, as the major participant in the process, are required to interact with the environment in a constructive way, ensuring the longevity of the culture in the area.

from inside the earth and were expected to conduct religious ceremonies in honor of the gods who had created them. As such, archaeologists in the Northern Maya Lowlands have found numerous large caches of artifacts in cenotes (considered to be natural examples of the spiritual birthing process) across the peninsula, including offerings left at cenotes around the site of Tihoo. Ceremonial vessels, jade and other jewels, imported gold, burials, and a variety of other items spanning the time of Maya occupation have been discovered by archaeologists at cenotes, attesting to the significance and longevity of this religious belief.

In addition, the Maya used religious ceremonies and religious structures to represent the interaction between humans and the cosmos. Represented on carvings in quadrangle groups, depicted on wall paintings, and etched into pottery, these ceremonies were used to illustrate the connection between life (e.g. birth, death, and the afterlife) and the actions of the gods and nature. As mentioned earlier, the Maya believed that in order to maintain the necessary balance between man, nature, and the cosmos, people were expected to practice religious rites and ceremonies that reflected the necessity of physical and spiritual reciprocity. One such example comes from the Mayan ceremony of birth:

When the infant was born it was purified in a nearby river; bird sacrifices were offered to thank the gods who sent the infant to earth; and a meal was prepared [and] the umbilical cord was cut over a corn cob that was later planted [in the fields] (Garza in Sullivan 2002:163).

Maya ceremonies reflected that all aspects of life, including the birth of a child, were impacted by the gods and nature. Therefore, it was a person's duty to respect and encourage the continued balance between the natural and spiritual worlds in order to ensure communal happiness. The Maya, consequently, believed that the importance of cosmological balances in life and nature was essential for society to function properly. As

such, they believed that it was the responsibility of an individual or community to recognize the interconnections of life, humans, and the gods through ritualistic performance and ceremonial worship.

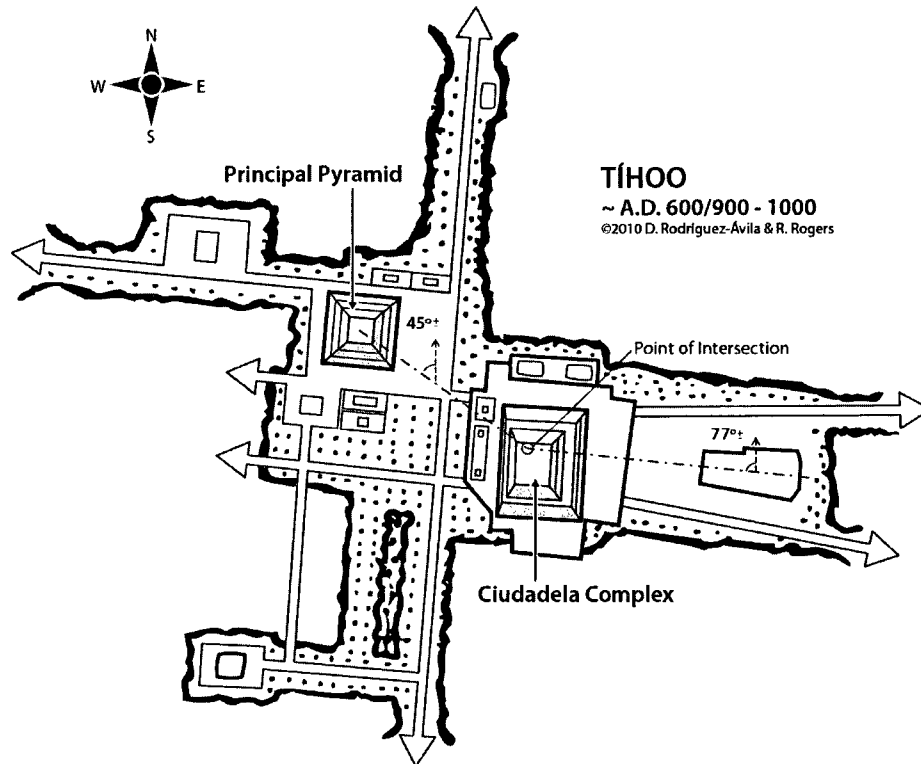
As the *Popol Vuh* explains, the Maya believed the universe was divided into four quarters, each quarter representing the four cardinal directions of the world. Each corner of the world was represented by a god who oversaw all physical and environmental actions on earth. Schele and Friedel stated:

The four cardinal directions provided the fundamental grid for the Maya community . . . the principal axis of the Middleworld [Earth] was the path of the sun as it moved from east to west on its daily journey. Each direction has a [tree, bird, color, and god associated with it.] East was red and the most important direction since it was where the sun was born. North, sometimes called the “side of heaven,” was white and the direction of from which the cooling rains of winter came. It was also the direction of the north star around which the sky pivots. West, the leaving or drying place of the sun, was black. South was yellow and was considered to be the right-hand or great side of the sun (Schele and Friedel 1990:66).

In addition, the quadruple Bakabs oversaw the cyclical span of time, another important aspect of their culture. Little is known about the religious significance of Bakabs (mainly due to the destruction of most of the Mayan codices in the colonial era) or their specific genders. In spite of that fact, the association of each direction with a spiritual deity and time illustrated the need for social balances in all aspects of Mayan life and religion. Adding to the balanced nature of Mayan life, the *Popol Vuh* illustrated the relationship between four reciprocating concepts of the moon, sun, celestial bodies (i.e. Venus), and rain (Coe 2005:204). Each one of these factors represented a gendered god (e.g. both Venus and the moon were female gods and the sun and the rain were male gods). As such, the Maya believed that the balance between men and women was a religious phenomenon, one that must be followed in all aspects of life.

The representation of religion clearly can be seen in Northern Lowland Maya architecture. For example, in Mayapan the Temple of Kukulcan has stairways oriented in the four cardinal directions. The stairways appear to be part of an informal roadway leading into and out of the religious center of the city. In Tíhoo, it appears that the *Ciudadela* structure was constructed with the cardinal directions in mind. Lindsay's (1999) architectural research at the site of Tíhoo has created some of the most complete renditions of precolumbian site layout to date. Combined with drawings originally made by Diego de Landa in the 1550s–1560s with his own historical research, Figure 3-5 shows what potentially could be the orientation of the site and its religious significance.

Figure 3-5. Tihoo Ceremonial Center, ~A.D. 600/900–1000.



Source: Lindsay 1999: 67, Figure 3.8; Tommari HN 2008.
(Artistic rendition by Dennise Rodríguez-Ávila and Rhianna C. Rogers 2010.)

As can be seen from this image, both the principle pyramid and *Ciudadela* structure align at what appears to be a perfect 45° angle.¹⁵ Both buildings appear to be oriented in a northeastwardly direction, suggesting a Maya cosmological connection to cardinal East and North. As previously mentioned, the East (*Chac-Xib Chac*) was important to the Maya since it was the birth place of the sun, and the North (*Zac-Xib-Chac*) was important as well for its connection to rain and the North Star (Schele and Friedel 1990:66–67). Based on the construction of other sites, one can assume that these structures once aligned with other principle edifices to create a uniform ceremonial

¹⁵ Please note, it is difficult to determine the exact location of these structures since all have been destroyed by the Spanish, ca. 1542–present. More knowledge definitely is needed about this site and its principle structures to expand on these current assumptions.

center. This fact is reaffirmed historically by the site's original place name, *Ichcaansihó*, which Demetrio Sodi M. and Adela Fernández (1983:112) translated as "Face of the Birth of the Heavens" referring to its *katun* seat in Maya cosmology and its role in the cosmological birthing of the world (see Chapter 2). In contemporary Maya society, the importance of this site also has been confirmed by Juan de Villagutierre Soto-Mayor's research (1983: 22), which indicated that, well into the twentieth century, the Yucatec Mayan language referred to this site as *Noh Cah Ti'hoo*, translated as the "great city of Tíhoo," illustrating its continued importance and power.

Overall, the Maya aspired to create a religious oriented complex society that they could use to establish regional and peninsular power. As this chapter illustrated, the complexities of Maya settlement, exchange, and culture still are being discovered by scientists. However, current research does attest to their preoccupation with religion and expansion, much the same as the Spanish conquistadors who are discussed in detail in the next chapter.

CHAPTER 4

THE COLONIAL AND POST-COLONIAL SETTINGS

Environmental Context

Tíhoo, the site where the Spanish founded Mérida in 1542, is situated in the Northwestern Lowlands of the Yucatán peninsula. The presence of dense precolumbian cities and villages; the construction of fortifications, agricultural fields, and trade routes; and use of invasive irrigation and deforestation practices suffice as evidence that people already had significantly altered this Northwestern Corridor before Spanish contact.

Thus, many of the ecological challenges faced by the precolumbian Maya were to be again encountered (sometimes more intensely) by their colonial counterparts.

Nonetheless, the Spanish conquest of the region caused additional modifications to the already altered environment. The introduction of Old World plants, domesticated animals, new clearing and deforestation techniques, agricultural machinery (e.g. the plow), and European irrigation and pastoral practices significantly changed land use and settlement patterns (Burkholder and Johnson 2008:87-88; Farriss 1987:118–119).

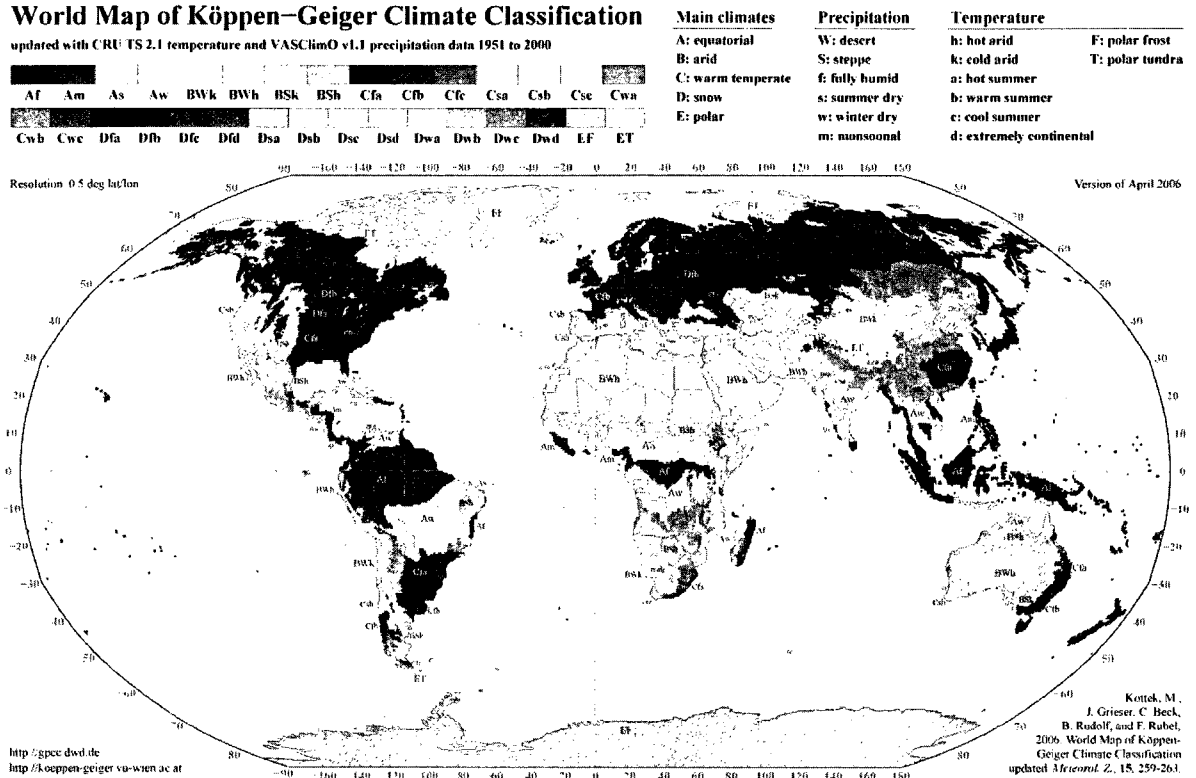
Tíhoo/Mérida (hereafter referred to as Mérida) was one of the largest colonial cities in the Viceroyalty of New Spain and was to become, by far, the largest city in the Yucatán. At the time of Spanish colonization, the peninsula was experiencing some of its driest climates ever. Three thousand years of climatic change had affected the new settlements of the Yucatán in various ways. First, melted ice sheets exposed the karst

bedrock of Yucatán, inhibiting the successful construction of Hispanized towns and cities across the peninsula. Second, the Northern Lowland's porous limestone led to the formation of underground river systems and *cenotes*. This dramatically increased water resources for humans and animals (both wild and domestic) and encouraged settlement around localized water sources. Third, the wetter, warmer climate and the higher water table diversified native plants (Brenner et al. 2002). In Mérida, the localized patches of scrub vegetation to some extent are remnants of this ecological change. The availability of land and the relatively low population in the region (due to disease, famine, and drought) minimized these ecological changes during the initial years of Spanish contact (see Tables 4-1 and 4-2 for demographics); however, as the population increased, ecological pressures escalated, making Spanish settlement increasingly difficult.

Areas in the world of comparable latitude and longitude have arid climates; however, the Yucatán's climate differs slightly because of its maritime environment and its proximity to the Florida current. Both phenomena provide the area with cooling winds and humidity generally not seen in similarly arid regions across the world. Using the Köppen-Geiger Climate Chart (1960) recently updated by M. Kottek et al. (2006), climatologists place the Northwestern Yucatán peninsula within the (Aw) climate (see Figure 4-1).¹⁶

¹⁶ These updates were based on recent data sets from the Climate Research Unit (CRU) at the University of East Anglia and the Global Precipitation Climatology Centre (GPCC) at the German Weather Service.

Figure 4-1. Köppen-Geiger Climate Chart 2006.



Source: Beck et al. 2006 [2005]:139–149.

Yucatán’s climatic zone is characterized by its equatorial sub-humid temperatures, low rainfall, and desert-like conditions. These characteristics presumably occur due to the effects of cooling sea breezes, warming winds, intermittent rainfall, and humidity interacting with the flora and fauna of the region. Although these factors made Spanish settlement difficult, the uniqueness of the environment helped sustain the historical communities occupying the region.

As it had been in precolumbian times, historic Mérida was characterized as a harsh, dry, sub-humid climate. Based on modern averages,¹⁷ the annual temperature of Mérida is approximately 28° C (73.4° F); however, temperatures may rise to 40° C (104°

¹⁷ Although global warming is starting to change temperatures in Mérida, scholars still consider modern averages as good indicators of its past colonial climate.

F) between January and May. Humidity is high in the city, averaging 72 percent annually. Mérida experiences infrequent rains between January and April and abundant rainfall between June and September. Storms in this region are infrequent but seem to decrease between August and October. Air from the north cools the city between September and January, which may account for its dry winters (INEGI 1981). Due to both its low rainfall and water percentages, the city collected the majority of its “freshwater [from within a karst aquifer located in] a thin (<50 m thick) sole-source” (Escolero et al. 2000:53). Despite these environmental shortcomings, the inhabitants of Mérida were able to exploit their surroundings successfully and use this region for settlement and sustainability even when the harshness of this region left “most of the [Northern Hills] vegetated with grasses and [unused] secondary growth” (Sweetwood 2008:2).

Modern Soil Types. Soils in the Northern Hills region are characterized by their poor quality and shallowness (Beach 1998; Dahlin et al. 2005; Weisbach et al. 2002 in Sweetwood 2008).

Approximately 55 to 80% of the area has thin to no soil and between 25 and 50% lacks any soil at all (Dahlin et al. 2005). With slopes of less than 1%, this area has the thinnest soils [in the region] and is the most planar are of all of the Maya Lowlands (Beach 1998; Dahlin 2003). . . . [This] is due to the porous nature of the karst topography (Kellman and Tackaberry 1997) and slow soil development. Curtis et al. (1996) and Beach (1998) concluded that the present fertility and depth of soils would not have been much different than during the [Classic] Maya occupation because no period of increased soil erosion previously existed, due to the areas shallow slop and clayey soils (Sweetwood 2008:12).

Brainerd (1958) added that, in addition to these soil constraints, soils contain an added thin coating of burnt materials, which resulted from Maya and Spanish site clearing and slash and burn agricultural techniques. By the time of the establishment of Mérida in 1542, the Maya inhabitants had developed a very complex ecological system,

one that valued its environmental surroundings and utilized all of its exploitable resources.

Cultural Context: A Historical Perspective

Legacies of the Spanish Reconquista. In addition to the ecological factors affecting this site, Mérida was influenced heavily by the cultural and religious mentalities the Spanish conquistadores brought to the New World. Since A.D. 711, the Iberian Peninsula had been involved in centuries of warfare stemming from territorial disputes between Muslims and Christians. These conflicts intensified when, in the eleventh century, Pope Urban II called on European Christians to take up arms against the Muslims in the Holy Land. Iberian rulers, also embattled with new waves of Muslims invading from North Africa, embraced the papal call to renew their crusade to reclaim the peninsula. Historically, the eight centuries of Muslim presence in Iberia is referred to as the *Reconquista*, which denotes the reconquest of Muslim occupied lands by Christian kingdoms (Garcia de Cortázar 1991; Kamen 1991). The fall of Granada to Ferdinand and Isabella's Spain in 1492, and the expulsion (or forced conversion) of the Jewish population in 1492, marked the completion of the peninsula's *Reconquista* and ushered in a new era in Spanish territorial expansion. (The Catholic Monarchs decreed the conversion of Muslims in 1502; these Moriscos would be expelled by Philip III in 1609.)

The financial burdens of prolonged religious warfare left the Iberian kingdoms with the task of refocusing their crusading mindset to new lands in order to place their growing populations and replenish depleted coffers. The successful completion by Ferdinand and Isabella of the *Reconquista* left them with the political influence to justify other conquests and helped them forge a new Spanish identity built around the spread of

Christianity. “The war had produced a hardening of the faith and an intolerance toward others, leading to the widespread notion that Spaniards were the new chosen people of God” (Myers et al. 1991:15). As they believed, and as the Church decreed through the Line of Demarcation of 1493 with Portugal (and its follow-up, the Treaty of Tordesillas in 1494), Spain assumed the responsibility to establish Christianity as the world’s dominant religion. Christopher Columbus’s (A.D. 1451–1506) offer to Christianize peoples in the Far East through his location of a new East Indian trade route offered the Crown the opportunity to secure more wealth and gain religious power among their European counterparts. Columbus’s diary of his first voyage, which he submitted to the Spanish crown upon his return to Spain, illustrated his use of this approach:

May Your Highness believe that in the whole world there cannot be better or more gentle people [than the Natives]. [Although dwelling in houses resembling Moorish huts, and exhibiting uncivilized societal characteristics,] Your highness should take much joy in that soon you will make them Christians and will have instructed them in the good customs of your realms (Columbus, 1989 [1492–1493]:275).

Columbus did not discover a new route to the East and, instead, discovered the Caribbean islands. Based on Columbus’s discoveries and subsequent voyages to the New World, imperial Spain justified the implementation of the *Reconquista* mindset in order to conquer and subjugate the newly discovered non-Christian peoples. The incentive to colonize the entirety of the New World increased once Columbus reported that gold and other precious resources existed in the region.

Furthermore, as if the *Reconquista* and the Spanish Crown’s special relationship with the Papacy had not sufficiently solidified the Spanish mindset by 1500, the religious strife ignited by Martin Luther would lead to Spain’s militant championing of Catholic

dogma. Spain fought Muslims and Protestants in Europe, taking its defense of Catholic orthodoxy to all its possessions. Thus, the Counter Reformation Church, as set by the Council of Trent (1545–1563), also bounded the actions of the Catholic Church in the New World.

If the *Reconquista* marked the Christians of the Iberian Peninsula with the drive to acquire land and wealth from the heathen, the centuries spent cohabitating with Muslims and Jews had predetermined the Spanish conquistadores' mindset toward non-believers in social and spiritual matters. Not only had many a Christian lived under Islamic law and custom since the year 711, but as Christian armies had advanced across the Castilian plateau into Andalusia after the twelfth century, Muslims and Jews had entered a period of *convivencia* (co-existence) with new masters. Following Islamic tradition, Christian rulers viewed these populations as their inferior subjects, only to be tolerated in exchange for the tribute they paid (Menocal 2003; Mills et al. 2002:104–105). Thus, while King Alphonsus X (r. 1252–1284) patronized Hebrew and Islamic scholars in his Sevillian court, he also exacted taxes from them to sponsor his continued plans to take the *Reconquista* further south. Ultimately, *convivencia* was a necessary arrangement to live with the other until such a time, as occurred by 1492, when more intolerance could be imposed. Repeatedly, this two-faced *mentalité*, which oscillated between acceptance and intolerance, would manifest itself in the Spanish-Indian relations of the New World. The English historian H. R. Trevor-Roper has characterized the imperial Spain that emerged from the *Reconquista* and the Counter Reformation as the schizophrenic “two Spains” of Don Quixote (Trevor-Roper 1961:106–113). More recently, the American scholar Stuart Schwartz has reminded us that the spiritual conquest of the New World should be

understood in a context that includes the Holy Office of the Inquisition and the indulgent belief that “all can be saved” (Schwartz 2008:34, 65, 90, 139, 233, 250).

*The Reconquista Mindset in the Yucatán.*¹⁸ The discovery of the New World and its eventual conquest and colonization played a major role in the establishment of Spain as the dominant sixteenth century imperial power and a formidable Christian force in Europe. As a direct result of the *Reconquista* mindset and the biblical covenants believed to be entrusted to them by the Church, Spain considered itself to be more advanced, both religiously and socially, than non-Christian societies, including those in the New World.

As John Early stated:

The Spaniards took religion seriously in evaluating the morality of their actions . . . For the Spaniards religion was an intrinsic ingredient of both the identity of their psyche and the worldview of their culture. . . . the basic assumption of this historical period was that Bible contained most of the knowledge that could be attained by the human mind (Early 2006:95).

Influenced by a newly forged national identity created by the Church and Ferdinand and Isabella’s *Reconquista* rhetoric, the Spanish used their religious worldview to justify the seizure of New World wealth and territories and to legitimate their Christian rule in the region (Garcia de Cortázar 1991).

Perceiving this as another crusade, beginning in the early sixteenth century, the Spanish royal family encouraged hundreds of men to travel to, document, religiously convert, and conquer the peoples across the Atlantic. Referred to as *conquistadores*, these

¹⁸ New World scholars often have drawn similarities between the Iberian *Reconquista* and the Spanish conquest of the New World (see Castro 1971; Fuchs 2004; Gibson 1977; Glick Thomas 1995; Góngora 1975; Liss 1975; Lupher 2006:337, ft. 98; Paz 1979). Gibson’s article *Reconquista and Conquista* (1977:26) stated that attitudes developed during the *Reconquista* survived in the New World and were used by the conquistadors during the Spanish campaign to convert Indian peoples. Gibson continued stating that the “*Reconquista* Mindset” would be a more precise term for the manifestation of *Reconquista* attitudes in the New World because there were “not only different individuals but different generations involved” (Gibson 1977:20). I am applying Gibson’s framework when I use the phrase “Yucatecan *Reconquista* mindset.”

men were comprised of royal officials, theologians, scribes, and many an adventurer who had been charged by the Crown to settle the land and convert the non-Christians. British historian Hugh Thomas (1995:293) noted that the very word *conquistador* “was used by the Castilian victors against Islam,” illustrating the intrinsic connection between New World conquest and the *Reconquista*.¹⁹ As Early stated:

For Gentiles lacking contact with the Scriptures, such as the Maya, more forceful means were required, similar to those employed by a father in disciplining his children. . . . This was the policy adopted by the friars [and Spaniards] to enforce their program of evangelization (Early 2006:97).

This policy, commonly referred to by historians in the twentieth century as the Black Legend,²⁰ called for the reconfiguration of traditional native practices in order to obtain wealth, spread Christianity, and gain territorial power for Spain in the New World.

As Charles Gibson stated:

The [Black] Legend builds upon the record of deliberate sadism. It flourishes in an atmosphere of indignation, which removes the issue from the category of objective understanding. It is insufficient in its awareness of the institutions of pre-colonial history [and] asserts that Indians were [to be] exploited [both socially and religiously] by the Spaniards (Gibson 1964:403).

To justify many of their actions, Spanish conquerors and theologians manipulated (and sometimes corrupted) Christian ideologies in order to control and exploit native peoples, territories, and their wealth. As Gibson continued:

Spanish imperialism sought to justify its acts by its Christian mission. The conquest was a Christian enterprise because it sought to destroy a pagan civilization . . . with the papal consignment of the New World to Spain, all aspects of Hispanic colonization became subject to a Christian interpretation and subordinated to a Christian function (Gibson 1964:98).

¹⁹ As Thomas continued “[t]hese conquistadors were, after all, men of a generation used to the idea of conquest of another culture; if not by their fathers in Granada, then by the great-grandfathers of their grandfathers in Seville and Córdoba” (Thomas 1995:293).

²⁰ Scholars who believe and concentrate on the negative impacts of the Spanish conquest, beginning with Bartolomé de Las Casas, are said to adhere to the Black Legend.

Conquest and Colonization of the Yucatán. The Spanish Crown used the clergy to isolate and promote its ideas about proper social and religious customs within native societies. In the Yucatán, the Crown and Catholic Church looked for various ways to take advantage of Spain's newly implemented regulatory systems. However, initial conquest and expansion into the region was quelled by the Yucatán's lack of gold and precious metals that the Spanish desired, which were available in the native territories to the north. This left the Maya on the periphery of Spanish conquest and provided them with a degree of autonomy not experienced by other native peoples.

The Spanish first encountered the Yucatán Maya in 1517 during the first of three expeditions from Cuba, led by Francisco Hernández de Córdoba. William H. Prescott (2004 [1843]) provides an interesting synopsis for this story, summarized below.

During an expedition to acquire slaves from the Bahamas, Cordoba's ships were driven of course and landed on a previously undocumented coast, believed to be Cape Catoche, along the northeastern tip of the Yucatán Peninsula. "On landing and asking the name of the country, he was answered by the natives, "Tectetan," meaning "I do not understand you"—but which the Spaniards, misinterpreting into the name of the place, easily corrupted into Yucatán" (p. 80). . . . During this expedition, Cordoba and his men explored the Yucatán region, from Cape Catoche to the Maya site of *Ah-Kim-Pech* (which the Spanish later called Campeche) along the Northwestern Yucatán coast. While attempting to return to Cuba, Cordoba and his men were attacked and defeated by Maya warriors at from Champotón.²¹ Bernal Díaz del Castillo (1980 [1568]) stated that half of Cordoba's men were lost during this battle. Wounded and defeated, Cordoba and his men returned to Cuba towards the end of 1517 to report to Governor Velasquez . . . Velasquez dispatched Juan de Grijalva in 1518 to continue to explore the region . . . Grijalva's ships, like Cordoba's, were driven of course and, as such, he landed on the island of Cozumel rather than at the Cape Catoche, were he had hoped. After documenting the people of the island, Grijalva and his men returned to their ships and sailed to the town of Lazarus, near Champotón. Like

²¹ Grant Jones (1989) argues that the Maya warriors at Champoton were directed by a shipwreck Spaniard and Maya convert, Gonzalo Guerrero during the battle with Córdoba. Believed to have been part of a group of men shipwrecked in 1512 along the east coast of the Yucatán, the Spaniards were convinced that Guerrero, who had accepted fully his new Maya way of life, directed the natives to fight against Spanish settlement in the region (see Jones 1989:26–28).

his predecessor, Grijalva was again defeated by Maya warriors.²² Wounded, Grijalva and his men again boarded their ships and sailed to the Rio de Tabasco, also known as the Rio Grijalva, and held a conference with a local chief who was the first to tell them about the riches of Cholula and the Aztec realm of Mexico. . . . After seeing this wealth, Grijalva dispatched one of his captains, Pedro de Alvarado, to go back to Cuba and tell Governor Velasquez . . . Grijalva learned [months later] that another Spaniard, Hernan Cortés (along with Pedro de Alvarado and Francisco de Montejo), had been sent in 1519 to conquer and colonize the newly discovered land . . . (Prescott 2004 [1843]:80–98).

Although some of Prescott's theoretical points and interpretation have been disputed by later researchers, the historical account given above since has been verified by Robert Chamberlain in his text *Conquest and Colonization of the Yucatán*, published in 1948 (Chamberlain 1948:362; Farriss 1980:12).

After the successful conquest of the Aztecs in 1521, Cortés set his imperialistic sights on the Yucatán Maya and other parts of the unconquered New World. In a decree issued by Cortés that same year, he announced that:

[W]hatsoever person might wish to go in his company to the newly discovered lands to conquer them and settle there, should receive his share of gold, silver and riches which might be gained, and an *encomienda* of Indians after the country had been pacified . . . (Díaz 1980[1568]:77 quoted in Early 2006:100).

Shortly after the conclusion of his speech, Cortés dispatched Francisco de Montejo I, a captain in his army, to explore and conquer the Yucatán Peninsula (Early 2006:100). On December 8, 1526, Charles V issued a mandate, referred to as the “*Capitulación celebrada en Granada*,” to Francisco de Montejo I, which granted him the position of Provincial Mayor of the Yucatán (*Adelantado de Yucatán*) (Ancona 1889). With this title, Montejo I was given “the right and duty to ‘discover, conquer, and settle . . . and build two fortresses’ . . .” in the Yucatán Peninsula for Spain and the Church

²² Again, Jones (1989) suggests that the natives were led by Guerrero.

(*Capitulación* quoted in Lindsay 1999:18). Forty years later, Bishop Diego de Landa recounted Montejo's royal commission for the Yucatán:

When Montejo [I] remained at Court [in Spain] he negotiated for himself the conquest of Yucatán. . . . And they gave him the title *Adelantado* . . . [and] he took with him one of his nephews [Francisco Montejo III], thirteen years old who bore his name, and he found his son [Francisco Montejo II], who was then twenty-eight years old . . . [and he obtained] five hundred men and these he embarked in three ships. He continued his voyage and reached Cozumel. . . . And from there he sailed for Yucatán and took possession of it, his standard-bearer, flag in hand, saying 'In the name of God I take possession of this land for God and the King of Castile' (Landa 1941 [1566]:47–48).

One might assume, based on Landa's account, that the Spanish conquest of the peninsula was an immediate *fait accompli*. On the contrary, Montejo I's attempts at conquest failed due to his inability to control the men under his command, who frequently defected to regions with more hospitable lands and wealth (Farriss 1984:24). Coupling this with rough terrain and Maya rebellions, this region proved to be far more difficult to overtake than Montejo had anticipated.

Realizing he would no longer be able to conquer the Yucatán, Montejo I delegated his Royal commission to his son Montejo II in 1539. With this act, Montejo the Elder instructed his son to found and settle the city of Mérida (Farriss 1984; Lindsay 1999; Low 1995). Diego López de Cogolludo's (2006 [1688]) text *Historia de Yucathan Compuesta* described how Montejo II, using his father's royal commission,²³ infiltrated and eventually militarily occupied the site of the Tíhoo in 1541 and, subsequently, built a watchtower on top of the site's principal pyramid. Based on Montejo's successful occupation of the site, the Spanish were approached by a large delegation of Maya led by Tutul Xiu, the Maya lord (*batab*) and leader of the Xiu lineage from Maní, who

²³ Although Montejo II acted as the local governing official, Montejo I remained governor of the Yucatán until his formal dismissal by the Crown in 1549 (Wauchope and Cline 1972:127).

subsequently offered the Xiu's allegiance to the Spanish Crown. Already having fought alongside Montejo I in Chichén Itzá, Tutul Xiu presumably viewed the Spanish alliance as a positive one. Not only would he be aligned with the new regional power, but he also would have the military support needed to defeat the Cocom, the Xiu's rivals from Mayapán who occupied neighboring Sotuta. Shortly after Montejo II and Tutul Xiu's meeting, the Xiu and Spanish celebrated their newly formed alliance. Lindsay (1999) stated during this celebration that the Cocom killed a convoy of Xiu traveling through Sotuta to Tíhoo, and simultaneously assembled an army of forty to sixty thousand Maya warriors to attack the Xiu Maya and the Spanish, then occupying the site. As this narrative continues, however, the advanced weaponry of the Spanish and support of neighboring Maya groups enabled Montejo II to defeat the Cocom after a great battle, which ultimately resulted in formalization of Mérida as Spain's new regional capital in 1542.

Colonial Society and Yucatecan Demographics. The main period of conquest and pacification in the Northwestern Corridor lasted from 1524 to 1550, although other areas of the peninsula remained un-pacified until the late seventeenth and early eighteenth centuries (Farriss 1984). At the onset of colonization, the Maya population vastly outnumbered the Spanish. “[I]n 1586 the governor [of the Yucatán] estimated that the colony contained [only] four hundred Spaniards (male heads of the household) compared to some fifty thousand Indian male tributaries” (Farriss 1984:64). However, the devastation of Old World diseases, Spanish mistreatments, and warfare drastically reduced the size of the Maya population. This clearly is evident when reviewing the historical demographics of the peninsula in the years shortly post-contact (see Table 4-1).

Table 4-1. Rough Estimates of Maya Population in the Yucatán Peninsula, 1525–1850.

YEAR	POPULATION OF YUCATÁN
1525	800,000
1550	236,283
1586	155,000
1609	176,320
1643	209,188
1700	130,000
1710	182,500
1736	127,000
1765	194,300
1780	175,287
1794	254,000
1809	291,096
1821	390,000
1850	200,000

Source: Adapted from Early 2006:149, Table 10.1.

Based on Early's (2006) approximations, within the first ten years of Spanish occupation, more than two-thirds of the Maya population had died. Over the next 150 years of Spanish occupation, the Maya appear to have fluctuated in numbers frequently. In the late 1700s, it appears that the Maya population slowly increased during the Bourbon period, only to be once again decimated in the mid 1800s by the various rebellions occurring before and during the Yucatecan Caste Wars (1847–1901).

Warfare and disease alone did not account for the loss of populations in the early historic period. Ecological factors, such as famine and droughts, took a heavy toll on both Spanish and Maya populations. Farriss (1984:60) stated that famines often coincided with

the spread of European diseases, as illustrated in Table 4.2. As populations decreased, so did the food supply and the options for survival.

Table 4-2. Epidemics and Famines in Yucatán Peninsula, 1535–1810.

YEAR	OCCURRENCE
1535–1541	Famine (drought and locusts)
1564	Drought
1566	Epidemic
1569–1570	Epidemic
1571–1572	Famine
1575–1576	Epidemic and famine (drought)
1604	Famine
1609	Epidemic (typhus)
1627–1631	Famine (storm and locusts)
1648–1650	Epidemic (yellow fever and small pox)
1650–1653	Famine (drought)
1659	Epidemic (measles and smallpox)
1692–1693	Famine and epidemic (hurricane and locusts)
1699	Epidemic
1700	Famine
1726–1727	Famine and Epidemic
1730	Famine
1742	Famine
1765–1768	Famine (hurricane, drought, and locusts)
1769–1774	Famine (hurricane, drought, and locusts)
1787	Epidemic (<i>bola</i>)
1795	Famine
1799	Epidemic (<i>vómito de sangre</i>)
1800–1804	Famine (drought and locusts)
1807	Famine (hurricane)
1809–1810	Famine and Epidemic

Source: Adapted from Farriss 1984:61, Table 2.2.

The spread of communicable diseases and the frequent reoccurrence of both famine and drought led to the depopulation of the Maya but facilitated Spain's successful occupation of the region under Montejo. Yucatán's harsh climate and intermittent warfare with the Maya, however, discouraged Spaniards from sending large delegations to settle and regulate the region without the attraction of precious metals. The limited number of Spaniards in the region provided the Maya with a level of isolation and autonomy that allowed them to retain aspects of their precolumbian life ways.

Colonial Occupation. Based on continual conflicts with Maya, harsh climate and famine, and the decimation of populations due to the spread of disease, in the Northwestern Corridor, the Spaniards made little attempt to Hispanicize and/or Christianize the Maya in the years immediately after settlement (Early 2006:114). With the Spanish huddled into a few urban centers and the Church represented by only a few friars, the Maya were tasked with the responsibility of implementing Spanish law, interpreting Christianity, and governing their own people. For at least a generation or more during the period of conquest and pacification, the Spanish settlers made little attempt to communicate religion and law with the Maya. In the early colonization period, "conquistadors usually made brief appearances in Maya communities to obtain their submission to the king and make some mention of 'Dios' as contained in the Requerimiento . . . [while] encomenderos typically ignored their obligations" (Early 2006:115). The absence of a significant Spanish presence in Maya communities led the colonizers to neglect Maya conversion after conquest, which was considered a dereliction

of their duties under the *requerimiento*.²⁴ Once these issues were brought to light by Bartolomé de Las Casas in 1540, the Crown called for stricter government oversight and the implementation of a more formalized evangelization process (Early 2006:115,133–135). Arguably, in response to the Crown’s growing interest in the Christianization processes undertaken on his behalf in the New World, Franciscans began to send friars to Christianize northern regions of the Maya in the late 1540–1550s (see Table 4-3; Farriss 1984:287).

Viewing the conquistadors’ rule ineffective, the Crown removed founder Montejo I from the role of governor in 1549 and, shortly thereafter, placed the Yucatán under the jurisdiction of the *Audiencia* of Guatemala and had local government assigned to *alcaldes mayores* (Farriss 1984:123; Wauchope and Cline 1972:127; also see ft. *viii*). These actions enabled the power of the Catholic Church, specifically the Franciscan Order, to increase drastically. From 1535 to 1550, the Franciscans began the process of Maya conversion along the Northwestern Yucatecan coast, near the Spanish settlements of Champotón and Acalan (Early 2006:132). Based on the success of these initial missionaries, from 1550–1559, the Franciscan Order sent sixteen additional ordained

²⁴ The *Requerimiento* was a legal document read to the Indians prior to the pacification of natives in a given region (Early 2006:90–91,101–104). Created by Spanish jurist Juan López Palacios Rubios for Ferdinand and daughter Juana in 1512 after mistreatments of Indian populations were brought to light by friars in the colonies of Hispaniola and Cuba, the *Requerimiento* asserted that God, through Saint Peter and his appointed papal successors, held authority over all peoples of the earth; and that by the Treaty of Tordesillas, religious and political authority over most of the New World and its inhabitants was transferred to the Spanish Crown and Catholic Church (Early 2006:90–91). To maintain its legal authority, the Crown required that the *requerimiento* be read to indigenous populations during their first contact with the Spaniards. Both Restall (1997:63) and Early (2006:103) assert that Cortés most likely read this to the Maya on his way to Honduras (*ca.* 1525–1527). This document may have been read again to the Yucatán Maya in on January 6, 1542, when Montejo II formally founded the city of Mérida (Lindsay 1999:20). Presumably, this legal formality was adopted and used by Spain to legitimate their current actions in the New World and legally separate themselves from their previous militaristic atrocities enacted against the natives during the conquest period. However, in actuality, this mandate did very little (or nothing at all) to ensure the protection and proper treatment of the natives being conquered.

friars to Christianize the Maya and, by 1561, Francisco de Toral was elected the first provincial bishop of the Yucatán.²⁵ Although the number of ordained friars remained low throughout the sixteenth century, totaling only 32 documented persons, Early has noted that these rough tabulations did not include counts from non-ordained Church officials (e.g. brothers, seminarians, and lay helpers), which most definitely would have increased their documented presence (see Table 4.3).²⁶

Table 4-3. Ordained Friars Sent by Spain to the Yucatán (1530–1600).

YEAR	FRANCISCANS IN YUCATÁN
1530-49*	0
1550-59	16
1560-69	16
1570-99*	0
Total	32

* Denotes a period longer than 10 years.

Source: Adapted from Early 2006:133–134, Table 9.1.

There is no question that these actions helped the Franciscans propel themselves to the top of the Yucatecan political and religious hierarchy during the early Spanish domination of the region.

Politics, Religion, and Colonial Discord. Shortly after the establishment of the Church as the central power in the Yucatán, the Franciscan Order implemented the *limosna*, a tribute to be paid by the Maya as a way to formalize the conversion process

²⁵ Illustrating papal concession of *Patronato Real* (Royal Patronage) in New World policy, Toral and Montejo's elections in the Yucatán were finalized only after both the Church in Spain and "his Majesty's Council of the Indies" jointly agreed to their appointments (Oroz 1972 [1597]:85–87).

²⁶ Early did mention that, in addition to these men, the Franciscan Order sent twelve brothers, eleven seminarians (seminary students), and four lay helpers to the Yucatán during the colonial period (Early 2006:133–135). Early did not specify the exact period for these tabulations, meaning the members of these groups could have arrived any time from the 1542 to the 1800s.

(Quesada 2001:73–78). Justifying their actions as a necessary part of the Christianization process, these forced contributions were used to teach the Maya how to function within a “civilized” Christian community and how to view properly the role of the Church. As the Maya described in the *Book of Chilam Balam of Chumayel*, however, the Spanish tribute system angered the Maya and eventually led to revolts in the 1550s and its subsequent removal by the Spanish (*Chilam Balam of Chumayel*, translated in Edmundson 2008 [1986]:132–134).

As access to power and wealth increased for the Church in the colonial Yucatán, power struggles between New World conquistadors, colonizers (*encomenderos*), and theologians intensified. Unlike the conquistadores and encomenderos who were disappointed by the Yucatán’s lack of precious metals and material wealth, the Franciscan theologians viewed the region as a religious gold mine based on its large population of potential native converts. As such, the Franciscan Order held a monopoly on regional settlement and missionary activity in the Yucatán for the better part of the sixteenth and seventeenth centuries. Initially, Crown officials were not concerned (or interested) in the Franciscans’ control of the Yucatán, but that soon changed after they realized the large amount of power and authority that Bishops Francisco de Toral and Diego de Landa wielded in both New and Old World circles. As Fray Pedro Oroz recounted in his treatise to the Crown and the Council of the Indies, *The Oroz Codex*:

The Spaniards of New Spain attempted to ask Emperor Charles V for the perpetual distribution of the Indian pueblos among themselves; and to lend more authority to their petition . . . they solicited the religious of the three Orders [Franciscans, Dominicans, and Augustinians] to give them their signatures and opinions on it. [They received favorable support from the other orders] but not of our own [the Franciscan Order]. For this reason they formulated complaints against [us], going so far as to call [us] enemies of the common good and men

who wanted to be singularly different in everything. . . . The Spaniards were so crafty . . . that [they convinced the provincial ruler Fray Francisco de Soto] to make the petition in Spain before his Majesty's Council. . . . This was the occasion for another persecution against our religious, for they stopped their alms in Mexico and insulted them [Franciscan officials] whenever they saw them (Oroz 1972 [1597]:91).

These conflicts, as described in various letters to the Crown, triggered some of the most important intellectual debates regarding the role of Spanish institutions in the New World (the Great Debates of Valladolid, *ca.* 1550). When Spain assigned the Franciscan Order to the conversion of the Maya, the Crown authorized this order to settle *encomienda* disputes in the Yucatán (Farriss 1984:24). The Crown “daba á los religiosos que se ocupaban de la conversion de los indios, la facultad de encomendarlos á los españoles [gave to the clergy in charge of converting the Indians the authority to assign them in *encomiendas* to the Spaniards]” (Ancona 1889:6). These actions helped the Franciscans propel themselves to the top of the Yucatecan political and religious hierarchy.

By the time the royal officials arrived in Yucatán in the 1550s, religious and political corruption had already come to dominate the laws and practices of New Spain and its provinces. Colonizers had a long tradition of using Spanish institutions to promote their own agendas. Rather than promote the humane treatment of all colonial subjects, as the laws encouraged, the ruling class in the Yucatán manipulated the institutions of *corregimiento*, *repartimiento*, and later *hacienda* system, to exploit individuals they considered as of lower status, less than human, or non-Christian.²⁷ As such, colonial

²⁷ The institution of the *hacienda* was a significant part of Indian life in Mexico. It regulated the amount of work and money individuals could make, specifically the Indian population. Numerous restrictions were placed on the Indians who worked at *haciendas*. As the Indian population decreased and the Spanish population increased, haciendas, in many cases, became the best and only place where Indians

institutions acted as the official governmental channels for exploiting Indians and destroying their traditional lifestyles (Farriss 1984; Gibson 1964:61–65). As Gibson stated:

The progressive yielding of Indian institutions to Spanish ones, as post-Conquest expediency gave way to a more rigid structure of Spanish domination, further depressed the status of the Indian . . . restricting Indian authority to local offices only (Gibson 1964:57).

The corruption of Yucatán's colonial government and its implementation of controlling institutional structures is a case study of the excesses of New World policy by those who could exercise control over native peoples. The Maya, however, used the malleability of Spanish law as well as Spanish corruption to retain aspects of power and authority.

Influenced by Las Casas's already popular writings, the Crown issued the *New Burgos Laws of 1542*, which were intended to decrease native mistreatments in the New World. In sum, these laws abolished the restrictive constraints placed on Indians by the *encomienda*²⁸ system and forced the liberation of enslaved New World peoples from life-long indentured servitude. Arguably, the adoption of the *New Laws* illustrated the Crown's growing concern with the treatment of New World peoples (Kamen 1991:94). Fortunately for the Maya, the adoption of these laws restricted the *encomienda* system from being introduced formally in the colonial Yucatán; however, this did not mean this system was not present (Farriss 1984). Additionally, the later regulatory systems of

could live and work. As well as promoting an acceptable state-controlled, place-bound labor force, many Indians who had debts were "inclined" by the Spanish government to work off their debts at *haciendas*.

²⁸ The effects of the *encomienda* (1521–ca. 1700) on the indigenous culture of Mexico were significant. The institution's intent was to increase the Spanish populations' ability to exploit the native peoples' land, labor, and goods. It limited the amount of control the Indians had over their lands and time, limiting Maya culture and religion's ability to work in social settings, as well as eliminating the political authority of the Indian rulers in the area. See Gibson 1964:58–81.

*repartimiento*²⁹ and *corregimiento*³⁰ were commonly used in the Yucatán as tools for Maya exploitation. As seen in earlier decades, the lack of military support by the Crown ultimately gave Royal officials no way to enforce these laws in the colonies.

The Crown's repeated attempts to establish more strict governmental controls over New World labor did little to change conflicts over wealth and power in the New World. As Bernal Díaz del Castillo explained from Guatemala in his 1552 letter to Charles V, the governmental agencies set up by the Crown in New Spain (which dictated much of the actions in the marginal Yucatán province) were not resolving the problems within the government; rather, they were making them worse (Lockhart and Otte 1976:73). Díaz explained that by the mid-1540s there were two separate Spanish groups living in the Spanish New World. In the Yucatán, the first group was made up of the *conquistadores* who had lived and ruled the Yucatán since 1526. Under the Montejos, this group did its best to evade royal bans on *encomiendas*. The second group was composed of later Spanish arrivals, sent by the Crown in the mid-1540s to reorganize politics, implement the systems of *corregimiento* and *repartimiento*, and eradicate corruption in New World, which included the abuses of the *encomienda*. Ultimately, the power granted to the later group by the Crown meant that these officials too were vying for colonial power in the New World at the expense of the original *conquistadores*. In the Yucatán, the second wave was comprised of royal officials like Fray Francisco de Toral,

²⁹ The institution of *repartimiento*, created as an alternative to the institution of *encomienda*, was the Spanish attempt at alleviating the wrongdoings of the previous governmental institutions. In spite of its positive intent, *repartimiento* followed in the footsteps of its predecessors by limiting the amount of control Indians had over their livelihoods. This institution further destroyed the governing ability of the Indians by reducing their political control and negating the Indians' role in economic endeavors. Indians were required to regulate crops, goods, and job specializations under the Spanish mandates of *repartimiento*.

³⁰ The institution of *corregimiento* (1550–1785) established a Spanish governmental system in place of the traditional Indian institutions of government.

who originally arrived in the 1542 to work in New Spain but was summoned by the Crown and Church to bring order and control to the Yucatán region as its first consecrated Bishop in the 1562 (Oroz 1972 [1597]:86). Conflicts between these groups, as Díaz del Castillo highlighted in his letter, triggered an intense power struggle. He argued that these new Spanish immigrants were improperly confiscating funds, slaves, lands, and Indians from the conquistadores. Rather than working to promote a more organized and accountable government, these immigrants deliberately were misusing Royal authority and the systems of *corregimiento* and *repartimiento* to gain personal wealth and status in the colonies. Many of these people already had gained an exorbitant amount of power and most were unwilling to give their control back to the original Spanish colonizers. Bernal Díaz continued by saying that the first settlers, like himself, had risked their lives to acquire wealth and lands for the Spanish Crown and believed they should not be forced to give up their social status or holdings, which had been granted to them through the *encomienda* system, royal decrees, and Church edicts.

Based on the three Montejos' failure to implement the *encomienda* system in the Yucatán and complaints about the growing power of the Franciscan-led Church, Charles V sent a royal *visitador* from the *Audiencia* of Guatemala, Tomás López, to the Yucatán in 1552 to formalize the political and governmental structures that the Montejos had been unable to implement on their own, as well as to regulate Indian affairs. Viewing these as another indication of the conquistadores' ineffective rule, from 1552–1561, the Crown once again removed power from the local Yucatecan officials and placed the colony formally under the jurisdiction of the *Audiencia* of Guatemala (Farriss 1984:123; Wauchope and Cline 1972:127). Based on the Crown's royal order entitled the

Ordenanzas López de 1552, Tomás López and the colonizers implemented the *repartimiento* and tribute systems (Farriss 1984; Gibson 1964). The Crown's decision ultimately angered the Franciscans, the Montejos, and other conquistadores living in the region.

Since the Yucatán did not contain the precious metals that the Spanish sought, López and the new ruling elite demanded an increased reliance on native labor for monetary gain, a practice that ultimately led to Maya mistreatment, subjugation, and eventual rebellion. Like the elites in New Spain, the colonial Spanish of the Yucatán determined that a formalized system of judicial control must be implemented in order to prevent additional Spanish-Indian conflicts. To illustrate this, one of the first acts of López's new government was to reorganize the precolumbian classifications of lands and wealth into a more exploitable Spanish *cabildo* model. Specifically, the Spanish government converted the precolumbian Maya political classifications, described to them by the natives in the early chronicles, to a *cabildo* system that mimic their guidelines of Spanish townships. By implementing the *cabildo* model to reaffirm their colonial dominance, the Spanish were ignoring the pre-existing community structures³¹ (Farriss 1984:147-164; Gibson 1964:32-57, 166–172). Lindsay (1999) argued that the conscious overlaying of precolumbian Tíhoo with Spanish colonial Mérida illustrated a symbolic decision to show both domination and colonial succession in the Northern Maya Lowlands (Lindsay 1999:5). Thus, the intentional transformation of the Maya settlement was a direct reflection of Spain's view of the Maya as a pacified, subservient people who

³¹ In the precolumbian era, the Maya divided their territories into the following community groupings: (1) religious lands and offices, (2) common work lands and offices, (3) granted ruler lands, (4) private noble Indian lands, and (5) regional/provincial lands (Farriss 1984). Each of these groupings held both political and religious importance to the people and its ruling elite.

were completely under the control of the colonial Spanish empire. The Spanish expected that their reconfiguration of the Maya precolumbian governmental system would minimize resistance and be a useful tool for extracting native labor and forced tribute. In many cases, however, these practices provoked rather than pacified the Maya as evidenced by the numerous documented Maya revolts against Spanish (e.g. the Great Revolt of 1546–1547, the Tekax Riot of 1610, Canek’s Revolt of 1761, and the Caste Wars of the 1800s). Farriss argued that continual warfare with the Spanish defined Maya nationalism:

[The Maya] remained unreconciled to foreign domination . . . [and had] a profound resentment against the *dzuls* (foreigners) long harbored by the Maya as the social and cultural vitality that had enabled them to sustain through the centuries of colonial rule such a strong sense of their own identity, with an independent even if not fully remembered past and a vision of an independent future (Farriss 1984:63).

Thus, restrictions placed on the Maya led to civil unrest and resentment, which may have contributed to their retention of aspects of their precolumbian livelihood well into (and beyond) the Colonial Era, particularly under the superficial implementation of Spanish religion and culture at the local level.

Spanish Regulations and Maya Resilience. Initially, the power of the Church outweighed the power of the Spanish civil authority in the region. As Table 4-4 indicates, the increased power of the Church led to the drastic increase of Franciscan friars in the seventeenth century. With the support of the Crown, in the mid 1600s, the Franciscans implemented both the *comunidades* and *obvenciones* (profit or capital gains tax) in the Yucatán, which required the local Maya government to pay the Church formalized communal taxes. Limits placed on the Spanish provincial government during this time

prevented the cabildo from adopting a similar tax of their own (Farriss 1984; Gibson 1964).

Table 4-4. Ordained Friars Sent by Spain to the Yucatán (1600–1700).

YEAR	FRANCISCANS IN YUCATÁN
1600–1609	13
1610–1619	24
1620–1629	12
1630–1639	58
1640–1649	20
1650–1659	40
1660–1669	0
1670–1679	12
1680–1689	22
1690–1699	30
Total	231

* Denotes a period longer than 10 years.

Source: Adapted from Early 2006:134, Table 9.1.

Resentment between the Franciscan Church and Spanish provincial government, triggered by the transition of power in the 1600–1700s, enabled the local Maya *cayas* the ability to establish independent local governmental structures, like the family-based cofraternities (*cofradías*). As a result, the Maya were able to generate communal revenue and labor, public and individual tax reliefs, and own and operate properties at the local level—all of which virtually were unknown to the provincial and Church authorities because of their infighting, which made them immune to Spanish colonial oversight (Farriss 1984:265–272).

The evangelistic authority of the Franciscans and the political power of the Spanish ensured the adoption of Spanish religion and culture by the historic Maya. Yet despite the continue efforts of the Spanish to eradicate precolumbian beliefs, the Maya adapted aspects of Spanish culture into their preexisting systems. In the private sphere, they continued to operate following their precolumbian models and community structures; while, in the public sphere, the Maya outwardly accepted their new Christian faith and Spanish structures. Lindsay (1999) describes this phenomenon of culture mixing as “Indo-Iberianism.” As he stated:

Mérida is less like typical sixteenth-century Spanish settlements in the New World and is more like examples from a much smaller sample of places such as Cuzco, Peru, in which there is an encounter between the physical fabric of two urban civilizations [rather than the destruction of it] (Lindsay 1999:236; emphasis added).

This is not to say, however, that all Spanish institutions were open to reciprocating relationships with the Maya. As Christianity began to take hold and Spanish imperial authority increased, traditional precolumbian Maya roles in the national and regional spheres of religion, government, and politics were reduced greatly. In many instances, these roles were completely eradicated under Spanish colonial law. Additionally, during the Maya Christianization process, various fanatical missionaries overseeing its implementation demonized Maya cultural and religious practices. These actions tended to result in Maya rebellion and warfare.

The Maya community looked for ways to manipulate the Spanish colonial system in order to provide its communal members the opportunity for survival. For example, the Maya used the *cabildo* system to retain power at the local level. As Lockhart and Otte stated:

To [Indians] the local province or city-state was the primary unit of existence, a people in and of itself. The relation between a given province and its neighbors was ordinarily one of strong rivalry in every aspect of life . . . [However,] underneath [this] rigid ethos were [opportunities for social] mobility and [the development of] complexity . . . (Lockhart and Otte 1976:164–165).

The Spanish model of indirect rule at the local level left localized administration to the Maya. Local financial matters were placed under Maya control in each town through the creation of the *caja de comunidad*. Members of the *caja* were adopted into the formalized Spanish colonial system and the town's regulatory actions were placed under the control of Maya *mayordomos* (stewards). Each of the *mayordomos* would document the actions of their communities and submit formal expenditures, accounting information, and complaints to the provincial governor of the Yucatán (e.g. Francisco de Montejo I, II, and III). In addition, before the adoption of the formal *servicio personal* system, which regulated work in the peninsula, Maya *mayordomos* were able to contractually hire out community workers to the Spanish and distribute the wealth back to their peoples through a community fund. Based on the hands-off approach to each community, the local Maya administrators were able to continue to follow their own system of finance for the better part of the 1600s (Farriss 1984:262–264).

One example of a successful Maya politician comes from Farriss' account of Don Fernando Uz, a Maya colonial official and the hereditary ruler (*batab*) of Tekax in the Yucatán province of Mani. Based on her review of the trial papers from the Tekax uprising in 1610, Farriss extracted details about Uz's career in the colonial Yucatán:

[In addition to his *mayordomo* position in Tekax, Uz] had been appointed to the local administrative post of Indian *gobernador* in other towns [besides Tekax] . . . he had served several of the Spanish governors in a variety of prominent positions . . . at age forty-two in 1609, don Fernando appears in the documents as official

interpreter and senior aid to the current governor, trusted and relied upon for advice, an administrative task of considerable responsibility (Farriss 1984:98–99).

For a Maya like Fernando Uz, Christianity and the adoption of Spanish institutional titles meant the possibility of preserving personal status, honor, and wealth. Many colonial Maya communities were willing to accept roles subservient to the Spanish crown as long as they were recognized and accepted as significant players in local politics.³² Ultimately their choice to accept Spanish terms of obedience allowed Maya, specifically on the local level, to maintain aspects of traditional Maya culture, religion, and life, as well as maintain power and authority to regulate their own finances, politics, and religious practices in their community. As Gibson stated:

As [Spanish] relations fragmented into individual communities the [native] community proved to be the largest Indian social unit capable of survival . . . [Although native] civilization became infused with Hispanic traits . . . it was able to retain an essential Indian character, partly through the conviction of its members . . . (Gibson 1964:409).

Thus, the Spanish political model, intentionally or unintentionally, allowed for the retention of native authority and power in the local Maya community. Within the Maya community, this power ultimately gave them renewed security and strength to resist Spanish mistreatments within the peninsula. For example, in the *Book of Chilam Balam of Chumayel*, the Xiu peoples described a case of Maya resistance during a revolt at the colonial site of Mani. As the text reads:

In 1537 on 9 Cauac, the name of the day then, [the Maya factions] assembled together . . . [and asked the Spanish] who were the responsible authorities in town of Mani [who allowed for the killing of the Maya provincial lords (*batabs*) in the Yucatán and the killing of Pot Xiu, Maya *batab* ruler of Mani. When they did not receive a formal reply from the local government officials] They [the Maya] seized the foreigners in the town [and sent a local Maya delegate to Francisco

³² Note that at all levels of viceregal government, Indians were excluded from representation. It was only at the local *batab* [community] level that Indians of elite status were given power and authority.

Montejo in Mérida to evaluate this situation. Instead of defending the Maya as the local Maya government had hoped, Montejo] grabbed Campeche [and conquered it]. Thus their ships appeared, and they [the Maya resisted, however, the Spanish forced the]...engendered [Maya] to surrender . . . (*Chilam Balam of Chumayel* translated in Edmundson 1986:132–134).

As this quote illustrates, the Maya were unafraid to use both politics and brute force to resist Spanish mistreatments. This text also shows, however, that the Spanish showed little remorse for their actions and used control and fear to dominate the Maya of the region. In spite of these problems, the Maya, through the implementation of the indirect *cabildo* system, still were able to find ways to manipulate Spanish colonial institutions to their advantage.

Based on the tensions between Spanish politicians and Franciscans vying for power in the Yucatán, local Maya communities were able to retain their localized power and authority well into the Post-Colonial Period. For example, in a letter from Fray Juan Gómez, a Franciscan friar at the *Catedral de San Ildelfonso* in Mérida, to the Crown in the early 1700s, he called for the punishment of Bishop Pedro de los Reyes for political corruption and removal of regionalized Franciscan authority in the Yucatán Peninsula:

El Rey . . . Por despacho de este día entenderéis la resolución que he tomado de fiar y cometer exclusivamente á vuestra prudente conducta, la composición, corrección y enmienda de las inquietudes que ha resultado en aquella provincia, con motivo de un auto proveído por el reverendo obispo que fue de ello, D. Fr. Pedro de los Reyes, en que quitó á la religión de S. Francisco la administración de las doctrinas de Maxcanú, Bécál y Calkiní y las confirió en clérigos seculares...al comisario general de dicha religión, que reside en la ciudad de México, y al provincial de la provincia de Yucatán reprehendan y castiguen severamente los excesos que cometiesen sus súbditos en lo que perteneciere á su jurisdicción en el gobierno privado y monástico; y que aquellos en quienes residiere el oficio de párrocos, les amonestan y obliguen a que os presten la obediencia debida advirtiéndoles que en las cosas y oficios de párrocos están sujetos a nuestra jurisdicción . . . [To the King . . . For the commission of this day you will understand the resolution I have taken to credit and to submit exclusively to Your prudent conduct the composition, corrections, and amendments to the concerns

that have resulted in that province with the motive of an autocrat by the Reverend Bishop (of that province) Bishop Pedro de los Reyes, in which he took out the religion of Saint Francis (in) the administration of the doctrines in Maxcanú, Bécál y Calkiní and he conferred them to the secular clergy . . . the general commissioner of the joyous religion, that resides in Mexico City and to the provincial (ruler) of the Yucatán province to reprimand and punish severely the excesses that are committed by their subjects in what belongs to Your jurisdiction in the private government and monastic (order)] (Ancona 1889:562–564).

Petty fights between the local Church and Spanish provincial government during this time continued to escalate as both sides submitted formal complaints against each other to the Crown. In order to end this debate, the Crown decided to increase taxes against the Yucatán Maya in order to formally divide power (and monies) between the Church and provincial government. To support this decision, a significant number of friars were sent to this region in the eighteenth century.

Table 4-5. Ordained Friars Sent by Spain to the Yucatán (1700–1800).

YEAR	FRANCISCANS IN YUCATÁN
1700–1709	19
1710–1719	12
1720–1739*	0
1740–1749	19
1750–1759	19
1760–1779*	0
1780–1789	20
1790–1799	30
Total	119

* Denotes a period longer than 10 years.
Source: Adapted from Early 2006:134, Table 9.1.

As Farriss (1984:254) stated, although “the details of the struggle are obscure, the outcome [was] clear: both the friars and the governors won and the Indians lost.” The

Spanish governmental authority increased in the peninsula during the eighteenth century, and particularly during the reign of Charles III (r.1759–1887), when the tempo of the Bourbon Reforms accelerated. The Bourbon policies sought centralization and a more secular order; for example, in the Spanish provincial government, the Church-regulated *obvenciones* (profit tax) was paid to the Royal Treasury, which reduced the autonomy the Maya had experienced in the earlier Colonial Period under the Spanish Habsburgs (Farriss 1984; Patch 1993:166).

By the mid-eighteenth century, the Spanish state was implementing the Bourbon reforms, which were “meant to restore and even to strengthen royal power and the ties of empire that had weakened” during the proceeding centuries of rule (Farriss 1984:355). In order to centralize authority, the Crown denounced the *repartimiento* and implemented new controls in an attempt to prevent colonists from misusing royal power to gain personal wealth and status. Because Bourbon ideology embraced secularization of the modern state, the reforms sought to curtail Church power and dismantle the church-state relationship that had characterized the Spanish empire since the days of Ferdinand and Isabella. The decline of Church power led to further mistreatments of the Maya rather than to improvements. Believing that direct and secular rule would alleviate current tensions, Bourbon reforms transferred power away from the Church and placed the Spanish Crown and its governmental overseers as the uncontested governing agency in the Yucatán.

Under this new Bourbon system, regulatory power was granted to government officials in the Yucatán, which bypassed traditional agencies like the Council of the Indies, the *audiencias*, and the Church, and transferred legal authority to the Yucatecan

government to settle disputes and regulate the use of Indian labor in the Yucatán. The removal of colonial regulatory controls, which previously had limited Spanish access to Indian wealth, goods, and territories, allowed Bourbon reformists to demand more tribute and labor from the Maya. At the same time, the Crown introduced new political offices to oversee the actions of all branches of government, including those Maya who oversaw the operation of the local communities. Under the rubric of the intendancy system, the Spanish placed local administrative offices, called subdelegates, in Maya communities to oversee and regulate their actions (Farriss 1984:356–357). The Maya perceived this as a direct attack on their local political and religious autonomy. With the implementation of the intendancy system, local subdelegates were authorized to confiscate Maya wealth accumulated in community treasures and *cofradías*, two important sources of Maya liquidity during the two previous centuries under Spanish rule. In addition, this new model impeded the Maya from confronting officials in Mérida about their problems because the seat of the Yucatán intendancy purposely was assigned to the city of Valladolid to break the old decentralizing networks. The Maya were required then to consult with local officials within their own communities who were, many times, the individuals creating the issue they wished to resolve.

By the end of the eighteenth century, the ownership of productive, private property had become the central focus for gaining status in Yucatán, as the colonial economy had advanced in its Bourbon-instigated transition from colonial mercantilism to capitalism. This meant that the state no longer modeled itself on colonial principles of conversion and conquest; instead, it favored the accumulation of individual wealth, status, and the development of a powerful ruling elite. These actions ultimately led to the

rise of the *haciendas* and provided the Yucatán government the room to bolster its finances in new and, sometimes, more exploitative ways. Under the new Bourbon system, the Maya lost protection against indentured or contract servitude, a process that had been banned under Charles V's *New Laws of 1542* (Patch 1993:167). In fact, with the forced accumulation of Maya wealth that entered the Royal Treasury as a result of the Bourbon reforms, the state's funds skyrocketed (See Farriss 1984:Table 12.1). Such was the economic and political environment in the Yucatán on the eve of Mexican political independence from Spain.

Cultural Context: An Archaeological Perspective

Ceramics after the Reconquista. In the Iberian lands won by the *Reconquista*, the predominance and diversification of ceramics is one of the most distinctive characteristics of those regions' archaeological assemblages. Historical Archaeologist Kathleen Deagan (1987) has hypothesized that one of the central factors influencing the heightened role of ceramics in Spanish material life was its historical connection to the rich material tradition of the Muslim *al-Andalus* region. As Deagan stated:

Andalusian craft traditions were greatly influenced by the centuries-long Muslim occupation in that region before New World colonization. Muslim culture brought to Andalusia a rich and pervasive ceramic tradition of considerable antiquity, which was evident through [assemblages of] the sixteenth century (Deagan 1987:25).

Post-Muslim Spanish cities in Andalusia, such as Seville (and particularly its Triana quarter) produced wares that combined Islamic traditions with European decorative preferences. The expulsion of the Jews and the end of the *Reconquista* severely affected the ceramic traditions of the newly unified Christian Spain after 1492. As highlighted earlier, these events led many skilled artisans, including potters, to leave

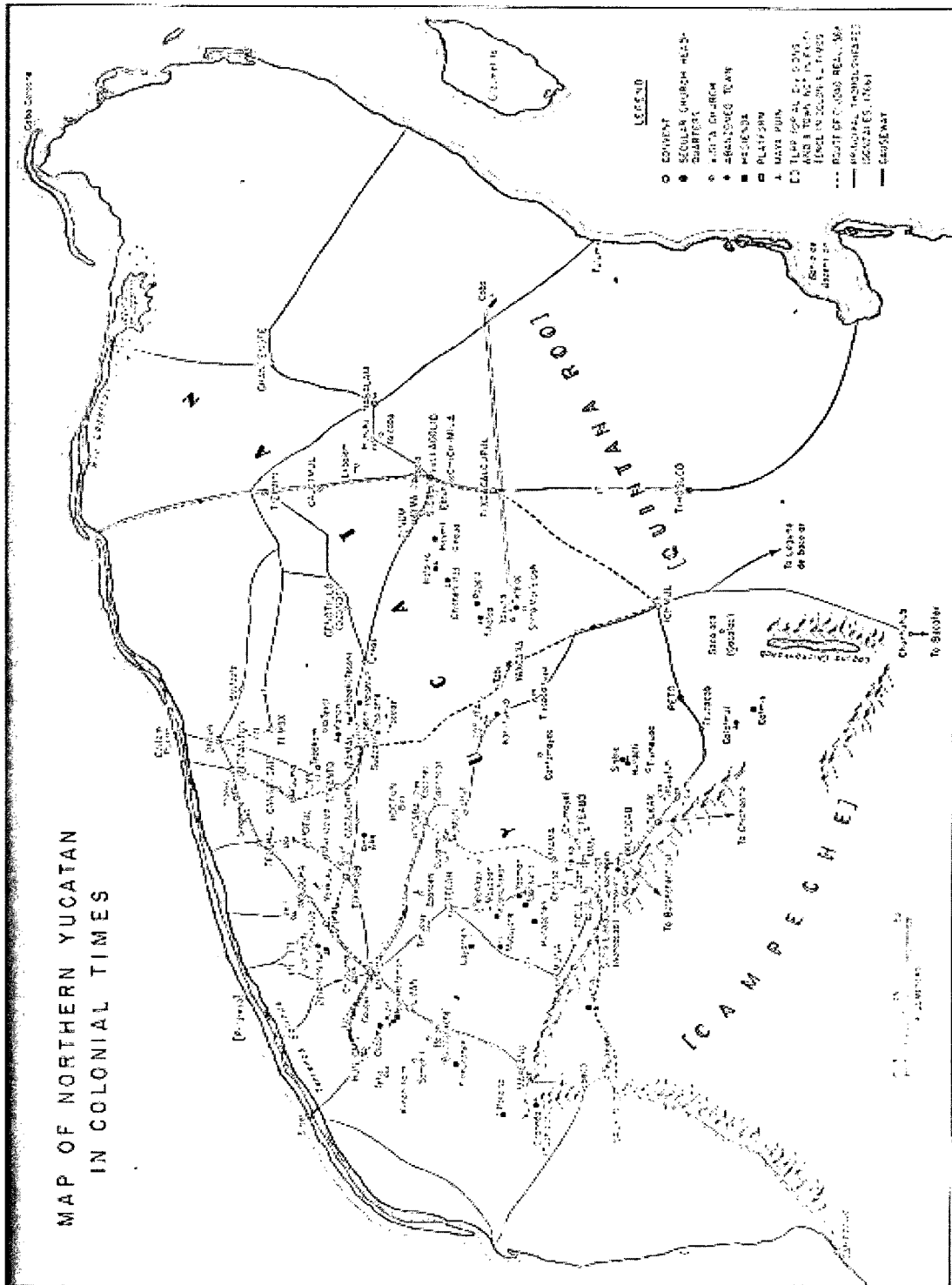
Spain (including relocation to and gaining citizenship in nearby Portugal). The rise and importance of the Italian Renaissance marked an emerging presence in Spanish pottery, which began to shift the ceramic tradition away from Muslim-influenced styles. As various artistic influences increased across the Spanish empire, more diversified pottery began to emerge including the following Hispanized forms: *alfarerías*, *bacines*, *vacinillas*, *lebrillos*, *jarras*, *cántaros*, *tinajas*, *orzas*, *albarelos*, *platos*, brimmed *platos*, *hidroceramos* (*botijas*), *pitchels*, *tazas*, *pocillos*, and *escudillas* (see Deagan 1987:Figure 4.1).

By the end of the sixteenth century, the trade and exportation from Spain of these wares (as well as other material goods from across Europe and Asia) began to appear in the Colonial New World. The exportation of goods to the New World was overseen primarily in Seville by the *Casa de Contratación*. Seville's monopoly on the trade of import and export goods and related taxes, however, made it difficult to meet all the demands of the growing Spanish overseas empire. As Deagan (1987:20) stated, "Spain's inability to supply her colonies with Spanish-produced goods" led to a shortage of Spanish material items in early New World colonies. She argued that the failure to introduce and sustain these objects in the New World "was largely based on the failure of the infant, post-medieval Spanish industrial sector [which was unable] to meet the steadily increasing demands of the New World colonists for manufactured goods . . ." (Deagan 1987:20). The lack of imported material remains was clearly evident in the early colonial occupation of the *Ciudadela* site (A.D. 1542–1750/1800), as evidenced by the few Hispanic wares recorded in the study sample (see Chapter 6). As time progressed and the Spanish industrial sector became more stable, Seville was better able to meet the

demands of the colonies through the exportation of more diversified goods. Again, the YUC 2 study sample illustrated this point clearly in the Post-Colonial occupation of the site (A.D. 1750/1800–1900) where wares and materials items from Spain, England, Asia, Germany, and Italy were recorded.

The Archaeological Record of the Northwestern Corridor. Similar to the historical narrative, archaeological evidence recently uncovered from the Northwestern Corridor supports Maya resistance and accommodation in the historic period. As discussed in the previous sections, the study of the Maya past only recently has been made clear through the work of anthropologists, linguists, and historians. Within the past fifty years, researchers in the anthropological and historical communities, through excavations and historical translations, have developed a more accurate and complete interpretation of the Maya; they have shed light on their various forms of colonial resistance and communal resilience. The following subsections highlight the specific nuances researchers have pieced together in recent years regarding colonial and modern Maya.

Figure 4-2. The Colonial Maya Area.



Source: Roys 1943: 52.

Historic Period Cultural, Ceramic, and Non-Ceramic Chronologies. In order to understand the archaeological transition of precolumbian Tíhoo to colonial Mérida, it is important to discuss the current framework applied to this region. As part of their *Proyecto Maya*, Robles and Andrews (2003) established a tentative cultural chronology for the Northwestern Corridor. They tentatively have divided their chronology into three periods: the Colonial Period (A.D. 1500–1700), the Eighteenth Century Period (A.D. 1700–1800), and the Nineteenth Century Period (A.D. 1800–1900).³³ As part of the same project, F. Rafael Burgos Villanueva (in Robles and Andrews 2003) proposed a tentative historical ceramic chronology for the region, which he divided into two, broad phases: the Colonial Phase (A.D. 1500–1700) and the Post-Colonial Phase (A.D. 1800–1900)³⁴ (see Robles and Andrews 2003:Appendix 2). Adding to these chronologies, Kathleen Deagan’s (1987) research with Hispanic import goods suggests that historic period import ceramics can be sub-divided further into five general groups, each of which have smaller sub-phases and classifications. These are: Coarse Earthenware (A.D. 1490–

³³ The exact division between the Colonial and Post-Colonial occupations was difficult to determine during archaeological component of this study. This was the result of a historical overlap between the Franciscan and Spanish/Mexican Military occupations, particularly around the mid-eighteenth century, when the *Ciudadela de Mérida/San Benito* (translated as the “Citadel of Mérida/San Benito” or Spanish/Mexican Military fort) was built around the *Convento de San Benito* to protect it from invaders (both European and Maya), which resulted in a historically mixed artifact sample spanning one hundred years. In other sites across the Northwestern Corridor, this contested period has been defined clearly and separated into three occupational periods: the Colonial Period, the Eighteenth Century Period, and the Nineteenth Century Period (Andrews and Robles 2008). This chapter reflects the current archaeological classifications for this region. However, in order to avoid over-extending my conclusions about the YUC 2 data set, I broadened Andrews and Robles’s (2008) classifications into two Periods: the Colonial Period (A.D. 1490–1750) and the Post-Colonial Period (A.D. 1800–1900) (See explanation in Chapter 7).

³⁴ Issues related to the dating of the Colonial and Post-Colonial periods will be addressed further in the concluding chapter.

1850), Majolica (A.D. 1490–1900), Porcelain (A.D. 1550–1835), Stoneware (A.D. 1530–1600), and Refined Earthenware (A.D. 1600/1700–present).³⁵

In order to clarify the current perspectives in historical archaeology, I have combined the aforementioned cultural and ceramic chronologies in order to complete this current research project. Specifically, I have used Robles and Andrew's (2003) cultural chronology presented in their text *Proyecto Costa Maya: Reconocimiento Arqueológico en el Noroeste de Yucatán, México* (2003) and followed it for the historic component of this project. In relation to ceramics, I combined the following sources to use as a guide for this project: Burgos's (in Robles and Andrews 2003) historic ceramic chronologies from the Northwestern Corridor and Deagan's (1987) ceramic chronology for Spanish-made import wares presented in her text *Artifacts of the Spanish Colonies, Vol. 1*. The table below provides the chronology for those periods relevant to this study.

³⁵ Note that Deagan's current ceramic chronology do not correspond with Robles, Burgos, and Andrew's (2003) chronologies—specifically with regard to the twentieth century occupation period—nor does it include the most recent classifications of ceramic categories developed by the HATC and FLMNH (1987-2010).

Table 4-6. Northwestern Corridor Historic Period.³⁶

ANDREWS/ROBLES (2003) CULTURAL PERIODS	ROBLES/BURGOS (2003) CERAMIC CHRONOLOGY	DEAGAN (1987) CERAMIC CHRONOLOGY
Colonial Period (A.D. ~1500–1700)	Colonial Period (A.D. 1500–1800)	Stoneware (A.D. 1530–1600) Coarse Earthenware (A.D. 1490–1850) Majolica (A.D. 1490–1900) Porcelain (A.D. 1550–1835)
18 th Century Period (A.D. 1700–1800)	Colonial Period (A.D. 1500–1800)	Coarse Earthenware (A.D. 1490–1850) Porcelain (A.D. 1550–1835) Majolica (A.D. 1490–1900) Refined Earthenware (A.D. 1600/1700–present)

In addition to these aforementioned chronologies, Deagan’s non-ceramic classifications have been used to identify other material goods represented in the YUC 2 *Ciudadela* collection. These chronologies originally were presented in volumes one and two of her texts *Artifacts of the Spanish Colonies* (1987, 2002). Like her ceramic chronology, Deagan’s non-ceramic material classifications are sub-divided into item specific categories, each of which having their own specific dating sequence and classification(s).

The Colonial Period (A.D. 1542-1700). During the Colonial Period in Yucatán’s Northwestern Corridor, which Robles and Andrews (2003) roughly date from the founding of Mérida in 1542 to the end of Spanish Habsburg dynasty in 1700, new

³⁶ Additional ceramic categories have been included since Deagan’s 1987 publication (see Chapter 6).

immigrant populations began to move into the northern lowlands. Instead of building new colonial settlements, many of the European immigrants elected to reoccupy Classic period Maya sites. In the process, many of them reused structures and precolumbian architectural components (e.g. carved bricks) in order to construct colonial habitation areas, churches, and public buildings. Robles and Andrews (2003) noted that the Spanish, at sites like Kinchil, Tetiz, Hunucmá, Ucú, Caucel, and Mérida, regularly constructed colonial buildings on top of precolumbian basal structures, pyramids, and platforms. As Lindsay (1999) stated, the Spanish were fascinated by the complexity and artistic nature of precolumbian Maya structures. As such, they liked to reuse Maya carved blocks and murals to decorate their colonial structures (see Figure 4-3).

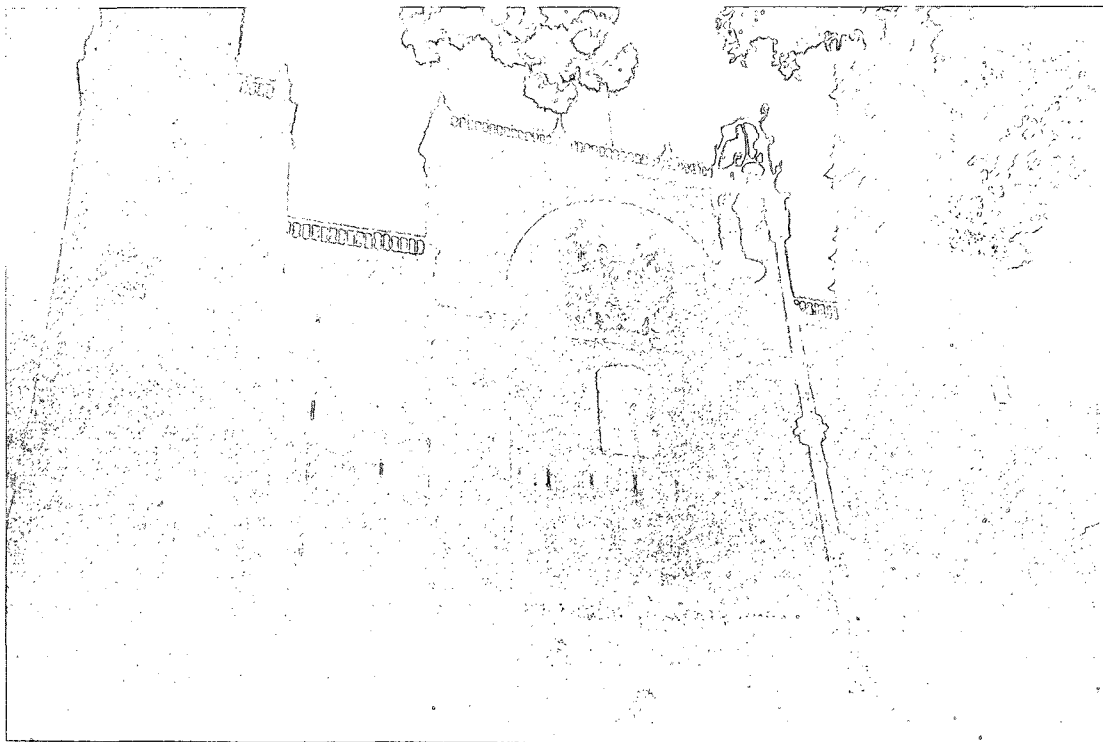
Figure 4-3. Reused Maya Stelae and Stones on Church in Paraíso, Northwestern Yucatán.



Source: Photographs by author.

The Franciscans incorporated this practice during the construction of Mérida's cathedral, which was dedicated to Saint Ildelfonso shortly after Francisco de Toral officially was appointed first Bishop of Yucatán. Carved Puuc-style stones from Tíhoo's precolumbian pyramids and ceremonial structures (now destroyed) were widely used across the cathedral's exterior walls during its construction between 1561 and 1598. In Figure 4-3, large veneer Puuc stones clearly can be seen across the entirety of the church, particularly along the exterior wall edges and exterior front façade (see Figure 4-4).

Figure 4-4. *Catedral de San Ildelfonso*, Mérida.

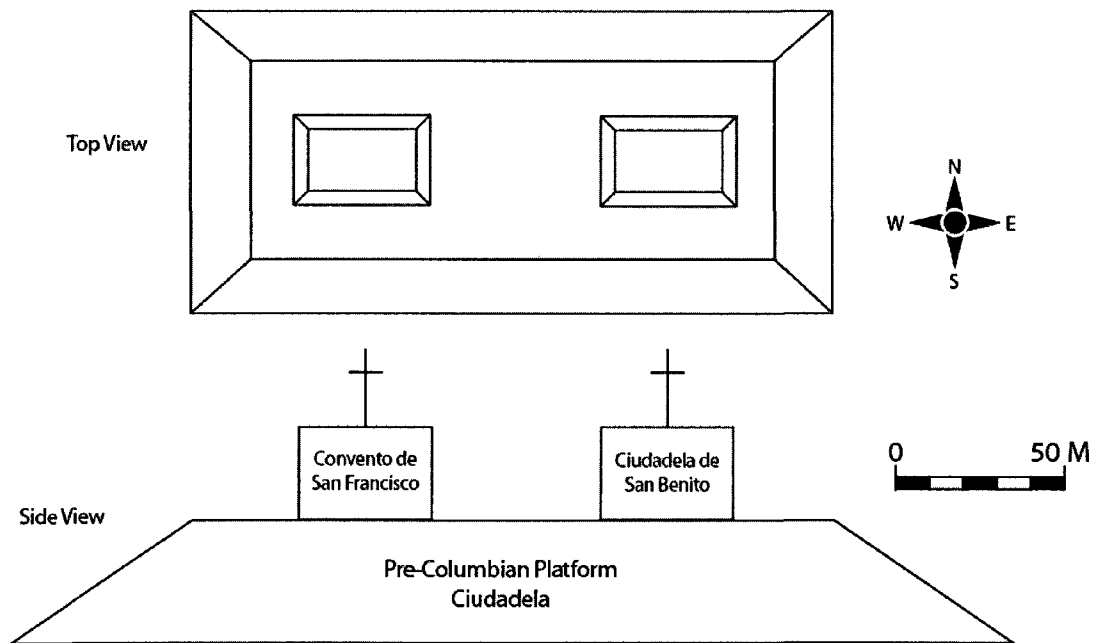


Source: Photograph by author.

As previously mentioned, the *Ciudadela* Complex appears to have predated the colonial cathedral. Located just to the southwest of the main plaza, Cogolludo (2006 [1688]) documented that during the initial survey of the Tíhoo in 1542, Francisco de Montejo II ordered his men to document and evaluate the state of the structure in order to

determine its potential for colonial reuse. Lindsay (1999) stated that it was during this survey that the *Ciudadela* complex, along with other precolumbian structures, was re-zoned to construct a ring of colonial neighborhoods and religious buildings. Since the Franciscans and other Spaniards jointly occupied Mérida, the Order elected to construct both the *Convento de San Benito* (~ A.D.1542-1700s), and the *Convento de San Francisco* (~A.D. 1542–1700s) on top of the Classic period Maya platform. One can infer that the *Ciudadela* complex and its associated Franciscan structures acted as the primary religious center for Mérida, before and after Spanish settlement (see Figures 4-5 and 4-6).

Figure 4-5. Rough Sketch of *Ciudadela* Platform Complex, ~ A.D.1542–1700s.



Source: Artistic rendering courtesy of Dennise Rodríguez-Ávila.

At the same time to the west of Mérida, the Spanish began construction of the *Camino Real a Sisal*, the major thoroughfare that connected the entire colonial Yucatán peninsula. Using information collected by Córdoba, Grijalva, and Cortés, the Spanish began to establish strategically placed outposts along the Northwestern coast, one of the

first being at the colonial port of Chuburná. The historical record indicates that the Spanish settled in areas that had larger Indian populations (like Mérida), which yielded more potential for trade and communal interaction. Interestingly enough, although the Spanish had a vested interest in both Mérida and Chuburná, towards the end of the seventeenth century, many colonial inhabitants abandoned the smaller towns of the Northwestern Corridor. While recent excavations confirm the abandonment, the specific reason for this action is not documented in the archaeological record. Clendinnen (1980:374–393) suggests that the Maya people of this region may have been relocated by Franciscan monks. Lindsay (1999) suggests that the Franciscan Order, either by force or coercion, relocated the Maya in the Northwestern region “from traditional [Maya] townships [*batabs*] into new, Spanish styled towns with rectilinear grids centered on churches, called *congregación[es]*” (Lindsay 1999:27). This presumably was done to reinforce Spanish perceptions of community and to center Maya colonial life on Christian religious practices. Despite the lack of archaeological evidence to confirm the Church’s relocation of the Maya, the archaeological excavations by Robles and Andrews (2003) confirm that the Northwestern Corridor historically was abandoned towards the end of the Colonial Period, as evidenced by the lack of sixteenth and seventeenth century artifacts recovered from sites in this region.

Although the population seems to have decreased in the peripheral communities prior to the Spanish conquest, the city of Mérida flourished during the Colonial Period. Kathleen Deagan (1987, 2002) has asserted that during the Colonial Period, Spanish communities imported a vast array of material goods for use and trade. Stonewares, Coarse earthenwares, and Majolica were among the first ceramic types brought to the

Yucatán, as evidenced by the classification of these wares in the YUC 2 *Ciudadela* collection (see Chapter 6). At the same time, Spaniards were importing goods from the Old World; local pottery production began to take shape in the New World at the colonial cities of Puebla and Mexico City. Both cities initially focused on the replication of Spanish style import wares, but over time, they developed regionalized and unique variants. Mexico City and Puebla wares commonly were used by the inhabitants of colonial Mérida as evidenced by their representation in YUC 2 *Ciudadela* collection. In addition to the importation of colonial wares, Deagan (1987, 2002) suggested the inhabitants of Spanish colonies also imported (and sometimes locally manufactured) material goods such as tile, glass, beads, religious items, amulets, jewelry, bells, clothing adornments, sewing materials, grooming items, coins, firearms, games and toys, writing items, and tobacco pipes at this time (see Chapter 6). Although not all of these items were recovered as part of YUC 2 *Ciudadela* collection, one can assume that the inhabitants of colonial Mérida used some (if not all) of these material goods during the Colonial Period.

Archaeologists limit the Colonial Period to the Habsburg era (1542–1700) even though Spain would rule New Spain until 1821. As documented by the historical record, during the eighteenth century the Spanish empire experienced the Enlightenment's Bourbon Reforms of the late Colonial Period (Farriss 1984; Kamen 1991). Most historians concur that there is a notable ideological discontinuity between the colonial world of the Habsburg Empire of the sixteenth and seventeenth centuries and that of the House of Bourbon rulers of the ensuing century, as well as significant continuity between the eighteenth century and the post-Independence nineteenth century. It is in line with

these historical parameters that archaeologists have developed their working chronologies.

The Eighteenth Century Period (A.D. 1700–1800). At the turn of the eighteenth century, the Northwestern Corridor saw a drastic increase in population as well as the regional re-settlement of previously abandoned sites. Towards the beginning of the eighteenth century, the *Ciudadela* was christened the “la fortaleza de San Benito en Mérida, capital de la colonia [the San Benito fortress of Mérida, capital of the colony] (Alcalá Erosa 1998:20). Robles and Andrews (2003) suggest that Hunucmá was re-settled during this time and the colonial port of Chuburná grew in size and importance as demand increased for import goods. In other parts of the Corridor, towards the end of the eighteenth century and beginning of the nineteenth century, two fairly unknown communities were established, Kaxek and *San Francisco de Paula*, the latter also known as *Rancho de los Negros*. Kaxek, located 27 km to the west of Hunucmá, was a colonial site built on top of (and out of) Maya structures dating from the Late Terminal Classic Period. Recent excavations suggest that this site primarily was occupied by the Maya and consisted of small houses laid out to mimic a Spanish-style village. Robles and Andrews (2003) suggest that this site first was inhabited sometime during the late Colonial Period and remained occupied until the beginning of the twentieth century. It is important to note that Kaxek flourished in the Colonial Era because it acted as the regionalized center for *palo de tinte* (dyewood) trade, considered one of the most important wood resources in the region by both precolumbian and historic inhabitants. The site of *San Francisco de Paula* was established sometime during the late Colonial Period as a runaway slave settlement. The site was located seven kilometers to the south of the modern port of Sisal

and consisted of a Spanish-style hamlet covering an area of 120,000 square meters. *San Francisco de Paula* was comprised of approximately 28 lots of irregularly formed plot structures, each denoted by distinct wall structures and alleyways. Based on the current ceramic evidence, Robles and Andrews (2003) infer that this site was occupied from the end of the Colonial Period until its abandonment in the 1920s (Robles and Andrews 2003:111–112).

As population increased in the region, so did the importation of material goods. Kathleen Deagan (1987, 2002) has stated that during the eighteenth century, Colonial Spanish communities imported a larger quantity of diverse material goods for use and trade. Decorated and undecorated, coarse or refined earthenware, Delftware, Majolica, and Oriental and European porcelains were imported to Mérida, as well as refined localized wares from Puebla and Mexico City, as evidenced by the mixture of historic wares represented in the YUC 2 *Ciudadela* collection (see Chapter 6). During this time, local Maya potters began to create their own, unique styles that combined Spanish import types with native styles (e.g. Romita Plan and Romita Sgraffito).³⁷ Only a few representative sherds were represented in Units C and D in the YUC 2 *Ciudadela* collection. Presumably, these styles of wares were used by the inhabitants of Mérida for household and communal activities; however, Deagan (1987, 2002) has emphasized that the inhabitants of the Spanish colonies in the eighteenth century continued to use imported and local material goods from the earlier Colonial Period.

The Nineteenth Century Period (A.D. 1800–1900). Robles and Andrews (2003) arbitrarily divided the nineteenth century occupation of the Northwestern Corridor into

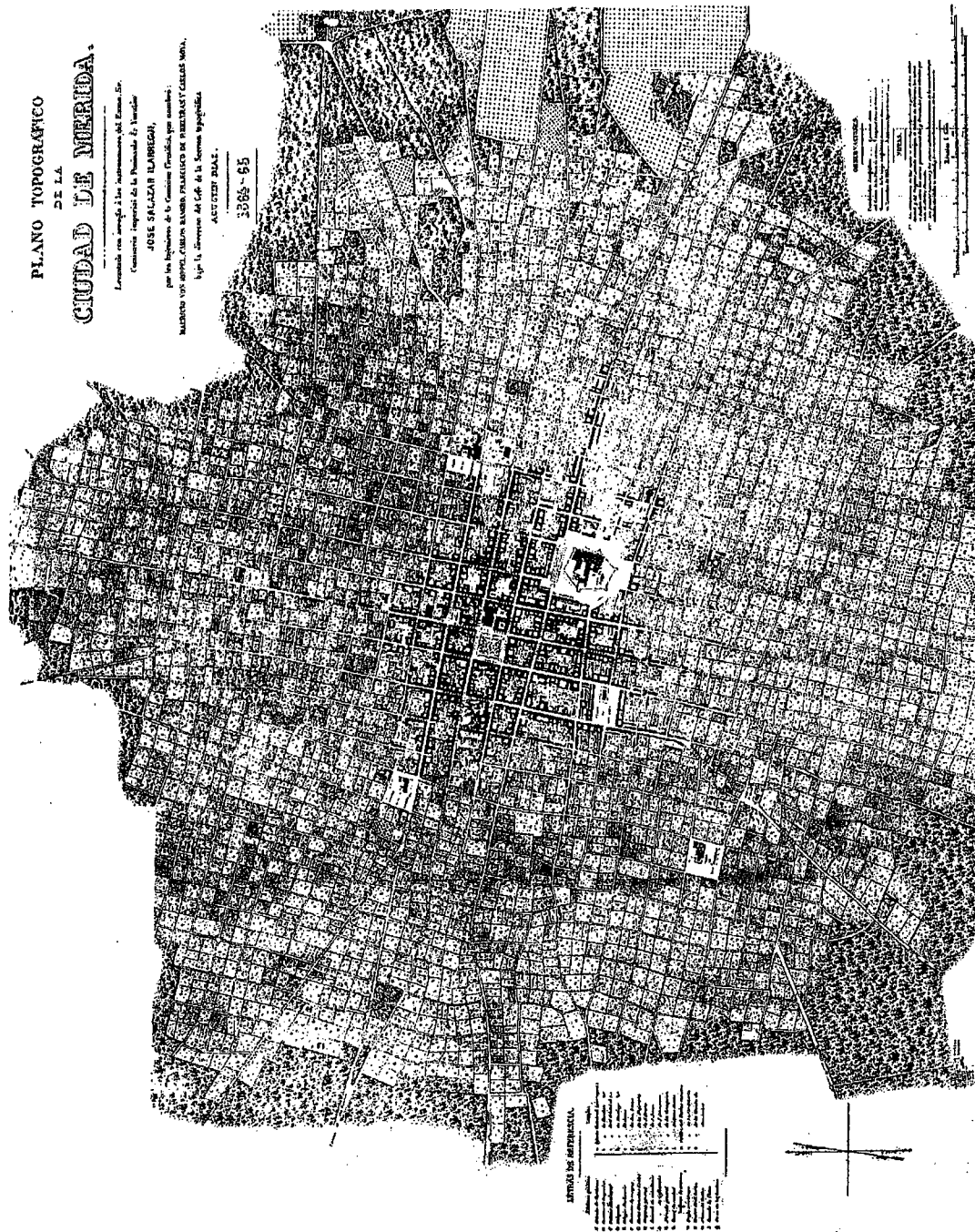
³⁷ Lister and Lister (1982) classified both ceramic groups as *indígena* wares; that is, “types of Native American manufacture, but copying European forms” (Deagan et al. 2010).

two separate categories: the first associated with the settlement of small rural sites, ranches, and haciendas roughly dating from the end of the Colonial Period to the *Guerra de Castas* (i.e. pre-1847), and the second dealing with the settlement, creation, and use of large haciendas and henequen plantations after the 1850s. They argue that pre-1847 settlements primarily were dedicated to rural ranching life involving the raising of livestock and the cultivation of maize, while a smaller portion of sites, like Kaxek, were dedicated to the collection and trade of environmental resources, such as guano palm and *palo de tinte*. It is also important to point out that prior to Mexican Independence from Spain (1810-1821), most communities and ranches throughout the Yucatán were comprised of small or private communal properties. After independence, these small, private communities were absorbed by large, rural estates (*latifundia*), which in the second half of the century were transformed into large haciendas and henequen plantations (Robles and Andrews 2003:112).

Towards the mid-eighteenth century, the Northwestern Corridor saw a drastic increase in population. As interest in trade with Europe increased, so did the importation of material goods, which resulted in intensified power struggles over monetary control of the region. Continual warfare and conflicts between the Maya, European invaders, and the Spanish plagued the Post-Colonial occupation Period. As Luis Weckmann (1992:579) indicated, the *Ciudadela de Mérida/San Benito* originally was constructed to protect the *Convento de San Benito* (ca. A.D. 1750/1800) from invading forces. Alcalá Erosa (1998) suggested that prolonged internal and external conflicts led to the armament of the San Benito. Alcalá Erosa stated:

Como extension del sistema de protección que presto la Ciudadela de San Benito contra posibles ataques piratas a la Península, se construyeron varias trincheras de mampostería y estuco en puntos claves de la costa. [As an extension of the *Ciudadela* protection system, stone and stucco masonry trenches were constructed in order to protect against possible pirate attacks to the peninsula and along key points across the coast] (Alcalá Erosa 1998: 56-58).

Figure 4-6. Topographic Map of Mérida, 1864-1865



Source: Salazar Illarregui 1864-1865 in Alaclá Erosa 1998: 115.

In other parts of the Northwestern Corridor, large estates began to emerge focused on the cultivation and trade of henequen at sites like San Antonio Ch'el, Yaxche de Peón,

Texan Palomeque, and San Antonio O'ol. Robles and Andrews have referred to the henequen economic boom as a Mexican Golden Age (A.D. 1880–1920),³⁸ which ultimately resulted in a large gap between the rich and poor in this Mexican region. Compounding this socioeconomic gap, Yucatán's estate owners typically did not take part in the day-to-day operations of their *latifundia* and often opted to live elsewhere. Many of these estates were run very poorly and, over time, often were plagued by low productivity, extreme poverties, overworked labor forces, abuses, and localized social contempt and unrest. In an attempt to resolve these problems, land reform policies were enacted in the late 1800s to control the *latifundia*. These policies did little to change the treatment of local laborers, which led to more civil unrest, revolts, and eventually to the collapse of the *latifundia* henequen economy during the Mexican Revolution (1910–1940) (Robles and Andrews 2003:112).

The importation and production of material goods became less diversified during the nineteenth century as the regional economy turned to henequen. Increasingly, communities imported fewer goods and relied more on localized material wealth for use and trade. In general, Majolica from Puebla and Mexico City were the primary import ware of this period in the Yucatán as the independent Mexican nation began to depend more so on its own production of goods than on those imported from the Old World. Again, Deagan (1987, 2002) advised that the inhabitants of this period continued to use

³⁸ Naming of this period relies on the origin of the author discussing the subject. U.S. scholars tend to refer to this period as the Mexican Golden Age, while some scholars writing in Spanish refer to this period as the Mexican *Oro Verde*, or “Green Gold,” a reference to the thriving henequen plantations dominating Mexican industry in the 1800s. See Christian H. Rasmussen's 1994 text *Mérida en la época colonial y del oro verde* and Eric N. Baklanoff and Edward Moseley's 2009 text *Yucatán in an Era of Globalization*.

imported and local material goods from the earlier period in addition to adding few new items.

CHAPTER 5

METHODS

Materials: The Ciudadela Collection

The *Ciudadela* (YUC 2) assemblage originally was collected in 1956 and 1957 as part of John Goggin's fourteen-year majolica research project (1949-1963). Based on personal communications with Dr. Larry C. Heilman, one of Goggin's research assistants from the 1950s, I was fortunate to locate Goggin's unpublished 1957 *Field Notebook* (Larry C. Heilman, personal communication 2006), in which he briefly described the excavation of the *Ciudadela* complex. I combined this information with Goggin's brief comments about the *Ciudadela* structure published in his text *Spanish Majolica in the New World* (1968) and his unpublished 1957 *Field Excavation Cards* (archived at the FLMNH–Historical Archaeology Lab) to outline the methods employed during both field seasons. A summary of this compiled information is presented here.

During the summer of 1956, Goggin conducted a pedestrian survey of the *Ciudadela* complex as part of the Carnegie Institute's *Survey of Maya and Colonial Sites* project (1956). During this project, which mostly concentrated on documenting precolumbian and colonial structures in the city of Mérida, Goggin and his team collected 67 majolica sherds from "various levels [along] the face of the *Ciudadela* platform

remnant,” of which the results originally were published in his *Spanish Majolica* text (Goggin 1968:60–61). These are presented in Table 5-1.

Table 5-1. John Goggin’s 1956 Surface Collection: Historic Wares.

Ceramic Type	Counts
Ichtucknee Blue on Blue	5
Ichtucknee Blue on White	2
Fig Springs Polychrome	11
San Luis Blue on White	21
Abó Polychrome	1
Puebla Polychrome	4
Aucilla Polychrome	1
Puebla Blue on White	4
Huejotzingo Blue on White	1
San Luis Polychrome	3
Aranama Polychrome	4
Tumacacori	1
Unclassified Blue on White D	2
Unclassified Polychrome	4
Blue on White Basin Sherds	2
Unclassified White	1
Total	67

Source: Goggin 1968: 60-61.

It is important to note that at the time of Goggin’s survey and later excavation, the only remaining portion of the once two-square-block *Ciudadela* platform was a 3.7 m by 4.6 m (12 by 15 foot) section comprised of what was once the northernmost edge of the structure (Goggin 1968:61). Goggin noted that the rest of structure had been removed “in recent years” for land development and road construction. One can assume that Goggin

returned to the *Ciudadela* structure in 1957 (under the guidance of the Carnegie Institute and the University of Florida) to investigate the structure before it was demolished. In the summer of 1957, Goggin received permission from INAH to excavate:

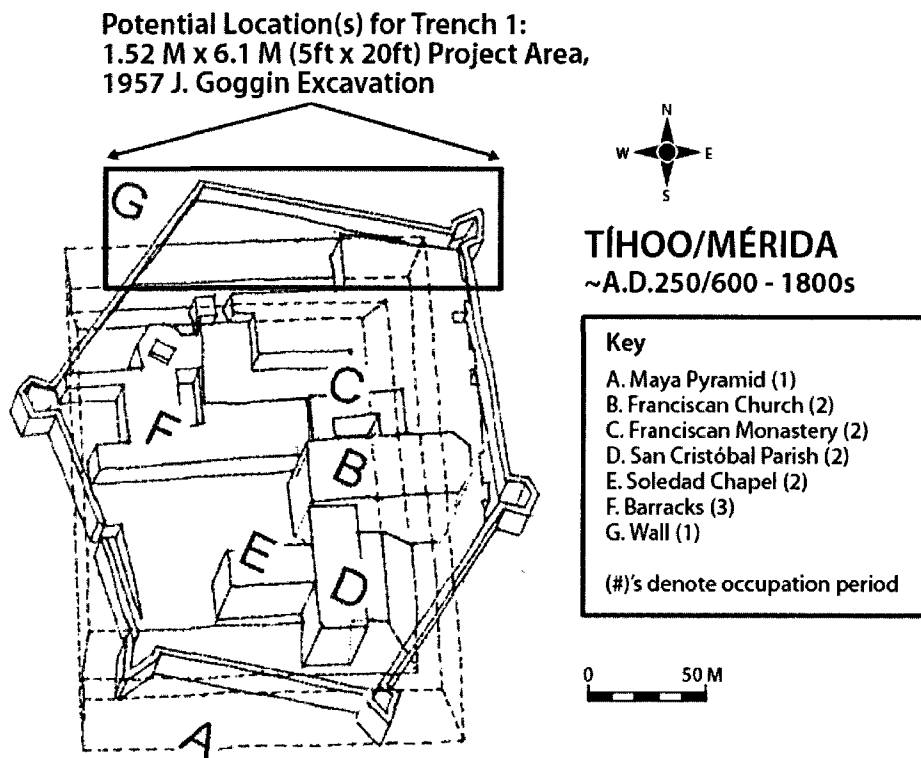
. . . en los vestigios de la construcción colonial conocida como Castillo de San Benito o La Ciudadela, ubicada en [Mérida], en busca de fragmentos de cerámica colonial y prehispánica para su estudio [. . . in the ruins associated with the colonial construction of the *Castillo de San Benito* or *La Ciudadela*, located in Mérida, in search of colonial and pre-Hispanic ceramic fragments for his study]. [George A. Smathers Libraries–Special and Area Studies Collections, Gainesville, Florida, John M. Goggin Papers “Solicitande Facilidades para Exploraciones en La Ciudadela, Agosto 14 de 1957,” Ms 44].

Goggin’s notes stated that the area currently was used as a cornfield and covered with a thick layer of secondary growth and vegetation, which he cleared in order to make surface collections and excavate (Goggin 1957: Ms 44, 1968:59). He also indicated that the remaining section of the *Ciudadela* structure appeared to be the remains of “rock fill constructed in Spanish times, covered with refuse, and subsequent buildings constructed on top of the fill” (Goggin 1968:60). It appears that Goggin believed the site would yield significant historical materials, as indicated by his statements about the high probability of recovering Spanish and colonial majolica from the *Ciudadela* excavation (Goggin 1968:59–61).

Once initial observations were documented, Goggin, his research team, and several local workers, excavated a 1.5 m by 6.1 m (5 by 20 foot) trench (labeled “Trench 1”) along the structure’s remaining outer wall. After the grid was measured, Goggin subsequently divided Trench 1 into four arbitrary excavation units, labeled Units A-D. The exact location of the excavation trench was not recorded, although Goggin noted that it was positioned “just in from the edge” of the northernmost part of the structure

(Goggin 1968:60; SL, Florida, Ms 44). It is important to reiterate that, due to Goggin's death in 1963, much of his Yucatecan research never was completed and a large majority of it went unpublished, including his *Ciudadela* excavation. Rouse stated in his foreword for Goggin's *Spanish Majolica in the New World* (1968) that he was unable to locate Goggin's *Ciudadela* site report, either due to the fact that it had never been found or was never written before his death (Goggin 1968:iii). In the map in Figure 5-1, I have hypothesized about the probable location(s) of "Trench 1" based on Goggin's unpublished field notes. Since Goggin indicated that the only remaining portion of the structure consisted of the "northernmost edge," I elected to highlight the most likely areas that he could have been referring to in his notes.

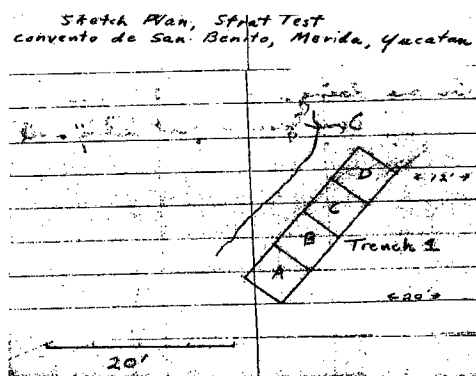
Figure 5-1. Potential Location(s) of *Ciudadela* Excavation Trench.



Source: Adapted from Lindsay 1999:147, Figure 6.6.
(Artistic rendering courtesy of Dennise Rodríguez-Ávila.)

Although it seems likely that this was the location of Goggin's excavation, the above map is based solely on my interpretation of his brief site descriptions and field notes; it should be noted that is impossible to definitively state the exact location of this excavation. Despite the lack of definitive site coordinates, Goggin's *Field Notebook* did include a number of rough sketches of the site, which highlighted the general locations of Test Units A-D. Figure 5-2 shows the orientation of "Trench 1" to the *Ciudadela* structure, presumably the northernmost point shown on the previous map.

Figure 5-2. 1957 Sketch Plan and Test Units, *Ciudadela* (YUC 2), Mérida, Yucatán.



Source: Goggin [1926–1963] 1957, Ms44.

In the above sketch, Goggin drew Trench 1 in front of what appears to be the 1.5 m by 6.1 m (12 by 15 foot) remnant of the *Ciudadela* structure, which was illustrated in the drawing as a single, curved line above and to the left of the four labeled units (Figure 5-3.) The orientation of this map was made without the use of cardinal directions; as such, I have assumed, based on Goggin's previous details, that Trench 1 was originally located either to the northeast or northwest of the *Ciudadela* structure.

Goggin's notes indicated that Trench 1 was comprised of four 1.5 m by 1.5 m (5 by 5 foot) excavation units labeled A thru D. The depth of the test units ranged from 118.1 m (46.5 in) in Unit A to 190.5 cm (75 in) in Units B-D. Goggin excavated each unit

in 15.2 cm (6 in) arbitrary levels. The field notes did not mention if the excavated soils were screened; however, the unpublished *Field Excavation Cards* provided brief details about soil types and features encountered during the excavation of each unit level. Tables 5-2 through 5-5 provide a summary of these results. (Note: In the tables below, I labeled all features as “F” and provided each with a corresponding number.)

Table 5-2. Unit A: Soil and Level Descriptions.

Level	Soil Type	Materials/Features Encountered
0-15.2cm (0-6in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds and 2 Glass Beads
15.2-30.5cm (6-12in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds and cut crystal chandelier ornament (now missing)
30.5-45.7cm (12-18in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche	Potsherds, etc.
45.7-61cm (18-24in.)	Loose limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche	Potsherds, “no obvious intrusive pit but large piece of enameled metal pot here (discarded)” (now missing)
61-76.2cm (24-30in.)	No Data	No Data
76.2-91.4cm (30-36in.)	Rubble	Potsherds, etc. (F1): “Wall fragment, see 36-42in.”
91.4cm-108cm (36-42in.)	Dark soil	Potsherds, etc. (F1): “Two walls intersecting”
108cm-118.1cm (42-46.5in.)	Brown soil with rubble	Potsherds, etc. (F1): “Reached floor inside and outside of walls at 46.5in.”

Table 5-3. Unit B: Soil and Level Descriptions.

Level	Soil Type	Materials/Features Encountered
0-15.2cm (0-6in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, Glass, U.S. nickel (missing)
15.2-30.5cm (6-12in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, Mexican Brass Military Button "Colleigo Militar" (1850-1890?), etc.
30.5-45.7cm (12-18in.)	Dense Limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche/plaster	Potsherds, Near intact green glass bottle (missing), etc.
45.7-61cm (18-24in.)	Dense Limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche/plaster	Potsherds, (F2): "Reach a possible floor at 24 in. see 24-30in."
61-76.2cm (24-30in.)	Limey marl, side near Unit D has a plaster layer	Potsherds, etc., (F2): "Possible floor" is actually fallen wall plaster from Unit D wall feature
76.2-91.4cm (30-36in.)	Rubble	Potsherds and animal bone
91.4cm-111.8/114.3cm (36-44/45in.)	Rubble	Potsherds, animal bones, colonial bricks (<i>ladrillos</i>), "Measurements wrong-level ends at 44-45in."
111.8/114.3cm -121.9cm (44/45-48in.)	Brown soil and rubble	Potsherds, animal bone, etc.
121.9-137.2cm (48-54in.)	Light brown soil and rubble	Potsherds, 1 Chinese porcelain, "Reached rock layer at 54in."
137.2-152.4cm (54-60in.)	Light brown soil	Few Potsherds, encountered (F3): midden refuse, (F4): Colonial Aqueduct "aqueduct first appeared to be a wall at 54in., during removal discovered it contained interlocking clay pipes set in lime mortar surrounded by stones set in mortar, width averages 2ft."
152.4-190.5cm (60-75in)	Soil and rubble and transitions to rubble at 75in.	Reached bottom of (F4) aqueduct, few potsherds but more than Units C and D

Table 5-4. Unit C: Soil and Level Descriptions.

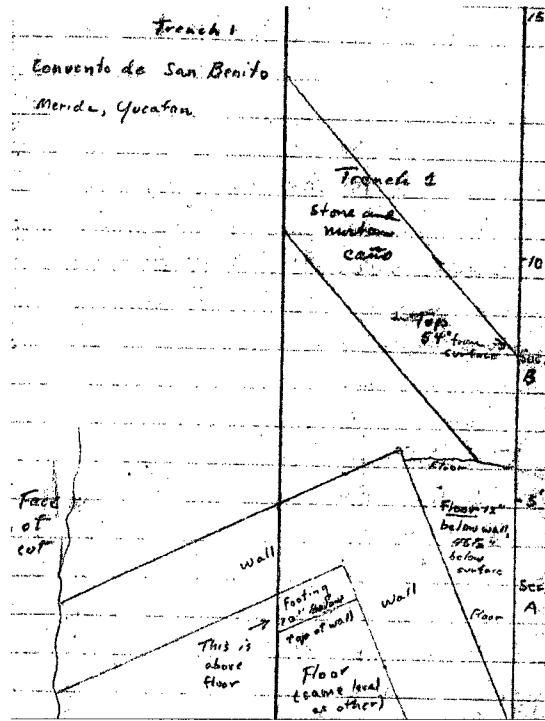
Level	Soil Type	Materials/Features Encountered
0-15.2cm (0-6in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, 1864 U.S. Penny, "Fine piece of Abó Polychrome"
15.2-30.5cm (6-12in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, Bone Button, etc.
30.5-45.7cm (12-18in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche	Potsherds and "Door handle"
45.7-61cm (18-24in.)	Very limey marl (brown when damp, grey when dry) with fine pebbles and rocks and noticeable caliche	Potsherds, etc. (F2) : "On side near Unit B, there seems to be a possible floor, see 24-30in." Determine "floor" actually is fallen wall plaster from Unit D wall feature
61-76.2cm (24-30in.)	Dark soil and rubble	Many potsherds, colonial bricks (<i>ladrillos</i>), and animal bones
76.2-91.4cm (30-36in.)	Rubble	Potsherds, etc.
91.4cm-106.7cm (36-42in.)	Dark soil rubble, in places at 42in. soil caliche encountered	Potsherds, many colonial bricks (<i>ladrillos</i>) fragments, etc.
106.7-121.9cm (42-48in.)	Lighter brown soil	Potsherds, animal bone, etc.
121.9-137.2cm (48-54in.)	Light brown soil with rubble	Few potsherds "Reached rock layer at 54in."
137.2-152.4cm (54-60in.)	Light brown soil	(F3) : Midden refuse and (F4) : aqueduct, see Unit B 54-60"
152.4-190.5cm (60-75in)	Soil and rubble and transitions to rubble at 75in.	Reached bottom of (F4) aqueduct, few potsherds

Table 5-5. Unit D: Soil and Level Descriptions.

Level	Soil Type	Materials/Features Encountered
0-15.2cm (0-6in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, glass, etc.
15.2-30.5cm (6-12in.)	Limey marl (brown when damp, grey when dry) with fine pebbles and rocks	Potsherds, etc., (F5): "Possible wall, see 18-24in."
30.5-45.7cm (12-18in.)	Limey marl with many plaster fragments	Potsherds, etc., (F5): "Wall across side, see 18-24in."
45.7-61cm (18-24in.)	Limey marl with more plaster fragments	Wall exposed with intact plaster, see 24-30in. for floor plan
61-76.2cm (24-30in.)	Marl with rubble	Potsherds (noted Creamware), (F5): Wall feature still encountered, 3 colonial brick (<i>ladrillo</i>) fragments
76.2-91.4cm (30-36in.)	Rubble	Potsherds, etc., "Large stone in floor left in place"
91.4cm-106.7cm (36-42in.)	Dark soil and rubble	Potsherds, etc. "Stone still in center" [Note: 2 excavation cards for the same level]
106.7-121.9cm (42-48in.)	Lighter brown soil	Few potsherds, animal bones, "Removed center stone at this level"
121.9-137.2cm (48-54in.)	Light brown with rocks	Potsherds, etc.
137.2-152.4cm (54-60in.)	Light brown soil with rubble	Potsherds, etc.
152.4-190.5cm (60-75in)	Light brown soil and rubble transitions into rocks	Potsherds scarce

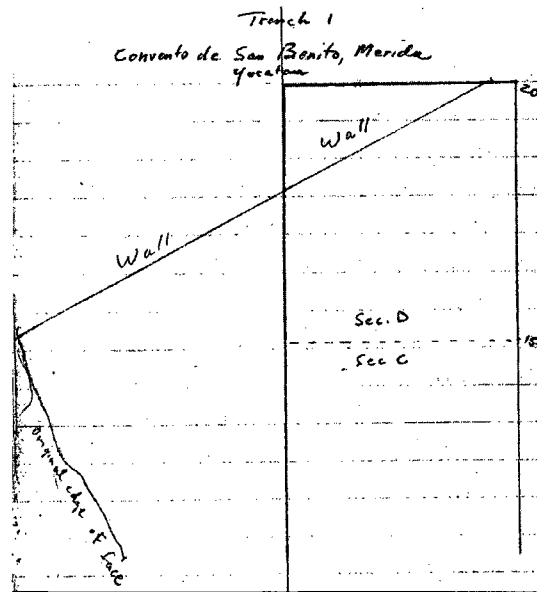
Goggin's *Field Notebook* included rough sketches of excavation units and their noted features, including the aqueduct and midden in Units B and C and intact walls in Units A and D. The following drawings, labeled Figures 5-3 thru 5-5, show the location of these features with regard to their location in Trench 1.

Figure 5-3. Goggin's 1957 Sketch Map of Features in Units A, B, and Part of C.



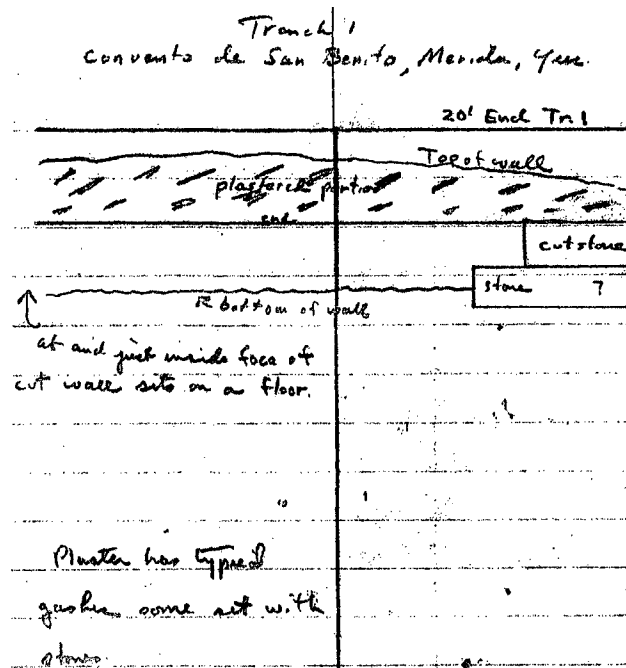
Source: Goggin [1926-1963] 1957, Ms44.

Figure 5-4. Goggin's 1957 Sketch Map of Feature in Unit D.



Source: Goggin [1926-1963] 1957, Ms44.

Figure 5-5. Goggin's 1957 Sketch Plan of Trench 1 Profile in Units C and D.



Source: Goggin [1926–1963] 1957, Ms44.

After Goggin's excavation in 1957, the remainder of the structure was removed by the City of Mérida for road construction and the expansion of the modern San Benito marketplace (Alcalá Erosa 1998:52; Georgina Yazmín Reyes Gutiérrez, personal communication 2009).

There are several reasons why the *Ciudadela* (YUC 2) collection was selected for this project. First and foremost, it represents the only site in Goggin's Yucatecan investigations where he dug stratigraphic test pits and encountered intact features. Of the four pits excavated at this site, this study concentrates primarily on Units A and B, and General Collections,³⁹ however, additional information will be provided for Units C and

³⁹ It is important to note that the classification "General Collections" originally was not created by Goggin in the 1950s. It appears that artifacts may have been mislabeled and then reclassified under this heading some time between the transportation of items from Mexico in the 1950s to the accessioning of the YUC 2 collection into the FLMNH collections in the 1970s.

D when deemed necessary. Units A and B were selected as the primary study units because they represented the highest concentration of features and contained the greatest number of levels that appear to have been *in situ* at the time of excavation (e.g. levels 137–152 cm and 152–191 cm in Unit B contained both the intact aqueduct and associated midden features, and levels 76–91 cm thru 108 cm–118 cm in Unit A contained intact, intersecting colonial walls and an associated, intact floor). As such, I felt that these units were most likely to provide sufficient information to answer the research question presented here.

Laboratory Methods

Based upon these materials Goggin collected but never published, I organized, cataloged, analyzed and, in some instances, re-analyzed the material remains associated with the YUC 2 *Ciudadela* artifact assemblage.⁴⁰ To do so, I used the following analytical methods: the Type-Variety Classification Method (TVM), the Historical Archaeology Type Collection Classification Method (HATC, which is loosely based on the TVM), the Non-Ceramic methodologies presented in Deagan’s *Artifacts of the Spanish Colonies* (1987, 2002), the Society of Historical Archaeology’s *Historic Glass Bottle Classification and Identification Website* (Lindsey 2010), and Sutton and Arkush’s text (2001) to catalog material remains from the *Ciudadela* (YUC 2) collection. Using these methodologies, I classified all diagnostic elements, motifs, configurations, and decorative layouts in order to properly group materials into their respective cultural, ceramic, and non-ceramic sequences.

⁴⁰ I only analyzed the portion of the *Ciudadela* collection currently stored in the Historical Archaeology Lab (YUC 2), which did not include the ~14 trays (approximately ± 20,000) of bone fragments removed by “JC” in 2004 and restored in the Zooarchaeology collection under the accession heading “1ET12-8.”

Laboratory Procedures. Initially, I sorted the *Ciudadela* (YUC 2) collection and processed all material remains according to the following laboratory procedures. Materials initially were rough-sorted into artifact, ecofact, and geofact types. I classified these groupings as follows: *artifacts* (items made or used by humans: ceramics, lithics, worked bone, worked shell, modified wood), *ecofacts* (unmodified remains impacted, intentionally or unintentionally, by human behavior: seeds, shell, faunal remains, wood remains, coprolites) (Sutton and Arkush 2001:33–34), and *geofacts* (associated, unmodified geological remains in a site provenience: rocks). All materials then were cleaned and sorted by provenience.

Once processed, materials were sub-divided into three categories: precolumbian, historical, and precolumbian/historical items. When artifacts could be identified as either precolumbian or historical diagnostic type(s), they were sorted by provenience into the aforementioned cultural, ceramic, and non-ceramic groupings. Additionally, ecofacts and geofacts were categorized and grouped according to tentative classification, association, provenience, and placed into pre-established non-ceramic chronologies. When applicable, artifacts were sorted further into sub-categories based upon the identification of form (e.g. rim, base, body, handle), style (e.g. slipped, unglazed, lead glazed), and function (e.g. bowl, plate, jar) (Andrews and Robles 2008; Brown 1999; Deagan 1987, 2002; Smith 1971).

Once complete, all materials were recorded in the *FLMNH YUC 2: Catalog of Artifacts* (referred as the *YUC2CA*) using the data fields listed in Table 5-6.

Table 5-6. *YUC2CA* Data Fields.

1. FS Numbers (Tray and Lot Numbers)
2. Number of Items
3. Colonial Artifacts (Non-Ceramic) Descriptions
4. Colonial Artifacts (Ceramic) Descriptions
5. Precolumbian Artifacts (Ceramic) Description
6. Precolumbian Artifacts (Non-Ceramic) Description
7. Sketch/Photo
8. Notes

Representative diagnostic items also were photographed and recorded on the *YUC2CA* and on the *FLMNH 2009 Photo Log Forms*. Data recorded in the *FLMNH Photo Log Forms* was recorded using the following data fields listed in Table 5-7.

Table 5-7. *FLMNH Photo Log* Data Fields.

1. Date
2. Photo Number
3. FS Numbers (Tray and Lot Numbers)
4. Item Number
5. Location
6. Photo Type (Black and White; Color; Both)
7. Sketch
8. Other

Items that could not be identified were labeled as unidentifiable (uni.) and recorded as such in the *YUC2CA*; however, certain “unidentifiable” items that could be roughly categorized by stylistic traditions or horizons were grouped as such (e.g. Uni. Blue on White Majolica, Puebla Tradition and Mayapan Redware–Western Tases Horizon).

Ecofacts and geofacts were identified, counted, and recorded into the *YUC2CA* following the same principles. Once all items were recorded and when space permitted, diagnostic artifacts, ecofacts, and geofacts were separated, bagged, counted, and labeled

with pre-assigned FLMNH accession and catalogue numbers. All corresponding accession information then was recorded in the *YUC2CA*.

After all 20,000± items were recorded, I sampled two of Goggin's four stratigraphically excavated test units (Units A and B) in order to create a gross estimation for material remains represented in the collection. All corresponding data recorded in the *YUC2CA* and associated with General Collections, Unit A, and Unit B were transcribed into two catalogs entitled the *FLMNH YUC 2: Ceramic Stylistic Catalog* (referred to as the *YUC2SC*) and the *FLMNH YUC 2: Non-Ceramic Catalog* (referred to as the *YUC2NCC*). All sampled materials were individually recorded as separate line items in both catalogs. Tables 5-8 and 5-9 show the data fields used in both catalogs.

Table 5-8. *YUC2SC* Data Fields.

- | | |
|---|---------------------------|
| 1. Tray Number | 12. Size (T, S, M, L, XL) |
| 2. Lot Number | 13. Temper Type |
| 3. Excavation Unit | 14. Paste Type |
| 4. Excavation Level | 15. Paste Color |
| 5. Count | 16. Glaze Background |
| 6. Ceramic Tentative Classification | 17. Design Motif 1 |
| 7. Historical Archaeology Type Collection (HATC) and Type-Variety System (TVM) Classification | 18. Design Motif 2 |
| 8. Precolumbian, Historic, or Precolumbian/Historic Ware | 19. Design Motif 3 |
| 9. Ceramic Type | 20. Design Color 1 |
| 10. Ware Use | 21. Design Color 2 |
| 11. Ware Group Origin | 22. Design Color 3 |
| | 23. Design Color 4 |
| | 24. Ceramic Details |

The *YUC2SC* catalog contained 8,806 individually recorded ceramic sherds (line items) representing General Collections, Unit A, and Unit B.

Table 5-9. *YUC2NCC* Data Fields.

1. Tray Number	9. Ware Group Origin
2. Lot Number	10. Size (T, S, M, L, XL)
3. Excavation Unit	11. Design Motif 1
4. Excavation Level	12. Design Motif 2
5. Non-Ceramic Count	13. Design Color 1
6. Ceramic Tentative Classification	14. Design Color 2
7. Non-Ceramic Tentative Classification (Deagan, SHA, Sutton Chronologies)	15. Design Color 3
8. Precolumbian, Historic, or Precolumbian/Historic	16. Ceramic Details

The *YUC2NCC* catalog contained 1,959 individually recorded non-ceramic remains (line items) representing General Collections, Unit A, and Unit B. Copies of these catalogs will be provided to the FLMNH for inclusion in their Historical Archaeology Type Collection (HATC) digital archives.

Statistical Data Methods: Interferential and Descriptive Statistics

A sample of 8,806 ceramic remains and 1,959 non-ceramic remains were systematically analyzed from Unit A, Unit B, and General Collections for this study (see Appendix E).⁴¹ A variety of inferential and descriptive statistics was used to enhance the *Ciudadela* data set as well as to evaluate relationships between material remains and their use at the site.⁴² In order to determine the validity of this study, I employed the well-known chi-square (χ^2) distribution for independence formula in order to verify if the frequencies of variables did, in fact, reveal a clear statistical relationship. This measure

⁴¹ The entire *Ciudadela* (YUC 2) collection was cataloged in 2009 but, due to its large size, it has not been included in this study. It is my intent to publish the catalog as a separate document in the near future.

⁴² I have included only those statistical results that offered the most relevant data related to the evaluation of the proposed research question created for this investigation.

represents the likelihood that both ceramics and non-ceramics sampled for this study reflected a statistically significant relationship between Variable A (stratigraphic levels) and Variable B (ceramics/non-ceramics sampled for the collection). As a requirement for the use of this measure, I determined that the null hypothesis (which is, by definition, the exact opposite result intended for this study) illustrated that the frequencies of Variables A and B did not represent a significant statistical relationship. I selected the customary .01 level of significance for this measure, as suggested on the standardized Chi-Squared Distribution Table (Sinopoli 1991:205). I also used descriptive statistics compiled from artifact description and classification data results to highlight observable relationships between ceramic style and human behavior (e.g. the relation of artifact form and function to use and production) (see Chapter 6).

Classification Methods

The Type-Variety Classification Method. During the cataloging stages of this project, I grouped materials into pre-existing chronologies, one of which was the Type-Variety Classification Method (TVM). As this is the most widely used and respected methodology in Lowland Maya ceramic analyses, I elected to use this approach to classify all diagnostic precolumbian ceramics. Based on current developments in the sorting and naming of regional types as well as the identification of new wares and varieties in the Northwestern Maya Corridor, I have combined the following Type-Variety approaches to present a new, updated view of ceramics in the region. These combined approaches include Smith's (1971) and Brown's (1999) ceramic chronologies from Mayapan, Robles's (1990) and Andrews and Robles's (2008) tentative ceramic chronologies from Coba and the Northwestern Yucatán, and Peña Castillo's et al. (2000)

tentative ceramic chronology from Tihoo/Mérida. Since the 1960s, the TVM has been the preferred classification method in Maya ceramic research. Smith, Wiley, and Gifford (1960) were some of the first to successfully apply this method to the Northern Maya Lowlands. Brown (1999) and, more recently, Andrews and Robles (2008) and Peña Castillo's et al. (2000) have made subsequent elaborations on the initial classifications and chronology in this methodological approach, which has expanded its application to studies in the Northwestern Corridor. The popularity of this method relies on its ability to ascribe comparable attributes, styles, decorations, and temporal frameworks across regionalized Maya contexts. As such, this method was selected for this project in order to contribute to the regionalized framework currently employed in the Northern Maya Lowlands.

As Smith (1971:7) and Andrews and Robles (2008) proposed, the TVM is comprised of seven general stages of analysis, which I have listed in Table 5-10.

Table 5-10. TVM Stages of Analysis.

Stage	Definition
1. Ceramic Horizon	the overarching temporal and stylistic framework used to loosely classify remains within a broad grouping of complexes and wares
2. Ceramic Complex	the all-inclusive analytical unit ascribed to materials within a specific temporal phase and belonging to a specific set of stylistic groupings (e.g. ware, type, variety, mode)
3. Ceramic Ware	an analytical unit, usually derived from the analysis of a specific ceramic assemblage, in which all attributes of surface finish and paste composition remain constant
4. Ceramic Type	an aggregate of visually distinct ceramics attributes, which, when grouped together, represent a particular class of pottery—usually representing a broad area or site where the sherd was originally identified
5. Ceramic Variety	the grouping of characteristics and diagnostic attributes derived from the linkage of visually similar ceramic surface treatments (e.g. decoration, style, form, function)
6. Ceramic Group	a collection of closely related types that exhibited similar colors, forms, and temporal frameworks
7. Ceramic Mode	an attribute or cluster of attributes distinctive to specific individual or groups of sherds

All precolumbian sherds in this study were classified according to the methodological approach presented in Table 5-7; however, the basic units of analyses for this project were the Ware and Group classifications. Drawings and photographs were taken (see Appendix E) for some of the best ceramic examples and included for reference in Appendix E. In both the *YUC2SC* and the *YUC2NCC*, I documented TVM Stages 3-7 and took detailed notes for stylistic attributes in order to determine proper classification. In addition, I used clusters of pre-defined ceramic Groups in order to determine proper

Ware classification (see Appendixes B and E) and, when applicable, sherds were placed into their associated types and varieties, based on comparisons with previously documented wares (e.g. Brown's photographic images of Mayapan ceramics, posted on his blog entitled *Maya Archaeology-Mayapan Ceramic Photos*, and Pérez's (2008) photographic images of Chichén Itzá ceramics posted online as part of his article entitled *Chen K'u: The Ceramic of the Sacred Cenote at Chichén Itzá—Study of the Ceramic Fragments of the Explorations Conducted in the 60s*). Given the primacy of Terminal Classic and Postclassic period dates (~A.D. 800/900–1542) ascribed to the represented precolumbian materials in this collection, I relied on the well-defined regional ceramic complexes of the Cehpech/Sotuta Ceramic Horizon and the Hocaba/Western Tases Ceramic Horizon to catalog the majority of sampled precolumbian items.

It is important to note that stratigraphic context played an important role during the documentation of all precolumbian cultural materials, especially since utilitarian wares and non-ceramic remains were found in abundance near cultural features at the lower levels of Unit A and B. As such, I elected to catalog all material remains in this collection. Faunal remains removed from this collection and re-accessioned under the Zooarchaeology heading "1ET/2.8" were not included in my study.

The Historical Archaeology Type Collection Classification Method. For historical wares, I used the Historical Archaeology Type Classification Method (HATC). As the most widely used method in U.S. historical ceramic studies of the Spanish New World, I elected to use this approach to classify all diagnostic historical ceramics remains (A.D.

1542–1900).⁴³ In order to better represent current trends in the sorting and naming of historical types, as well as to contextualize the current identification of newly identified Mexican wares and varieties in historical research, I have supplemented the HATC with the following historic ceramic methodologies: Robles and Andrew's (2003) tentative cultural chronology for the Northwestern Corridor, Burgos's (in Robles and Andrews 2003) proposed tentative historical ceramic chronology for the region, and Deagan's (1987) chronology for Hispanic import goods.

The HATC utilized by both Deagan and the FLMNH is considered a variant of the Type-Variety Classification Method. Unlike the TVM, however, which is comprised of seven general stages of analysis, the HATC uses only four stages of analysis, which are listed in Table 5-11.

⁴³ Unlike the precolumbian occupation, the material remains of the Colonial and Post-Colonial Periods are not differentiated easily. This is the result of an historical overlap existing between the Franciscan and Spanish/Mexican Military occupations, particularly around the mid-eighteenth century (see Chapter 4). The result of this historical overlap has led to an indiscernible mixture of material remains in the YUC 2 sample, spanning approximately 200 years (A.D. 1700s–1900s), which may represent one or both of the Colonial and Post-Colonial occupations. As such, it was impossible for me to create a definitive temporal division between both periods. In order to rectify this problem, I elected to arbitrarily divide historic ceramics and non-ceramics between the Colonial and Post-Colonial Periods. Specifically, this division grouped material remains recorded into both the *YUC2SC* and *YUC2NCC* using the following procedures: Colonial Period materials remains were considered items dating between A.D. 1490–1750 and Post-Colonial materials remains were considered items dating between A.D. 1800–1900/present. As the reader will note, the period between 1750 and 1800 constitutes a time when both the Franciscan and Spanish/Mexican Military were present at the site; however, the *Ciudadela* functioned primarily as a Catholic monastery until the late 1770s (Ojeda 1994:142), after which it appears to have been converted solely into a Spanish/Mexican Military fort. However, the lack of concrete divisions between both historical occupations led me to approximate this divide to the nearest sequential increment in both the *YUC2SC* and *YUC2NCC*, which was A.D. 1800. Based on this division, items accessed under the labels “?” and “A.D. 1900–present” were excluded from these tabulations, since the historical record indicates that the *Ciudadela de Mérida* was demolished in A.D. 1869 (Alcalá Erosa 1998:48-49; Weckmann 1992:579). In the future, other samples from this site containing similar diagnostic remains should be compared with the YUC 2 collection and the historical record in order to definitely separate these cultural periods; however, until such work is completed, the information below reflects arbitrary temporal divisions for this site.

Table 5-11. HATC Stages of Analysis.

Stage	Definition
1. Ceramic Category (Ceramic Group)	combines the traditional Ware and Group stages of the TVM and is defined as an analytical unit, usually derived from the analysis of a specific ceramic assemblage, in which all attributes of surface finish and paste composition remain constant and consist of closely related types exhibiting similar colors, forms, and temporal frameworks
2. Ceramic Type	an aggregate of visually distinct ceramics attributes, which when grouped together, represent a particular class of pottery—usually representing a broad area or site where the sherd was originally identified
3. Ceramic Variety	the grouping of characteristics and diagnostic attributes derived from the linkage of visually similar ceramic surface treatments (e.g. decoration, style, form, function)
4. Ceramic Tradition	appears to be the traditional Mode definition in the TVM and is defined as an attribute or cluster of attributes distinctive to specific individual or groups of sherds

All colonial sherds in this study were classified using the aforementioned four-tier methodological approach; however, the basic units of analysis for this project were the Category and Type classifications. Drawings and photographs of historical materials were taken. In both the *YUC2SC* and the *YUC2NCC*, I documented HATC Stages 1-4 and took detailed notes for stylistic attributes in order to determine proper classification. Given the predominance of Majolicas and Refined Earthenwares in the *Ciudadela* collection and the fact that most (if not all) remains represented the Colonial and Post-Colonial Periods (~A.D. 1542–1800s), I used the well-defined historic ceramic classifications described by Deagan (1987) and utilized by the FLMNH to classify

ceramic categories, types, varieties, and traditions. Stratigraphic context also played an important role during the documentation of historical cultural materials, especially since artifacts were found in context with colonial intact features at the lower levels of Unit A and B.

Non-Ceramic Classification Methods. Non-ceramic remains were grouped using the following chronologies: Sutton and Arkush (2002), Deagan (1987, 2002), the *FLMNH Historical Archaeology Artifact Gallery* (Deagan et al. 2010), the FLMNH Historical Archaeology Laboratory Reference Collections (2010), and the *Society of Historical Archaeology (SHA): Historic Glass Bottle Identification and Information Website* (Lindsey, 2010). In the United States, the most widely used and respected non-ceramic classification methodology are those currently used by the FLMNH and created by Deagan (1987, 2002). I used these approaches primarily to classify all diagnostic non-ceramic remains. However, in order to simplify the definitions currently used in these classifications, I have supplemented information with both Sutton and Arkush's (2002) text and the SHA website. The popularity of the FLMNH historical non-ceramic classifications relies on its ability to combine attributes, styles, decorations, and temporal frameworks from across the New and Old Worlds into a few, universally accessible reference sources. Given the expansive time span attributed to this collection (~A.D. 800/900–present) and the general difficulty determining exact timeframes for non-ceramic material use, I generally applied the temporal classifications of the Precolumbian Period (~A.D. 800/900–1542) and Historical Periods (A.D. 1542–present) to the analysis of non-ceramic remains.

Behavioral Research Approach: The Use of Ceramic Sociology

A major component of this dissertation deals with the socio-cultural ramifications of Spanish-Maya contact. Therefore, it is important to discuss the role that behavioral studies played in this project. Like most behavioral theories, researchers in ceramic sociology attempt to address the ways the archaeological record can be used to uncover past human behavior; in this case, through the scientific study of diagnostic ceramic traits (i.e. form, design, function, and style) (Rice 1987). With the discovery of new techniques, research methods, and analytical tools, studies in ceramic sociology continually have evolved over time.⁴⁴ Most ceramic sociologists have established a common ground for interpreting ceramics, although they have done so using various definitions. Rice (1987:252) defines ceramic sociology as the attempt to “isolate the individual elements of pottery design in order to explain their spatial relations in terms of their social and cultural behaviors.” As such, ceramic sociology is used in this project to expand ceramic understanding beyond the traditional precolumbian and colonial typologies and into the

⁴⁴ This is evident when reviewing literature dedicated to ceramic sociology. In many of these works, archaeologists have revised, refuted, and sometimes reinvented the use of particular theories, field methods, and terminology (Neff 2001; Sackett 1977, 1985, 1986; Sinopoli 1991a, 1991b; Weissner 1983, 1985). I would argue that many of these theoretical debates have deterred from the effectiveness of ceramic sociology in field research. Although in some cases this process is necessary for furthering the study of ceramics, many times these theoretical debates have been used to overshadow both the work and data collected in the field. I would argue that many of these theoretical debates have led to a confusion of methods and terms, thus inhibiting the effectiveness and application of ceramic sociology to data collection. In the case of my own research, I initially had difficulties rectifying the inconsistencies in this theoretical paradigm. Case in point, when I began to review literature in the field of “ceramic sociology,” I realized that the field itself had many groups and subgroups, and that it had been labeled differently by various scholars (e.g. Design Element Analysis Method, Interaction Hypothesis, the Deetz-Longacre hypothesis, Iconological Ceramic studies, and Isochrestic Ceramic studies). I also realized that this problem was compounded further when theories were taken into the field and changed by archaeologists to match their point of view, school of thought, or region being studied. The resulting inconsistencies in theory and practice made maneuvering within the field a difficult and confusing task, one that took me a large amount of time, patience, research, and theoretical understanding to grasp. I soon realized that although I agreed with its general principles, I would need to find (or develop) a clear set of methods in order to validate my use of ceramic sociology. During my reviews of the literature, I was fortunate to find that, despite different labels ascribed to terms, ceramic sociologists tend to agree on what is meant to use behavior as an indicator of ceramic production.

socio-cultural realm of ceramic “meaning.” Using a comparative frequency of diagnostic traits (e.g. design, form, function, decoration, and style), this project used ceramic sociology to infer information about Maya resiliency and social intra- and inter-actions occurring in Tihoo/Mérida, pre- and post-contact.⁴⁵

Behavioral Analysis: The Application of Ceramic Sociology. William Longacre and James Hill were some of the first to successfully use this approach in their research with the Puebloan peoples of the U.S. Southwest in the 1960s. Their research argued that through the isolation of stylistic norms in material remains (e.g. decoration, stylistic variation, form, and function) archaeologists could infer information about social organization and cultural associations occurring within a given site (Hill 1970:10–17). It is important to note, however, that the application of this methodology is somewhat controversial. Many archaeological circles consider the study of inferences as both unscientific and statistically unverifiable. Hill (1970) argued the contrary, stating that, if done correctly, ceramic sociology can be scientifically verifiable through the application of testable methods and statistical data. In Hill’s research, he combined ceramic sociology with traditional stylist analyses (in his case the multivariant approach) in order

⁴⁵ Since the inception of archaeology as a discipline, ceramicists have attempted to use socio-cultural ceramic studies to validate the correlation between human behavior and pottery (Carrillo 1997; Peregrine 2001; Sinopoli 1991a, 1991b). The enormous amount of scholarly literature currently dedicated to behavioral ceramic studies (post–1960s) attests to its influence in the archaeological community and its increasing role as an indicator of past and present human behavior. The study of ceramic sociology itself has been the topic of a number of archaeological debates, however, ranging from discussions of its validity as a scientific field of study to arguments over the application of various terms and methods. In spite of this problem, I believe that this theoretical framework can be used to determine cultural information about the inhabitants of Tihoo/Mérida as well as the importance of ceramic production in this localized context. As Ian Hodder stated, “Forms and changes in behavior—and in its material expression, through pottery styles, burial practices, house form, or whatever—can be understood only in the context of the particular set of cultural values, attitudes, and other beliefs that give the world meaning” (Quoted in Sharer and Ashmore 1993). Therefore, I will use the YUC 2 collection and ceramic sociology to comment on the importance of ceramics in Tihoo/Mérida (i.e., using both their taxonomical and stylistic groupings) in order to address the socio-cultural indicators of human behavior at this site.

to discuss the transmission of “microtraditions” in the prehistoric southwest. Following Hill’s approach to ceramic sociology, I have combined my TVM, HATC, and non-ceramic stylistic analyses with ceramic sociology to determine if sociological inferences about human behavior could, in fact, yield information about the peoples occupying/utilizing the *Ciudadela* complex. To ensure the integrity of this sub-study, limits were placed on the YUC 2 data set to make certain that the inferences made about the *Ciudadela* assemblage did reflect verifiable information.

Theoretical Considerations. The sociological component of this study utilized Hill’s definition for social organization as it applies to non-residential structures (coined sodalities). As Hill stated:

[The term] sodalities [refer to] nonresidential associations having corporate functions of purposes that serve to integrate two or more residence units. The unit is not generally localized or is localized for brief periods only; and membership crosscuts residence units. While sodalities perform various tasks [considered a separate unit in Hill’s classifications of social organization], they are thought of primarily as formal integrative institutions (for example, ceremonial, warrior, and so forth) (Hill 1970:15).

Since all three occupations for the *Ciudadela* structure (i.e. the Maya religious platform, Franciscan church structures, and the Spanish/Mexican Military fort) primarily were used for communal purposes, I determined this classification the most applicable to this study. In addition to this classification, Hill suggests using three analytical tools to systematical measure a data set using his methodological approach to ceramic sociology. That is, one must employ the use of:

1. *A proposition*: defined as a testable statement;
2. *Test implication(s)*: defined as measurable data (e.g. statistics); and
3. *Attributes*: defined as testable methods.

Each of these is used to combine statistical information with inferential data,
which I have applied to YUC 2 assemblage.

CHAPTER 6

ANALYSIS AND RESULTS OF 2009 *CIUDADELA* (YUC 2) STUDY

The analyses performed in this study specifically were used to illustrate the research question and strategies presented earlier. That is, artifacts were analyzed in order to determine whether material exchange affected Maya culture, pre- and post-contact. In the process of this study, I developed a localized chronology for the YUC2 assemblage and identified artifact forms, styles, function, and production using pre-existing chronologies, in order to hypothesize about material exchange over time and space. In the sections below, I provide a summary of these findings.

Before discussing the data results, it is important to note that archeological methods of the 1950s were not as precise as those used today. As such, there are interpretive limitations when using older, unreported archaeological data. In the YUC2 assemblage, these problems stem from the fact that, in recent years, some of Goggin's materials may have been misplaced or mislabeled since their removal from the site. Goggin's notes indicated that his field crew collected materials from all levels of Units A and B, except for Level 6: 61-76.2 cm (24-30 in) in Unit A where it *appears* that nothing was recovered; however, this is only speculative since I was unable to find Goggin's associated 1957 excavation card for this level. In addition, during my study in 2009, I was unable to locate materials from Unit A: 30.5-45.7 cm (12-18 in) and Unit B: 152.4-190.5 cm (60-75 in). It is possible that some of these materials inadvertently were mixed

together and/or labels were misplaced during transport, either during their initial transport from Mexico in the 1950s or during their transport from the UF–Department of Anthropology to the FLMNH in the 1970s. This assumption is the most plausible since a large group of materials have been classified under the generic headings “1?A” and “1?B,” of which neither were originally recorded on Goggin’s 1957 excavation cards.⁴⁶ In addition, Goggin’s field notes failed to clarify the exact meaning of “General Collections,” which suggests that this category may represent all items collected from the entire surface of Trench 1 (i.e. the area covering Units A through D) and potentially the 67 majolica sherds collected in 1956. There is no way to tell if this is the case. Since items collected from the surface of Units A and B are most likely a part of this general classification, I elected to analyze General Collections as a part of this study.

Statistical Data

Chi-Squared Measure: Ceramic Data Set. Tables 6-1 and 6-4 have been separated in order to differentiate between ceramic and non-ceramic remains sampled from this collection. In all tables, Variable A represents all artifacts (either ceramic or non-ceramic), while Variable B represents the chronological periods represented in this sample.⁴⁷ As highlighted in Chapter 5, both the TVM and HATC classification systems are based on the same methodological premise, yet they both use different terminologies for classification. Both methods are interested in collecting frequencies of taxa, which are comprised of both stylistic and technological information. Both Wares in the TVM and

⁴⁶ In the case of Unit A, “1?A” may represent the combination of Levels (12-18”) and (24-30”) and “1?B” in Unit B most likely represents the missing Level (60-75”); however, there is no way to verify this assumption and, as such, both were recorded as they currently were labeled in the collection.

⁴⁷ As always, it is important to keep in mind the factors limiting the accuracy of this statistical information (e.g. the potential lack of stratigraphic context).

Categories in the HATC are based on techno-functionality; that is, they view form and function as critical components of classification, while their associated, sub-classifications are based primarily on the analysis of stylistic traits. As such, differences between horizons, groups, types, and varieties in the TVS and the differences between types, varieties, and traditions in the HATC usually reflect variations in color, paste, surface treatment, finishing techniques, and decoration rather than the technological use of the ceramic(s) analyzed. Tables 6-1 and 6-2 illustrate these findings.

Table 6-1. *Ciudadela* (YUC 2): Ceramic Contingency.

Variables	PreColumbian	Historic	PreColumbian/ Historic	Totals
General collections	96	521	38	655
Unit A	1,010	615	1,254	2,879
Unit B	2,680	1,035	1,557	5,272
Totals	3,786	2,171	2,849	8,806

Based on the above calculations in Table 6-1, I used the chi-squared measure to compare the expected frequencies matrix (E) with the observed frequencies matrix (O) in order to determine if the sample evenly distributed nominal data across cells. This was done in order to verify if the ceramics analyzed constituted a representative cross sample of the entire population (i.e. the *Ciudadela* assemblage).

Table 6-2. *Ciudadela* (YUC 2): Expected Frequencies.

Variables	Precolumbian	Historic	Precolumbian/ Historic	Totals
General collections	3,786 x 655 / 8,806 = 282	2,171 x 655 / 8,806 = 162	2,849 x 655 / 8,806 = 212	655
Unit A	3,786 x 2,879 / 8,806 = 1,238	2,171 x 2,879 / 8,806 = 710	2,849 x 2,879 / 8806 = 931	2,879
Unit B	3,786 x 5,272 / 8,806 = 2,267	2,171 x 5,272 / 8,806 = 1,300	2,849 x 5,272 / 8,806 = 1,706	5,272
Totals	3,786	2,171	2,849	8,806

After tabulating these results in Table 6-2, I used the observed frequencies formula listed below to determine if the difference between values provided in the contingency table and expected frequencies table reflected a significant relationship.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

YUC 2 GENERAL COLLECTION

$$\chi^2 = \frac{(96 - 282)^2}{282} + \frac{(521 - 162)^2}{162} + \frac{(38 - 212)^2}{212}$$

YUC 2 UNITS A & B

$$\chi^2 = \frac{(1010 - 1238)^2}{1238} + \frac{(615 - 710)^2}{710} + \frac{(1254 - 931)^2}{931} + \frac{(2680 - 2267)^2}{2267} + \frac{(1035 - 1300)^2}{1300} + \frac{(1557 - 1706)^2}{1706}$$

YUC 2 COMBINED TOTAL

$$= 122.681 + 795.562 + 142.811 + 41.990 + 12.711 + 112.061 + 75.240 + 54.019 + 13.013 = 1370.088$$

DEGREE OF FREEDOM FOR THIS SAMPLE

$$(3-1)(3-1) = 2 \text{ degrees of freedom (df)}$$

NULL HYPOTHESIS

.01 level of significance (*p*)

Based on these calculations, I determined that there was a statistically significant relationship between Variables A and B listed in Table 6-1. Since the chi-squared value is greater than 9.210, the number associated with a .01 level of significance (*p*) and two degrees of freedom (*df*) listed on the standardized Chi-Squared Distribution Table, the null hypothesis was rejected for this sample. Therefore, I can state clearly that there is a statistical relationship between these variables. In particular, in both Units A and B, precolumbian ceramics dominated, whereas historic ceramics appear in somewhat greater frequency only in the General Collections category.

Chi-Squared Measure: Non-Ceramic Data Set. The same process was repeated for non-ceramic remains and has been provided in Tables 6-3 and 6-4. Like the ceramic methods of classification, non-ceramic classification methods used in this study were based on the same (or similar) methodological premises (see Chapter 5). Each one appears to be concerned primarily with techno-functionality; that is, they view form and function as critical components of classification, whereas their associated, sub-classifications are based primarily on the analysis of stylistic (mostly decorative) traits.

Table 6-3. *Ciudadela* (YUC 2): Non-Ceramic Contingency.

Variables	Precolumbian	Historic	Precolumbian/ Historic	Totals
General collections	0	24	1	25
Unit A	0	637	167	804
Unit B	10	971	149	1,130
Totals	10	1632	317	1,959

Based on the above calculations in Table 6-3, I used the chi-squared measure to compare the expected frequencies matrix (*E*) with the observed frequencies matrix (*O*) in order to determine if the sample evenly distributed nominal data across cells.

Table 6-4. *Ciudadela* (YUC 2): Expected Frequencies.

Variables	Precolumbian	Historic	Precolumbian/ Historic	Totals
General collections	$10 \times 25 / 1,959 = .1$	$1,632 \times 25 / 1,959 = 21$	$317 \times 25 / 1,959 = 4$	25
Unit A	$10 \times 804 / 1,959 = 4$	$1,632 \times 804 / 1,959 = 661$	$317 \times 804 / 1,959 = 130$	804
Unit B	$10 \times 1,130 / 1,959 = 6$	$1,632 \times 1,130 / 1,959 = 941$	$317 \times 1,130 / 1,959 = 183$	1,130
Totals	10	1,632	317	1,959

After tabulating these results in Table 6-4, I again used the observed frequencies formula to determine if the difference between values provided in the contingency table and expected frequencies table reflected a significant relationship.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

YUC 2 GENERAL COLLECTION

$$\chi^2 = \frac{(0 - .1)^2}{.1} + \frac{(24 - 21)^2}{21} + \frac{(1 - 4)^2}{4}$$

YUC 2 UNITS A & B

$$\chi^2 = \frac{(0-4)^2}{4} + \frac{(637-661)^2}{661} + \frac{(167-130)^2}{130} + \frac{(10-6)^2}{6} + \frac{(971-941)^2}{941} + \frac{(149-183)^2}{183}$$

YUC 2 COMBINED TOTAL

$$= 0.1 + 0.429 + 2.25 + 41.990 + 4 + 0.871 + 2.667 + 0.956 + 6.317 = 59.58$$

DEGREE OF FREEDOM FOR THIS SAMPLE

$$(3-1)(3-1) = .02 \text{ degrees of freedom (df)}$$

NULL HYPOTHESIS

.01 level of significance

Based on these calculations, I determined that there was a statistically significant relationship between Variables A and B listed in Table 6-3. Since the chi-squared value again was greater than 9.210, the null hypothesis was rejected for this sample. In this case, it appears that historical non-ceramic items dominated all three stratigraphic categories, whereas precolumbian non-ceramic remains seemed to appear in more frequency only at the lower levels of Unit B.

Descriptive Statistics: Precolumbian and Historic Ceramic Forms. Based on my interest in the observable relationships between ceramic style and human behavior, Tables 6-5 through 6-8 provide some descriptive statistics for ceramics forms encountered during this study. To determine vessel size and shape (a caveat for

understanding vessel form and function), I divided ceramics into the following four (4) general sub-groupings based on documented vessel forms represented in General Collections, Unit A and Unit B. Since ceramic figurines were documented infrequently, I decided to show them in a separate table for general reference.⁴⁸

Table 6-5. General Collection: Precolumbian and Historic Ceramic Forms.

	Depth	Rim	Bolstered Rim	Wavy Rim	Body	Base	Handle	Neck	Uni.	Total
General	N/A	160	12	1	392	82	4	2	1	654

Table 6-6. Units A: Precolumbian and Historic Ceramic Forms by Stratigraphic Level.

	Depth (cm)	Rim	Bolstered Rim	Wavy Rim	Body	Base	Handle	Neck	Uni.	Totals
1?A	N/A	41	0	0	385	12	1	3	2	444
1, A	0-15	62	1	0	297	8	2	0	12	382
1, A	15-31	44	0	0	295	5	1	0	0	345
1, A	31-46	0	0	0	0	0	0	0	0	No data
1, A	46-61	40	0	0	424	11	1	0	2	478
1, A	61-76	0	0	0	0	0	0	0	0	No data
1, A	76-91	75	1	0	463	10	3	2	145	699
1, A	91-107	36	0	0	313	7	0	0	8	364
1, A	107-122	69	0	0	91	4	1	0	2	167
Totals	N/A	367	2	0	2,268	57	9	5	171	2,879

⁴⁸ It is important to note that the two figurines collected in General Collections and Unit B were included in the tabulations presented in Tables 6-5 through 6-7, and the two items from Units C and D were not included in this study outside of this reference and are represented in Appendix E.

Table 6-7. Units B: Precolumbian and Colonial Ceramic Forms by Stratigraphic Level.

Level	Depth (cm)	Rim	Bolstered Rim	Wavy Rim	Body	Base	Handle	Neck	Uni.	Totals
1,?B	N/A	5	0	0	117	3	2	0	1	128
1, B	0-15	72	0	0	401	12	2	0	6	493
1, B	15-31	19	2	0	201	5	0	0	0	227
1, B	31-46	8	0	0	111	4	0	0	9	132
1, B	46-61	42	0	0	251	12	0	**2	0	307
1, B	61-76	64	0	2	458	4	1	**2	0	531
1, B	76-91	182	0	0	1,438	46	2	**3	3	1,674
1, B	91-107	101	1	0	691	31	134	**3	3	964
1, B	107-122	23	0	0	324	8	0	0	3	358
1, B*	122-137	29	0	0	307	5	3	0	1	345
1, B*	137-152	15	0	0	94	2	0	0	2	113
1, B*	152-191	0	0	0	0	0	0	0	0	No data
Totals		560	3	2	4,393	132	144	10	28	5,272

* = Sherd represented only in Unit B

** = Rim/Neck sherds

Table 6-8. Precolumbian and Colonial Figurine Forms by Stratigraphic Level.

Level	Depth (cm)	Complete	Head	Torso	Body.	Legs	Appendage	Totals
General	N/A	0	0	0	1	0	0	1
1, B	15-31	0	1	0	0	0	0	1
1, C	107-122	0	0	0	0	0	1	1
1, D	191	0	1	0	0	0	0	1
Totals		0	2	0	1	0	1	4

As can be seen, body fragments constitute the largest portion of the analyzed sample, with most representative remains coming from Excavation Unit B. It also appears that Unit B, Level 6 76.2–91.4 cm (30–36 in) yielded the highest quantity of sherds,

which compared to Goggin's 1957 field notes and excavation note cards, represents the layer just above the colonial aqueduct. It is very possible that these remains represent the midden feature noted by Goggin's field crew on the excavation cards. Based on this information, it seems that the majority of excavated layers (with the exception of those levels in Unit A and B that appear to have been misplaced/misidentified) contained cultural material, either representing a continual historical occupation or a colonial refuse deposit; the latter point supporting Goggin's interpretation of the site. As will be highlighted in the tables below, however, both precolumbian and colonial ceramics were somewhat equally represented in the sampled materials, suggesting that in both Precolumbian and Historical Periods, a significant occupation of both Maya and Spanish settlement occurred at this site.

YUC 2 Analytical Results

Differences between Mexican and U.S. Historical Chronologies. Since the 1960s, the HATC has been the preferred classification method in New World, non-Mexican ceramic studies (i.e. those projects conducted by U.S. and European researchers in the Spanish New World). It has not been the preferred method of classification, however, by Mexican and U.S. archaeologists of the Northwestern Maya Corridor. As such, historical ceramic classifications and methodologies differ greatly between Mexican-based researchers and U.S.-based researchers working in the Northern Maya Lowlands. For example, in Mexico, Northern Maya Lowland ceramic research (with the exception of Andrews and Robles's work in the new millennium) has tended to focus more so on the Precolumbian Era than on the Colonial Period. As Patricia Fournier stated:

[T]raditionally, the archaeological study of Mexico's rich cultural heritage has emphasized precolumbian sites, which are seen as a means to boost the nation's economy by attracting international tourists curious about the splendors of the time before the Spaniards arrived. As a result, limited funds are available for the investigation of sites that date to the Spanish Colonial (1521–1821) and the Mexican Republic (1821–present) periods, which together form the basis of historical archaeology in Mexico (Fournier 2003:18).

This tendency in Mexican research has allowed for the development of complex and sophisticated classifications for pre-Contact wares but has left the classification of colonial wares somewhat vague, generalized and, in many cases, incomplete. To be fair, historical archaeology as a discipline has emerged in Mexico only since the 1960s, when the Mexican government increased salvage archeology projects around the country. Based on the knowledge gained from these studies, both Mexican and non-Mexican researchers alike have attempted to challenge the traditional focus of archaeology in Mexico by expanding research beyond the Precolumbian Era (see Fournier 2003; Funari 2003). With the lack of funds set aside by the Mexican government for this type of research, however, many historical projects in Mexico have been led by non-Mexican researchers working in conjunction with local Mexican archaeologists (e.g. Andrews and Robles) rather than spearheaded by the local government. Unfortunately, communication between non-Mexican and Mexican historical archaeologists (sometimes the result of language barriers) has prevented the development of a universal historical ceramic chronology. Despite this barrier, it appears that at least within the Northwestern Corridor, both non-Mexican and Mexican researchers appear to use one cultural chronology for identifying historic remains; that is, the chronology proposed by F. Rafael Burgos Villanueva (in Robles and Andrews 2003) and Peña Castillo et al. (2000). They have grouped all historical remains into two very large temporal phases, the Colonial Period

(A.D. 1500–1700) and the Post-Colonial Period (A.D. 1800–1900), both of which span a four-hundred-year period. To my knowledge, no other cultural chronology has been proposed for the Northwestern Corridor. As such, this chronology was used during the analysis and cataloging of historic materials.

It also is important to highlight that Mexican researchers have preferred to classify wares into very general ceramic groups and types, unlike their non-Mexican counterparts who have classified wares into very specific categories. In my opinion, these groupings represent the different foci on research currently employed in both Mexico and the West (e.g. Mexican ceramic chronologies tend to focus on precolumbian and inter-colonial imported ceramic sherds produced in the Mexican colonies, while non-Mexican, U.S. ceramic chronologies tend to focus more so on Majolica, imported European wares, and Asian porcelains brought to the New World during the Colonial and Post-Colonial Periods). At present, Mexican chronologies contain more classifications than those currently represented in U.S. historic ceramic chronology; however, the non-Mexican chronology contains more specific ceramic categories and types. It also is important to note that based on the different foci of both chronologies, neither sequences contained the exact same ceramic classifications, nor do they represent the same groups or types of ceramics; however, some groups and types do overlap, as illustrated in Table 6-9. In order to simplify these differences, I have correlated the current Historic Period ceramic chronologies from Mexico with their associated historic ceramic counterparts currently used in U.S. and non-Mexican literature.

Table 6-9. U.S. and Mexican Historic Period Ceramic Groups Compared.

U.S. Ceramic Groups	Mexican Ceramic Groups
Delftware Group— Colonial/Post Colonial Periods	May correspond with the Colonial Period <i>Loza fina Crema Groupo</i> , and the Post Colonial Period <i>Barrio Vidriado Groupo</i> and <i>Barro Groupo</i>
Faience Group ⁴⁹	May correspond to the Colonial Period <i>Loza fina Crema Groupo</i> , and the Post Colonial Period <i>Barrio Vidriado Groupo</i> and <i>Barro Groupo</i>
Lead Glazed Coarse Earthenware Group	May correspond to the Post Colonial Period <i>Barrio Vidriado Groupo</i> and <i>Barro Groupo</i>
Majolica Group	May correspond to the Post Colonial Period <i>Loza fina Blanca Groupo</i>
Porcelain Group	Corresponds with the <i>Porcelana Europea Group</i>
Refined Earthenware Group	May correspond to the Colonial Period <i>Loza fina Perla Groupo</i> and the <i>Loza fina Crema Groupo</i> and the Post Colonial <i>Loza fina Perla Groupo</i>
Slipware Group— Colonial Period	May correspond with the <i>Mama Group</i> (Mayapan Redware Types); <i>Oxcum Group</i> (Uni. Slipware types); <i>Sacpokana Group</i> (Uni. Slipware types); <i>Yuncu Group</i> (Uni. Slipware types)
Stoneware Group	Correspond with the Post-Colonial Period <i>Piedra Groupo</i>
Tin Enameled Coarse Earthenware	May correspond to the Post Colonial Period <i>Barrio Vidriado Groupo</i> and <i>Barro Groupo</i>
Unglazed Coarse Earthenware Group— Colonial Period	May correspond with the <i>No Designado Group</i> : (Mexican Red Type); <i>Barro Vidriado Group</i> (Olive Jar Generic Type, Olive Jar Early Style Type, Olive Jar Middle Style Type); <i>Barro Group</i> (Olive Jar Generic Type and Olive Jar Late Style Type)

Based on Table 6-9, it appears that a large divide has developed between historical ceramic classifications in both U.S. and Mexican historic period ceramic chronologies. The reasons for this divide may equate to the different foci in both regions (e.g. research agendas and funding) and/or language barriers. It is my hope that the use of both chronologies in this study provides a general framework for creating a more

⁴⁹ This type was not represented in the *Ciudadela* (YUC 2) collection and has been included here only for reference purposes.

comprehensive (and internationally inclusive) understanding of Historic Period Mexican ceramics.

Precolumbian and Historic Classifications. In order to proceed with the stylistic analysis of material remains, it was necessary to evaluate the assemblage based on the classification of diagnostic pieces. Since historic (25%) and precolumbian (43%) ceramics were represented significantly in this collection, I analyzed both components in the YUC 2 sample.

Descriptive Statistics: Precolumbian and Historic Ceramic Diagnostic Sherds. In the Precolumbian Period, I identified eleven diagnostic precolumbian Wares, three ceramic Horizons, sixteen Groups, twenty-six Types, and three Varieties in the YUC 2 sample (See Appendix B, Table B-1). Precolumbian Maya ceramics, unlike their Historic Period counterparts, were either hand molded or mold-made (glazes and the potter's wheel were not introduced to the Yucatán until the Spanish arrived in the sixteenth century). Maya potters created a variety of utilitarian and ceremonial vessels including: bowls, plates, effigy vessels and censers, serving dishes, grater bowls, goblets, basins, tripod vessels, cups, jars, dishes, figurines, vases (Smith 1971:70–106). Utilitarian and ceremonial wares, both of which were represented in this study, were created by both skilled artisans and commoners. Many of these wares were used regularly in ritualistic and religious functions; as a previously documented Maya ceremonial platform in the Late and Terminal Classic periods, the precolumbian component of the *Ciudadela* (YUC 2) sample included a wide variety of decorative and non-decorative wares and types, many of which were determined to be of significant religious importance (e.g. censers and effigy vessel fragments). Trade, exchange, and changes in regional power between

precolumbian Maya groups and outside settlers (e.g. the Toltec, Itza, Xiu, and Cocom lineages) increased the diversity of pottery in the region as well as encouraged the creation of regional variations in the Northwestern Corridor (see Chapter 2). These influences were reflected clearly in the sampled YUC 2 pottery.

In the Historic Periods, I documented nine Categories, thirty-eight Types, thirty Varieties, and twenty-one Traditions⁵⁰ (See Appendix C, Table C-1). With the introduction of glazes and the potter's wheel in the sixteenth century, Historic Period pottery increasingly became diverse. Like the Maya before them, European potters created a variety of utilitarian vessels including: bowls, plates, serving dishes, basins, jars, jugs, pitchers, cups, chamber pots, saucers, platters, and bottles (Deagan et al. 2010). Historic Utilitarian categories, which were represented frequently in this study, were created by artisans in both European and the New World. Trade and exchange continued during this period as illustrated by the increased diversity of pottery in the region.

Tables 6-10 through 6-13 (see also Appendix E, Tables E-1 through E-12) summarize the distribution of materials through the excavated levels in Units A and B and General Collections. The presence of European artifacts indicates that this assemblage most likely dates to the Colonial and Post-Colonial Periods; however, the identification of precolumbian materials at the lower stratigraphic levels of Units A and B suggest that the site was occupied during a period of Maya influence.

⁵⁰ Please note that the term "ware" has been used loosely in the naming process of these types.

Table 6-10. General Collections: Unidentified Sherds.

Unidentified Sherds	Unit	Level	Totals
Uni. Unglazed Coarse Earthenware	General	N/A	36
Uni. Sherd	General	N/A	0
Uni. Slipped Coarse Earthenware	General	N/A	0
Uni. Coarse Earthenware	General	N/A	0
Totals	General	N/A	36

Table 6-11. Unit A: Unidentified Sherds.

Unidentified Earthenware	1?A N/A	1, A 0- 15cm	1, A 15- 31cm	1, A 31- 46cm	1, A 46- 61cm	1, A 61- 76cm	1, A 76- 91cm	1, A 91- 107cm	1, A 107- 122cm	Totals
Uni. Unglazed Coarse Earthenware	0	0	0	0	0	0	0	0	0	0
Uni. Sherd	11	19	0	0	0	0	0	7	40	77
Uni. Slipped Coarse Earthenware	0	0	0	0	0	0	0	0	0	0
Uni. Coarse Earthenware	0	74	0	0	0	0	0	0	0	74
Totals	411	153	43	0	198	0	310	117	19	1,147

Precolumbian pottery, particularly Mayapan Red Ware (Red Mama group) and Mayapan Unslipped Ware (Acansip Painted Type and Navula Unslipped Types) constitute the largest classifications of identified ceramics in the *Ciudadela* (YUC 2) sample; while in the Historic Period, Refined Earthenwares Category and Majolicas were the most dominant. Although it is clear that there was a significant colonial occupation at this site, it seems that the majority of wares used by the inhabitants of the structure remained Maya in origin. Adding to this fact, I noted that a large majority of the “unidentified wares” may represent additional colonial Maya types (e.g. Mama Red);

however, the current vagueness of Slipware definitions in both U.S. and Mexican chronologies made it difficult (if not impossible) to differentiate; as such, the vast majority were left unclassified. As previously noted, Unit B contained the most remains with Level 1 (0–15.2 cm) and Level 7 (76.2–91.4 cm) yielding the highest quantity of ceramics. This was expected in both cases since Unit B-Level 1 represents a highly disturbed context and the remains at Unit B-Level 7 are associated with the colonial aqueduct/midden feature.

Analysis of Precolumbian and Colonial/Historic Non-Ceramic Types. In the case of non-ceramics, which incorporated a wide variety of types and items, the term “form” did not seem to apply clearly to quantification of these remains. Although, in some cases, I did document elements of form (e.g. bottleneck, base, rim), generally speaking, most items did not contain distinctive elements that I could identify clearly. As such, I elected to organize the following non-ceramic tables based solely on the traits that could be identified in either the historic or precolumbian classification methods described in Chapter 5.

Like ceramic classifications, non-ceramics were grouped (when applicable) based on their diagnostic and stylistic traits (See Appendix D). Due to time constraints, non-ceramic remains were classified using much broader methods of classifications (e.g. green glass) than those used for the quantification of ceramic remains. As such, I documented general stylistic details (e.g. green glass base fragment) and placed each material (line item) into broadly group categories (e.g. 1600–1900 utilitarian glassware) rather than into regionalized or site-specific, non-ceramic sub-groupings. Based on these classifications, it appears that the historic material remains (90% of the collection) were

better represented in the *Ciudadela* sample than the precolumbian remains (10%). The lack of precolumbian non-ceramic materials may be the result of Goggin's emphasis on the Historic Period and the termination of his excavation units after he encountered Historic Period features (e.g. colonial walls, floors, and the aqueduct) in Units A-D. It is possible that additional precolumbian, non-ceramic remains may have been encountered at lower levels, if the excavation had continued beyond 190.5 cm (75 in). Despite the general lack of precolumbian data, I was able to identify three diagnostic precolumbian non-ceramic sub-groupings in this collection: modified wood, modified bone, and lithics. In the Historic Period, I was able to identify ten general non-ceramic sub-groupings including: colonial tiles/bricks, utilitarian glassware, beads, religious items, jewelry, clothing items (fasteners and ornaments); buckles, straps, and hooks; coins and weights; personal firearms; and pastimes (e.g. games, gambling, and tobacco) (see Appendix E, Tables E-8 through E-10).

The majority of non-ceramic items recovered from this excavation dated to the Historic Period with the largest classifications being Utilitarian Glassware and Industrial materials. Similar to the ceramic yields, Unit B contained the most non-ceramic remains, with Level 3 (30.5–45.7 cm) yielding the highest quantity of non-ceramic remains with 188 items; Level 4 (45.7–61 cm) and Level 2 (15.2–30.5 cm) also contained a relatively high number of non-ceramic items, with N=126 and N=128 respectively. It seems likely that the high concentration of historic non-ceramic remains at these levels was due to the proximity of Unit B to the colonial *Ciudadela* structures and features encountered above and below the surface. Additionally, the appearance of historic non-ceramic materials at all excavated levels (excluding those levels currently missing from Units A and B)

suggests that this assemblage is a good representation of the *Ciudadela's* Colonial and Post-Colonial Periods.

Ceramic Sociology and the Ciudadela Data Set

In sum, the empirical data thus far (i.e. both the archaeological and historical records) have indicated that *at least* two contemporaneous communities continually have occupied the *Ciudadela* site in both precolumbian and historic (Colonial and Post-Colonial) times. During the Precolumbian Period (~A.D.250/600–1542), both Puuc and Mayapán influences encouraged the development of the regional capital of Tíhoo and the construction of the megalithic *Ciudadela* platform. As the regional capital of the newly formed Spanish territory and the principal base for the Franciscan Order, the Colonial Period (~A.D.1542–1700s) saw an increase in Maya and Spanish-Franciscan influences, including the construction and reuse of the precolumbian buildings with newly acquired Spanish styles. The Post-Colonial Period (in this specific context, ~A.D. 1700s–1800s) and Spanish resistance to Maya unrest and warfare (e.g. the Caste Wars) ushered a jointly occupied militaristic Mérida, as reflected in the Maya and Spanish/Mexican Military remains in the *Ciudadela* collection.

As highlighted in previous chapters, differences between these community types clearly are evident in their use of space, site development, settlement patterns, architectural styles, and their use of material goods. In this study, community types have been designated as either religious or militaristic in nature. Detailed explanations for these differences have been provided in the previous chapters but have been summarized briefly here. Maya religious organization remained, for the most part, unchanged during the precolumbian occupation of Tíhoo. Although political authority in the Northwestern

Corridor changed frequently between regional powers, Maya religion remained constant during the Classic periods (although it should be noted that beliefs and rituals became more complex and refined during Terminal and Post-Classic periods). In a similar regard, the domination of the Hispanization process by the Franciscan Order during the Colonial Period ultimately influenced the material items used at the site. The Franciscans encouraged the Maya to continue to use and produce their own ceramic wares, and many times elected to incorporate them into their own Spanish lifestyles. However, during the Post-Colonial Period, Spanish militarism appeared to divide the material culture of the region, as life seemed to be more focused on defense rather than exchange with the Maya. I believe these examples reflect the operation of two different systems of social organization, one that promoted exchange (Precolumbian and Colonial Periods) and one that denied it (Post-Colonial Period). The remainder of this chapter considers these points in terms of propositions and test implications, following the methodologies described in Chapter 5 and created by Hill (1970:11–58).

Test Implications for the Ciudadela Occupational Periods. As described in Chapters 3 and 4, the *Ciudadela* complex has been documented historically as being comprised of three different occupational periods: the precolumbian Maya religious occupation (~A.D. 250/600–1542), the Franciscan religious occupation (A.D. 1542–1700s), and the Spanish/Mexican Military occupation (~A.D. 1700–1800s). Based on their religious and militaristic affiliations, these occupational periods exhibit corporate communal functions that crosscut residential units and serve to connect peoples with one another. Prior to this study, however, no one actually had verified if this was a factual portrayal of this site’s occupation. In order to verify the presence of these occupations, I

created a testable proposition in order to determine if, in fact, this site had both religious and militaristic occupations. Following Hill's methods (1970:23, 43), I used the following analytical tools to verify if the YUC 2 data set did, in fact, support the historical record.

Proposition: The *Ciudadela* complex had three historical occupational periods, which were comprised of a Maya religious occupation, a Franciscan religious occupation, and a Spanish/Mexican Military occupation.

Test Implications: Data was compiled from the analysis of the *Ciudadela* (YUC 2) collection.

If the proposition is correct, then one would expect to find the following evidence:

1. If the site is religious in nature, then collection should contain evidence of ritualistic activities (e.g. idols, figurines, religious vessels, and objects) from both the Precolumbian and Historical Periods.
2. If the site is religious in nature, then the collection should contain specialized ceramic wares, categories, and types from both the Precolumbian and Historical Periods.
3. If the site is militaristic in nature, then the collection should contain evidence of militaristic activities (e.g. weapons and firearms) from the Historic Period.

A closer examination of the *Ciudadela* (YUC 2) sample confirms that these attributes were encountered in the collection. In the Precolumbian Period, religious vessels (effigies, censers, and effigy censers) constituted a large part of the sampled collection with approximately $\pm 1,999$ sherds generally grouped in these classifications (see Appendix E, Tables E-11 and E-12); and, as previously noted in Table 6-3, two

ceremonial figurines were recorded as well, which suggests a significant correlation between precolumbian material remains and a Maya religious occupation. In the Historic Periods, only one (1) religious item, a sixteenth–seventeenth century Catholic devotional medal (see Appendix E, Figure E-19), was documented in the sample. It seems odd that such few remains were encountered, especially since the historical record indicated a significant occupation of this site by this Catholic order (Alcalá Erosa 1998).

Approximately 1,115 sherds in this sample, however, date to the period typically assigned to Franciscan occupation, suggesting that although the religious symbols may not have been recorded in this sample, there was a significant Spanish occupation at this site during this time, which most likely represents the presence of the Franciscans.

Additionally in the Historic Period, 21 remains were classified as militaristic including the following items: one single shot ball (A.D. 1490–1700), 20 bullet casings and bullets (A.D. 1820–present), and one Military Button (1850–1890?), which suggests that the historical occupation of this site did include a militaristic component (see Appendix E, Figure E-22). Overall, the application of ceramic sociology appears to validate the proposition, indicating that there were three distinct occupations for this site.

Test Implications for Precolumbian and Historical Material Exchange. Another objective of this study was to determine if material exchange did, in fact, occur between peoples at the *Ciudadela* site. Based on their religious and militaristic affiliations, these occupational periods exhibit corporate communal functions that crosscut residential units and serve to connect peoples with one another. Currently, however, there is very little information that illustrates the transmission of materials between groups occupying

Tíhoo/Mérida. To verify that this exchange did, in fact, occur at this site, I used the following model.

Proposition: Material exchange occurred between Maya and Spanish groups represented in the Ciudadela (YUC 2) sample.

Test Implications: Data was compiled from the analysis of the *Ciudadela* (YUC 2) collection.

If the proposition is correct, then one would expect to find the following evidence:

1. If exchange occurred, then precolumbian and historical (Colonial and Post-Colonial) material remains should be represented in the assemblage.
2. If exchange occurred, then precolumbian and historical (Colonial and Post-Colonial) material remains should represent a variety of Old World and New World production techniques.
3. If exchange occurred, then precolumbian and historical (Colonial and Post-Colonial) material remains representing a combination of Old World and New World production techniques should be represented in the assemblage.

A closer examination of the sampled YUC 2 collection did, in fact, confirm this type of exchange occurred at the *Ciudadela* (YUC 2) complex. Exchange clearly is evident between precolumbian regional capitals (e.g. Chichén Itzá, Mayapán, and Puuc sites) with approximately 99% of all precolumbian wares recorded in this sample reflecting either trade with or the replication of other regional ceramic types. In the Historic Periods, ceramic exchange was evident as well. The diversity of Colonial and Post-Colonial ceramic categories are illustrated clearly in Appendix E. Surprisingly, English Refined Earthenwares (N=642) constituted the largest portion of ceramics

sampled from the Historic Period. The final attribute is the most difficult to verify since the majority of Colonial Mama Red Wares and Colonial “Mayapan Unslipped Wares” (for lack of a better phrase) were left unclassified (see explanation in Appendix B). It is my hope that these shortcomings will be rectified once additional studies are completed with ceramics of this period. Despite this problem, I did identify a few Colonial Maya/Spanish influenced sherds including two Yucatán Colonial Type: 12 Slipware Type—Colonial Mama Red Variety, and three Mexican Red Painted Type sherds. These ceramics appeared to combine precolumbian decorative traits (e.g. Mayapan ware slips and paints) with Spanish production techniques.

Table 6-12. Units A: Precolumbian Ceramics Group Origin.

Level	Ware Origin
Yucatán , Mexico	3829

Table 6-13. Units A: Historical Ceramic Group Origin.

Level	Category
Asia	6
China	11
England	642
England and Holland	73
European/Mexican	3
Faenza, Italy	22
Germany, Rhine Valley	1
Iberia	1
Italy	4
Japan	5
Mexico City	461
Mexico/Iberia	6
Puebla	317
Spain	166
United States	2
Yucatán , Mexico	17
Unknown	373
Totals	2,110

Chapter Summary

In sum, the information provided in this chapter provides a general framework for interpreting artifacts from the YUC 2 assemblage. The notable limitations of these results (both the classification of material remains and the sociological inferences created by their quantifications) are based on my ability to create unbiased, replicable results. The ability to do so is influenced heavily by the methods and theories underlying this

study. The above data has offered only a few of the potential explanations for the *Ciudadela* (YUC 2) data set; in the future, it should be possible to expand on these current results as I continue to analyze the remainder of the YUC2 assemblage and compare it with work currently being conducted in the Northwestern Corridor.

CHAPTER 7

INTERPRETATION AND CONCLUSIONS

Throughout this dissertation, research strategies have been used to discuss the development and settlement of Tíhoo/Mérida; however, they have not yet been addressed collectively. The goal of this concluding chapter is to place the *Ciudadela* (YUC 2) assemblage and, more generally, the site of Tíhoo/Mérida into a concise archaeological and historical framework.

Interpretation for the Ciudadela (YUC 2) Assemblage

The development of a cultural sequence for this site has been crucial for assessing material use, production, and exchange between the Maya and Spanish. Therefore, the identification of utilitarian and religious material remains found in context with features in Trench 1 (Units A-D) has been important for postulating about the daily activities occurring at this site. The stratigraphic sequence of diagnostic remains has contributed to the reconstruction of a cultural history for the YUC 2 assemblage and, more generally, for the *Ciudadela* site as a whole. Goggin's excavations did, in fact, reveal *in situ* stratigraphic layers, specifically at the lower levels of Units A and B, near the intact colonial features (i.e. the colonial walls and floors, and the intact historical aqueduct). As such, I was able to develop a tentative cultural sequence for the colonial occupation at this site. As noted in Chapters 5 and 6, however, a significant portion of this collection was comprised of precolumbian ceramics (N=3829) and a few representative

precolumbian non-ceramic remains (N=10), indicating a strong Maya presence at the site, either pre-dating or during Spanish occupation. This information, combined with the environmental and cultural histories previously discussed have been used to interpret the sampled artifacts and comment on their probable cultural associations.⁵¹

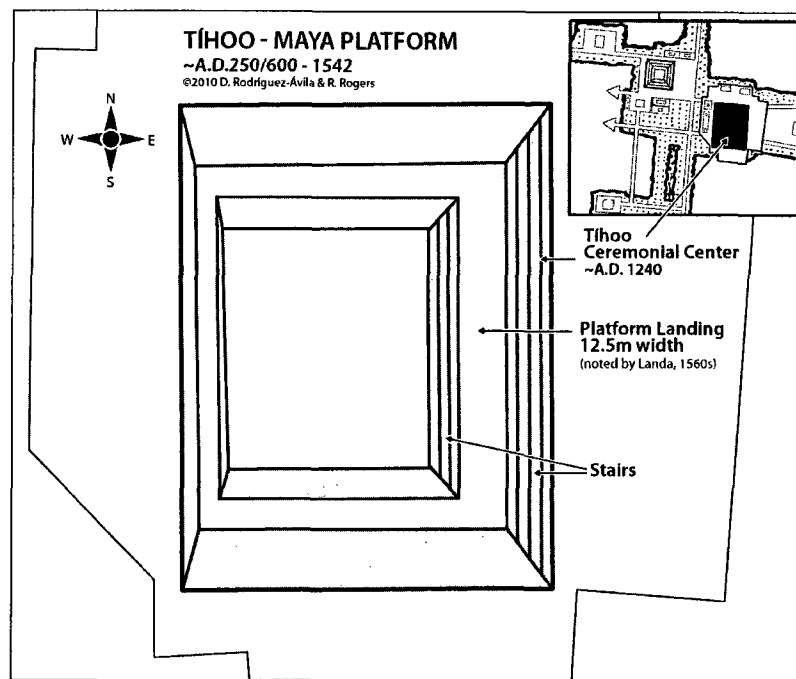
The Precolumbian Maya Occupation: (~A.D. 250/600–1542) The precolumbian artifacts analyzed in the *Ciudadela* (YUC 2) study sample represent prehistoric wares and lithics from the Early Classic through Last Postclassic periods. The correlation between the megalithic Puuc style *Ciudadela* Maya platform and the analyzed representative ceramic and non-ceramic remains suggest that the Maya, during the precolumbian occupation of this site, used this structure for ceremonial activities. The duration of this occupation, however, was difficult to determine due to the lack of representative artifacts predating the Postclassic cultural phase and the absence of a solely precolumbian cultural stratum. In addition, only eight ceramic sherds representing the Early Classic to Early Postclassic periods (i.e. Chichen Red Ware, Chichen Slate Ware, Thin Slate Ware, and Puuc Slate Ware) were recorded in the *Ciudadela* (YUC 2) sample. As such, little information could be determined about the occupation of this site during the *Cehpech/Sotuta Ceramic Horizon* (A.D. 550/600–1100). Other archaeological and historical research has confirmed that Tihoo, during this cultural phase, was considered the dominant political and ceremonial center in the Northwestern Corridor (see Chapter 2). Interestingly enough, of the eight ceramics collected from *Cehpech/Sotuta Ceramic*

⁵¹ It is important to note that ecofacts and geofacts were not interpreted in this study. The majority of ecofacts were removed from this collection on 4/8/2004 and re-accessioned under the heading “1ET12-8” in FLMNH Zooarchaeology Collections, which would make any determinations about the remaining ecofacts in the YUC 2 inaccurate. In addition, the only geofacts recorded in this sample (N= 134) were unmodified rocks, probably mistaken for ceramics during excavation.

Horizon, seven of them represent types that typically are associated with religious activities (Smith, 1971:104–105), which generally supports my interpretation for this site at this time.

In order to highlight the religious importance of the *Ciudadela* structure, I have provided a reconstruction of the Maya platform in Figure 7-1 as it as it may have looked in Classic and Post Classic eras.

Figure 7-1. *Ciudadela* Complex: The Maya Occupation (~A.D. 250/600-1542).



Sources: Adapted from Lindsay 1999:67, Figure 3.8; Tommari 2008.
(Artistic rendition by Dennise Rodríguez-Ávila and Rhianna C. Rogers 2010.)

In sum, I combined Landa’s sixteenth century drawings, Tommari HN’s *Ichcaanziho* site map, and Lindsay’s architectural drawings of the site to produce a probable rendition of this structure during its precolumbian occupation (~A.D. 250/600–1542). Based on this data, it appears that the Maya platform was originally comprised of two terraces: the primary terrace, estimated by Lindsay as approximately 300m by 300m

and referred to by Landa as a “landing,” extended more than “thirty feet” outward from the staircase of the smaller, upper terrace (see Figure 1); this secondary terrace, approximately 100m by 100m, consisted of the uppermost level of the precolumbian platform. It is important to reiterate both the principal pyramid and *Ciudadela* structure aligned at what appears to be a perfect 45° angle. Both buildings appear to be oriented in a northeastwardly direction, suggesting a Maya cosmological connection to cardinal East (*Chac-Xib-Chac*), considered the birth place of the sun, and cardinal North (*Zac-Xib-Chac*), associated with both the rain god Chac and the North Star (see Chapter 2; Lindsay 1999:70; Schele and Friedel 1990:66–67). These facts indicated that this site held significant power and authority in precolumbian Maya culture and religion. The site’s original place name, *Ichcaansiho*, which Demetrio Sodi M. and Adela Fernández (1983:112) translated as “Face or Birth of the Heavens,” illustrate that this site was considered the birthplace of the Maya cosmos. This point was reaffirmed by Albert Ruz’s discovery of Tíhoo-related iconography at the Terminal Classic site of Uxmal (the *katun* seat for the Xiu family). Ruz noted what appeared to be the remnants of a ceremonial quadrangle group including an altar, jaguar, and column representing the World Tree (*Wakah-Kan*), which he suggested depicted Tíhoo as its axis, indicating that the Maya mostly likely viewed this site as the place where the upper, middle, and lower spirit worlds met (Schele 1999:66-67). This fact alone indicates that Tíhoo, during the Classic/Post Classic periods, held significant religious importance in the Maya worldview.

Although cultural and architectural exchange between precolumbian peoples in the Yucatán (e.g. the Puuc peoples and Chichén Itzá) initially contributed to Tíhoo’s

regional strength and religious power, conflicts and warfare between these powers and the rise of Chichén Itzá eventually led to the site's decline in the Terminal Classic/Post Classic periods. After the fall of Chichén Itzá in the Early/Middle Post Classic period, regional power once again was relocated to Mayapán, circa A.D. 1263. Over the next 250 years, the Cocom lineage (members of the relocated Itza group from Chichen) controlled Mayapán and, by extension, the Yucatán peninsula. In A.D. 1441, however, Maya nobility from Mayapán and Mexican migrants from the Puuc Hills region, the Xiu, organized a revolt to oust the Cocom from power. The revolt ultimately reached its boiling point when the Xiu successfully defeated the ruling Cocom during the same year. At the end of this battle at Mayapán, many of the Cocom leaders were put to death, and the city of Mayapán was sacked, burned, and ultimately abandoned by both the Xiu and Cocom. It appears that during this time, the Cocom relocated to the province of Sotuta and the Xiu to the Northwestern Corridor where they repopulated the site of Tihoo, circa A.D. 1450.

This historical narrative has been confirmed by the abundance of diagnostic Mayapan Wares recorded in the YUC 2 sample. Specifically, Mayapan Red Wares (N=1972) constituted 22.4% of the overall sample, while Mayapan Unslipped Wares (N=1630) constituted 18.5% of the study sample, creating a ratio of (3602:8806), which equates to 40.9% of the entire YUC 2 ceramic study sample analyzed. No other ceramics, precolumbian or historic, were represented more in this collection than the Mayapan ware classifications. This data supports the notion that migrants from Mayapan (mostly likely the Xiu) relocated to the site of Tihoo during the Post Classic period. Further substantiating this point, I noted other ceramics dating to the *Hocaba/Western Tases*

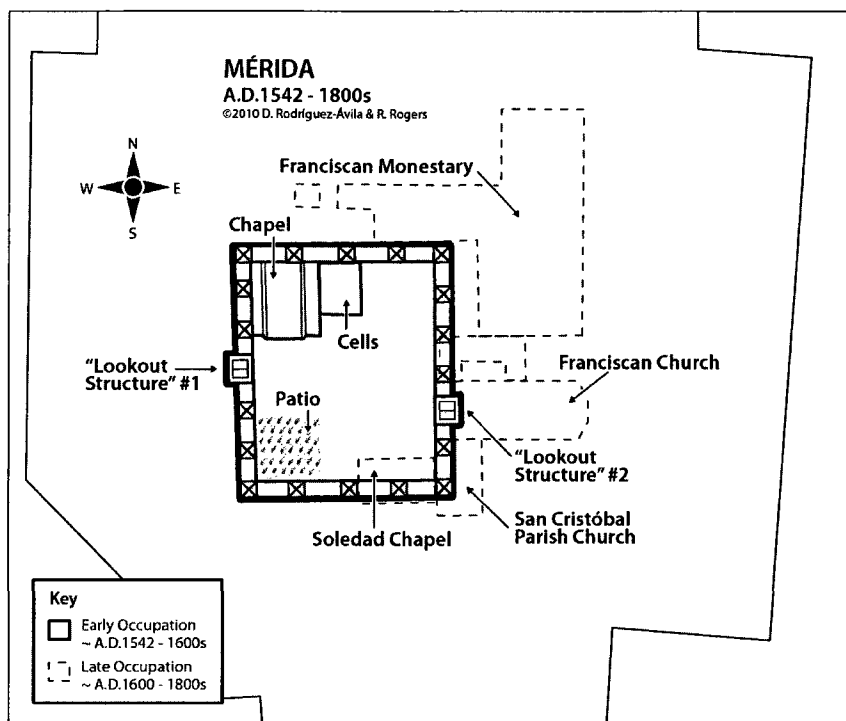
Ceramic Horizon (A.D. ~1100/1200–1450/1542), which were recorded in the study sample. These wares include Mayapan Black Ware (N=31), Peto Cream Ware (N=113), Fine Orange Ware (N=7), San Joaquin Buff Ware (N=44), and Tulum Red Ware (N=2). These wares were found in less frequency in my study sample; however, a large majority of diagnostic types from these ware classifications, particularly those associated with religious activities (e.g. Chen Mul Modeled, Slate Muna, Thul Appliqué), were found in higher concentrations at the lower levels of Units A and B, indicating that material exchange and religious activities continued to be an important component of this site during its Post Classic occupation. In addition to the ceramics recovered, ten lithic fragments, including blanks and blades, were identified in the study sample, indicating that formal and informal tool use may have occurred at this site. It also may suggest that tools were left as part of ceremonial offerings at the *Ciudadela* platform; however, this sample did not yield enough data in order to support (or refute) this claim. Overall, this data suggests that little change in the production of indigenous pottery occurred at this site since the fall of Mayapan (*ca.* A.D. 1441–1461), as Maya inhabitants continued to use and modify wares and tools, as well as import goods from the Northern Maya Lowlands, particularly those types represented at Mayapan, up to (and potentially after) Spanish occupation (*ca.* A.D. 1542). It appears that the data collected from the *Ciudadela* study sample supports the current historical and archaeological records for this region; in addition, the data also suggests that Tihoo continued to be an important part of Maya culture during its Classic and Post Classic occupation periods.

The Colonial Franciscan Occupation: (~A.D.1542–1750/1800). As highlighted in Chapter 4, during the Colonial Period in the Northwestern Corridor, new populations

began to move into the site of Tihoo/Mérida. Rather than building new structures, many of these immigrants elected to reoccupy Classic/Postclassic period Maya structures, particularly those within the newly established provincial capital. As such, new colonial buildings appeared in what once was Tihoo's ceremonial center, such as the *Convento de San Benito*, the *Convento de San Francisco*, the *Casa de Montejo* and Mérida's cathedral, which reincorporated precolumbian architectural components (e.g. carved bricks and Puuc veneer stones) into converted, colonial edifices.

Founder Francisco de Montejo II ordered his men to evaluate the *Ciudadela* precolumbian platform for potential colonial reuse. Lindsay (1999) stated that during this survey the *Ciudadela* complex was re-zoned into a ring of colonial neighborhoods and religious buildings. Since the Franciscans and Spaniards jointly controlled Mérida during this period, the former being the most powerful, the order elected to construct both the *Convento de San Benito* (~ A.D.1542–1700s) and the *Convento de San Francisco* (~ A.D.1542–1700s) on top of the *Ciudadela* platform in order to facilitate Maya conversion to Catholicism. In Figure 7-2 below, I have provided an artistic reconstruction of the *Ciudadela* complex as it may have looked during Franciscan occupation.

Figure 7-2. *Ciudadela Complex: Franciscan Church Occupation(s).*
 (~A.D.1542–1750/1800s).



Sources: Adapted from Lindsay 1999:49, Figure 3.4; 70, Figure 3.9; 70, Figure 6.6.
 (Artistic rendition by Dennise Rodríguez-Ávila and Rhianna C. Rogers 2010.)

In sum, I combined Landa’s sixteenth century drawings of the precolumbian Maya platform, drawings of the San Benito Complex (1864–1865 and 1751), and Lindsay’s (1999) architectural drawings to create of an artistic rendition of the site during Franciscan occupation (*ca.* A.D. 1542–1750/1800s). Based on this data, it appears that the early Franciscan structures (*ca.* A.D. 1542–1600s) were built directly on top of the secondary or principal terrace of the precolumbian platform (i.e. the secondary 100 m by 100 m terrace). Over time, as Franciscan occupation expanded (*ca.* A.D. 1600s–1750/1800s), ongoing construction extended beyond both the primary and secondary terraces to include areas in the platform’s periphery. At present, it is unclear if the intact walls, floors, and associated aqueduct encountered by John Goggin in 1957 date to the

Colonial Franciscan occupation or to the Post-Colonial, Spanish/Mexican Military occupation. It is worth noting that I recorded what appeared to be a Fig Springs/San Juan Polychrome Tile (N=1) in Unit D, and 20 unglazed colonial bricks (*ladrillos*), in the study sample, dating to approximately the sixteenth through eighteenth centuries. This data may indicate that the colonial features encountered by Goggin could have represented the Colonial Franciscan occupation; however, it is possible that these features were reused during the Post-Colonial Period during the Spanish/Mexican Military occupation.

The instructions for evangelization, given by Ministerial General Fray Francisco de Los Ángeles in 1523, charged the Franciscans with the Christianization of *all* encountered native peoples “through [Christian] words and example” (Los Ángeles quoted in Oroz 1972 [1597]:350).⁵² This approach was contingent on the pacification of the Maya, which proved to be very difficult. Maya rebellions, revolts, and conflicts continued throughout the Colonial Period, which Lindsay (1999) argued may have contributed to the general lack of a formal Franciscan presence in Mérida, until the construction of the colonial cathedral between 1561 and 1595. The *Ciudadela* complex predated *La Catedral*, making it one of the principal Catholic religious centers of the early Colonial Era. Ironically, only one religious item was documented in the YUC 2 study sample, a devotional medal (*Venera* pendant?) dating to the sixteenth and

⁵² Over time, the power of the Church outweighed the power of the Spanish governmental authority, which brought about brutal changes to the Franciscan approach to the Maya. This fact, coupled with constant infighting between the Franciscan Church and Spanish provincial government vying for power in the Yucatán (*ca.* A.D. 1542–1700s), in some ways allowed local Maya communities to retain their localized power and authority. As a result, the Maya were able to generate communal revenue and labor, public and individual tax reliefs, and own and operate properties at the local level—all of which were virtually unknown to the provincial government and Church because of their infighting, and thus immune from Spanish colonial oversight (Farriss 1984:265–272).

seventeenth centuries. It is important to note that this pendant represented the only religious item cataloged in the entire ± 20,000 piece YUC 2 collection. The low frequency of religious items was somewhat surprising, considering the length of the Franciscan occupation; however, this may support Lindsay's (1999: 31-33) assertion that a formal Catholic congregation did not exist in early colonial Mérida, which may explain the absence of formal religious items in the YUC 2 collection.

When considering the lack of colonial artifacts in the YUC 2 collection, it is difficult to assess if the Franciscans did, in fact, use this site for religious purposes during the Colonial Period. An estimated 843 ceramics and 20 non-ceramics items were recorded dating to A.D. 1490–1750/1766. Following this arbitrary timeline, no additional non-ceramic items, excluding the aforementioned Catholic pendant and *ladrillos* (bricks), were classified in this period. In the historic ceramic category, a variety of diagnostic sherds was documented roughly dating to the Colonial Period including: Slipware (N=3), Lead Glazed Coarse Earthenware (N=316), Majolica (N=404), and Unglazed Coarse Earthenware (N=120). The majority of diagnostic ceramics dating to this period represented locally produced wares from Mexico, Puebla, and the Yucatán (N=368); however, it does appear that import goods from Spain (N=137) and Italy (N=26) were used, but in less frequency. Lead Glazed Coarse Earthenware constituted a large percentage of ceramics (N= 309); however, their ware origin currently is unknown. In sum, it appears that colonial inhabitants relied more heavily on local pottery production (Yucatán, Mexico City, and Puebla) for everyday use and supplemented imported goods only when needed. As highlighted in Chapter 3, this practice was not uncommon; many

inhabitants of early Spanish colonial sites frequently adopted and/or supplemented native and local wares with European ceramics. As Deagan stated:

In the Americas at least, the persistence of traditional native ceramics coupled with the relative scarcity of the traditional Spanish food-preparation forms after 1500 suggests that the Spanish colonists adopted American-influenced cooking techniques in the last years of the fifteenth century, probably through the agency of Indian women in Spanish households. This caused *pucheros* and *anafres* to be replaced with aboriginal vessels and open hearths for cooking and amphoroidal vessels for storage to be replaced by Indian vessels and olive jars. *Manos*, *metates*, and griddles for the preparation of corn and cassava were perhaps more useful in Spanish-American households than were the *morteros* and other equipment for processing traditional Spanish plant foods (Deagan 1996:143–144).

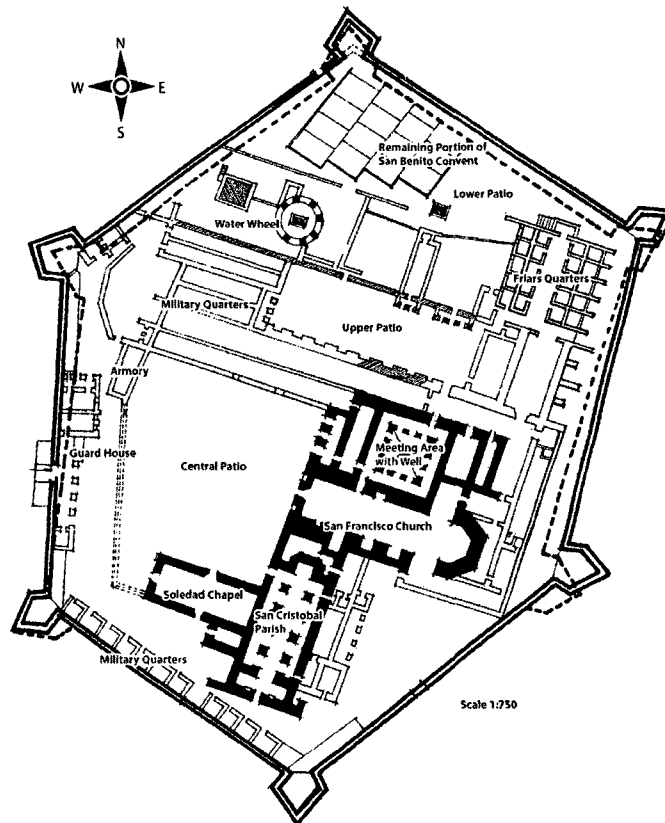
Based on the YUC 2 data alone, the abundance of utilitarian ceramics and the low frequency of religious items made it difficult to determine if the Franciscans did, in fact, use the *Ciudadela* structure for religious purposes; however, it is apparent that a group of colonial Spaniards did reside at this site during the Colonial Period. Coupling this data with the details of Franciscan occupation, it is safe to assume that these unidentified Spanish occupants were Franciscan.

The Post-Colonial Spanish/Mexican Military Occupation (~A.D. 1750/1800–1869). At the turn of the eighteenth century, the Northwestern Corridor saw a drastic increase in population as well as a regionalized re-settlement of previously abandoned sites. As population increased in the region, so did the importation of material goods and trade. Continual warfare and conflicts between the Maya, European invaders, and the Spanish plagued the Post-Colonial occupation Period. As Luis Weckmann (1992:579) indicated, the *Ciudadela de Mérida/San Benito* originally was constructed to protect the *Convento de San Benito* (ca. A.D. 1750/1800) from invading forces. As Jorge Victoria Ojeda noted:

[En el Siglo XVIII] el territorio peninsular yucateco vio proliferar como nunca antes los símbolos de poder español en el área, representados por las construcciones defensivas contra las cada vez más constantes agresiones de sus enemigos europeos . . . (ft. 8). En opinión de algunos investigadores, esas defensas arquitectónicas fueron justificadas por el temor de un probable levantamiento indígena; tal es el caso de la ciudadela de San Benito (Calderón-Quijano 1984:486). Sin embargo, sostenemos la tesis de que los constantes y documentados estados de alerta y ataques de piratas debieron ser el incentivo principal para la erección de las defensas arquitectónicas. [In the eighteenth century, the Yucatán peninsular territory saw the symbol of Spanish power proliferate in the area like never before—represented by the construction of defenses against their constantly aggressive European enemies . . . (Ft. 8). In the opinion of some researchers, likely [Spanish] fear of an indigenous uprising justified those defensive constructions; such is the case of the *Ciudadela de San Benito*. Nevertheless, we maintain the opinion that the constant and documented states of warning and pirates' attacks probably did more to incentivize the erection of fortifications] (Ojeda and Suárez 1994:3-4).

As this quote implies, a lot of attention was given to Mérida's defenses during this time in order to contend with the growing strength of other European powers, particularly with the English who occupied nearby Belize. The presence of the English clearly was represented in the YUC 2 study sample as indicated by the presence of English Refined Earthenwares, a group constituting one of the largest artifact classifications dating to this period (see Appendix E). In Figure 7-3 below, I have provided an artistic reconstruction of *Ciudadela* complex as it may have looked during Spanish/Mexican Military occupation.

Figure 7-3. *Ciudadela* Complex: Spanish/Mexican Military Occupation, 1751-1788.



Sources: Adapted from Alcalá Erosa 1998: 121, L-23;
Lindsay 1999: 49, Figure 3.4; 70, Figure 3.9, 70; 147, Figure 6.6.
(Artistic rendition by Dennise Rodríguez-Ávila and Rhianna C. Rogers 2010.)

It appears that the Spanish/Mexican Military structures reused buildings originally constructed during the Franciscan occupation, but they extended beyond both the early and late constructions to create fortifications around the *Convento de San Benito's* periphery.

When considering the colonial artifacts sampled from the YUC 2 collection in conjunction with the historical record, it is clear that the Spanish/Mexican Military did, in fact, use this site for militarism and habitation during the Post-Colonial Period. During the eighteenth century, colonial Spanish communities imported a larger quantity of

diverse material goods for use and trade. This point was confirmed by the YUC 2 sample dating to the Spanish/Mexican Military occupation of the *Ciudadela* site. An estimated 1314 ceramics and 683 non-ceramic items were recorded dating to A.D. 1800–1900/present. In the non-ceramic category, a variety of items were documented including: a metal Bracelet (N=1), Buttons (N= 16), a Military Button (N=1), Children’s Games and Toys (including six Marbles and one miniature ceramic “chess” piece), Clothing Buckles (N=3), an eighteenth century Shoe Buckle (N=1), Firearm accessories including 13 shell casings, Industrial items including Hand Wrought, Machine Cut, and Wire Nails (N=27), and Utilitarian Glassware (N=614). In the historic ceramic category, a variety of diagnostic sherds was documented roughly dating to the Post-Colonial Period including: Delftware (N=72), Lead Glazed Coarse Earthenware (N=269), Majolica (N=235), Porcelain (N=16), Refined Earthenware (N=632), Slipware-United States Tradition (N=2), Stoneware (N=6), and Unglazed Coarse Earthenware (N=82). The majority of diagnostic ceramics dating to this period represented imported wares from England (N=709), which supports the increase in historical contact between the Spanish Yucatán and England after the English colonization of Belize in the 1600 and 1700s. Like the Colonial Period, wares from Mexico City and Puebla also were represented strongly (N=235), suggesting that the localized production of ceramics still was considered important at this site but in less demand. Import goods from Spain (N=82), Asia (N=16), United States (N=2), and Germany (N=1) either increased or appear for the first time in the sample, indicating a mixture of import material goods and regular contact between European colonizers during this time. It is also important to note that ceramics produced and created in the Yucatán and Italy disappeared from the sample during this period,

suggesting that the Spanish/Mexican Military was less interested in indigenous wares and Renaissance style vessels, unlike their Franciscan predecessors. In sum, Post-Colonial inhabitants relied more heavily on imported goods for everyday use and supplemented them with localized Hispanic-style goods when needed, illustrating a drastic change in the use and distribution of material items.

General Conclusions

The results of this investigation into pre- and post-contact Maya authority illustrated that the Maya, either through material and cultural exchange, were able to retain aspects of their precolumbian power and religious authority in some cases. The archaeological data specifically illustrated that there was little change in the production of indigenous pottery after the fall of Mayapan (*ca.* A.D. 1441–61) as inhabitants of precolumbian Tihoo continued to use the preexisting wares and tools from their former capital and regional centers well into the Spanish Colonial Period. The high concentration of precolumbian remains in the YUC 2 sample suggests that, at least during the colonial occupation, the Maya continued to use and rely on their native material wealth for daily activities. This fact, coupled with the pacifist approach of the colonial Franciscan Order, allowed for the retention of precolumbian Maya beliefs and material remains well into the Colonial Period. With religious syncretism already in place in New World Christianity (e.g. the conquistadors' practice of Christian folk religion) and loose regulations overseeing the Yucatán, the Maya, at least at the local level, were not discouraged from developing their own forms of religion, culture, and politics (see Chapter 4). In the Post-Colonial era, however, a significant change in material culture occurred as native inhabitants and Spaniards incorporated more imported and foreign

items into their everyday livelihoods. Ceramics from Spain, Italy, England, Germany, Holland, and porcelains from China and Japan, combined with colonial Mexican ceramics, illustrate a complex material exchange between the Maya inhabitants and European immigrants during this time. Despite the loss of precolumbian Maya material wealth, prolonged resistance to Spanish subjugation and the manipulation of Spanish and Catholic systems allowed the Maya to find other avenues to retain power and authority in the historic periods. More specifically, Spanish law and Franciscan doctrine provided the Maya with the status of Spanish and Christian subjects, which enabled the Maya, particularly at the local level, to take part outwardly in the Hispanization process, while at the same time inwardly retain their precolumbian cultural and religious beliefs.

Overall, the material assemblage from the *Ciudadela* (YUC 2) collection is very distinct, yet it simultaneously represents the history of both the colonized and colonizers. Much of the diversity in the assemblage represents the political, economic, socio-religious, and socio-cultural developments in Spain, the Yucatán, and greater Mexico occurring during this time. Events such as the completion of the *Reconquista*, the conquistadores' reenactment of the *Reconquista* mindset; the conflicts between the Franciscans, Spanish, and Maya; the social subjugation and resilience of the precolumbian and historical Maya; and the growing influence of European invaders and expansion in the peninsula, together reflect the complex exchange and daily issues that the natives were forced to encounter. The interaction between groups, their histories, and the material goods they used and produced characterize the historic and current culture patterns in the region. Regardless of their differing experiences, both Maya and Spanish worldviews helped shape the archaeological and historical records of the Yucatán. These

contrasts are seen clearly in past and present expressions of Spanish and Maya self-identity. Archaeological and historical evidence presented in this dissertation suggest a different and somewhat unique development of cultural identity in Tíhoo/Mérida, which is unlike many native experiences across the Spanish colonial empire. The mutually reciprocal relationship originally forged during Spanish colonial occupation established a unique Indo-Iberian identity distinct from typical Spanish identity seen elsewhere. This distinct identity can be seen through the recognition of mixed racial lineages, which were (and are) explicitly illustrated (and sometime celebrated) in the Yucatán. As Deagan stated:

Although these [cultural and ethnic] categories may imply a strong adherence to social hierarchy and prejudice, they also provided a legitimizing means of integrating virtually any combination of racial attributes into a recognized institutional structure. Racial categories were, in fact, used flexibly in eighteenth-century Mexico, where individuals often identified themselves at different times with different racial categories depending on the relative advantages of a category in a specific situation (Deagan 1996:154).

Furthermore, this dissertation has illustrated the regular incorporation of Indian elements into Spanish material culture and the acceptance of cross-cultural ideologies into mainstream Yucatecan society. As such, this study has contributed to a better understanding of the still ongoing exchanges that began occurring between Maya and Spanish nearly five centuries ago.⁵³

⁵³ To date, no other research project in the Northwestern Corridor has attempted either to bridge the gap between the fields of pre-columbian and historical archaeology or to use current methods in both disciplines to do so. Based on the general absence of such studies, this project in and of itself is a theoretical breakthrough for Maya research.

Recommendations for Future Research

The identification of artifact patterns and the evolutionary processes impacting material production and use at this site still need to be clarified. Since collections of this size (i.e. 20,000 items) have been rarely identified at sites in Tihoo/Mérida, the YUC 2 collection provides an excellent opportunity to address the complex exchange occurring at this site. As such, during the next phase of this project, I plan to expand the current data set published in this study through the incorporation of previously unreported data I collected and cataloged for Units C and D. This current sample excluded roughly 10,000 items recorded in the comprehensive *FMNH YUC 2: Catalog of Artifacts*. Comparing the data collected from General Collection and Units A and B, with the remaining unreported information I cataloged in Units C and D, will expand this research and potentially address the complicated process of exchange occurring at this site. Over the next few years, I intend to publish a complete version of this catalog with the intent to disseminate this information to a broader audience.⁵⁴

A shortcoming of this current research results from inconsistencies between U.S. and Mexican chronologies and their artifact classifications. Issues with both the methodological approach (i.e. the different factors influencing research projects in both regions) and the identification of artifacts (e.g. the classification of precolumbian and historical Maya ceramics) must be addressed. I plan to compare my data results with the precolumbian and historical type collections at the *Ceramoteca del Centro Regional*

⁵⁴ In an attempt to disseminate this information faster, I already have presented this research at conferences across the United States, including presentations at the American Anthropological Association, the Society for Anthropological Sciences, the Society for Cross-Cultural Research, and Florida Atlantic University. I am working on developing an exhibit for this collection to be shown at the FLMNH (Susan Milbrath, personal communication 2009). In addition, there is a publication currently in press with some tentative data sets from this study (see Rogers 2010).

INAH–Yucatán (ceramic depository and laboratory) of the *Centro Regional de Yucatán*, *INAH* (formerly the *Centro Regional del Sureste*) in Mérida. Since I already have collected information from a U.S. repository (FLMNH) and used their type collections (IC and LC) to analyze the YUC 2 assemblage, I believe it important to do the same in a Mexican context in order to verify my results. Doing so most likely will clarify some problems I had with the identification of items currently labeled Unidentified Course Earthenwares, Slipwares (e.g. Mama Red), and Refined Earthenwares.

I hope to address issues with dating and the analysis of transitional artifacts (i.e. artifacts denoting temporal changes from precolumbian to Colonial and Colonial to Post-Colonial). I intend to continue to employ the combined chronological methods presented in this study. It is my hope that this research will illustrate the need for the adoption of a universal Spanish and English language artifact chronology. It may require more information be collected from Tíhoo/Mérida, the *Ceramoteca*, and other research projects in the area in order to clarify some of these current problems. I believe the adoption of such a format and the development of stronger connections between U.S. and Mexican research on the Maya would only serve to increase the knowledge about this site's past. Once I have exhausted all available comparative research, it is my hope to use the data as a tool for the ongoing interpretation of Maya material culture.

APPENDIX A

DEFINITIONS: A NOTE ON NOMENCLATURE

Material Culture

The term material culture has many definitions and, like any theoretically based term, always is changing its meaning over time. Scholars like Ivor Noel Hume argued that material culture was a part of historical record and based on the writings/behaviors of those describing them (Hume 1980); while Lewis Binford argued that material culture was based on the scientific study of artifacts, ecofacts, and geofacts—he stressed that these studies should be conducted independent of the individual or community creating them—(Binford 1964); while others, like James Deetz, argued that material culture was directly correlated to the object being discussed, the individual who created it, and the context of the item and proximity it had to where it was used (Deetz 1968).

Although all of these definitions are valid in their own right, material culture can best be defined as the study of human modified objects, typically manufactured by an individual, and where culture is created based on learned behavior. In essence, through the process of enculturation, humans consciously and/or unconsciously develop societal meanings for particular shapes, objects, and materials (Sackett 1977; Weissner 1983). The particular meaning for that object is transmitted by an individual to another individual or group through a particular society or region, at which time adaptations and variations occur between objects, dependent on that particular individual's perceptions. This author's definition is a combination of anthropological (cognitive anthropology), archaeological (behavioral and processual theory), and historical (postmodern and social histories) theories. It is the author's opinion that material culture is an interdisciplinary study of the past. As such, a definition for the field should reflect its diverse applications.

Contact Archaeology

The Civil Rights Movement(s) of the 1960s in the United States brought national and international attention to groups typically marginalized. As a reaction to this cultural phenomenon, scholars began to develop more inclusive archaeological theories (e.g. behavioral studies, processualism, and proto-social history¹) in order to address the plight of the marginalized in the archaeological record. In an attempt to show how cultures changed after European contact, researchers began to pose questions that dealt the archaeological impacts of colonization on pre-existing indigenous populations. Within archaeology, that line of questioning resulted in the development of the sub-discipline referred to loosely as “Contact Archaeology” (Harrison 2002, 2004). Although made popular in Europe and Australia during the 1960s, Contact Archaeology first emerged in the North America in the late 1990s. In a personal communication between the author and U.S. “Contact Archaeologist” Steven Silliman, Dr. Silliman stated, “Contact archaeology in North America had plenty of activity and energy before the 2000s. It is a field with a good 30 years of rich work, some of it increasing noticeably in the aftermath of the 1992 Quincentennial of Columbus’s fateful landing” (Steven Silliman, personal communication 2010). Triggered by the reemerged popularity of Columbus’s landing and an increased interest in the positive and negative results of European colonization, archaeologists began to reevaluate the perceived Eurocentric interpretation of historical and precolumbian material culture and its generalization as a byproduct of non-western acculturation (Murray 1993, 2004). Noting that researchers, over time, had used these

¹ I refer to proto-social history because the formal movement for social history did not occur until the late 1970s, early 1980s. I argue that gradual changes began to occur in the way that history was presented because of the U.S. Civil Rights Movement(s).

exclusionary models to create a gap between pre-historic and historic archaeological studies, Contact Archaeologists called for the development of a new model that could be used to recognize the shared histories within pre- and post-contact societies.

This transitional period, however, continued to be a topic of debate in the archaeological literature. It has been a common practice for pre-historic and historic archaeologists, specializing in one of the two phases, to arbitrarily classify material culture in and out of their temporal area of expertise. For example, Robert Smith arbitrarily classified Maya contact wares into two large, vaguely defined complexes, which he referred to as Chikinchel and Chauaca (Smith 1971). As a precolumbian ceramicist, Smith's limited knowledge of contact wares made his historical ceramic classifications awkward and, for the most part, unusable in modern ceramic research. Contact Archaeologists argued that the tendency to overextend research expertise into this transitional period created a temporal contact point that neither group clearly understood. In the mid 1990s, Tim Murray's research with the aborigines of Australia advanced the theoretical base of Contact Archaeology, which helped bring the discipline to the mainstream (Harrison 2002, 2004). The popularization of Tim Murray's research and Kent G. Lightfoot's subsequent Contact research in the U.S. (1995) expanded the use of Contact Archaeology in the international archaeology community. Its popularity is evident by its increased inclusion in archaeological panels in the U.S., Australia, and Europe, and its recent insertion as a panel in the 2009 Society of Historical Archaeology Conference in Toronto. As Murray stated, "Given that for much of the past 500 years societies in North America, Australia, South America, and Africa, etc. have been interacting with indigenous groups (and indigenous groups themselves have been

interacting in new ways as a result of colonialism) . . . ” archaeologists now recognized a general need to understand the interaction between the groups and have the means to do so through Contact Archaeology (Murray, personal communication 2008). Building on this premise, the author of this dissertation uses Contact Archaeology to highlight the syncretic exchanges between pre- and post-contact inhabitants of Tíhoo/Mérida.

Ceramic Style

It is important to note that in terms of “style,” scholars have created varying definitions. In this study, ceramic style amounts to the scholarly interpretation of designs and decorations (e.g. primary, secondary, and post-firing decorations) as they appear within a given cultural context. This means that style constitutes the basic analytical category of the comparative diagnostic elements of artifacts used to determine the transformation, incorporation, acculturation, and communication of ideas from one determinant (i.e. individuals, cultures, regions, areas) to another determinant of a similar or different origin. The diagnostic elements of style (and their connections to the associated traits of decoration and design) can be used to understand individual or cultural patterns within a given society and/or region.

Decoration and Design

Through the establishment of decoration and design classifications, scholars have the ability to hypothesize about the relative meanings behind regional and individual ceramic productions. As a result, scholars are able to address stylistic variability and its relation to regional and communal interpretations. In the process, ceramicists can use ceramic stylistic classifications to pinpoint specific design qualities and decorative elements in order to establish regional and local ceramic traits, e.g. ceramic variation and

originality between individuals and groups (Rice 1987). In this text, the author uses these elements to illustrate cultural meaning and substantiate the connections between material culture and human behavior (Sinopoli 1991a, 1991b).

APPENDIX B

PRE-COLUMBIAN CERAMIC DESCRIPTIONS

Precolumbian Ceramic Type: Variety Descriptions

The following ceramic descriptions do not reiterate verbatim the detailed descriptions presented in texts by Andrews and Robles (2008), Brown (1999), Peña Castillo et al. (2000), Robles (1990), and Smith (1971). These descriptions already have been well established and represent an accurate portrayal of regional wares and types. As such, the descriptions provided below include only those classifications that I identified during the analysis of the *Ciudadela* (YUC 2) collection. I identified eleven (11) diagnostic precolumbian wares, three (3) ceramic horizon, sixteen (16) groups, twenty-six (26) types, and three (3) varieties represented in the YUC 2 sample. They are as follows:

Table B-1: Precolumbian Ceramic Classifications.

CERAMIC CLASSIFICATIONS	
Chichen Red Ware	Mayapan Unslipped Ware, continued
Chichen Red Ware (General)	Panaba Unslipped Group-Huhi Impressed Type
Red Dzibiac Group (General)	Panaba Unslipped Group-Unslipped Type
Chichen Slate Ware	Unslipped Navula Group (General)
Slate Dzitas Group (General)	Unslipped Navula Group-Chenkeken Incised Type
Fine Orange Ware	Unslipped Navula Group-Cehac-Hunacti Composite Type
Fine Orange Matillas Group-Matillas Orange Type	Unslipped Navula Group- Navula Unslipped Type
Uni. Mayapan Ware	Mayapan Black Ware
Uni. Mayapan Ware	Black Sulche Group (General)
Mayapan Red Ware	Black Sulche Group-Pacha Incised Type
Western Tases Horizon	Black Sulche Group-Sulche Black Type
Red Mama Group (General)	Peto Cream Ware
Red Mama Group-Chapab Molded Type	Cream Kukula Group (General)
Red Mama Group-Dzonot Appliqué Type	Cream Kukula Group-Kukula Cream Type
Red Mama Group-Red Mama Type	Cream Kukula Group-Xcanchakan Black-on-Cream Type
Red Mama Group- Papacal Incised Type	Puuc Slate Ware
Red Panabchen Group-Mama Red Type	Slate Muna-Muna Slate Type
Red Panabchen Group-Pustunich Incised Type	San Joaquin Buff Ware
Mayapan Unslipped Ware	Buff Polbox Group (General)
Western Tases Horizon	Buff Polbox Group-Pele Polychrome Type
Panaba Unslipped Group (General)	Buff Polbox Group-Polbox Buff Type
Panaba Unslipped Group-Chen Mul Modeled Type	Buff Polbox Group-Tecoh Red-on-Buff Type
Panaba Unslipped Group-Thul Appliqué Type	Thin Slate Ware
Panaba Unslipped Group-Cehac-Hunacti Composite Type	Thin Slate Group-Tinum Red-on-Cinnamon Type
Panaba Unslipped Group-Acansip Painted Type	Tulum Red Ware
	Red Payil Group-Payil Red Type

As described in Table B-1, these wares represent the Terminal Classic and Postclassic cultural occupation periods (~A.D. 600–1542); as such, in the sub-sections below, I have organized the descriptions of wares under their associated Horizons and Complexes (i.e. Cehpech/Sotuta Ceramic Horizon and the Hocaba/Non-Mexican Tases Ceramic Horizon) in order to appropriately catalog precolumbian ceramics in chronological order. Wares have been listed with their associated groups and, when identifiable, their associated types; however, types have not been defined in this study since Clifford Brown's (1999) classification of Mayapán ceramics sufficiently defined most types represented in this research (see Brown 1999:291–293; 313–354); for those types not represented in Brown's classifications (e.g. Thin Slate Wares), I used Smith's (1971) Maya ceramic chronology (see Smith 1971:15–32) and his widely accepted type definitions.

Cehpech/Sotuta Ceramic Horizon (A.D. 550/600–1100)

1. *Thin Slate Ware (A.D. 800–1000)*. Paste is usually a fine texture with mostly calcite tempering, which is usually the same color as the slip. The surface is usually smoothed, slipped, polished, and void of blemishes. Slip color is generally grey to cream and is typically associated with the occupation of Chichén Itzá (Smith 1971:29–30). Only one ceramic fragment representing the Thin Slate Ware Group—Tinum Red on Cinnamon Type—was found during the analysis of the *Ciudadela* (YUC 2) sample.
2. *Chichen Red Ware (A.D. 1000–1200)*. Paste is usually a medium texture with mostly ash tempering, and ranges in color from reddish-brown to red to pinkish-cinnamon. The surface is usually smoothed, polished, and well finished; however,

fire clouding can occur. Slip color is generally red to reddish-brown and orange, and typically is associated with the occupation of Chichén Itzá and Mayapán (Smith 1971:15–16). Only three ceramic fragments were found—two representing the Red Dzibiac Group and one General—during the analysis of the *Ciudadela* (YUC 2) sample.

3. *Chichen Slate Ware* (A.D. 1000–1200). Paste is usually a medium texture with mostly ash tempering, and ranges in color from reddish-brown to orange, to red to pinkish-cinnamon, to beige to buff to grey. The surface is usually smoothed, slipped, polished, and well finished and tends to have a translucent, waxy appearance. Tempering can include clay lumps, clear calcite, and sherd fragments. Slip colors are widely varied and range from grey to brown to yellow to cinnamon to beige. This ware is typically associated with the occupation of Chichén Itzá, Dzibilchaltún, Mani, and Mayapán (Smith 1971:16). Only three ceramic fragments were found representing the Slate Dzitaz Group in the *Ciudadela* (YUC 2) collection.
4. *Puuc Slate Ware* (A.D. 800–1000). Paste is usually made of ash and calcite, making it very similar to Chichen Slate Ware; however, Puuc Slate differs from Chichen Slate due to its gray, brown, beige, and sometimes red paste color. It has a medium texture, ranging from fine to grainy, with tempering. The surface is usually smoothed and well finished, slipped and polished and, usually, translucent; crazing, markings, and blemishes frequently occur on its surface. Smith (1971) also stated that these wares usually are found in association with many Northern Maya Lowlands sites, including Tíhoo and Mayapán. Only one

sherd of this classification was found in the YUC 2 sample representing the Muna Slate Type.

Hocaba/Non-Mexican Tases Ceramic Horizon (A.D. ~1100/1200–1450/1542)

1. *Mayapan Unslipped Ware (A.D. ~1100/1200–1450/1542)*. Paste is usually a coarse texture with heavy limestone or calcite tempering, and ranges in color from cinnamon to grey. The surface is usually fairly smoothed to sandpaper finish, never polished and always without slip. Tempering can include rocks, clay lumps, clear calcite, and sherd fragments. Surface and past color is widely varied in this ware and ranges from dark grey to cinnamon to beige to pink. This ware is broadly associated with the occupation of Chichén Itzá, Dzibilchaltún, and Mayapan in the Yucatán and is represented at various sites across neighboring Quintana Roo and Campeche (Smith 1971:23–24). This ware was significantly represented in the *Ciudadela* (YUC 2) collection, constituting 1,972 sherds (22% of the entire sample). A variety of types were represented in this collection including those classified under Mayapan Unslipped Ware-General Group, Unslipped Navula Group (Navula Unslipped Type, and Cehac-Hunacti Composite Type), and Unslipped Panaba Group (Western Tases Horizon General, and General and Chen-Mul Modeled Types, Unslipped Type, Acansip Painted Type, Chenkeken Incised Type, Huhi Impressed Type, Unslipped Type, and Thul Appliqué Type).
2. *Mayapan Red Ware (A.D. ~1100/1200–1450/1542)*. Paste is usually a coarse, calcite texture with chalky limestone or cryptocrystalline tempering, and ranges in color from pink/pale red to cream to grey. The surface treatment is usually

moderately to well smoothed, slipped, and burnished with a faint lustrous to lustrous finish. Blemishes do occur, including rootlet marking, fire clouding, and crazing. Surface and paste color is widely varied in this ware and ranges from red to orange to reddish-brown to brown and gray. This ware is broadly associated with the occupation of Acanceh, Chichén Itzá, Dzibilchaltún, Tecoh, Uucú, and Mayapan in the Yucatán and is represented in various sites across Quintana Roo and Campeche (Smith 1971:22–23). This ware was regularly represented in the *Ciudadela* (YUC 2) collection, constituting 1,630 sherds in Units A and B (18.5% of the entire sample). A variety of types were represented in this collection including those classified under the Mayapan Red Ware (General Group), Red Mama Group (General Tases Horizon, Mama Red Type, Chapab Modeled Type, Dzonot Appliqué Type, and Papacal Incised Types) and the much rarer Red Panabchen Group (Mama Red Type), respectively.

3. *Mayapan Black Ware* (A.D. ~1200–1450/1542). Paste is usually a coarse, calcite texture with chalky limestone or cryptocrystalline tempering, and ranges in color from pink/pale red to cream to grey. The surface treatment is usually moderately well smoothed, slipped, and burnished with a faint lustrous to lustrous finish. Blemishes do occur, including rootlet marking, fire clouding, and crazing. Surface and paste colors are isolated, from strong black to brownish-black, and are usually associated with the occupation of Mayapan (Smith 1971:22). There were 31 representative sherds of this classification in the total 8,806 ceramics analyzed in the sample (constituting .004% of the entire sample). As such, few types were represented in this collection and predominately came from the Black Sulche

Group-Sulche Black Type; however, Mayapan Black (General Group a.k.a. Western Tases Horizon) and Black Sulche Group-Pacha Incised Type were represented.

4. *Peto Cream Ware (A.D. ~1200–1450)*. Paste is usually a coarse texture with limestone, opaque, or cryptocrystalline tempering, and ranges in color from beige to cinnamon, reddish brown to grey. The surface is usually smoothed but lumpy and with slip. Surface treatment colors vary and range from cream to beige to light gray to light brown to cinnamon and are usually associated with the occupation of Mayapan (Smith 1971:26). Smith (1971) also stated that these wares usually are found in association with Mayapan Red Wares. There were 113 representative sherds of this classification in the total 8,806 ceramics analyzed (constituting 1.3% of the entire sample). Few types were represented in this collection and predominately came from the Cream Kukula Group (Kukula Cream Type and Xcanchakan Black-on-Cream Type).
5. *Fine Orange Ware (A.D. 1250–1450)*. Paste is usually made of a fine texture without tempering, but some have been recorded containing mineral inclusions. Paste color is usually a shade lighter than the slip color. The surface is usually burnished, rarely polished, and slipped; slip colors range from orange to reddish brown to brown to red to light brown to cinnamon to fawn. Surface treatment colors vary and range from orange to reddish brown to black, the latter being lightly applied, usually post-firing. This ware has wide associations including Uxmal, Mayapan, Dzibilchaltún, and Chichén Itzá in the Yucatán and at sites across Quintana Roo and Campeche. It also is important to note that this ware is

usually associated with Mayapan Red Wares (Smith 1971:18–22). There were seven representative sherds for this classification in the total 8,806 ceramics analyzed in the sample (constituting .08% of the entire sample). Few types were represented in this collection and predominately came from the Fine Orange Matillas Group–Matillas Orange Type.

6. *San Joaquin Buff Ware (A.D. ~1300–1450)*. Paste is usually a coarse, calcite texture with chalky limestone or cryptocrystalline tempering, and ranges in color from pink/pale red to cream to grey. The surface is often imperfectly smoothed before being slipped and burnished; it is also typically characterized as faintly lustrous to lustrous in appearance. Slip color is usually buff but may range from buff to cinnamon to brown to beige to cream to pink to orange to drab to red to strong black. This ware is associated with Chichén Itzá, Acanceh, Mani, and Mayapan (Smith 1971:29). There were 44 representative sherds for this classification in the total 8,806 ceramics analyzed in Units A and B (constituting .5% of the entire sample). Few types were represented in this collection and predominately come from Buff Polbox Group (General), Buff Polbox Group–Tecoh Red on Buff, and Buff Polbox Group–Pele Polychrome Type.
7. *Tulum Red Ware (A.D. ~1300–1450)*. Paste is usually a fine texture with calcite and quartz grain tempering, and is in uniformly orange in color. The surface is often well smoothed, slipped, and burnished with a medium to light lustrous. Slip color is usually red but may range from light to dark brown. This ware is associated with Quintana Roo but a few sherds have also been documented in Mayapan (Smith 1971:29). There were two representative sherds for this

classification in the total 8,806 ceramics analyzed. As such, few types were represented in this collection and predominantly come from the Red Payil Group-Payil Red Type.

Unidentified Ceramics

Precolumbian sherds that could not be identified as either precolumbian or historic were classified into four generic, pre-determined groupings and labeled as “precolumbian/historic” in the three aforementioned catalogs. These groupings were created based on the identification of documented diagnostic traits, including the identification of slipped and unglazed sherds (i.e. Uni. Slipped Coarse Earthenware and Uni. Unglazed Coarse Earthenware). When traits could not be identified, or I determined that insufficient data was collected for the sherd, the sherd was placed in one of the remaining two generic categories: Uni. Sherd or Uni. Coarse Earthenware.

APPENDIX C

HISTORIC CERAMIC DESCRIPTIONS

Historical Ceramic Category/Group: Type Descriptions

This study utilized the following ceramic chronologies to catalog historical ceramics in the *Ciudadela* (YUC 2) collection: Deagan's historical ceramic chronology (1987), the Historical Archaeology Type Collection Classification-Digital Type Collection chronology (2010), Burgos (in Robles and Andrews 2003) chronologies for the Northwestern Corridor, and Peña Castillo's et al. (2000) chronologies from Tíhoo/Mérida. I utilized the historic ceramic approach in Deagan's text (1987) in conjunction with the HATC Type Collections to identify most post-Contact ceramics. Due to the absence of certain classifications in the non-Mexicanized Slipware Category, I referred to the Mexican ceramic chronology for the classification of post-Contact Mayapán wares (e.g. Mama Red). In addition, I used the Tin Enameled Coarse Earthenware Category, created by Deagan (1987:53–103) and used by the HATC Type Collections, to refer to all unidentified tin oxidized pottery which, in the case of the *Ciudadela* collection, was usually Majolica (e.g. Uni. Tin Enameled Majolica Mexico City Tradition).

More specifically, classifications divided ceramics into the following Categories: Delftware (A.D. 1571–1800), Lead Glazed Coarse Earthenware (A.D. 1490–1900), Majolica (A.D. 1490–1900), Porcelain (A.D. 1550–1835), Refined Earthenware (A.D. 1490–present), Slipware (A.D. ~1400–1825), Stoneware (A.D. 1490–1825), Tin Enameled Coarse Earthenware (A.D. ~1400/1500–1900), Unglazed Coarse Earthenware (A.D. 1500–1900) to catalog post-Contact ceramics.

Like precolumbian ceramic descriptions, the following historic ceramic descriptions do not reiterate verbatim all details currently included in these chronologies. These descriptions already have been well established and represent an accurate portrayal of regional categories and types. As such, the descriptions provided below include only those combined classifications that I identified during the analysis of the *Ciudadela* (YUC 2) collection. In the Historic Periods, I documented nine (9) Categories, thirty-eight (38) Types, thirty (30) Varieties, and twenty-one (21) Traditions, which include the following:

Table C-1: Historic Ceramic Classifications.

CERAMIC CLASSIFICATIONS	
Delftware Category	Porcelain Category
Delftware Blue on White Variety	Porcelain Type-Brown Glazed Variety
Delftware Type- Polychrome Variety	Porcelain Type-Ch'ing Blue on White Variety
Delftware Type- Plain Variety	Porcelain Type-Chinese Imari Variety
Delftware Type- Sponged Variety	Porcelain Type-Japanese Variety
Uni. Delftware Type- England and Holland Tradition	Porcelain Type- UID Asian
Lead Glazed Coarse Earthenware Category	Porcelain Type-Polychrome Chinese Export Variety
Lead Glazed Coarse Earthenware (General)	Refined Earthenware Category
El Morro Type	Annular Ware Type-Banded Variety
Green Lead Glazed Coarse Earthenware Type	Annular Ware Type- Cabled Variety
Rey Ware Type	Creamware Type- Plain Variety
Majolica Category	Creamware Type- Royal Variety
Abo Polychrome Type	Creamware Type- Transfer Print Variety
Aucilla Polychrome Type	Pearlware (General)
Columbia Plain Type	Pearlware Type- Edged Variety
Esquitlan Polychrome Type	Pearlware Type- Hand Painted Blue on White Variety
Faenza Polychrome- <i>Compendiario</i> Variety	Pearlware Type- Hand Painted Polychrome Variety (Early)
Fig Springs Polychrome Type	Pearlware Type- Hand Painted Polychrome Variety (Late)
Huejotzingo Blue on White Type	Pearlware Type- Plain Variety
Ichucknee Blue on White Type	Pearlware Type- Sponged & Spattered Variety
Ligurian Blue on White Type	Pearlware Type- Transfer Print
Mexico City White Type- Variety 1	Whieldon Ware Type (General)
Mexico City White Type- Variety 2	Whiteware Type- Hand Painted Variety
Mt. Royal Polychrome	Whiteware Type- Overglazed Variety
Nopaltepec Polychrome	Whiteware Type- Plain Variety
Puebla Blue on White (General)	Whiteware Type- Transfer Print Variety
Puebla Blue on White- Early Variety	Uni. Refined Earthenware (General)

Puebla Blue on White- Late Variety	Slipware Category
Puebla Polychrome Type	Slipware Type-Moravian Variety
San Elizario Polychrome Type	Slipware Type- Red Mama Variety *
San Luis Blue on White Type	Stoneware Category
San Luis Polychrome Type	Stoneware Type-Brown Salt Glazed, English Variety
Santa Maria Polychrome Type	Stoneware Type-Nottingham Variety
Santo Domingo Blue on White Type	Stoneware Type-Rhenish Blue Gray Variety
Sevilla Blue on Blue	Stoneware Type-White Salt Glazed Variety
Sevilla Blue on White	Uni. Stoneware- Salt Glazed Variety
Yayal Blue on White	Uni. Stoneware- English Tradition
Uni. Blue on White Majolica (General)	Tin Enameled Coarse Earthenware Category
Uni. Blue on White Majolica Type, Iberian Tradition	Uni. Majolica Tin Enameled
Uni. Blue on White Majolica Type, Italian Tradition	Uni. Majolica Tin Enameled, Spanish Tradition
Uni. Blue on White Majolica Type, Mexico City Tradition	Uni. Majolica Tin Enameled, Puebla Tradition
Uni. Blue on White Majolica Type, Puebla Tradition	Uni. Majolica Tin Enameled, Mexico City Tradition
Uni. Blue on White Majolica Type, Spanish Tradition	Unglazed Coarse Earthenware Category
Uni. Majolica Polychrome (General)	Bizcocho Ware (Bisque) Type
Uni. Majolica Polychrome Type, Italian Tradition	Mexican Red Painted Type
Uni. Majolica Polychrome Type, Mexico City Tradition	Olive Jar (Generic)
Uni. Majolica Polychrome Type, Mexico 19 th Century Tradition	Olive Jar Type- Early Style Variety
Uni. Majolica Polychrome Type, Mexico/Iberian Tradition	Olive Jar Type- Middle Style Variety
Uni. Majolica Polychrome Type, Puebla Tradition	Olive Jar Type- Late Style Variety
Uni. Majolica Polychrome Type, Spanish Tradition	Yucatán Colonial Ware Type

Unlike precolumbian wares, colonial categories and types utilized hand-made and wheel-made techniques during ceramic production. Imported historical ceramics in the YUC 2 assemblage originally were produced in a wide variety of locations including: Spain, Italy, Germany, England, Holland, China, Japan, and some produced locally and

imported from the Yucatán, Mexico City, and Puebla. The aforementioned categories, types, varieties, and traditions represent the Colonial and Post-Colonial cultural occupation Periods (~A.D.1542–1900s); as such, in the sub-sections below, I organized the descriptions below utilizing both the cultural chronology for the Northwestern Corridor and the associated ceramic categories listed above.

Colonial Occupation (A.D. ~1500–1800)

1. *Delftware Category (A.D. 1571–1800)*. Paste is usually a chalky texture ranging from cream to light buff in color. The surface treatment is usually smoothed and even with a matte or low-gloss finish, sometimes with pin-holing. The surface is covered with a poorly bonded tin enamel background that ranges from blue to white to bluish-white in color. This category may be decorated or undecorated and is considered an import good from Holland and/or England (HATC 2010). There were 87 representative sherds of this classification in the total 8,806 ceramics analyzed in Units A and B (constituting .1% of the entire sample). A few types were represented in this category including the Blue-on-White Type, the Polychrome Type, the Plain Type, and the Sponged Type.
2. *Lead Glazed Coarse Earthenware Category (A.D. ~1490–1800)*. Paste is usually coarse texture with sand tempering ranging from buff to red in color. The surface treatment is usually a smoothed, reflective finish with either transparent or pigmented glazes (pigments are usually green to brownish-green). This category may be decorated (usually with linear and looped motifs) or undecorated. This category may be either a European or Mexican import good; however, its exact origin is unknown (HATC 2010). There were 308 representative sherds of this

classification in the total 8,806 ceramics analyzed in the sample (constituting 3.4% of the entire sample). A few types were represented in this category including the Lead Glazed Coarse Earthenware (Generic) Type, the El Morro Type, and the Red Ware Type.

3. *Majolica Category (A.D. ~1490–1800)*. At present, this category is the most extensively studied by non-Mexican historical ceramicists (Deagan 1987; Fairbanks 1972; Goggin 1968; Lister and Lister 1982). As such, types are well-defined and organized by a number of specific attributes and stylistic traits. Paste is usually soft and coarse textured ranging from no to fine tempering and a broad variety of colors. The surface treatment is usually smoothed and covered with an opaque vitreous enamel or glaze, which can be transparent, color pigmented, or tin oxidized and ranging in a wide variety of colors. This category may be decorated with a variety of techniques (e.g. hand painted, molded, sponged) and covered with a wide range of decorative motifs (e.g. balloon-like, floral-crude, vegetables). Some types also may be undecorated and covered with only a solid-colored enamel (e.g. Mexico City Type–Variety 1). This category has a wide variety of origins including Mexico City, Puebla, Spain, Italy, and General Mexico (HATC 2010); however, in the *Ciudadela* (YUC 2) collection, the majority of majolica sherds appear to have originated from inter-colonial trade with Mexico City and Puebla. There were 733 representative sherds of this classification in the total 8,806 ceramics analyzed in Units A and B (constituting 8.3% of the entire sample). A number of types were represented in this category including the following: Abo Polychrome Type, Aucilla Polychrome Type,

Columbia Plain Type, Esquitlan Polychrome Type, Faenza Polychrome Type–Compendiario Variety, Fig Springs Polychrome Type, Huejotzingo Blue on White Type, Ichtucknee Blue-on-White Type, Ligurian Blue-on-White Type, Mexico City White Type–Variety 1 & 2, Mt. Royal Polychrome Type, Nopaltepec Polychrome Type, Puebla Blue on White Type–Early and Late Varieties, Puebla Polychrome Type, San Elizario Polychrome Type, San Luis Blue on White Type, San Luis Polychrome Type, Santa Maria Polychrome Type, Santo Domingo Blue-on-White Type, Sevilla Blue on Blue Type, Sevilla Blue-on-White Type, Uni. Blue-on-White Majolica Type (Generic), Iberian Tradition, Mexico City Tradition, Puebla Tradition, Spanish Tradition, Italian Tradition Varieties, Uni. Majolica Polychrome Type–Italian Tradition, Mexico City Tradition, Puebla Tradition, Mexican/Iberian Tradition, Spanish Tradition, Mexico–Nineteenth Century Tradition Varieties, and Yayal Blue-on-White Type.

4. *Porcelain Category (A.D. ~1550–1800)*. Paste is usually white, thin, vitreous, and translucent with fine to no inclusions. The surface treatment is usually a well-bonded smoothed and reflective with lustrous finish, with few or no imperfections. This category may be decorated with a wide variety of design techniques and motifs or can be undecorated. This category may have originated in China, Japan, or Europe (HATC 2010); however, the types represented in the *Ciudadela* collection were of Asiatic origins only. There were 14 representative sherds of this classification in the total 8,806 ceramics analyzed in Units A and B (constituting .16% of the entire sample). One type was represented in this

category, including the following varieties: Ch'ing Blue-on-White, Japanese, Brown Glazed, Chinese Imari, Polychrome Chinese Export, and UID Asian.

5. *Refined Earthenware Category (A.D. ~1490–1800)*. Paste can range in color including cream to buff to pink to grey and is usually a soft and chalky texture with fine to no inclusions. The surface treatment is usually off-white, pearl, cream, or grayish-white and tin-enameled on the interior and exterior, and typically is smoothed with a lustrous to semi-lustrous finish. Enamel quality and thickness can vary between types and varieties. Appliqué appendages (e.g. handles, lugs, and feet) may occur in these types. This category may be decorated with a wide variety of design techniques and motifs or can be undecorated. This category originates predominantly from England, but types do come from Spain (HATC 2010), both of which were represented in the *Ciudadela* (YUC 2) collection. There were 469 representative sherds of this classification in the total 8,806 ceramics analyzed (constituting 5.3% of the entire sample). A number of types and varieties were represented in this category, including the following: Annular Ware Banded Type, Creamware Type–Plain, Royal, and Transfer Print Varieties, Pearlware Type–Edged, Hand Painted Blue-on-White, Hand Painted Polychrome (Early and Late), Plain, Sponged and Spattered Varieties, Uni. Refined Earthenware (Generic), Whieldon Ware Type, Whiteware Type–Hand Painted, Overglazed, Plain, and Transfer Print Varieties.
6. *Slipware Category (A.D. ~1400–1800)*. Paste is usually coarse texture with limestone, calcite tempering and varies in color from light red to orange to buff to yellow. As previously mentioned, this category may contain the post-contact

Maya groups documented in the Mexican Historic Period chronology (e.g. *Grupo Mama*—referring to the precolumbian Mama Red Group/Type from the Mayapan Redware, the *Grupo Oxcum*, the *Grupo Sacpokana*, and the *Grupo Yuncu*). It is possible that some precolumbian Mayapan Red Wares classified under the precolumbian ceramic section may represent colonial and post-colonial Maya types and varieties; however, the current absence of well-defined Maya Historic Period ceramic classifications in the Northwestern Corridor makes it difficult to determine if this classification is accurate. Despite these general inconsistencies, the surface treatment of this current category is usually (if not always) slipped. This category may be decorated with a wide variety of design techniques and motifs or can be undecorated (plain) with slip. The majority of types in this category most likely originated in Mexico, but later types appear to have been imported from the United States, Spain, Italy, and England (HATC 2010). Following the current classification (which accounts only for those types imported to Mexico), there are only two representative colonial slipware sherds, both of which represent the Moravian variety from the United States. I speculate that there may be more colonial Mexican slipped sherds belonging to this group that may not be a part of this current tabulation.

7. *Stoneware (A.D. ~1490–1800)*. Paste is usually thin, hard, and grey but can range in color from orange to buff. The surface treatment is usually smoothed with a lustrous to semi-lustrous enamel and often has a burnished, metallic look ranging in a variety of mute to dark colors (gray, brown, silver). Types may be salt glazed, appliquéd, include grog or crumb inclusions; off-white, pearl, cream, or grayish-

white and tin-enameled on the interior and exterior and typically is smoothed with a finish. Enamel quality and thickness can vary between types and varieties. Appliqué appendages (e.g. handles, lugs, and feet) may occur in these types. This category may be decorated with a wide variety of design techniques and motifs or can be undecorated. This category originates predominantly from England, but types do come from Germany (HATC 2010), both of which were represented in the *Ciudadela* (YUC 2) collection. There were only eight representative sherds of this classification in the total 8,806 ceramics analyzed. Few categories were represented in this sample; however, a number of types were represented, including Stoneware Type–Brown Slate Glazed English, Nottingham, Rhenish Blue and Gray, White Salt Glazed Varieties, Uni. Stoneware–Salt Glazed Variety (Generic), Uni. Stoneware Type-English Tradition.

8. *Tin Enameled Coarse Earthenware Category (A.D. ~1400/1500–1800)*. Generally speaking, this category represents those types that currently cannot be classified into the Majolica Category (Deagan 1987:53–54); however, it is important to note that currently (2010) on the HATC online digital type collection, one Tin Enameled type has been described as originating from China and listed as “Uni. Tin Enameled Ware, Chinese.” I was unable to identify any additional sherds representing non-Majolica Types or Traditions as a part of this category, nor any non-Majolica types as part of the *Ciudadela* (YUC 2) collection. As such, Traditions included in this category follow the Majolica definition provided above (see Majolica Category). Like Majolica, this category has a wide variety of origins including Mexico City, Puebla, Spain, Italy, and General Mexico (HATC

2010); however, in the *Ciudadela* (YUC 2) collection the majority of majolica sherds appear to have originated from inter-colonial trade with Mexico City and Puebla. There were 156 representative sherds of this classification in the total 8,806 ceramics analyzed (constituting 1.8% of the entire sample). Based on the general classification of sherds in this category, all ceramics were recorded in association with their perceived traditions, including the following: Uni. Tin Enameled Majolica Type–Mexico City, Puebla, Spanish Traditions.

9. *Unglazed Coarse Earthenware Category (A.D. ~1500–1800)*. Paste is usually coarse texture with limestone, calcite tempering and varies in color (e.g. light red to black to beige to brown to orange to buff to yellow). As previously mentioned, this category may contain the post-contact Maya groups documented in the Mexican Historic Period chronology (e.g. the *Grupo Oxcum*, the *Grupo Sacpokana*, and the *Grupo Yuncu*). It is possible that some precolumbian Mayapan Unslipped Wares classified under the precolumbian ceramic section may represent colonial and post-colonial Maya types and varieties; however, the current absence of well-defined Maya Historic Period ceramic classifications in the Northwestern Corridor make it difficult to determine if this assessment is accurate. Despite these general inconsistencies, the surface treatment in this category is usually (if not always) unslipped but may be painted or burnished. This category is decorated with a wide variety of design techniques and motifs or can be undecorated (plain) without paint or burnishing. The majority of types in this category most likely originated in Mexico, but later types appear to have been imported from Spain (HATC 2010). Following the current classification (which

accounts only for the Spanish Bizcocho Type and Olive Jar Types imported to Mexico and the Yucatán Colonial and Mexican Red Ware Painted Types), there are 126 representative sherds of this classification in the total 8,806 ceramics analyzed (constituting 1.4% of the entire sample). I speculate that there may be more colonial Mexican Unglazed Coarse Earthenware sherds belonging to this group were not included as part of this current tabulation.

Post-Colonial Occupation (A.D. ~1800–present)

At present, no additional definitions have been created for types dating to the nineteenth century; however, the Mexican chronology appears to divide this Category in this period. Future research is needed with historical ceramic groups, specifically in the Post-Colonial Period, to understand this perceived difference.

I have divided the historical period chronology based on Robles and Andrews's (2003) cultural occupations (Colonial and Post-Colonial), which they have ascribed to the Northwestern Corridor. However, since research in the Historic Period is relatively new to this region, at present there is only fragmented information about Historic Period ceramics. As such, little additional information for ceramic descriptions has been added to this section; however, I have recorded the types that Burgos (in Robles and Andrews 2003) suggested continue into this occupational period. They are:

1. Delftware Category (A.D. ~1800–?)
2. Lead Glazed Coarse Earthenware Category (A.D. ~1800–1900)
3. Majolica Category (A.D. ~1800–1900)
4. Refined Earthenware Category (A.D. ~1800–present)
5. Stoneware (A.D. ~1800–1825)

6. Tin Enameled Coarse Earthenware Category (A.D. ~1800–1900)

Note: Unidentified Ceramics

Historic sherds that could not be identified as either precolumbian or historic were classified into four generic, pre-determined groupings and labeled as “precolumbian/historic” in the three aforementioned catalogs. These groupings are based on the identification of documented diagnostic traits, including the identification of slipped and unglazed sherds (i.e. Uni. Slipped Coarse Earthenware and Uni. Unglazed Coarse Earthenware). When traits could be identified or it was determined that insufficient data was collected for the sherd, the sherd was placed in one of the remaining two generic categories: Uni. Sherd or Uni. Coarse Earthenware.

APPENDIX D

NON-CERAMIC DESCRIPTIONS

Precolumbian Non-Ceramic Classifications (A.D. ~1100/1200–1542)

1. *Artifacts/Lithic*. All lithics represented in this collection were examples of either flaked, stone tools, or blanks discarded during tool production. A *blank* is defined as a roughly shaped flake or piece of raw material. *Flaked stone tools* are defined as cultural items created as a by-product of human activity; they result from the removal of flakes from a core and the modification of those flakes into tools. Typically, the materials used for production of both blanks and flaked stone tools are vitreous and/or fine-grained silicates (e.g. chert, obsidian, quartz, glass, and sometime ceramic); in the *Ciudadela* (YUC 2) collection, lithic items typically were made from chert or quartz. In relation to stone tools, the most common type represented in the *Ciudadela* collection was corner-notched bifacial projectile points. Corner-notched bifacial projectile points are defined as stone tools modified on both sides that are typically long and narrow with nearly parallel margins (Schneider in Sutton and Arkush 2002:37–41). There were 14 lithics in the total 1,960 non-ceramics remains analyzed (constituting .7% of the entire sample).
2. *Artifact/ Modified Wood*. Modified wood is defined as perishable wood remains altered for or by human use and discarded in a specific natural or archaeological context. On many occasions, these remains have been removed from their original environment and placed in chemical and physical conditions that could limit or prevent the decomposition of the wood item (Sutton and Arkush 2002:155;

Florian in Rowell and Barbour 1990:3). Only one precolumbian, notched wood shaft was represented in the total 1,960 non-ceramics remains analyzed.

Historical Non-Ceramic Classifications (A.D. ~ 1542–1800)

1. *Artifact/ Beads*. Historic beads are defined as ornamental objects or trade items of a non-utilitarian nature used for adornment purposes (e.g. as personal and/or ceremonial decorations) (Sutton and Arkush 2002:137, 193). Only one historic Chevron glass bead was represented in this collection. This type of bead, sometimes referred to as “Star” or “Rosette” is usually multicolored and constructed in such a way that it looks like a star (Deagan 1987:164).
2. *Artifact/ Buckles, Straps, and Hooks*. Buckles, Straps, and Hooks are defined as metal artifacts that typically are associated with clothing and personal apparel and used for adornment purposes (e.g. as personal, professional, or ceremonial decorations) (Deagan 2002:180; Sutton and Arkush 2002:137) Four buckles were identified in this collection, including one eighteenth century shoe buckle and three Uni. Clothing buckles.
3. *Artifact/ Clothing Items/ Buttons*. Buttons can be defined as artifacts, usually disk-shaped, used either as clothing fasteners or as personal adornments. Buttons can be made from a variety of materials including metal, glass, wood, bone, and shell. In the Spanish colonies, Deagan (2002:158) stated that buttons typically date to post-1700s, after they spread from elite clothing items to non-elite colonial items. There were 43 examples of buttons represented in 1,960 analyzed (representing 2.1% of the entire sample). These included the following types: 2 “Jeweled” Buttons (brass and stone), 14 (fourteen) Eighteenth Century Buttons (copper,

wood, and bone types), 1 Military Buttons (metal), 22 Modern Buttons (plastic), 1 Shell and Glass Buttons (shell type), and 3 Uni. Metal Buttons.

4. *Artifact/ Clothing Items, Bracelets.* A bracelet generally can be defined as a clothing item or ornamental item typically placed around one's arm or leg and used for adornment purposes (e.g. as personal, professional, or ceremonial decorations). Bracelets can be made from a variety of materials, including metal, glass, gold, bone, and shell. Deagan (2002:134–136) states that bracelets are infrequently found at Spanish colonial sites; however, metal bracelets, such as the one represented in the *Ciudadela* sample, have been reported in both Europe and the Americas between the sixteenth to eighteenth centuries. Only one metal "ID" from what I assumed to be a modern bracelet (A.D. 1700–1957) was recorded in this sample.
5. *Artifact/ Coins.* Coins are defined as small monetary based items, usually flat and circular, which are authorized by a group, region, state, or empire to denote currency. Deagan (2002:236–256) stated that in the Spanish colonies, coins were usually metal artifacts (e.g. gold, silver, and copper) regularly used since the conquest period; monetary trade between empires was common, as represented by the documentation of an 1861 U.S. Penny, in Unit C (0-6"), and Mexican Centavos in the *Ciudadela* Collection. Four coins were identified during the sampling of Units A and B including: one Mexican centavo from 1906, 2 Mexican centavos from 1910, and one Uni. Coin (n.d.).
6. *Artifact/ Firearms.* Firearms are defined as portable personal possessions, usually represented by the non-perishable remains that were lost, broken, or discarded

from a weapon at sites, (Deagan 2002:268) that contributed to the firing or discharging of projectile items. Firearms and their associated materials range greatly in style, size, and purpose. Twenty-one firearm related items were identified in the sample, including: 1 Large (55mm) Sling Shot Ball (~A.D. 1470–1700), 5 Small Size Cartridge Casings, 7 Medium Size Cartridge Casings, 6 Large Size Cartridge Casings, 1 Small Bullet Fragment, and 1 Uni. Bullet.

7. *Artifact/ Household Items*. This category was not originally listed in any of the pre-established historic non-ceramic chronologies; however, I determined that a classification of items was needed to quantify remains that did not fit into the current classifications (e.g. granite doorknob). I define household items as artifacts associated with a residential living space that currently are not grouped in pre-existing artifact categories. One Granite Door Knob was identified during the sampling of Units A and B that fits into this category.
8. *Artifact/ Industrial*. This category originally was not listed in pre-existing non-ceramic classifications; however, Sutton and Arkush (2002:161) divide metal artifacts between four broad groups: hardware (wood screws, hinges, bolts), kitchen and table utensils (knives, forks, spoons, ladles), ornaments, and machinery, and sub-divide those groupings into four sub-categories: nails, cans, wire (baling and barded), and cartridge casing. Since Deagan (1987, 2002) and the FLMNH separate cartridge casings into their own classifications, for the sake of brevity, I elected to combine the above categories and sub-categories (with the exception of cartridge casings, kitchen and table utensils, and ornaments) into one large group titled Industrial. As such, I define Industrial as all objects associated

with activities dealing with machinery and hardware, including the sub-categories associated with Industrial activities, nails and wire. There were 428 items identified as part of this category. It is important to note that this is a rough estimation, because an unspecified number of tiny and microscopic metal shavings were not tallied in this count. I did document the following Industrial types, however, using Sutton and Arkush's (2002: Figure 76) classifications: Generic (medium and large iron fragments and shavings), 6 Early Machine Cut Nails (A.D. 1815–1840), 6 Hand Wrought Nails (A.D. 1600–1800), 11 Modern Machine Cut Nails (A.D. 1835–present), 35 Modern Wire Nails (A.D. 1850–present), and 2 Misc. Metal (modern metal pencil tips).

9. *Artifact/ Modified Rocks, Granite*. This category originally was not listed in pre-existing non-ceramic classifications; however, I believe that this item may represent a granite variation of the Unglazed Tiles and Bricks category created by Deagan (1987:124-126) and described below. One purple and white, smoothed Granite Tile was identified in the sample.
10. *Artifact/ Modified Wood*. Both precolumbian and historic period modified wood items are defined the same in this study (see precolumbian modified wood definition). In the Historic Period, modified wood items appear to be associated with personal items, either clothing or pastimes. In the collection, there were two historic modified wood remains (i.e. one broken, wood button fragment and one Uni. Circular, perforated wood item) analyzed as part of the sample.
11. *Artifact/ Pastimes*. Pastimes can be defined as activities that individuals take part in “to seek avenues of amusement and relaxation in both public and private

settings” (Deagan 2002:291). Deagan subdivides this category into the following groups: Games and Gambling, Children’s Games and Toys, Noisemakers and Music, Reading and Writing, and Tobacco Use; in the *Ciudadela* sample, examples of Games and Gambling, Children’s Games and Toys, and Tobacco Use items were represented. Specifically, examples included: Children’s Games and Toys–1 Porcelain doll face, 2 Glass Marbles, 3 Stone Marbles, 1 Uni. Marble, 1 Miniature Ceramic Toy, 1 Tobacco Use Item– Colonoware Pipe; and 1 Games and Gaming item– Plastic block (Dice?).

12. *Artifact/ Religious Items, Devotional Medal (Venera Pendant?)*. Religious Items can be defined as material remains associated with some religious connotation that usually depict spiritual meaning through symbols, images, or through some other physical devotional representation (Deagan 2002:38). In the entire *Ciudadela* assemblage (Units A-D), one religious item, a Devotional Medal appearing to be a Catholic *venera*, was recorded. Devotional Medals were dedicated to specific saints, members of the Trinity, and/or to the Virgin Mary. Based on the oxidization of the piece, however, it was impossible to determine to whom in the Catholic faith this medallion originally was dedicated.

13. *Artifact/ Unglazed Tiles and Bricks*. Unglazed tiles and bricks are defined as smoothed and unglazed and range in paste, temper, and thickness. Some may be hand painted and incorporate ceramic (e.g. majolica) decorative styles (Deagan 1987:117–126). There were 38 examples of this type in the *Ciudadela* sample including: 34 Colonial brick fragments (*ladrillos*), three Uni. Decorated tile fragments, and one Marble Tile Fragment.

14. *Artifact/ Utilitarian Glassware*. Utilitarian glassware can be defined as glass created for the purpose of practical daily use (Deagan 2002). Glass may be decorated or undecorated. In the YUC 2 sample, approximately 1,006 glass fragments were represented in this category. Examples represented in this collection included: Generic (rims, necks, bases), Glass knobs, Tableware and Ornamental Glass. It is important to note that this is a rough estimation since tiny and microscopic fragments were not included in this tabulation.
15. *Geofact/ Limestone Marl*. Limestone marl can be defined as lime-rich mud that contains clay-like characteristics. This category was difficult to create because the limestone represented in this collection may have been used by humans to create mortar and/or colonial wall plaster, which would change it from a geofact to an artifact. Because I was unable to determine definitively if this originally was collected by Goggin's field crew as representations of the colonial wall plaster, it was classified as a separate group.

Uni. Precolumbian/Colonial Non-Ceramic Items

1. *Artifact/ Mortar*. Mortar can be defined as a mixture of clay, ground limestone, sand, water and other elements binding material for construction. This category is mostly likely associated with the colonial occupation(s) of the *Ciudadela* site and the construction of colonial wall features encountered at the site; however, due to the lack of definitive support for this hypothesis, I classified it as a separate group. There were nine examples of mortar recorded for inclusion in the sample.
2. *Artifact/ Uni. Clay*. Clay can be generally defined as grainy material that is plastic when wet and hard when fired. In the *Ciudadela* collection, there were two

examples of Uni. Fired clay that did not appear to be ceramic. I could not determine their use, purpose, or temporal classification and, therefore, elected to classify them in a separate category.

3. *Ecofacts/ Unmodified Animal Bones*. Unmodified animal remains can be defined as faunal remains that do not include the physical markers of human use (but may have been used by humans in the form of subsistence) present in an archaeological assemblage (Sutton and Arkush 2002:225). There were 166 examples of animal bones included in this collection; however, as previously stated, some ±14,000 bones were removed from the YUC 2 collection by Florida Museum of Natural History–Zooarchaeology Department in 2004 and re-accessed under the new heading 1ET/2.8. As such, the number provided in this section refers only to those remains still in the *Ciudadela* collection, and thus is a gross under-estimation of the total faunal materials originally excavated from this site.
4. *Ecofacts/ Unmodified Shell*. Unmodified shell remains can be defined as perishable remains that do not include the physical markers of human use but may have been used by humans in the form of subsistence (Sutton and Arkush 2002:146, 158). There were two examples of unmodified shell in this collection (1 bifacial shell and 1 Uni. Shell fragment). It is possible that more shells will be included as part of the Zooarchaeology 1ET/2.8 collection; however, this currently is unknown.
5. *Ecofacts/ Unmodified Wood*. Unmodified wood can be defined as perishable remains that do not include the physical markers of human use but may have been used by humans for behavior tasks (e.g. construction and firing). On many

occasions, these remains have been taken out of their original environment (Florian in Rowell and Barbour 1990:3; Sutton and Arkush 2002:155). Two wood items were represented in this collection that fit into this description.

6. *Geofact/ Rocks*. Unmodified rocks can be defined as remains that do not include the physical markers of human use but may have been used by humans for various behavioral tasks (e.g. wall and habitation construction). There were 147 examples of rock in this collection. It is possible that these rocks were collected accidentally during excavation or that they held some importance to the excavation team; however, this information is unknown and unverifiable. As such, I elected to classify them in a separate category.

APPENDIX E

Table E-1. General Surface Collections: Precolumbian Wares (Horizons, Groups, and Varieties).

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
Chichen Red Ware	General	N/A	1
Chichen Red Ware (General)			0
Red Dzibiac Group (General)			1
Chichen Slate Ware	General	N/A	1
Slate Dzitas Group (General)			1
Fine Orange Ware	General	N/A	0
Fine Orange Matillas Group: Matillas Orange Type			0
Uni. Mayapan Ware	General	N/A	2
Uni. Mayapan Ware			2
Mayapan Red Ware	General	N/A	75
Western Tases Horizon			22
Red Mama Group (General)			16
Red Mama Group: Chapab Molded Type			2
Red Mama Group: Dzonot Appliqué Type			0
Red Mama Group: Red Mama Type			20
Red Mama Group: Papacal Incised Type			2
Red Panabchen Group: Mama Red Type			0
Red Panabchen Group: Pustunich Incised Type			13
Mayapan Unslipped Ware	General	N/A	12
Western Tases Horizon			5
Panaba Unslipped Group (General)			0
Panaba Unslipped Group: Chen Mul Modeled Type			3
Panaba Unslipped Group: Thul Appliqué Type			4
Panaba Unslipped Group: Cehac-Hunacti Composite Type			0
Panaba Unslipped Group: Acansip Painted Type			0
Panaba Unslipped Group: Huhi Impressed Type			0
Panaba Unslipped Group: Unslipped Type			0
Unslipped Navula Group (General)			0

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
Unslipped Navula Group: Chenkeken Incised Type			0
Unslipped Navula Group: Cehac-Hunacti Composite Type			0
Unslipped Navula Group: Navula Unslipped Type			0
Mayapan Black Ware	General	N/A	0
Black Sulche Group (General)			0
Black Sulche Group: Pacha Incised Type			0
Black Sulche Group: Sulche Black Type			0
Peto Cream Ware	General	N/A	5
Cream Kukula Group (General)			5
Cream Kukula Group: Kukula Cream Type			0
Cream Kukula Group: Xcanchakan Black-on-Cream Type			0
Puuc Slate Ware	General	N/A	0
Slate Muna-Muna Slate Type			0
San Joaquin Buff Ware	General	N/A	2
Buff Polbox Group (General)			1
Buff Polbox Group: Pele Polychrome Type			0
Buff Polbox Group: Polbox Buff Type			0
Buff Polbox Group: Tecoh Red-on-Buff Type			1
Thin Slate Ware	General	N/A	0
Thin Slate Group: Tinum Red-on-Cinnamon Type			0
Tulum Red Ware	General	N/A	0
Red Payil Group: Payil Red Type			0
Totals			98

Table E-2. General Collection: Historical Categories with Association Traditions, Types, and Varieties.

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
Delftware Category	General	N/A	55
Delftware Blue on White Variety			2
Delftware Type- Polychrome Variety			16
Delftware Type: Plain Variety			28
Delftware Type: Sponged Variety			7
Uni. Delftware Type: England and Holland Tradition			2
Lead Glazed Coarse Earthenware Category	General	N/A	24
Lead Glazed Coarse Earthenware (General)			8
El Morro Type			6
Green Lead Glazed Coarse Earthenware Type			8
Rey Ware Type			2
Majolica Category	General	N/A	269
Abo Polychrome Type			2
Aucilla Polychrome Type			3
Columbia Plain Type			0
Esquitlan Polychrome Type			4
Faenza Polychrome- <i>Compendiario</i> Variety			14
Fig Springs Polychrome Type			2
Huejotzingo Blue on White Type			16
Ichtucknee Blue on White Type			0
Ligurian Blue on White Type			0
Mexico City White Type: Variety 1			0
Mexico City White Type: Variety 2			0
Mt. Royal Polychrome			0
Nopaltepec Polychrome			0
Puebla Blue on White (General)			62
Puebla Blue on White- Early Variety			0
Puebla Blue on White: Late Variety			1
Puebla Polychrome Type			19

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
San Elizario Polychrome Type			5
San Luis Blue on White Type			0
San Luis Polychrome Type			51
Santa Maria Polychrome Type			1
Santo Domingo Blue on White Type			3
Sevilla Blue on Blue			4
Sevilla Blue on White			1
Yayal Blue on White			2
Uni. Blue on White Majolica (General)			0
Uni. Blue on White Majolica Type: Iberian Tradition			0
Uni. Blue on White Majolica Type: Italian Tradition			0
Uni. Blue on White Majolica Type: Mexico City Tradition			0
Uni. Blue on White Majolica Type: Puebla Tradition			15
Uni. Blue on White Majolica Type: Spanish Tradition			0
Uni. Majolica Polychrome (General)			0
Uni. Majolica Polychrome Type: Italian Tradition			3
Uni. Majolica Polychrome Type: Mexico City Tradition			19
Uni. Majolica Polychrome Type: Mexico 19 th Century Tradition			0
Uni. Majolica Polychrome Type: Mexico/Iberian Tradition			0
Uni. Majolica Polychrome Type: Puebla Tradition			42
Uni. Majolica Polychrome Type: Spanish Tradition			0
Porcelain Category	General	N/A	0
Porcelain Type: Brown Glazed Variety			0
Porcelain Type: Ch'ing Blue on White Variety			0
Porcelain Type: Chinese Imari Variety			0
Porcelain Type: Japanese Variety			0
Porcelain Type: UID Asian			0
Porcelain Type: Polychrome Chinese Export Variety			0
Refined Earthenware Category	General	N/A	35
Annular Ware Type: Banded Variety			4

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
Annular Ware Type: Cabled Variety			0
Creamware Type: Plain Variety			1
Creamware Type: Royal Variety			2
Creamware Type: Transfer Print Variety			1
Pearlware (General)			0
Pearlware Type: Edged Variety			2
Pearlware Type: Hand Painted Blue on White Variety			1
Pearlware Type: Hand Painted Polychrome Variety (Early)			4
Pearlware Type: Hand Painted Polychrome Variety (Late)			2
Pearlware Type: Plain Variety			7
Pearlware Type: Sponged & Spattered Variety			0
Pearlware Type: Transfer Print			0
Whieldon Ware Type (General)			0
Whiteware Type: Hand Painted Variety			0
Whiteware Type: Overglazed Variety			0
Whiteware Type: Plain Variety			11
Whiteware Type: Transfer Print Variety			0
Uni. Refined Earthenware (General)			0
Slipware Category	General	N/A	0
Slipware Type: Moravian Variety			0
Slipware Type: Red Mama Variety *			0
Stoneware Category	General	N/A	2
Stoneware Type: Brown Salt Glazed, English Variety			1
Stoneware Type: Nottingham Variety			1
Stoneware Type: Rhenish Blue Gray Variety			0
Stoneware Type: White Salt Glazed Variety			0
Uni. Stoneware- Salt Glazed Variety			0
Uni. Stoneware- English Tradition			0
Tin Enameled Coarse Earthenware Category	General	N/A	78
Uni. Majolica Tin Enameled			0

CERAMIC CLASSIFICATIONS	UNIT	LEVEL	TOTALS
Uni. Majolica Tin Enameled, Spanish Tradition			2
Uni. Majolica Tin Enameled, Puebla Tradition			0
Uni. Majolica Tin Enameled, Mexico City Tradition			76
Unglazed Coarse Earthenware Category	General	N/A	58
Bizcocho Ware (Bisque) Type			3
Mexican Red Painted Type			3
Olive Jar (Generic)			27
Olive Jar Type: Early Style Variety			23
Olive Jar Type: Middle Style Variety			0
Olive Jar Type: Late Style Variety			0
Yucatan Colonial Ware Type			2
Totals	General	N/A	521

Table E-3. Unit A: Precolumbian Wares (Horizons, Groups, and Varieties).

CERAMIC CLASSIFICATIONS	1 st A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	1, A	1, A	
Chichen Red Ware	0	0	1	0	0	0	0	0	0	0	0	1
Chichen Red Ware (General)	0	0	0	0	0	0	0	0	0	0	0	0
Red Dzibiac Group (General)	0	0	1	0	0	0	0	0	0	0	0	1
Chichen Slate Ware	0	0	3	0	0	0	0	0	0	0	0	3
Slate Dzitaz Group (General)	0	0	3	0	0	0	0	0	0	0	0	3
Fine Orange Ware	0	0	4	0	0	0	0	0	0	0	0	4
Fine Orange Matillas Group: Matillas Orange Type	0	0	4	0	0	0	0	0	0	0	0	4
Uni. Mayapan Ware	0	0	0	0	1	0	0	0	0	0	0	1
Uni. Mayapan Ware	0	0	0	0	1	0	0	0	0	0	0	1
Mayapan Red Ware	1	0	109	0	152	0	191	91	57	601		
Western Tases Horizon	1	0	84	0	149	0	180	90	57	561		
Red Mama Group (General)	0	0	0	0	0	0	0	0	0	0	0	0
Red Mama Group: Chapab Molded Type	0	0	0	0	1	0	0	0	0	1		
Red Mama Group: Dzonot Appliqué Type	0	0	0	0	0	0	2	1	0	3		
Red Mama Group: Red Mama Type	0	0	25	0	1	0	0	0	0	26		
Red Mama Group: Papacal Incised Type	0	0	0	0	1	0	9	0	0	10		
Red Panabchen Group: Mama Red Type	0	0	0	0	0	0	0	0	0	0		
Red Panabchen Group: Pustunich Incised Type	0	0	0	0	0	0	0	0	0	0		

CERAMIC CLASSIFICATIONS	17A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals	
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm					
Mayapan Unslipped Ware	1	93	27	0	10	0	88	100	28					347
Western Tases Horizon	0	91	1	0	0	0	49	60	23					224
Panaba Unslipped Group (General)	0	0	21	0	0	0	0	6	0					27
Panaba Unslipped Group: Chen Mul Modeled Type	0	0	0	0	0	0	11	0	0					11
Panaba Unslipped Group: Thul Appliqué Type	0	0	0	0	3	0	2	5	0					10
Panaba Unslipped Group: Cehac-Hunacti Composite Type	0	0	0	0	0	0	0	0	0					0
Panaba Unslipped Group: Acansip Painted Type	1	1	0	0	0	0	2	29	4					37
Panaba Unslipped Group: Huhi Impressed Type	0	0	0	0	0	0	0	0	0					0
Panaba Unslipped Group: Unslipped Type	0	0	0	0	0	0	0	0	0					0
Unslipped Navula Group (General)	0	1	0	0	0	0	0	0	0					1
Unslipped Navula Group: Chenkeken Incised Type	0	0	0	0	0	0	0	0	1					1
Unslipped Navula Group: Cehac-Hunacti Composite Type	0	0	0	0	0	0	2	0	0					2
Unslipped Navula Group: Navula Unslipped Type	0	0	5	0	7	0	22	0	0					34
Mayapan Black Ware	0	0	0	0	0	0	0	0	0					0
Western Tases Horizon	0	0	0	0	0	0	0	0	0					0
Black Sulche Group (General)	0	0	0	0	0	0	0	0	0					0
Black Sulche Group: Pacha Incised Type	0	0	0	0	0	0	0	0	0					0
Black Sulche Group: Sulche Black Type	0	0	0	0	0	0	0	0	0					0
Peto Cream Ware	0	11	0	0	0	0	0	0	0					11

CERAMIC CLASSIFICATIONS	17A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm						
Cream Kukula Group (General)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cream Kukula Group: Kukula Cream Type	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
Cream Kukula Group: Xcanchakan Black-on-Cream Type	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Puuc Slate Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slate Muna- Muna Slate Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Joaquin Buff Ware	0	1	44	0	0	0	0	0	0	0	0	0	0	0	45
Buff Polbox Group (General)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buff Polbox Group: Pele Polychrome Type	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Buff Polbox Group: Polbox Buff Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buff Polbox Group: Tecoh Red-on-Buff Type	0	0	44	0	0	0	0	0	0	0	0	0	0	0	44
Thin Slate Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thin Slate Group: Tinum Red-on-Cinnamon Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tulum Red Ware	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Red Payil Group: Payil Red Type	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Totals	2	105	188	0	163	0	281	191	85	1,015					

Table E-4. Unit A: Historical Categories (Traditions, Types, and Varieties).

CERAMIC CLASSIFICATIONS	1?A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm					
Delftware Category	2	0	0	0	0	0	0	0	0	0	0	0	0	6
Delftware Blue on White Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delftware Type: Polychrome Variety	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Delftware Type: Plain Variety	1	0	0	0	0	0	0	0	0	1	0	0	0	2
Delftware Type: Sponged Variety	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Uni. Delftware Type: England and Holland Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead Glazed Coarse Earthenware Category	0	0	47	0	23	0	13	7	4	94				
Lead Glazed Coarse Earthenware (General)	0	0	47	0	23	0	13	7	4	94				
El Morro Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Lead Glazed Coarse Earthenware Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rey Ware Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Majolica Category	2	27	40	0	52	0	24	11	9	165				
Abo Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aucilla Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Columbia Plain Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Esquitlan Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faenza Polychrome- <i>Compendiario</i> Variety	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Fig Springs Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS	1?A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	1,A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm					
Huejotzingo Blue on White Type	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Ichtlucknee Blue on White Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ligurian Blue on White Type	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Mexico City White Type: Variety 1	0	5	4	0	12	0	0	0	6	0	0	0	0	27
Mexico City White Type: Variety 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mt. Royal Polychrome	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Nopaltepec Polychrome	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Puebla Blue on White (General)	0	5	7	0	14	0	2	1	0	0	0	0	0	29
Puebla Blue on White: Early Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puebla Blue on White: Late Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puebla Polychrome Type	0	0	1	0	3	0	1	0	0	0	0	0	0	5
San Elizario Polychrome Type	0	1	0	0	1	0	0	0	0	0	0	0	0	2
San Luis Blue on White Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Luis Polychrome Type	0	8	5	0	10	0	5	0	0	0	0	0	0	28
Santa Maria Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santo Domingo Blue on White Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sevilla Blue on Blue	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sevilla Blue on White	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yayal Blue on White	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS	1?A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm				
Uni. Blue on White Majolica (General)	0	0	0	0	0	0	0	0	0	0	0	0	1
Uni. Blue on White Majolica Type: Iberian Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Blue on White Majolica Type: Italian Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Blue on White Majolica Type: Mexico City Tradition	0	2	0	0	3	0	0	6	0	0	0	0	11
Uni. Blue on White Majolica Type: Puebla Tradition	0	1	7	0	4	0	0	1	1	0	0	0	14
Uni. Blue on White Majolica Type: Spanish Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Majolica Polychrome (General)	0	0	0	0	0	0	0	0	0	0	0	0	8
Uni. Majolica Polychrome Type: Italian Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Majolica Polychrome Type: Mexico City Tradition	0	3	8	0	3	0	0	2	0	0	0	0	16
Uni. Majolica Polychrome Type: Mexico 19 th Century Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Majolica Polychrome Type: Mexico/Iberian Tradition	0	1	0	0	0	0	0	0	0	0	0	0	1
Uni. Majolica Polychrome Type: Puebla Tradition	1	1	4	0	2	0	0	4	1	0	0	0	13
Uni. Majolica Polychrome Type: Spanish Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Porcelain Category	0	7	4	0	0	0	0	0	0	0	0	0	11
Porcelain Type: Brown Glazed Variety	0	0	1	0	0	0	0	0	0	0	0	0	1
Porcelain Type: Ch'ing Blue on White Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Porcelain Type: Chinese Imari Variety	0	6	0	0	0	0	0	0	0	0	0	0	6
Porcelain Type: Japanese Variety	0	1	0	0	0	0	0	0	0	0	0	0	1
Porcelain UID Asian	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS										
Porcelain Type: Polychrome Chinese Export Variety	I?A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	
	0	0	3	0	0	0	0	0	0	3
Refined Earthenware Category	27	72	13	0	37	0	48	18	1	216
Annular Ware Type: Banded Variety	1	0	0	0	0	0	0	1	0	2
Annular Ware Type: Cabled Variety	0	0	0	0	0	0	0	0	0	0
Creamware Type: Plain Variety	20	1	2	0	0	0	34	6	0	63
Creamware Type: Royal Variety	0	1	0	0	1	0	0	0	0	2
Creamware Type: Transfer Print Variety	0	0	0	0	0	0	0	0	0	0
Pearlware (General)	0	0	0	0	0	0	0	0	0	0
Pearlware Type: Edged Variety	0	0	0	0	1	0	4	2	0	7
Pearlware Type: Hand Painted Blue on White Variety	0	0	0	0	0	0	0	0	0	0
Pearlware Type: Hand Painted Polychrome Variety (Early)	2	0	0	0	0	0	0	0	0	2
Pearlware Type: Hand Painted Polychrome Variety (Late)	0	5	0	0	0	0	0	0	0	5
Pearlware Type: Plain Variety	0	0	0	0	33	0	10	0	0	43
Pearlware Type: Sponged & Spattered Variety	0	0	0	0	0	0	0	0	0	0
Pearlware Type: Transfer Print Variety	0	0	0	0	0	0	0	0	0	0
Whieldon Ware Type (General)	0	0	0	0	1	0	0	0	0	1
Whiteware Type: Hand Painted Variety	0	0	4	0	1	0	0	0	0	5
Whiteware Type: Overglazed Variety	0	0	0	0	0	0	0	0	0	0
Whiteware Type: Plain Variety	4	61	7	0	0	0	0	9	0	81

CERAMIC CLASSIFICATIONS	1?A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	1, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm				
Whiteware Type: Transfer Print Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Refined Earthenware (General)	0	4	0	0	0	0	0	0	0	0	0	1	5
Slipware Category	0	14	0	0	0	0	0	0	0	0	0	0	14
Slipware Type: Moravian Variety	0	2	0	0	0	0	0	0	0	0	0	0	2
Slipware Type: Red Mama Variety *	0	12	0	0	0	0	0	0	0	0	0	0	12
Stoneware Category	0	0	0	0	1	0	0	2	0	0	0	0	3
Stoneware Type: Brown Salt Glazed, English Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoneware Type: Nottingham Variety	0	0	0	0	1	0	0	0	0	0	0	0	1
Stoneware Type: Rhenish Blue Gray Variety	0	0	0	0	0	0	0	1	0	0	0	0	1
Stoneware Type: White Salt Glazed Variety	0	0	0	0	0	0	0	1	0	0	0	0	1
Uni. Stoneware: Salt Glazed Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Stoneware: English Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Tin Enameled Coarse Earthenware Category	0	4	9	0	0	0	7	4	3	4	3	3	27
Uni. Majolica Tin Enameled	0	4	4	0	0	0	3	0	0	0	3	0	14
Uni. Majolica Tin Enameled, Spanish Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Majolica Tin Enameled, Puebla Tradition	0	0	1	0	0	0	0	0	0	0	0	0	1
Uni. Majolica Tin Enameled, Mexico City Tradition	0	0	4	0	0	0	4	4	0	4	0	0	12
Unglazed Coarse Earthenware Category	0	0	1	0	4	0	16	3	6	3	6	3	30
Bizcocho Ware (Bisque) Type	0	0	1	0	0	0	2	0	0	0	0	0	3

CERAMIC CLASSIFICATIONS	I?A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm			
Mexican Red Painted Type	0	0	0	0	0	0	0	0	0	0	0	0
Olive Jar (Generic)	0	0	0	0	4	0	14	3	6			27
Olive Jar Type: Early Style Variety	0	0	0	0	0	0	0	0	0	0	0	0
Olive Jar Type: Middle Style Variety	0	0	0	0	0	0	0	0	0	0	0	0
Olive Jar Type: Late Style Variety	0	0	0	0	0	0	0	0	0	0	0	0
Yucatan Colonial Ware Type	0	0	0	0	0	0	0	0	0	0	0	0
Totals	31	124	114	0	117	0	108	49	23			566

Table E-5. Unit B: Precolumbian Wares (Horizons, Groups, and Varieties).

CERAMIC CLASSIFICATIONS	1, B		1, B		1, B		1, B		1, B		1, B		1, B		Totals
	0- 15cm	15- 31cm	31- 46cm	46- 61cm	61- 76cm	76- 91cm	91- 107cm	107- 122cm	122- 137cm	137- 152cm	152- 167cm	167- 182cm	182- 197cm	197- 212cm	
Chichen Red Ware	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Chichen Red Ware (General)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Red Dzibiac Group (General)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chichen Slate Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slate Dzitas Group (General)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Orange Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Orange Matillas Group: Matillas Orange Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Mayapan Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Uni. Mayapan Ware	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Mayapan Red Ware	14	125	83	38	130	148	361	195	78	109	26	1307			
Western Tases Horizon	14	7	0	1	120	0	0	1	0	0	0	143			
Red Mama Group (General)	0	0	0	37	3	2	340	191	78	109	26	786			
Red Mama Group: Chapab Molded Type	0	0	0	0	0	0	0	0	0	0	0	0			0
Red Mama Group: Dzonot Appique Type	0	0	0	0	0	1	0	1	0	0	0	2			2
Red Mama Group: Red Mama Type	0	0	83	0	0	0	0	0	0	0	0	83			83
Red Mama Group: Papacal Incised Type	0	0	0	0	0	0	0	1	0	0	0	1			1
Red Panabachen Group: Mama Red Type	0	118	0	0	6	145	21	1	0	0	0	291			291
Red Panabachen Group: Pustunich Incised Type	0	0	0	0	1	0	0	0	0	0	0	1			1

CERAMIC CLASSIFICATIONS	I, B 0- 15cm	I, B 15- 31cm	I, B 31- 46cm	I, B 46- 61cm	I, B 61- 76cm	I, B 76- 91cm	I, B 91- 107cm	I, B 107- 122cm	I, B 122- 137cm	I, B 137- 152cm	Totals	
												19
Mayapan Unslipped Ware	19	34	8	36	2	315	368	259	111	79	11	1242
Western Tases Horizon	19	0	5	8	0	0	47	27	41	0	7	154
Panaba Unslipped Group (General)	0	0	0	0	0	0	0	0	0	0	0	0
Panaba Unslipped Group: Chen Mul Modeled Type	0	9	0	0	0	0	0	0	0	0	0	9
Panaba Unslipped Group: Thul Appliqué Type	0	1	1	1	1	3	27	11	3	0	0	48
Panaba Unslipped Group: Cehac Hunacti Composite Type	0	0	0	0	0	0	0	0	0	0	0	0
Panaba Unslipped Group: Acansip Painted Type	0	17	0	0	0	49	265	221	67	78	4	701
Panaba Unslipped Group: Huhi Impressed Type	0	0	1	0	0	0	0	0	0	0	0	1
Panaba Unslipped Group: Unslipped Type	0	7	0	0	0	0	0	0	0	0	0	7
Unslipped Navula Group (General)	0	0	0	0	0	0	0	0	0	0	0	0
Unslipped Navula Group: Chenkeken Incised Type	0	0	1	0	0	0	0	0	0	0	0	1
Unslipped Navula Group: Cehac-Hunacti Composite Type	0	0	0	0	0	0	0	0	0	1	0	1
Unslipped Navula Group: Navula Unslipped Type	0	0	0	27	1	263	29	0	0	0	0	320
Mayapan Black Ware	0	2	2	0	0	0	2	12	1	4	8	31
Western Tases Horizon	0	2	2	0	0	0	0	0	0	0	0	4
Black Sulche Group (General)	0	0	0	0	0	0	0	0	0	0	0	0
Black Sulche Group: Pacha Incised Type	0	0	0	0	0	0	0	0	1	0	0	1
Black Sulche Group: Sulche Black Type	0	0	0	0	0	0	2	12	0	4	8	26

CERAMIC CLASSIFICATIONS	1?B N/A	1, B		1, B		1, B		1, B		1, B		1, B		1, B		Totals
		0- 15cm	15- 31cm	31- 46cm	46- 61cm	61- 76cm	76- 91cm	91- 107cm	107- 122cm	122- 137cm	137- 152cm	152- 167cm	167- 182cm	182- 200cm		
Peto Cream Ware	0	0	19	3	3	1	31	23	2	9	6	97				
Cream Kukula Group (General)	0	0	0	0	0	0	0	0	0	0	0	0				
Cream Kukula Group: Kukula Cream Type	0	0	16	3	3	1	31	20	0	9	6	89				
Cream Kukula Group: Xcanchakan Black-on-Cream Type	0	0	3	0	0	0	0	3	2	0	0	8				
Puuc Slate Ware	0	0	0	0	0	0	0	1	0	0	0	1				
Slate Muna, Muna Slate Type	0	0	0	0	0	0	0	1	0	0	0	1				
San Joaquin Buff Ware	2	2	0	0	2	0	0	0	2	0	0	8				
Buff Polbox Group (General)	0	0	0	0	0	0	0	0	0	0	0	0				
Buff Polbox Group: Pele Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0				
Buff Polbox Group: Polbox Buff Type	0	2	0	0	0	0	0	0	0	0	0	2				
Buff Polbox Group: Tecoh Red-on-Buff Type	2	0	0	0	2	0	0	0	2	0	0	6				
Thin Slate Ware	0	1	0	0	0	0	0	0	0	0	0	1				
Thin Slate Group: Tinum Red-on-Cinnamon Type	0	1	0	0	0	0	0	0	0	0	0	1				
Tulum Red Ware	0	0	0	0	0	0	0	0	0	0	0	0				
Red Payil Group: Payil Red Type	0	0	0	0	0	0	0	0	0	0	0	0				
Totals	35	165	112	77	137	464	762	490	194	201	52	2,689				

Table E-6. Unit B: Historical Categories (Traditions, Types, and Varieties).

CERAMIC CLASSIFICATIONS	1?B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm	152-167cm	167-182cm	182-197cm	
Delfware Category	0	0	0	0	3	2	3	2	0	2	0	2	0	0	12
Delfware Blue on White Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delfware Type: Polychrome Variety	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Delfware Type: Plain Variety	0	0	0	0	0	2	0	1	0	2	0	2	0	0	5
Delfware Type: Sponged Variety	0	0	0	0	2	0	3	0	0	0	0	0	0	0	5
Uni. Delfware Type: England and Holland Tradition	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Lead Glazed Coarse Earthenware Category	3	45	21	45	16	14	35	12	5	2	3	201			
Lead Glazed Coarse Earthenware (General)	3	45	21	44	16	14	35	12	4	2	0	196			
El Morro Type	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Green Lead Glazed Coarse Earthenware Type	0	0	0	0	0	0	0	0	0	0	0	3	3		
Rey Ware Type	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
Majolica Category	0	40	38	0	42	28	69	28	15	36	0	296			
Abo Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Annular Ware Cabled Type	0	0	0	0	1	0	1	0	0	0	0	0	0	2	
Aucilla Polychrome Type	0	1	0	0	0	0	0	0	0	1	0	2			
Columbia Plain Type	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Esquitan Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Faenza Polychrome-Compendiario Variety	0	0	0	0	0	3	0	1	0	0	0	4			

CERAMIC CLASSIFICATIONS	I?B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	I.B	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm			
Fig Springs Polychrome Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Huejotzingo Blue on White Type	0	0	1	0	0	4	5	1	0	0	0	0	0	11
Ichtucknee Blue on White Type	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Ligurian Blue on White Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico City White Type: Variety 1	0	9	1	0	7	9	29	4	4	15	0	0	0	78
Mexico City White Type: Variety 2	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Mt. Royal Polychrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nopaltepec Polychrome Puebla Blue on White (General)	0	4	16	0	4	2	1	0	0	0	0	0	0	27
Puebla Blue on White, Early Variety	0	1	1	0	7	1	2	5	0	2	0	0	0	19
Puebla Blue on White, Late Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puebla Polychrome Type	0	4	1	0	3	0	1	2	0	2	0	0	0	13
San Elizario Polychrome Type	0	0	0	0	0	0	0	0	1	0	0	0	0	1
San Luis Blue on White Type	0	0	0	0	0	0	0	2	0	6	0	0	0	8
San Luis Polychrome Type	0	7	1	0	0	0	6	5	4	6	0	0	0	29
Santa Maria Polychrome Type	0	0	1	0	0	0	1	0	0	0	0	0	0	2
Santo Domingo Blue on White Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sevilla Blue on Blue	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sevilla Blue on White	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS	I?B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm				
Yayal Blue on White	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Uni. Blue on White Majolica (General)	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Uni. Blue on White Majolica Type: Iberian Tradition	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Uni. Blue on White Majolica Type: Italian Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Blue on White Majolica Type: Mexico City Tradition	0	1	3	0	5	0	6	2	1	0	0	0	0	0	18
Uni. Blue on White Majolica Type: Puebla Tradition	0	9	2	0	4	2	8	0	1	1	0	0	0	0	27
Uni. Blue on White Majolica Type: Spanish Tradition	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Uni. Majolica Polychrome (General)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Uni. Majolica Polychrome Type: Italian Tradition	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Uni. Majolica Polychrome Type: Mexico City Tradition	0	3	9	0	6	5	2	2	3	0	0	0	0	0	30
Uni. Majolica Polychrome Type: Mexico 19 th Century Tradition	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Uni. Majolica Polychrome Type: Mexico/Iberian Tradition	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Uni. Majolica Polychrome Type: Puebla Tradition	0	0	1	0	4	1	2	0	1	3	0	0	0	0	12
Uni. Majolica Polychrome Type: Spanish Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Porcelain Category	0	7	1	0	0	0	2	1	0	0	0	0	0	0	11
Porcelain Type: Brown Glazed Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Porcelain Type: Ch'ing Blue on White Variety	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Porcelain Type: Chinese Inari Variety	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS		I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	Totals
		0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm			
Porcelain Type: Japanese Variety		0	3	0	0	0	0	0	0	0	0	0	0	3
Porcelain UID Asian		0	3	0	0	0	2	1	0	0	0	0	0	6
Porcelain Type: Polychrome Chinese Export Variety		0	0	0	0	0	0	0	0	0	0	0	0	0
Refined Earthenware Category		0	140	5	0	21	14	97	108	6	2	0	0	393
Annular Ware Type: Banded Variety		0	8	0	3	0	1	1	0	0	0	0	0	13
Annular Ware Type: Cabled Variety		0	0	0	0	0	0	0	0	0	0	0	0	0
Creamware Type: Plain Variety		0	0	1	0	5	2	66	76	0	0	0	0	150
Creamware Type: Royal Variety		0	0	0	0	2	0	0	1	0	0	0	0	3
Creamware Type: Transfer Print Variety		0	0	0	0	0	0	0	1	0	0	0	0	1
Pearlware (General)		0	0	0	0	0	0	0	0	0	0	0	0	0
Pearlware Type: Edged Variety		0	1	0	0	4	3	8	2	0	0	0	0	18
Pearlware Type: Hand Painted Blue on White Variety		0	57	0	0	0	0	0	0	0	0	0	0	57
Pearlware Type: Hand Painted Polychrome Variety (Early)		0	1	1	0	1	1	2	0	0	2	0	0	8
Pearlware Type: Hand Painted Polychrome Variety (Late)		0	4	0	0	0	0	0	0	0	0	0	0	4
Pearlware Type: Plain Variety		0	0	2	0	0	0	0	25	5	0	0	0	32
Pearlware Type: Sponged & Spattered Variety		0	0	1	0	0	0	0	0	0	0	0	0	1
Pearlware Type: Transfer Print Variety		0	2	0	0	0	0	0	0	0	0	0	0	2
Whieldon Ware Type (General)		0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	I,B	Totals
	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm			
Whiteware Type: Hand Painted Variety	0	8	0	0	1	0	0	0	0	0	0	0	9
Whiteware Type: Overglazed Variety	0	4	0	0	0	0	0	0	0	0	0	0	4
Whiteware Type: Plain Variety	4	55	0	0	5	6	13	0	0	0	0	0	83
Whiteware Type: Transfer Print Variety	1	0	0	0	0	0	0	0	0	0	0	0	1
Uni. Refined Earthenware (General)	0	0	0	0	1	0	4	1	1	0	0	0	7
Slipware Category	0	0	0	0	0	0	0	0	0	0	0	0	0
Slipware Type: Moravian Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Slipware Type: Red Mama Variety *	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoneware Category	0	0	0	1	1	0	1	1	0	0	0	0	4
Stoneware Type: Brown Salt Glazed, English Variety	0	0	0	1	0	0	0	0	0	0	0	0	1
Stoneware Type: Nottingham Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoneware Type: Rhenish Blue Gray Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoneware Type: White Salt Glazed Variety	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Stoneware: Salt Glazed Variety	0	0	0	1	0	0	1	0	0	0	0	0	2
Uni. Stoneware: English Tradition	0	0	0	0	0	0	0	1	0	0	0	0	1
Tin Enameled Coarse Earthenware Category	6	2	5	0	7	2	13	11	0	6	0	0	52
Uni. Majolica Tin Enameled	2	2	5	0	7	0	12	11	0	0	0	0	39
Uni. Majolica Tin Enameled, Spanish Tradition	0	0	0	0	0	0	1	0	0	0	0	0	1
Uni. Majolica Tin Enameled, Puebla Tradition	0	0	0	0	0	0	0	0	0	0	0	0	0

CERAMIC CLASSIFICATIONS	1?B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	1,B	Totals
	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm			
Uni. Majolica Tin Enameled, Mexico City Tradition	4	0	0	0	0	2	0	0	0	6	0	0	12	
Unglazed Coarse Earthenware Category	6	5	2	0	0	7	2	18	1	4	9	54		
Bizcocho Ware (Bisque) Type	1	0	0	0	0	0	0	6	1	2	0	10		
Mexican Red Painted Type	0	0	0	0	0	0	0	0	0	0	0	0		
Olive Jar (Generic)	4	3	2	0	0	7	0	12	0	0	9	37		
Olive Jar Type: Early Style Variety	1	0	0	0	0	0	2	0	0	1	0	4		
Olive Jar Type: Middle Style Variety	0	2	0	0	0	0	0	0	0	1	0	3		
Olive Jar Type: Late Style Variety	0	0	0	0	0	0	0	0	0	0	0	0		
Yucatan Colonial Ware Type	0	0	0	0	0	0	0	0	0	0	0	0		
Totals	20	239	72	46	89	67	219	180	27	52	12	1,023		

Table E-7. Unit B: Unidentified Sherds.

	?B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	1, B	Totals
Unidentified Earthenware	N/A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm	1, B	1, B	1, B	
Uni. Unglazed Coarse Earthenware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uni. Sherd	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
Uni. Slipped Coarse Earthenware	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
Uni. Coarse Earthenware	73	82	4	0	81	0	693	294	137	92	49				1,505
Totals	73	99	4	9	81	0	693	294	137	92	49	49	92	137	1,531

Table E-8. General Collection: Precolumbian and Colonial Non-Ceramic Remains.

Item	Unit	Level	Totals
Artifact/Beads	General		0
Artifact/Buckles Straps Hooks	General		0
Artifact/ Clothing Items/ "Jeweled Buttons"	General		1
Artifact/ Clothing Items/ Bracelets	General		0
Artifact/ Clothing Items/ Eighteenth Century Buttons	General		0
Artifact/ Clothing Items/ Military Buttons	General		0
Artifact/ Clothing Items/ Modern Buttons	General		0
Artifact/ Clothing Items/ Shell and Glass Buttons	General		0
Artifact/ Clothing Items/ Uni. Buttons	General		0
Artifact/ Coins	General		0
Artifact/ Firearms	General		1
Artifact/ Household Items	General		0
Artifact/ Industrial	General		2
Artifact/ Industrial/ Early Machine Cut Nails	General		0
Artifact/ Industrial/ Hand Wrought Nails	General		0
Artifact/ Industrial/ Modern Machine Cut Nails	General		0
Artifact/ Industrial/ Modern Wire Nails	General		0
Artifact/ Lithic	General		0
Artifact/ Misc. Metal	General		0
Artifact/ Modified Wood	General		0
Artifact/ Pastimes	General		0
Artifact/ Pastimes/ Colonoware Pipe	General		0
Artifact/ Pastimes/ Games and Gambling	General		0
Artifact/ Religious Items/ Venera Pendant	General		0
Artifact/ Unglazed Tiles and Bricks	General		6
Artifact/ Uni. Clay	General		1
Artifact/ Utilitarian Glassware	General		13
Artifact/ Utilitarian Glassware/ Glass Knob	General		0
Artifact/ Utilitarian Glassware/ Tableware and Ornamental Glass	General		0

Item	Unit	Level	Totals
Ecofact/ Animal Bones	General		1
Ecofact/ Shell	General		0
Ecofact/ Wood	General		0
Geofact/ Limestone Marl	General		0
Geofact/ Rocks	General		0
Geofacts/ Rocks/ Granite	General		0
Totals			25

Table E-9. Unit A: Precolumbian and Colonial Non-Ceramic Remains.

Item	1?A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	Totals
Artifact/Beads	0	1	0	0	0	0	0	0	0	1
Artifact/Buckles Straps Hooks	0	0	0	0	0	0	0	0	0	0
Artifact/ Clothing Items/ "Jeweled Buttons"	0	1	0	0	0	0	0	0	0	1
Artifact/ Clothing Items/ Bracelets	0	0	0	0	0	0	0	0	0	0
Artifact/ Clothing Items/ Eighteenth Century Buttons	0	3	0	0	0	0	0	0	0	3
Artifact/ Clothing Items/ Military Buttons	0	0	0	0	0	0	0	0	0	0
Artifact/ Clothing Items/ Modern Buttons	0	5	6	0	2	0	0	0	0	13
Artifact/ Clothing Items/ Shell and Glass Buttons	0	1	0	0	0	0	0	0	0	1
Artifact/ Clothing Items/ Uni. Buttons	0	0	0	0	0	0	0	0	0	0
Artifact/ Coins	0	2	0	0	0	0	0	0	0	2
Artifact/ Firearms	0	4	2	0	0	0	0	0	0	6
Artifact/ Household Items	0	0	0	0	0	0	0	0	0	0
Artifact/ Industrial	5	19	19	0	154	7	0	3	0	207
Artifact/ Industrial/ Early Machine Cut Nails	0	1	0	0	3	0	0	0	0	4
Artifact/ Industrial/ Hand Wrought Nails	0	1	0	0	0	0	0	0	0	1
Artifact/ Industrial/ Modern Machine Cut Nails	0	0	0	0	0	0	0	3	0	3
Artifact/ Industrial/ Modern Wire Nails	0	0	3	0	2	0	0	0	0	5
Artifact/ Lithic	0	0	0	0	3	0	0	0	0	3

Item	1?A	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	Totals
Artifact/ Misc. Metal	0	1	0	0	0	0	0	0	0	1
Artifact/ Modified Wood	0	0	1	0	0	0	0	0	0	1
Artifact/ Pastimes	0	0	0	0	0	0	0	0	0	0
Artifact/ Pastimes/ Colonoware	0	0	0	0	0	0	0	1	0	1
Pipe	0	0	0	0	0	0	0	0	0	0
Artifact/ Pastimes/ Games and Gambling	0	1	0	0	0	0	0	0	0	1
Artifact/ Religious Items/ Venera Pendant	0	0	0	0	0	0	0	0	0	0
Artifact/ Unglazed Tiles and Bricks	0	0	0	0	1	6	0	3	0	10
Artifact/ Uni. Clay	0	0	0	0	1	0	0	0	0	1
Artifact/ Utilitarian Glassware	4	190	104	0	70	1	0	5	0	374
Artifact/ Utilitarian Glassware/ Glass Knob	0	1	0	0	1	0	0	0	0	2
Artifact/ Utilitarian Glassware/ Tableware and Ornamental Glass	0	0	0	0	1	0	0	0	0	1
Ecofact/ Animal Bones	5	66	0	0	0	14	0	7	2	94
Ecofact/ Shell	0	1	0	0	0	0	0	0	0	1
Ecofact/ Wood	0	0	0	0	0	0	0	0	0	0
Geofact/ Limestone Marl	0	0	0	0	0	0	0	0	0	0
Geofact/ Rocks	0	22	15	0	16	5	0	9	0	67
Geofacts/ Rocks/ Granite	0	0	0	0	0	0	0	1	0	1
Totals	14	320	150	0	254	33	0	32	2	805

Table E-10. Unit B: Precolumbian and Colonial Non-Ceramic Remains.

Item	0-	15-	31-	46-	61-	76-	91-	107-	122-	137-	152-	Totals
	1?B 15cm	31cm	46cm	61cm	76cm	91cm	107cm	122cm	137cm	152cm	191cm	
Artifact/Beads	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/Buckles	0	0	0	0	0	0	0	0	0	0	0	0
Straps Hooks	0	0	4	0	0	0	0	0	0	0	0	4
Artifact/ Clothing Items/ "Jeweled Buttons"	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Clothing Items/ Bracelets	0	0	1	0	0	0	0	0	0	0	0	1
Artifact/ Clothing Items/ 18 th Century Buttons	0	7	1	0	0	3	0	0	0	0	0	11
Artifact/ Clothing Items/ Military Buttons	0	0	1	0	0	0	0	0	0	0	0	1
Artifact/ Clothing Items/ Modern Buttons	0	3	4	1	0	1	0	0	0	0	0	9
Artifact/ Clothing Items/ Shell and Glass Buttons	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Clothing Items/ Uni. Buttons	0	2	1	3	0	0	0	0	0	0	0	6
Artifact/ Coins	0	1	1	0	0	0	0	0	0	0	0	2
Artifact/ Firearms	0	7	2	3	2	0	0	0	0	0	0	14
Artifact/ Household Items	0	0	0	0	1	0	0	0	0	0	0	1
Artifact/ Industrial Artifact/ Industrial/ Early Machine Cut Nails	0	93	5	75	41	1	11	3	0	16	0	245
Artifact/ Industrial/ Hand Wrought Nails	0	0	1	0	0	0	0	0	0	0	0	1
Artifact/ Industrial/ Hand Wrought Nails	0	1	0	0	0	4	0	0	0	0	0	5

Item	1?B	0-15cm	15-31cm	31-46cm	46-61cm	61-76cm	76-91cm	91-107cm	107-122cm	122-137cm	137-152cm	152-191cm	Totals
Artifact/ Industrial/ Modern Machine Cut Nails	0	0	7	0	0	0	0	2	0	2	0	0	11
Artifact/ Industrial/ Modern Wire Nails	0	2	0	4	4	0	0	0	0	0	0	0	10
Artifact/ Lithic	0	0	0	0	0	3	5	3	0	0	0	0	11
Artifact/ Misc. Metal	0	0	1	0	0	0	0	0	0	0	0	0	1
Artifact/ Modified Wood	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Pastimes	0	7	1	0	0	0	0	0	0	0	0	0	8
Artifact/ Pastimes/ Colonoware Pipe	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Pastimes/ Games and Gambling	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Religious Items/ Venera	0	0	0	0	1	0	0	0	0	0	0	0	1
Pendant	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Unglazed Tiles and Bricks	0	1	0	0	0	2	12	1	5	0	1	0	22
Artifact/ Uni. Clay	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Utilitarian Glassware	4	289	89	94	69	14	38	14	4	2	1	0	618
Artifact/ Utilitarian Glassware/ Glass Knob	0	0	0	0	0	0	0	0	0	0	0	0	0
Artifact/ Utilitarian Glassware/ Tableware and Ornemental Glass	0	0	0	0	0	0	0	0	0	0	0	0	0
Ecofact/ Animal Bones	0	7	4	1	4	4	27	12	8	0	2	0	69
Ecofact/ Shell	0	0	0	0	0	0	1	0	0	0	0	0	1
Ecofact/ Wood	0	0	0	0	0	1	0	0	0	0	0	0	1
Geofact/ Limestone Marl	0	0	0	1	0	3	6	0	0	0	0	0	10

Item	1?B	0- 15cm	15- 31cm	31- 46cm	46- 61cm	61- 76cm	76- 91cm	91- 107cm	107- 122cm	122- 137cm	137- 152cm	152- 191cm	Totals
Geofact/ Rocks	0	12	8	1	6	10	9	6	9	0	6	0	67
Geofacts/ Rocks/ Granite	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	4	432	126	188	128	38	117	41	26	20	10	0	1,130

* = Sherd represented only in Unit B

Table E-11. Precolumbian Ceramic: Probable Ware Use (Smith, 1971:15-32).

Ceramic Classification	Probable Ceramic Use(s)	Totals
CHICHEN RED WARE		
Chichen Red Ware (General)	Dishes, Jars, Bowls, Graters, Basal Break Tripods, Vases, Pyriform Vessels	
Chichen Red Ware-Red Dzibiac Group		3
Chichen Slate Ware-Slate Dzitaz Group	Dishes, Bowls (orifice, bolster, direct rim), Tripod Jars, Ladle Censers, Tripod bowls, Disk Covers	4
FINE ORANGE WARE		
Fine Orange Ware-Fine Orange Matillas Group	Censers, Effigies, Ceremonial forms, Tripod Vessels	4
MAYAPAN BLACK WARE		
Mayapan Black Ware Western Tases Horizon	Jars, Tripod Dishes, Bowls, Vases, Figurines	
Mayapan Black Ware-Black Sulche Group		31
MAYAPAN RED WARE		
Mayapan Red Ware- Western Tases Horizon	Tripod Dishes and Bowls, Bowls, Basins, Cups, Vases, Miniature Jars, Drums, Effigy Vessels, Disk or Scutate Covers, Pedestal-Base Plates, Figurines	726
Mayapan Red Ware-Red Mama Group	Jars, tripod dishes and bowls, bowls with restricted orifices, grater bowls, basins, cups, vases, effigies, drums, pedestal bases	1,232
Mayapan Red Ware-Red Panabchen Group	Jars, Tripod Dishes or Bowls, Bowls, Basins, Vases, Miniature Jars and Bowls, Effigy Vessels, Disk or Scutate Covers, Pedestal-Base Cups	1
MAYAPAN UNSLIPPED WARE		
Mayapan Unslipped Ware-Western Tases Horizon	Jars, Effigies, Tripod or Pedestal Base Jar and Ladle Censer, Dishes, Basins, Bowls, Paint Pot, Cups, Figurines, Vases, Effigy Vessels, Ring stand Plates, Mounds, Miniature Bowls and Jars, Disk-shape Covers, Masks, Stands	380

Ceramic Classification	Probable Ceramic Use(s)	Totals
Mayapan Unslipped Ware-Unslipped Group	Navula Jars, Effigies, Tripod or Pedestal-Base jar and Ladle censers, Basins, Bowls, Paint Pot, Tripod Cup, Figurines, Pestle	397
Mayapan Unslipped Ware-Unslipped Group	Panaba Jars, Effigies, Tripod or Pedestal-Base jar and Ladle censers, Bowls, Dishes, Pedestal-Bases, Cups, Basins, Pedestal-base Vases, Figurines, Effigy Vessels, Ring stand Plates, Moulds, Miniature Bowls, and Jars, Disk-shaped Covers, Masks, Stands	860
PETO CREAM WARE		
Peto Cream Ware-Cream Kukula Group	Jars, Tripod Dishes, Bowls, Vases, Basins	113
Puuc Slate Ware-Slate Muna Group: Muna Slate Type	Basins, Jars, Dishes, Bowls, Effigy censers, Vases, Dishes	1
SAN JOAQUIN BUFF WARE		
San Joaquin Buff Ware-Buff Polbox Group	Jars, Tripod Dishes, Bowls, Pot stands, Basins, Tripod Vases, Covers	55
THIN SLATE WARE		
Thin Slate Ware- Thin Slate Ticul Group	Bowls, Vases, Tripod Dishes, Basins, Jars, Disk Covers	1
TULUM RED WARE		
Tulum Red Ware-Red Payil Group	Jars, Bowls, Basins	2
UNIDENTIFIED WARES		
Uni. Precolumbian Wares	Pedestal Base	1
Uni. Precolumbian Wares	?	4
TOTALS		3,815

Table E-12. Historic Ceramics: Probable Ware Use (HATC 2010).

Ceramic Classification	Probable Ceramic Use(s)	Totals
DELFTWARE		
Plain Type	Bowl, Chamber Pot, Drug Jar, Plate, Vase	35
Blue on White Type	Bowl, Mug, Plate, Platter, Vase	2
Polychrome Type	Bowl, Mug, Plate, Platter, Vase	18
Sponged Type	Bowl, Mug, Plate	15
Uni. Delftware, England and Holland Tradition	?	3
LEAD GLAZED COARSE EARTHENWARE		
El Morro Type	Basin, Bowl, <i>Escudilla</i> , Pitcher, <i>Plato</i> , <i>Taza</i>	7
Green Lead Glazed Coarse Earthenware Type	<i>Albarelo</i> , Bowl, Jar, Plate, Porringer	11
Lead Glazed Coarse Earthenware Type	Basin, Bowl, Jar, <i>Lebrillo</i> , <i>Plato</i>	298
Rey Ware Type	Basin, Bowl, Jar, Pitcher, Plate, Saucer	3
MAJOLICA		
Abo Polychrome Type	Bowl, <i>Plato</i>	2
Aucilla Polychrome Type	Bowl, Brimmed <i>Plato</i>	5
Columbia Plain Type	Bowl, Chamber Pot, <i>Escudilla</i> , Inkwell, Jar, Pitcher, <i>Plato</i>	1
Esquitian Polychrome Type	Bowl, Cup, Plate	4
Faenza Polychrome, <i>Compendario</i> Type	Bowl, Brimmed <i>Plato</i> , <i>Plato</i> , Porringer	19

Ceramic Classification	Probable Ceramic Use(s)	Totals
Fig Springs Polychrome Type	<i>Abarelo</i> , Bowl, Brimmed <i>Plato</i> , Cup, Pitcher	2
Huejotzingo Blue on White Type	Plate, <i>Pocillo</i> , <i>Taza</i>	30
Ichtucknee Blue on White Type	Bowl, Brimmed <i>Plato</i>	1
Ligurian Blue on White Type	Bowl, Brimmed <i>Plato</i>	3
Mexico City White Type - Variety 1	Bowl, Brimmed <i>Plato</i> , <i>Escudilla</i> , <i>Plato</i> , Porringer	105
Mexico City White Type - Variety 2	<i>Albarelo</i> , Bowl, Jar, <i>Plato</i>	1
Mt. Royal Polychrome Type	Bowl, Brimmed <i>Plato</i>	1
Nopaltepec Polychrome Type	Plate	29
Puebla Blue on White Type	Bowl, Cup, Figurine, Inkwell, Jar, Lebrillo, Plate, <i>Pocillo</i> , Tile, Vase	110
Puebla Blue on White Type: Late Variety	Unknown	1
Puebla Polychrome Type	Bowl, Brimmed <i>Plato</i> , <i>Lebrillo</i> , <i>Pocillo</i> , <i>Taza</i> , Tile	37
San Elizario Polychrome Type	Bowl, Cup, Plate, Saucer	8
San Luis Blue on White Type	Bowl, Brimmed <i>Plato</i>	8
San Luis Polychrome	Bowl, Brimmed <i>Plato</i> , <i>Plato</i>	108
Santa Maria Polychrome	Plate	3
Santo Domingo Blue on White	Bowl, Jar, Pitcher, <i>Plato</i>	3
Sevilla Blue on Blue	Brimmed <i>Plato</i> , Shallow Bowl, <i>Taza</i>	3
Sevilla Blue on White	Bowl, Jar, Pitcher, <i>Plato</i>	1

Ceramic Classification	Probable Ceramic Use(s)	Totals
Uni. Blue on White Majolica (General)	?	3
Uni. Blue on White Majolica Iberian Tradition	?	1
Uni. Blue on White Majolica Mexico City Tradition	Bowl, <i>Plato</i>	2
Uni. Blue on White Majolica Mexico City Tradition	?	27
Uni. Blue on White Majolica Puebla Tradition	?	23
Uni. Blue on White Majolica Puebla Tradition	Bowl, Cup, Figurine, Inkwell, Jar, <i>Lebrillo</i> , Plate, <i>Pocillo</i> , Tile, Vase?	33
Uni. Blue on White Majolica Spanish Tradition	Bowl, Brimmed <i>Plato</i> ?	1
Uni. Blue on White Majolica Spanish Tradition	Bacin, Bowl, <i>Escudilla</i> , Jar, <i>Plato</i> ?	1
Uni. Majolica Polychrome (General)	?	9
Uni. Majolica Polychrome Italian Tradition	Bowl, Brimmed <i>Plato</i>	1
Uni. Majolica Polychrome Italian Tradition	Bowl, Brimmed <i>Plato</i> , <i>Plato</i> , Porringer?	3
Uni. Majolica Polychrome Mexican/Iberian Tradition	?	2
Uni. Majolica Polychrome Mexico (19th Century)	?	1
Uni. Majolica Polychrome Mexico City Tradition	Bowl, Brimmed <i>Plato</i> , <i>Plato</i>	1
Uni. Majolica Polychrome Mexico City Tradition	Bowl, Brimmed <i>Plato</i> , <i>Plato</i> ?	12
Uni. Majolica Polychrome Mexico City Tradition	Bowl, Brimmed <i>Plato</i> ?	3
Uni. Majolica Polychrome Mexico City Tradition	Bowl, Plate	1
Uni. Majolica Polychrome Mexico City Tradition	?	33

Ceramic Classification	Probable Ceramic Use(s)	Totals
Uni. Majolica Polychrome Mexico City Tradition	<i>Abarelo</i> , Bowl, Brimmed <i>Plato</i> , Cup, Pitcher	15
Uni. Majolica Polychrome Puebla Tradition	?	12
Uni. Majolica Polychrome Puebla Tradition	Bowl, Brimmed <i>Plato</i> , <i>Lebrillo</i> , <i>Pocillo</i> , <i>Taza</i> , Tile	35
Uni. Majolica Polychrome Puebla Tradition	Bowl, Brimmed <i>Plato</i> , <i>Plato</i>	7
Uni. Majolica Polychrome Puebla Tradition	Bowl, Cup, Figurine, Inkwell, Jar, <i>Lebrillo</i> , Plate, <i>Pocillo</i> , Tile, Vase?	9
Uni. Majolica Polychrome Puebla Tradition	Bowl, Cup, Plate, Saucer	1
Uni. Majolica Polychrome Puebla Tradition	Bowl, Plate, <i>Taza</i> ?	2
Uni. Majolica Polychrome Puebla Tradition	Bowl, <i>Plato</i>	1
Uni. Majolica Tin Enamelled (General)	?	53
Uni. Majolica Tin Enamelled Mexico City Tradition	?	84
Uni. Majolica Tin Enamelled Mexico City Tradition	<i>Albarelo</i> , Bowl, Brimmed <i>Plato</i> , Cup, Pitcher?	1
Uni. Majolica Tin Enamelled Mexico City Tradition	<i>Albarelo</i> , Bowl, Jar, <i>Plato</i> ?	6
Uni. Majolica Tin Enamelled Mexico City Tradition	Bowl, Brimmed <i>Plato</i> , <i>Escudilla</i> , <i>Plato</i> , Porringer	7
Uni. Majolica Tin Enamelled Mexico City Tradition	Bowl, Brimmed <i>Plato</i> ?	2
Uni. Majolica Tin Enamelled Puebla Tradition	?	1
Uni. Majolica Tin Enamelled Spanish Tradition	Bowl, Jar, Pitcher, <i>Plato</i>	2
Uni. Majolica Tin Enamelled Spanish Tradition	Bacin, Bowl, <i>Escudilla</i> , Jar, <i>Plato</i> ?	1
Yayal Blue on White	Bacin, Bowl, <i>Escudilla</i> , Jar, <i>Plato</i>	3

Ceramic Classification	Probable Ceramic Use(s)	Totals
PORCELAIN		
Porcelain Ching Blue on White	Bowl, Cup, Jar, Plate, Saucer, Vase	2
Porcelain Japanese	Bowl, Cup, Figurine, Jar, Plate, Saucer, Tea Pot, Vase	4
Porcelain UID Asian	Bowl, Cup, Plate	6
Porcelain, Brown Glazed	Bowl, Cup, Jar, Saucer, Tea Pot, Vase	1
Porcelain, Chinese Imari	Bowl, Cup, Plate, Saucer, Tea Pot	6
Porcelain, Polychrome Chinese Export?	Bowl, Cup, Plate, Saucer, Tea Pot	3
REFINED EARTHENWARE		
Annular Ware Banded	Bowl, Jug, Mug	19
Annular Ware Cabled	Bowl, Chamber Pot, Mug, Pitcher	2
Creamware Plain	Bowl, Cup, Pitcher, Plate, Platter	214
Creamware Royal	Plate, Platter	7
Creamware Transfer Print	Bowl, Plate, Platter	2
Pearlware Edged	Bowl, Plate, Platter	27
Pearlware Hand Painted Blue on White	Bowl, Cup, Plate, Platter	58
Pearlware Hand Painted Polychrome, Early	Bowl, Cup, Saucer, Tea Pot	14
Pearlware Hand Painted Polychrome, Late	Bowl, Cup, Platter, Saucer	11
Pearlware Plain	Bowl, Cup, Plate, Platter	82

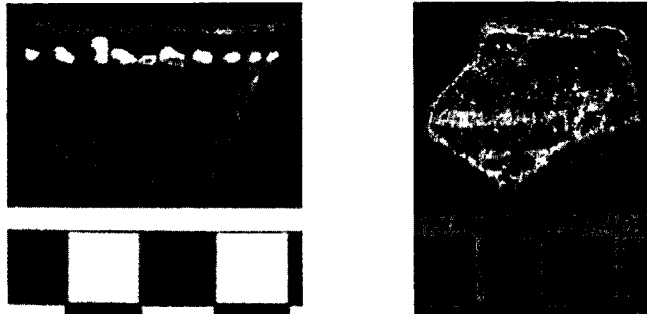
Ceramic Classification	Probable Ceramic Use(s)	Totals
Pearlware Sponged or Spattered	Plate	1
Pearlware Transfer Print	Bowl, Cup, Jar, Plate, Platter, Sauce, Tea Pot, Tureen	2
Uni. Refined Earthenware	?	12
Whieldon Ware	Plate, Platter, Tea Pot	1
Whiteware Hand Painted	Bowl, Cup, Jar, Pitcher, Plate, Platter, Tea Pot, Tureen	14
Whiteware Overglazed	Bowl, Cup, Plate, Platter, Tea Pot	4
Whiteware Plain	Bowl, Cup, Plate, Platter, Tea Pot	175
Whiteware Transfer Print	Bowl, Plate, Platter	1
SLIPWARE		
Mexican Red Painted	Bowl, Jar, Plato, Saucer	3
Slipware Type: Red Mama Variety	?	12
Slipware: Moravian	Bottle, Bowl, Candle holder, Chamber Pot, Jar, Jug, Mug, Pan, Pitcher, Plate, Pot, Saucer, Tea Pot	2
STONEWARE		
Stoneware Brown Slate Glazed English	Crock, Jug, Mug	1
Stoneware Nottingham	Bowl, Cup, Mug, Pitcher, Vase	2
Stoneware Rhenish Blue and Gray	Chamber Pot, Jar, Mug	1
Stoneware-White Salt Glazed	Cup, Plate, Platter, Tea Pot	1
Uni. Stoneware English Tradition	?	1

Ceramic Classification	Probable Ceramic Use(s)	Totals
Uni. Stoneware Salt Glazed Sherd	?	2
UNGLAZED COARSE EARTHENWARE		
Bizcocho Ware (Bisque)	Bowl, Cup, Plate, Vase	16
Olive Jar, Generic	Amphorodial Jar	91
Olive Jar, Early Style	Storage Jar	27
Olive Jar, Middle Style	Storage Jar	3
Yucatan Colonial	Jar	2
TOTALS		2,105

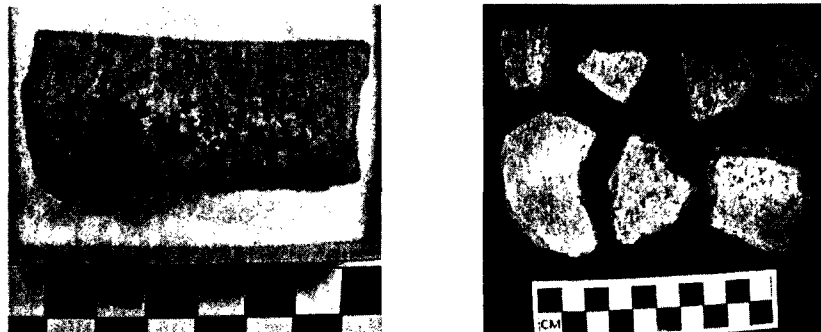
Representative Artifacts and Drawings from the Ciudadela (YUC 2) Collection

Figure E-1. PreColumbian Ceramics.

PreColumbian / Chichen Ware / Chichen Redware



PreColumbian / Chichen Ware / Chichen Slateware



PreColumbian / Thin Slate Ware



PreColumbian / Fine Orange Ware

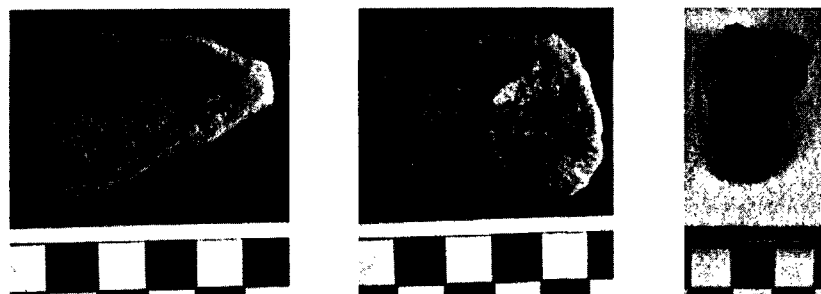


Figure E-2. Precolumbian Ceramics.

PreColumbian / Mayapan Ware / Mayapan Redware

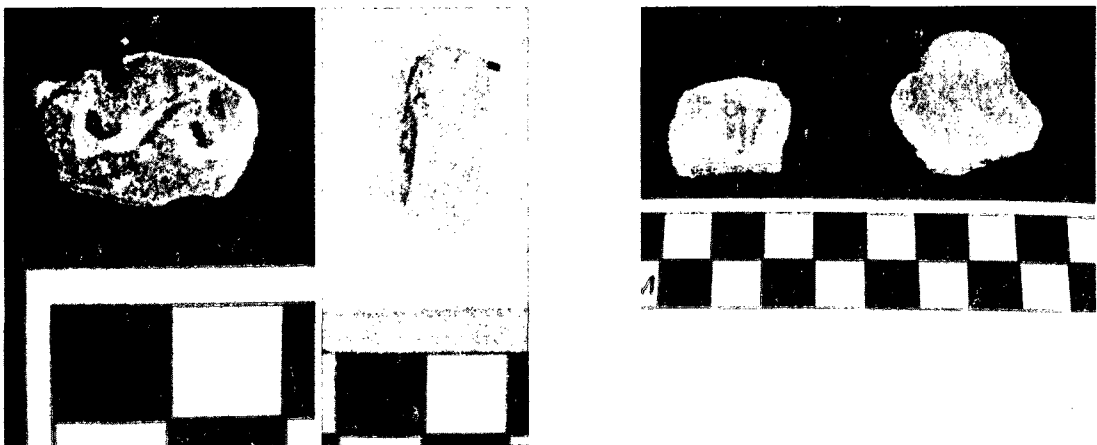
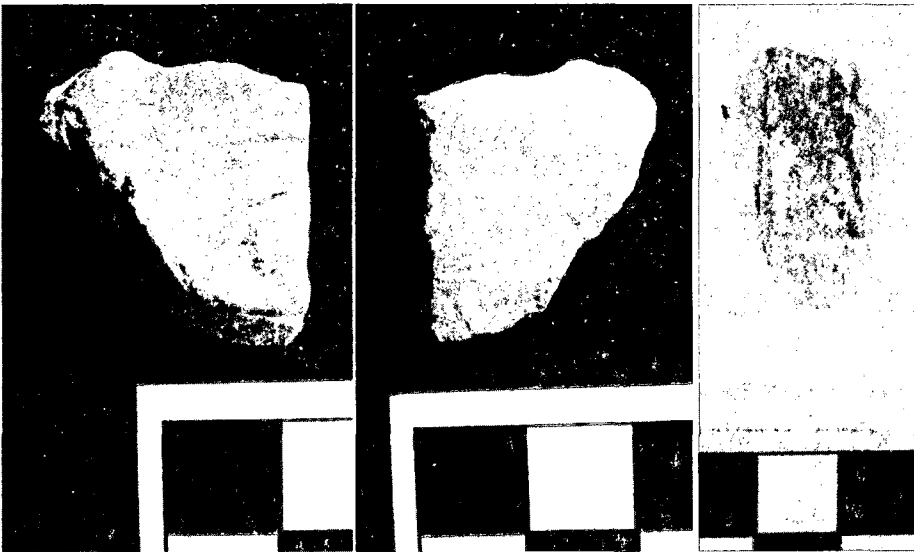
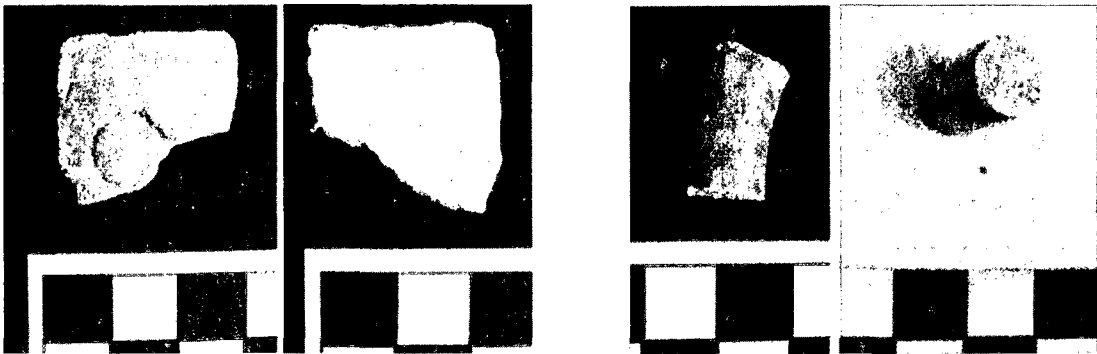
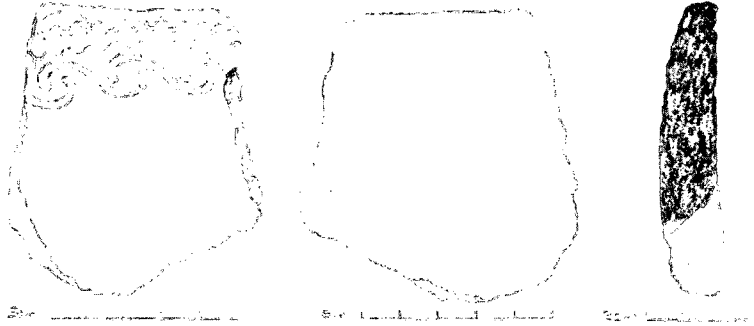
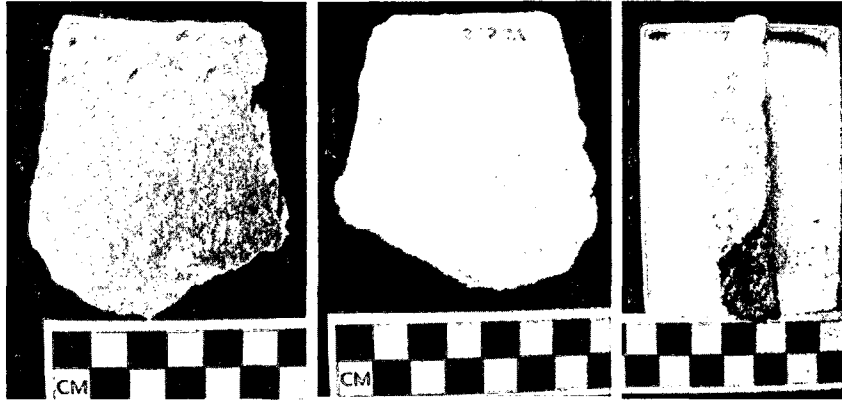


Figure E-3. PreColumbian Ceramics and Drawings.

PreColumbian / Mayapan Ware / Mayapan Redware

YUC 2 *Cuidadela*: General Collections 2004-149-0 FS#0



YUC 2 *Cuidadela*: General Collections 2004-149-0 FS#0

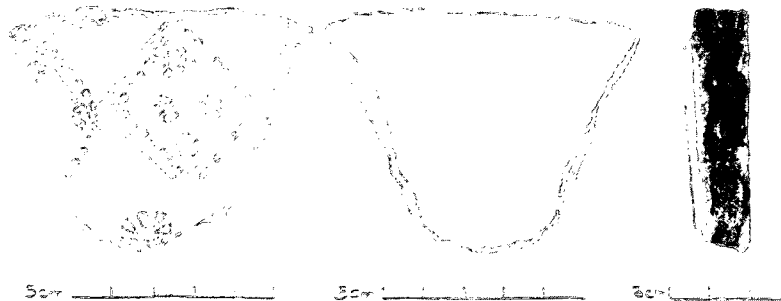


Figure E-4. Precolumbian Ceramics.

PreColumbian / Mayapan Ware / Mayapan Unslipped Ware

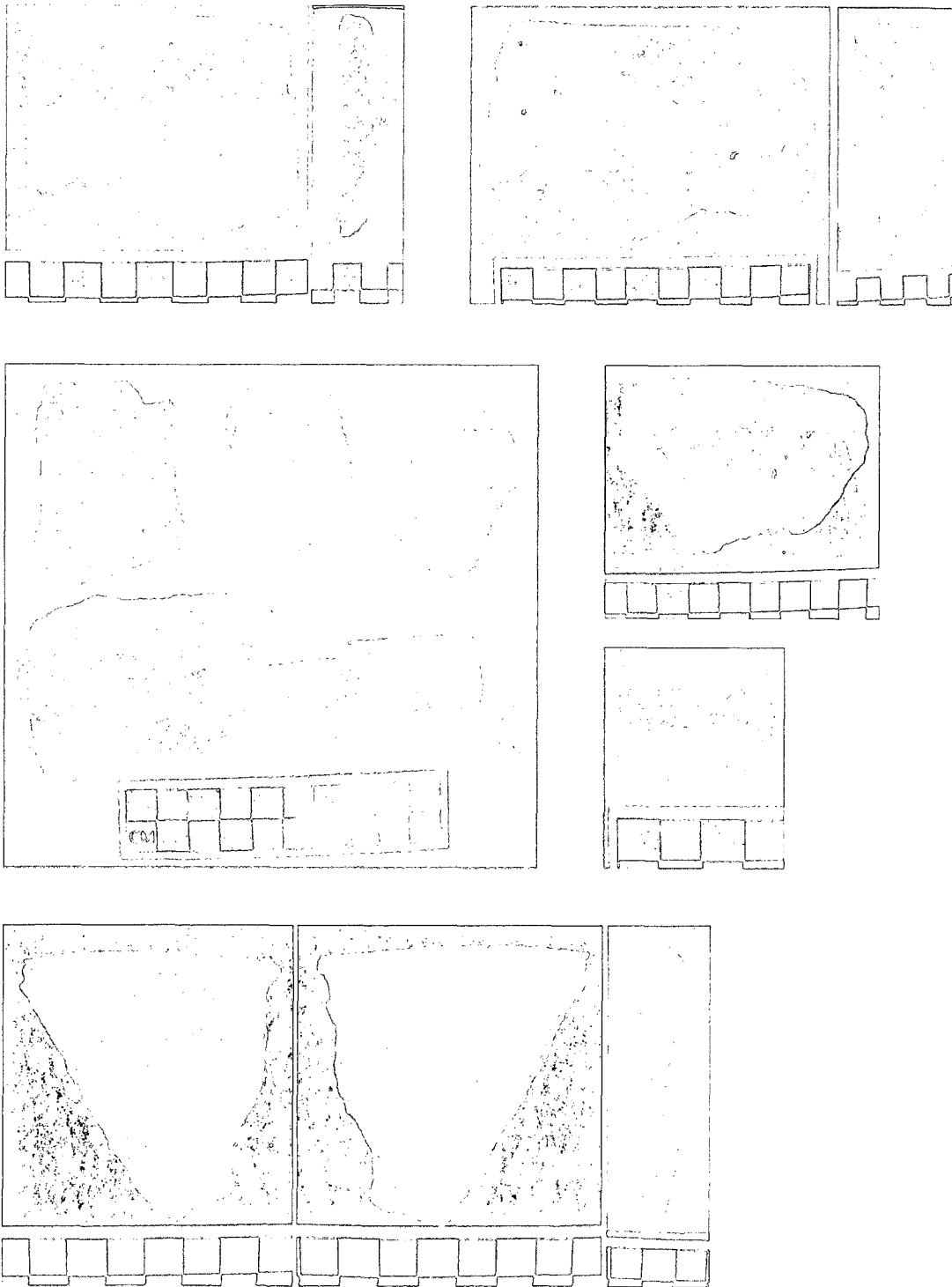


Figure E-5. Precolumbian Ceramics.

PreColumbian / Mayapan Ware / Mayapan Black Ware



PreColumbian / Peto Cream Ware



Figure E-6. Precolumbian Ceramics and Drawings.

PreColumbian / Peto Cream Ware

YUC 2 *Cuidadela*: YUC2 1,D (54-60") 2004-149-41 FS#41

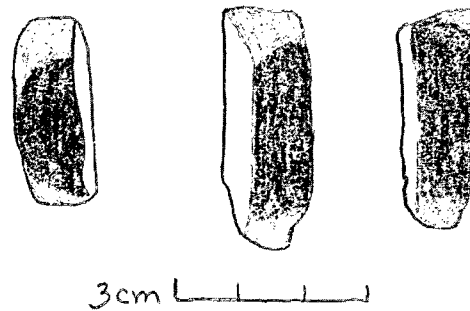
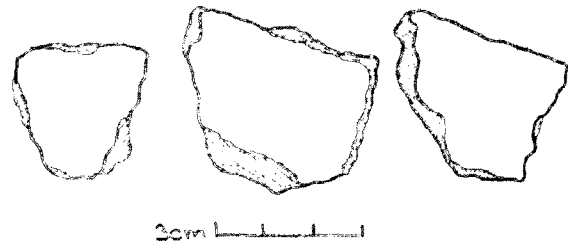
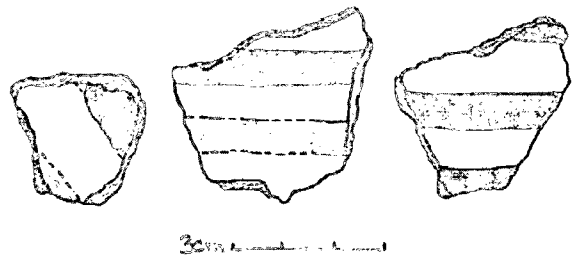


Figure E-7. Reconstructed Bowl and Drawings.

PreColumbian / Mayapan Redware / Reconstructed Bowl
YUC 2 *Cuidadela*: Special Collections 2004-149-1/43
Removed by R.Rogers (7/23/2009) from 2004-149-27 FS#27
YUC 2 1,C (36-42")

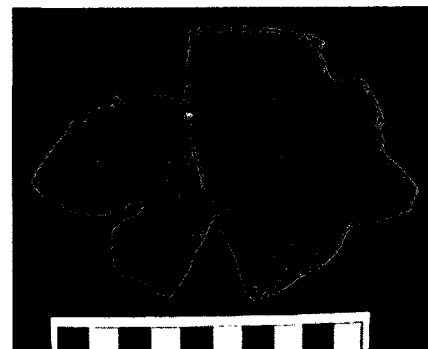
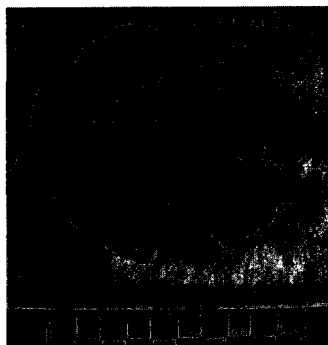
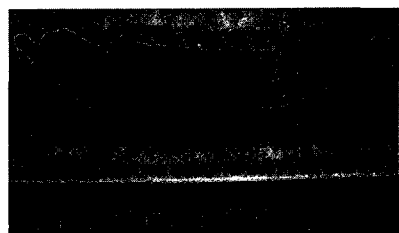
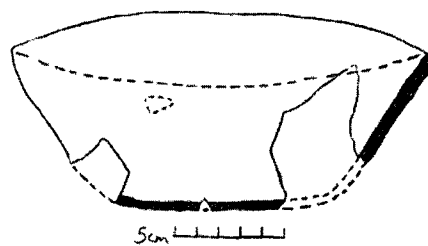
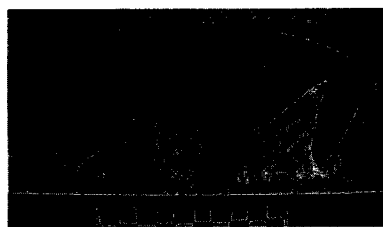
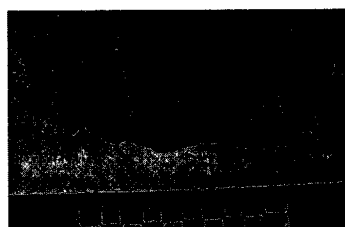
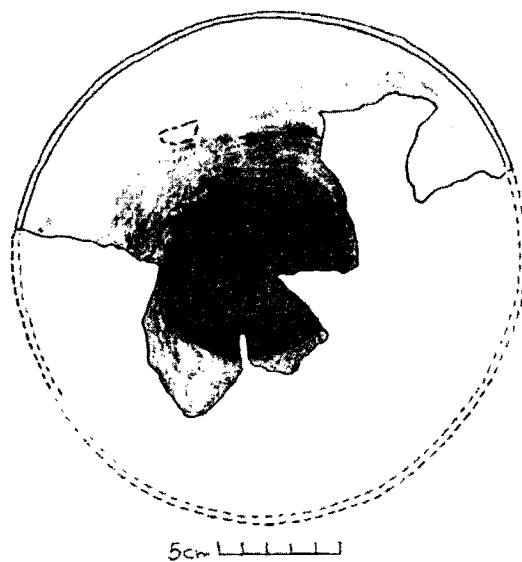
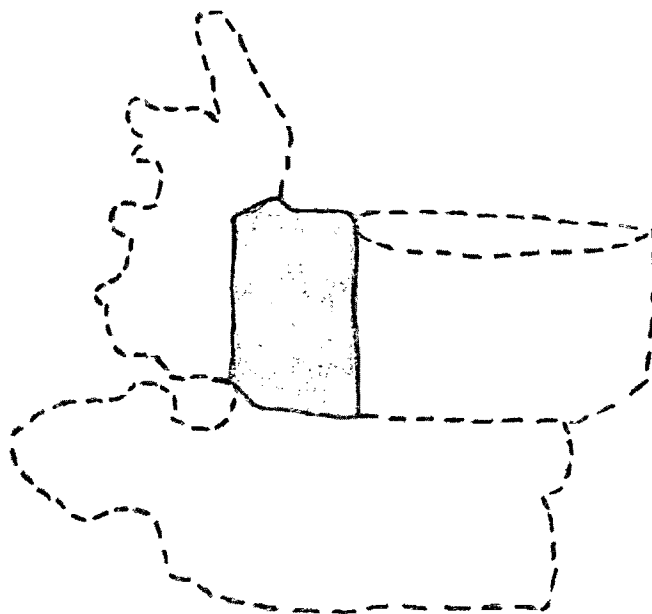
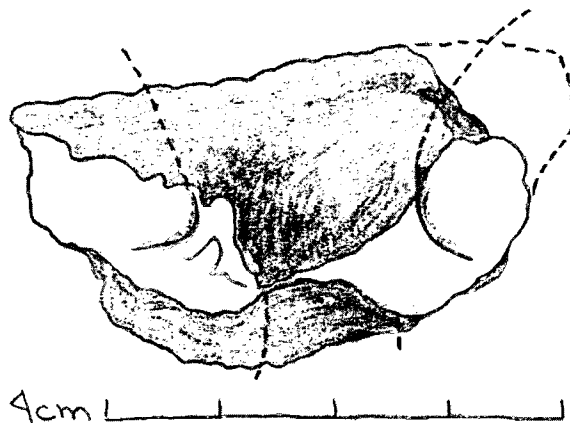
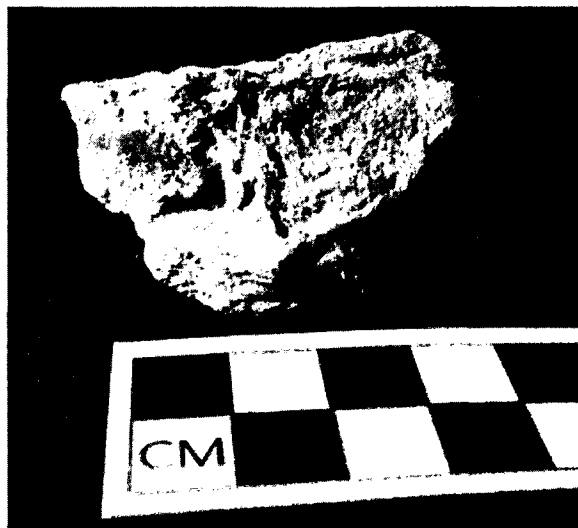


Figure E-8. Precolumbian Figurine and Drawings.

PreColumbian / Mayapan Unslipped Ware / Unslipped Panaba Group / Acansip Painted Type
YUC 2 *Cuidadela*: General Collections 2004-149-0 FS#0



Mayapan Unslipped Ware / Effigy Vessel / Probable Vessel Form

Figure E-9. Precolumbian Figurine and Drawings.

PreColumbian / Mayapan Unslipped Ware / Unslipped Panaba Group / Thul Appliqué Type
YUC 2 *Cuidadela*: 2004-149-28 FS#27-28
YUC 2 1.C (42-48")

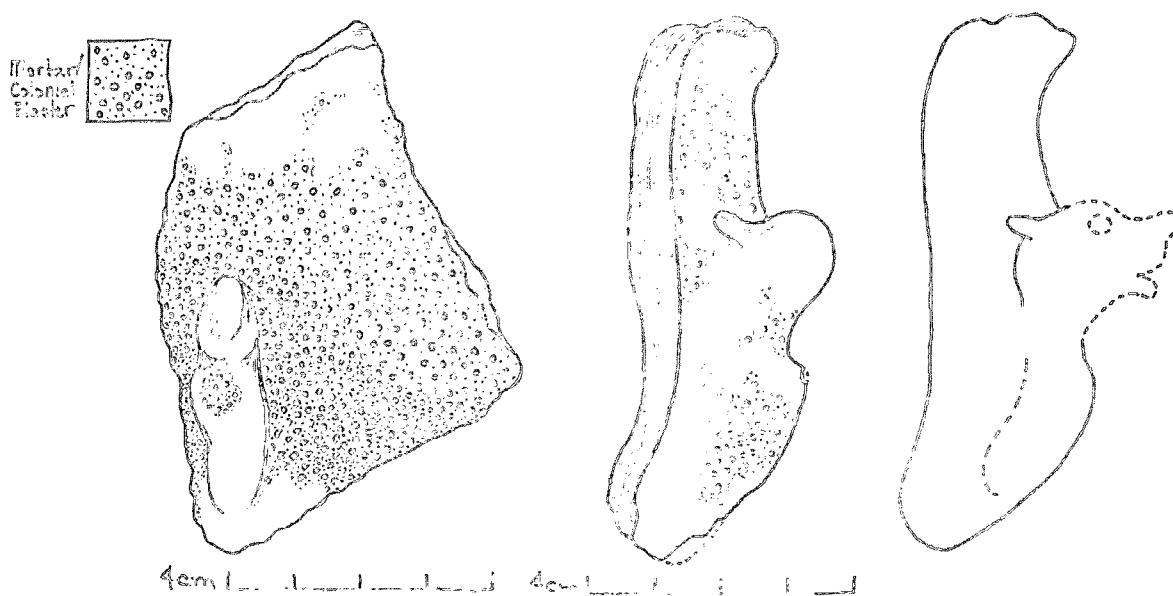
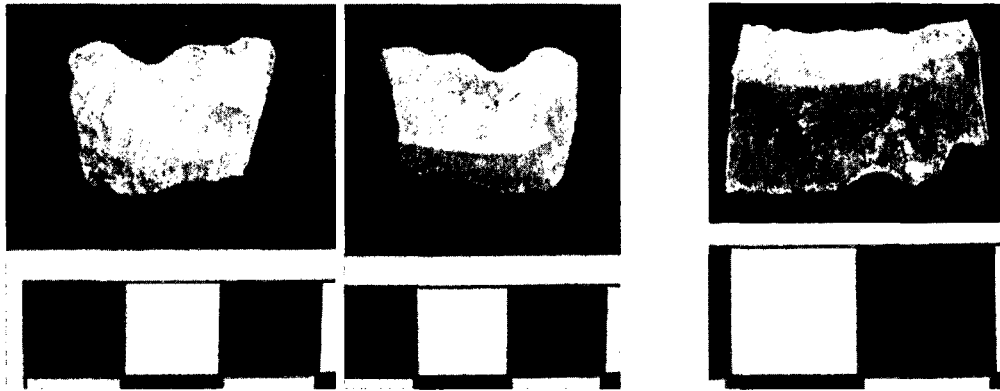


Figure E-10. Precolumbian Artifacts.

PreColumbian / Non-Ceramics / Lithics



PreColumbian / Non-Ceramics / Modified Bone



PreColumbian / Non-Ceramics / Modified Wood



Figure E-11. Historical Ceramics.

Historic / Delfware Category



- 1. Delfware Sponged Type
- 2. Delfware Polychrome Type

Historic / Lead Glazed Coarse Earthenware Category



Lead Glazed / Reyware Type



Lead Glazed / El Morro Ware Type



Figure E-12. Historic Ceramics.

Historic / Majolica Category



1. Abo Polychrome Type
2. Nopaltepec Polychrome Type
3. Puebla Blue on White Type
4. Puebla Polychrome Type
5. San Elizario Polychrome Type
6. San Luis Polychrome Type
7. Uni. Majolica

Historic / Porcelain Category / Chinese Imari Type

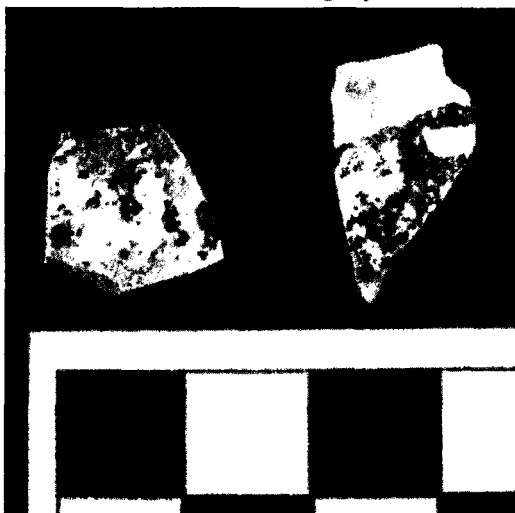


Figure E-13. Historic Ceramics.

Historic / Refined Earthenware Category

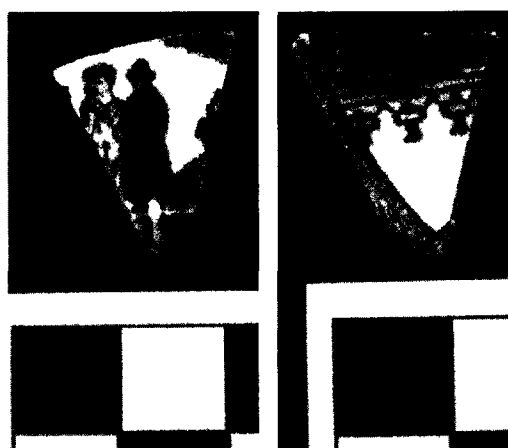
Pearlware Edged Type



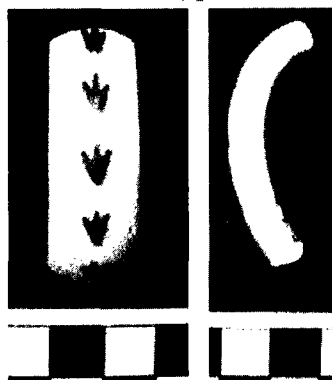
Pearlware Hand Painted, Late Type



Pearlware Transfer Printed Type



Creamware Type / Handle



Whiteware Transfer Printed Type



Figure E-14. Historic Ceramics.

Historic / Slipware Category / Mayapan Redware Colonial Types?

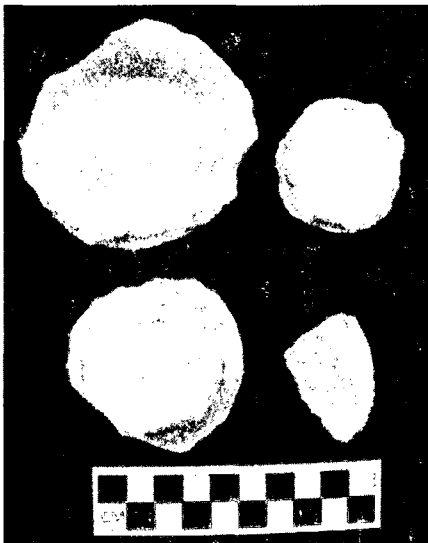
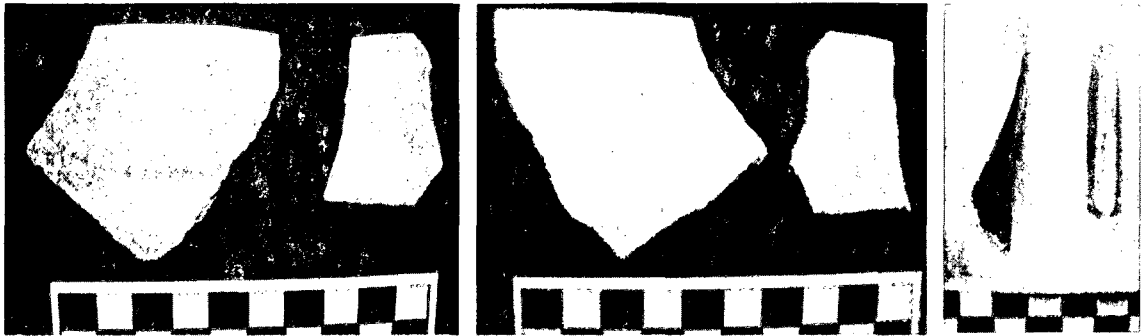
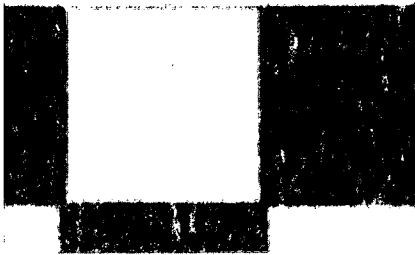
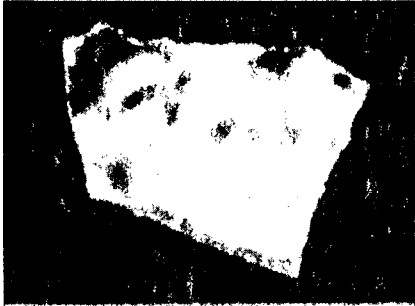
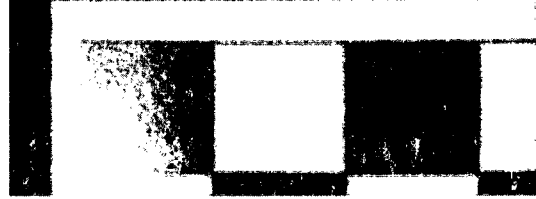
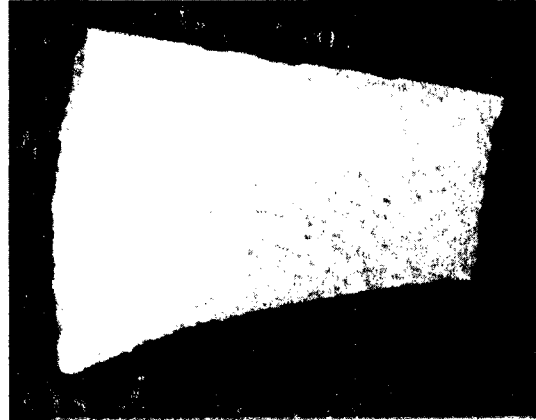


Figure E-15. Historic Ceramics.

Historic / Stoneware Category /
Brown Salt Glazed, English Type



Historic / Stoneware Category /
White Salt Glazed Type



Historic / Tin Enameled Coarse Earthenware Category / Mexico City Type Variety 1

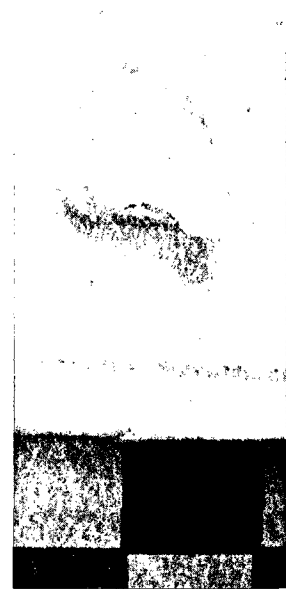
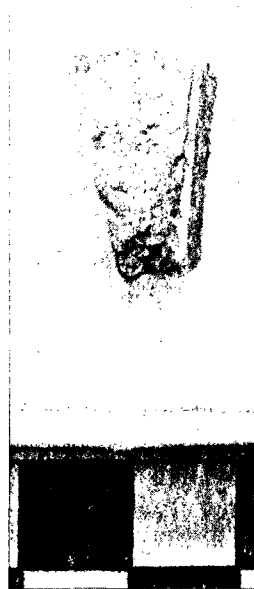
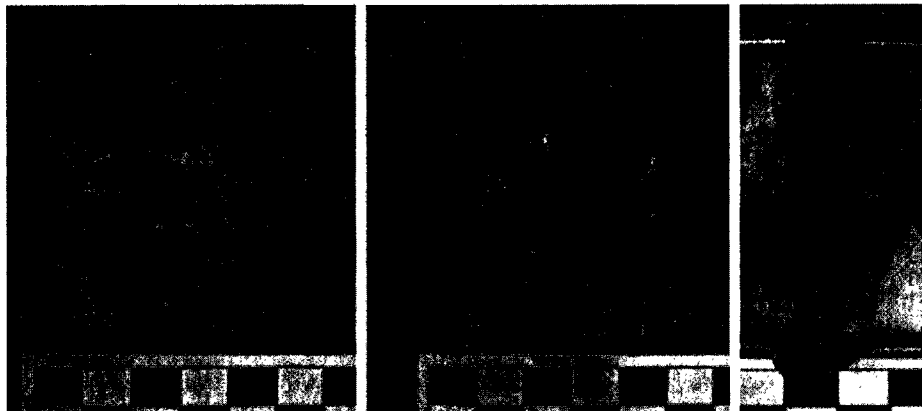


Figure E-16. Historic Ceramics.

Historic / Unglazed Coarse Earthenware Category / Mexican Redware



Historic / Unglazed Coarse Earthenware Category / Olive Jar (Early Type)



Historic / Unglazed Coarse Earthenware Category / Yucatan Colonial Type

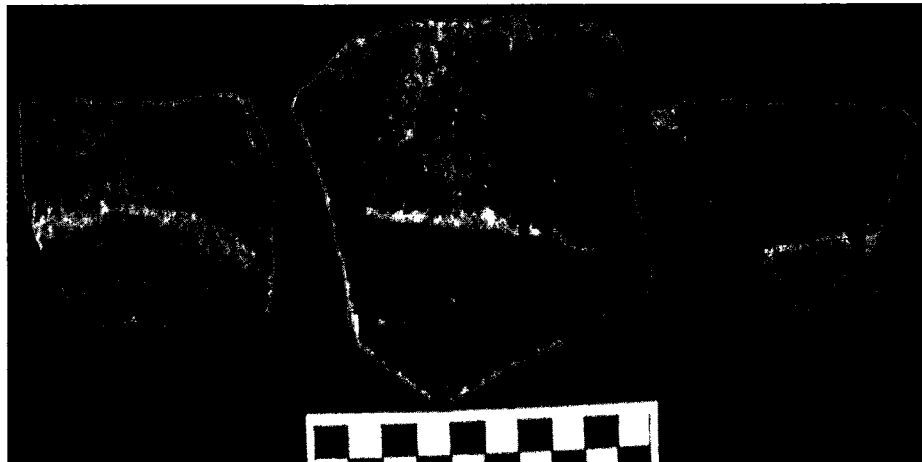
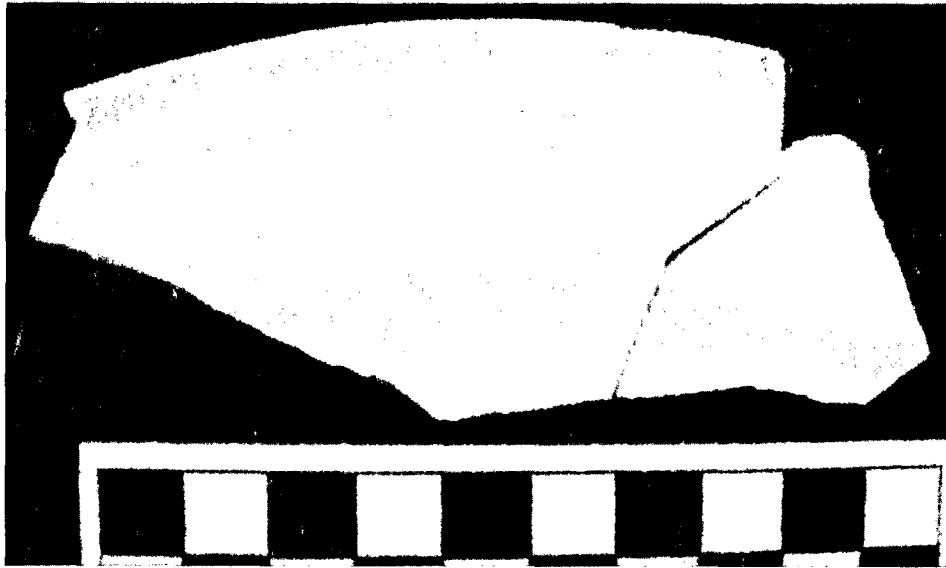


Figure E-17. Historic Ceramics.

Historic / Reconstructed Bowls / Whiteware Plain Type



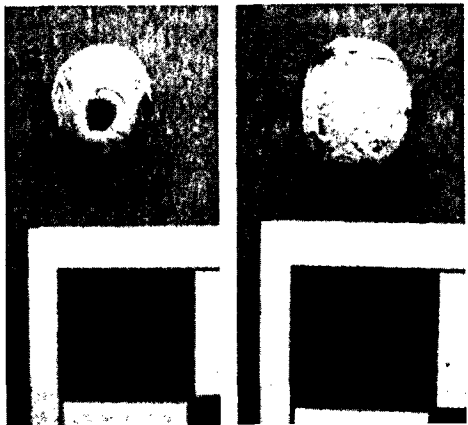
Historic / Reconstructed Bowls / Huejotzingo Blue on White Type



Figure E-18. Historic Artifacts.

Historic / Non Ceramics / Artifact

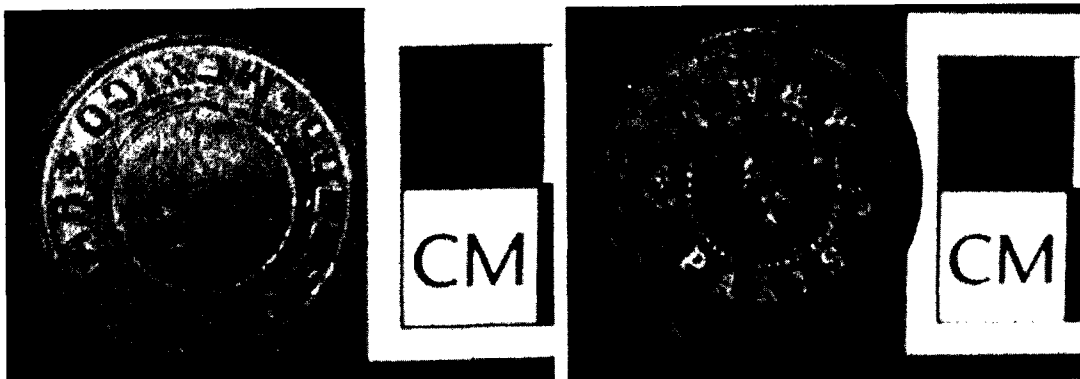
Bead / Chevron Type?



Clothing & Shoe Buckles



Clothing item / 18th Century Military Button



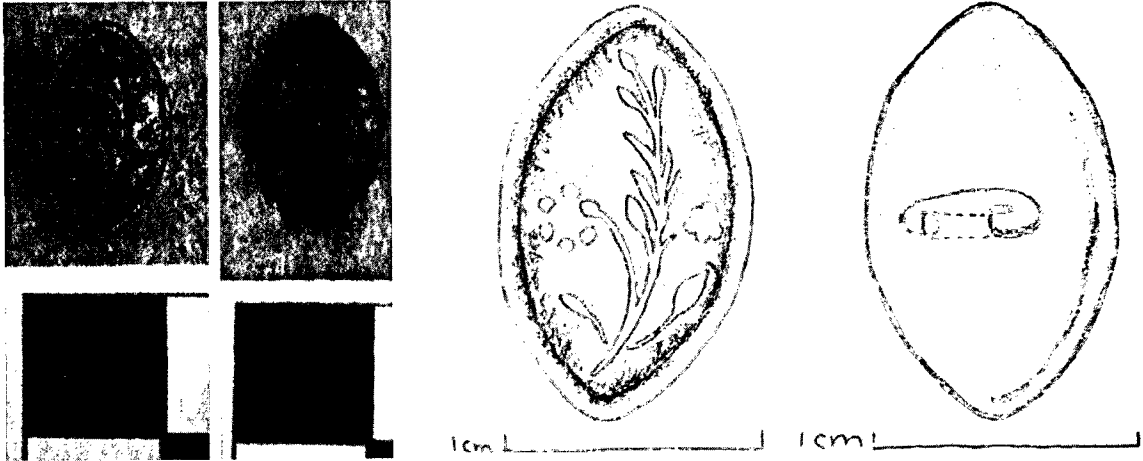
Clothing item / Metal, Bone & Plastic Buttons



Figure E-19. Historic Artifacts.

Historic / Non Ceramics / Artifact

Clothing item / Late 18th Century Sleeve Button



Religious Item / Devotional Medal / Religious Pendant / *Venera* Pendant?

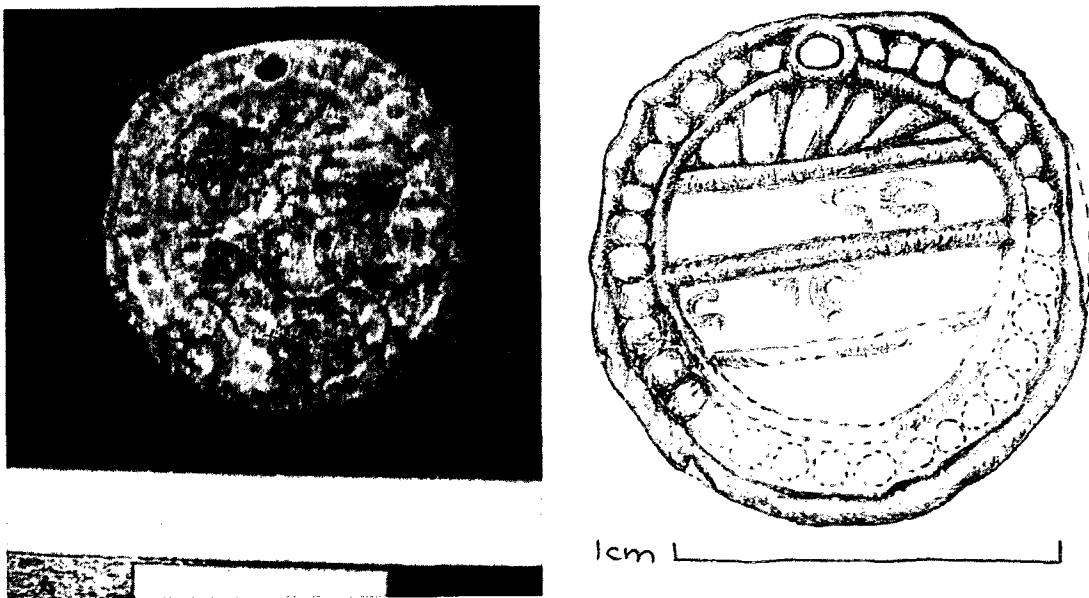
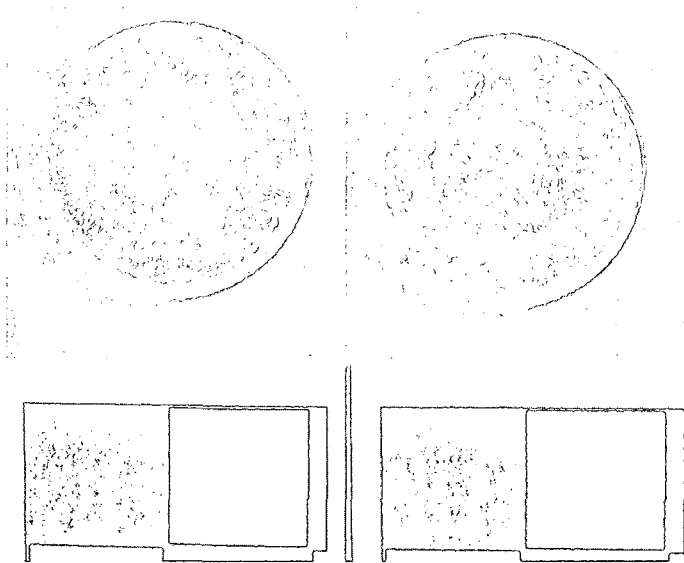
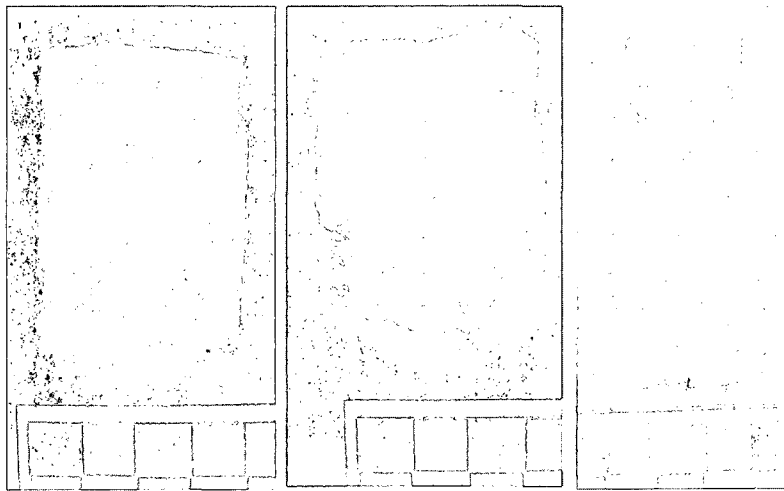


Figure E-20. Historic Artifacts.

Historic / Non Ceramics / Artifact / Coins / 1861 Indian Head Penny



Historic / Non Ceramics / Artifact / Colonial Tiles / Fig Springs-San Juan Polychrome Tiles



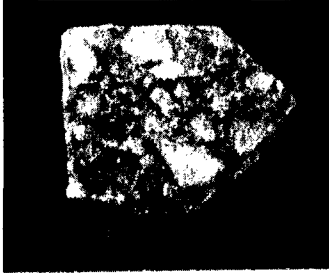
Historic / Non Ceramics / Artifact / Colonial Bricks (*Ladrillos*)



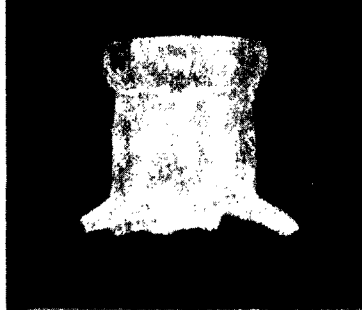
Figure E-21. Historic Artifacts.

Historic / Non Ceramics / Artifact (Miscellaneous)

Rock / Granite Tile?



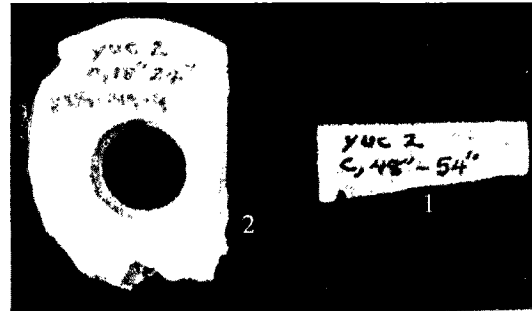
Glass Type / Medicine Bottle



Industrial Type /
Hand-Wrought Nails



Modified Wood



1. Wood button back and blank
2. Uni. Perforated Wood Disk

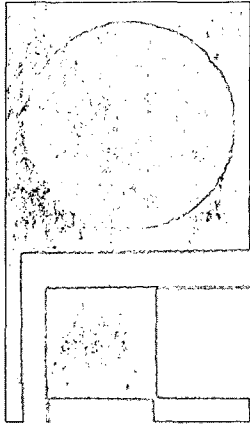


Pastimes /Children's Games and Toys /
Porcelain Doll Face Fragment

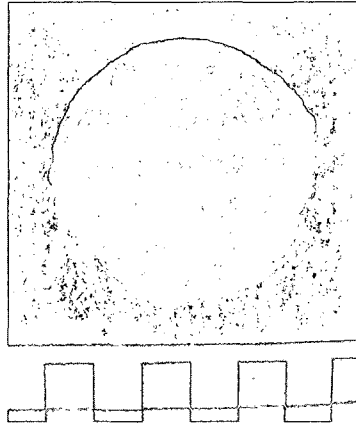
Figure E-22. Historic Artifacts.

Historic / Non Ceramics / Artifact / Firearms

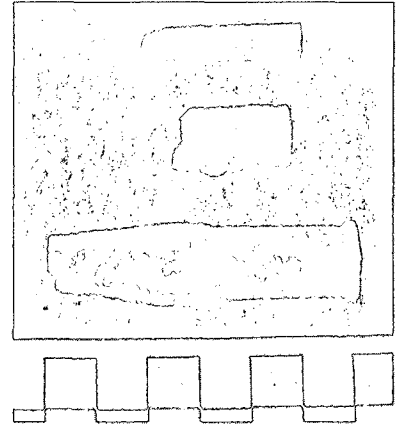
18th Century
Single-Shot Ball



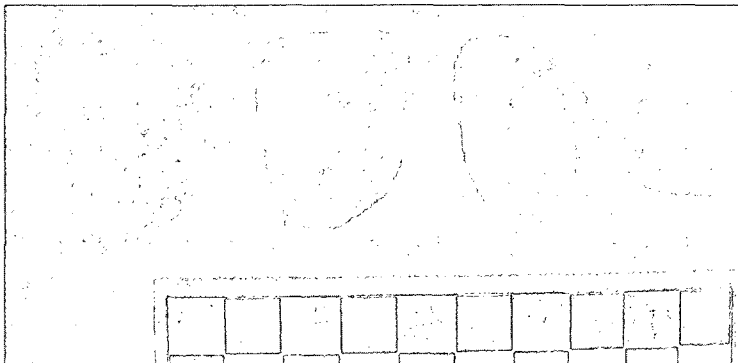
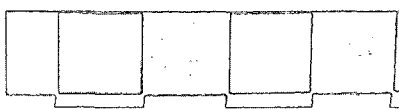
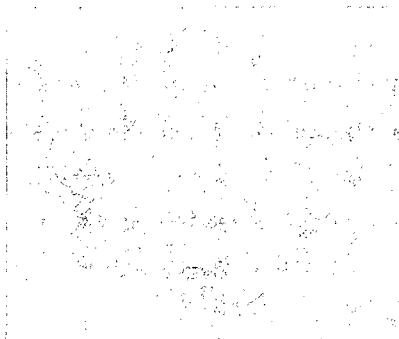
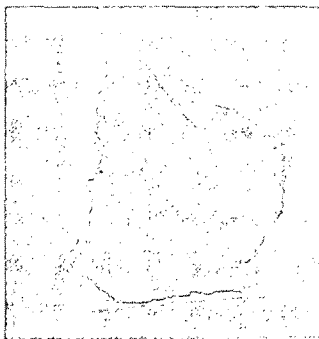
16th Century Single-Shot Ball



Historic Bullet and Bullet Casings



Flintlocks



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