Maya Ceramic Production and Trade: A Glimpse into Production Practices and Politics at a Terminal Classic Coastal Maya Port

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MAYA CERAMIC PRODUCTION AND TRADE: A GLIMPSE INTO PRODUCTION PRACTICES AND POLITICS AT A TERMINAL CLASSIC COASTAL MAYA PORT

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by
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by

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Under the Direction of Dr. Jeffrey B. Glover

ABSTRACT

This paper explores a particular ceramic type, Vista Alegre Striated, an assumed locally produced utilitarian cooking vessel, recovered at the coastal Maya site of Vista Alegre during the Terminal Classic period (AD 800-1100). This study investigates the variations present within this type and how these differences inform production practices at the site and in the region. I use a three-point comparison of recovery locations: a pit feature at the site representing a single depositional episode, intrasite recovery locations, and a regional sample. Through these analyses I highlight various diversities in rim formations that suggest a diversity of producers over time.

INDEX WORDS: Maya Coastal Trade, Ceramic Analysis, Maya Ceramic Production
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DEDICATION

To my grandfather, without whom academia would not have been a lifelong goal.
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1. INTRODUCTION

1.1 Purpose of the Study

This study was born out of a desire to understand a perplexing ceramic situation in a pit feature uncovered by Drs. Jeffrey Glover and Dominique Rissolo during the 2011 field excavations at the Maya coastal site Vista Alegre. They found that a characteristically local ceramic type (Vista Alegre Striated: Vista Alegre) appeared within one context but had considerably varied forms. This was an intriguing find because the pit feature represents a single depositional event, yet considerable variation existed, most easily recognizable amongst rim forms. While not surprising that deviations would occur over long periods of time as a result of different producers, technologies, and styles, a more in-depth investigation into why such variation would occur in one such instance of time is warranted, especially for a type that should be locally produced. This study provides important insights into local economic practices and the possible provisioning of a coastal port site.

1.2 Expected Results

In this study I compare ceramic materials, particularly the rim forms, from a single depositional episode with materials from the site of Vista Alegre as well as the larger Yalahau region. The samples from these different collections represent varying temporal and spatial scales. I do this to try and understand how variation over time influences changes in physical (modal) production techniques. I expect the pit feature (representing a single depositional event) to exhibit general uniformity in characteristics. With the assumption that Vista Alegre Striated: Vista Alegre is a locally produced utilitarian ware, one would expect a great deal of homogeneity in production in a single context. I expect slightly more variability in the intrasite sample, as this sample
represents a longer period of time, although this sample is still limited to the Terminal Classic period, but relative homogeneity was still expected due to the type’s assumed local production. Lastly, I expect a considerable amount of variation amongst the regional sample, as it represents the longest span and of time and broadest spatial extent. Following these three expectations, I should be able to isolate production tendencies (various producers vs. local producer) based on the diversity at these three levels. Stated clearly, if little variation is recorded in the pit feature, this would suggest local production due to the lack of diversity in modal characteristics of the vessels. However, if a multitude of rim forms are present in the pit feature more complex mechanisms must be explored to explain the lack of local production of such a common, quotidian pottery type.
2. CERAMIC ANALYSIS IN ARCHAEOLOGY

The difficulties archaeologists face in determining and interpreting cultural phenomena and characteristics using a very limited sample of cultural remains is significant. Given the perishable nature of most commonplace items in temperate and especially tropical conditions (Hurcombe 2008), archaeologists are faced with making connections and distinctions with those materials that are consistent across comparable regions. Pottery, a class of ceramic artifacts, when present, is a useful example amongst other materials such as teeth, bone, stone and often metals.

In the Mesoamerican culture area, including Mexico, Guatemala, Belize, El Salvador, and western Honduras, pottery provides important comparative data because of its widespread use over long spans of time. To appreciate the usefulness of this artifact class, one much first understand how ceramics are classified by archaeologists, as these classifications are key to subsequent ceramic analyses.

The study of ceramics in archaeology in the Maya area began as a largely secondary study, describing ornamental inclusions in tombs as well as an ‘aesthetic’ production of an ancient culture (Willey et al. 1967:289). Attempts to create a useful framework through which to judge chronologically and culturally the production of ceramics did not exist until G. C. Vaillant’s 1927 thesis using stela caches found at Copan, ceramic data from Chichén Itzá, and tomb pottery found at Holmul (Merwin and Vaillant 1931; as cited in Willey et al. 1967:289). This work is significant in the development of ceramics as a viable way to study cultural achievements chronologically in the Maya area. Specifically, these analyses were all based on descriptions of wares, or specifically on decorative and technological characteristics (1967:289). This descriptive work influenced the comprehensive ceramic
analysis compiled by Robert Smith (1955) at Uaxactún, a pioneering large-scale investigation of ceramic materials with the intention of creating a chronological sequence. Meanwhile, three years later, following the same format of ware-based descriptive analysis, Brainerd (1958) published his work from the northern Maya lowlands.

While ceramic analysis in the Maya area was working its way through its infancy with a loose system of analysis, ceramic studies in the southwestern United States were being conducted with a different analytical approach (Willey et al. 1967). The archaeologists working in this area had a methodology that would greatly influence the development of the type-variety method that has come to dominate Maya ceramic analysis.

Smith, Gordon and Gifford’s (1960) work highlights the benefits of using a more standardized system through which pottery analysis can be more effective in a broader context. By creating a framework through which inter-site comparisons can be made in an organized fashion, many benefits manifest. First, the most reliable way to understand the appearance of certain ceramic types at different sites at different times is to have a way to label them with a marker easily identifiable in a chronological sequence. The creation of types allows for this comparison.

The creation of the “ceramic type-variety concept” is essentially a combination of two schemes of ceramic analysis. Philips (1958) developed an analytical technique akin to that of the type-variety concept in the Southwest with the purpose of application to eastern North America. This concept in tandem with the Wheat, Gifford, and Wasley (1958) paper outlining specific definitions for the descriptive keywords in the type-variety system resulted in the proposal of this system and its uses in the Maya area by Smith, Willey and Gifford (1960:332).
The use of the type-variety system is useful beyond simply having a framework through which to analyze physical and artistic characteristics across wide regions. The descriptions of ‘types’ and ‘varieties’ also contain cultural implications. Gifford (1960) outlines the extent and method through which this kind of abstraction can be accurately reported. The relationships between ‘types’ and ‘varieties’ are understood simply as the differences between individual experimentation and deviation from the norms of a particular set of standard attributes (varieties), and the overarching themes that are accepted by not only the potters themselves, but by the consumers in the society, effectively allowing the production of these themes to continue through space and time (types). Gifford (1960:346) also asserts that,

[t]he individual craftsman is never really ‘free’ to ‘create’ the entity recognized as a variety or type because although he may be free to produce an entity of some sort, his production may either be accepted or rejected by the culture in response to its particular bias... the results of his work may, in terms of the culture, merely go down as an experiment, thereby resulting only in one or a few expressions of individual variation.

Essentially, the craftsman can produce works that are outside of the ceramic traditions of the era, but on a temporal scale large enough to register as a type, an idea would have had to have ‘caught on’ and become socially popular. Sample size in this context is very important, because the creation of new types and varieties requires a consistent appearance and standardization within samples, as opposed to the creation of a new variety with every slightly varied ceramic sherd recovered.

With the rising popularity of the type-variety system, which is fundamentally focused on ceramic ‘attributes’, problems arose out of the simplicity of the analysis. Many scholars have debated the shortcomings of the methodology (see Adams 2008; Culbert 2007; Culbert 1967; Hammond 1972; Foias 2004; Kepecs 1998; Sabloff and Smith 1969;
Smith 1979). One example that is relevant to the present study is the type-variety system paying reduced attention to the ‘mode’, or specific measurable physical characteristics, including bases and rims, that vary in measurement and design within varieties that give specific vessels distinguishable attributes. When originally describing the methods through which ceramic analysis should take place, modal considerations were laid out as a part of the method. However, this type of analysis is quite time-consuming and takes a great deal of attention to detail (Gifford 1976). Due to this time constraint associated with modal analysis, and often strained budgets and field length concerns, such investigations are often overlooked. However, considering the variation within the varieties, the type-variety system alone is simply not enough of a classificatory system to describe important variations. Gifford notes that understanding this distinction is essential to understanding diversities within ceramic varieties and can inform questions beyond those that can be answered through multi-site comparisons.

Culbert and Rands (2007) do a remarkable job of explaining the current disconnect in Maya ceramics between the modal and typological classificatory scheme. The authors argue that a separate but parallel use of two systems, type-variety and also ware analysis, is a positive step toward removing a biased scheme of classification. Essentially, they acknowledge the usefulness of analyzing wares in Maya ceramics, but it should not be viewed on the same hierarchical system that is used to describe types and varieties (and the more abstract concepts of ceramic complexes, spheres, etc).
3. TERMINAL CLASSIC MAYA

3.1 History of the Term Terminal Classic

The time period characterized in the Maya area as the Terminal Classic, A.D. 800-1100, represents a radical change in the political and economic landscape across the entire region. The first appearance in academic literature denoting a separation, or buffer, between the Classic and Postclassic transition pre-dates the use of the Terminal Classic terminological distinction; however, the term arises as an attempt to create a transitional period in which these major changes occurred. This distinction is first discussed at the Maya Lowland Ceramic Conference in Guatemala City in 1965 (Willey, Culbert, and Adams 1967 as cited in Demarest, Rice and Rice 2004:3). The time period was originally set apart from the Classic by its ceramic sequence, referred to as Tepeu 3; based on the Gifford’s (1963) work at Uaxactún (see Rice and Rice 2004:3).

3.2 Terminal Classic Maya Political Landscape

This chapter discusses various zones in the Terminal Classic Maya lowlands as a whole. This section is included because it is important to understand how the geopolitical landscape was changing from one oriented toward the divine kings who ruled cities of the Classic Period to the more community-based and inclusive centers of the Terminal Classic. While considerable debate still exists, architectural and epigraphic evidence is considerable for a shift in public culture. While a more inclusive environment does appear to develop, social classes certainly still existed. A brief overview of various regions is given first, followed by an analysis of the transformations happening in the northern lowlands, the area important to this study.
The central Petén zone, which is home of several of the major Classic Lowland sites, including Barton Ramie, Uaxactun, Tikal, Yaxhá, Macanché, Calakul, Naranjo, Caracol, amongst others, experienced a mixed transitional period. Sites in the Petén lakes area have populations spanning from the Classic to the Postclassic (Rice and Rice 2004:125). This zone evidences a continuous presence of populations that did decline but did not disappear. While the kings and dynasties came to an end during the Late and Terminal Classic, substantial populations did continue to populate the region. Specifically, these populations appear to have relocated to more strategically placed settlement locations, such as around lakes or on hills. This could be due to the changing nature of conflict and warfare during this period. Regardless of the cause, a significant, though reduced, population continues throughout this entire region (Rice and Rice 2004:130).

In the Belize zone, containing the sites such as Cerros, Colha, and Altun Ha, construction and elite-centered efforts appear to be less affected than the neighboring sites in the central zone. Colha appears have had a considerable amount of settlement and construction until around A.D. 900, when an abrupt and violent event occurred ending the settlement of the site, evidenced by the presence of mass pit-burials of the site’s elite inhabitants (Willey 1986:23). Altun Ha appears have experienced most of its massive construction efforts during the Early Classic, slowly tapering off in the Late and Terminal Classic. Altun Ha appears have been ravaged and despoiled by inhabitants living at the site during its Terminal Classic occupation (Pendergast 1967, 1979). Also unaffected, neighboring sites outside of the Belize region showed considerable periods of inhabitance and even construction such as at San José (Thompson 1939) and Lamanai (Pendergast 1981). The events in the Belize area during this transitional period appear to differ
significantly from the rest of the Lowland Maya world, in terms of the longevity of the construction period as well as occupational episodes at major centers (Willey 1986:23-24).

The next zone is the Pasión Zone, including sites such as Lubaantun, Altar de Sacrificios, and Seibal. In all sites in this region construction appears to end at various periods during the Terminal Classic period, although all centers do contain substantial populations throughout this transitional period. At Lubaantun, construction appears to have halted around 850, during which time the site ceases to play a role as a major center for the rest of its considerable population history (Hammond 1975). Seibal is an interesting case because of its unique building phases, which occurred during the Terminal Classic period (Willey et al. 1975). The stelae constructed during this period also appear to have characteristics of a foreign influence. Thompson (1975) considers this influence to be Chontal-Putun. While the impact of these foreigners is still debated, the site was abandoned at around A.D. 930 (Willey 1986:25).

The occupational history at Altar de Sacrificios is slightly more complex. The occupation of the site is broken up into two locations. First, the center of the site itself is situated in a riverine-swamp island. From this location settlement pattern data strongly supports a substantial population into the Terminal Classic period, although no major construction occurs during this time. The second location of habitation at the site in which vastly less is known is the Pasión valley. Similar to the artistic changes at Seibal during this time representing a probable Putun or Chontal invasion, ceramics shift to a much more focused fine paste ware during the Jimba phase (A.D. 900-1000), which have recently been sourced by Bishop (1994) to the Gulf Coast Lowlands. Also found during this time period are figurines no longer depicting a strictly Maya persona; furthering the evidence of a non-
Maya occupational episode. Altar is abandoned at the end of the Jimba phase, around A.D. 1000 (Willey 1986:24-25).

The Southeast Zone contains southern sections of Guatemala not included in the Pasión Zone as well as western Honduras. The major sites in this zone are Quirigua and Copan. Quirigua had a major impact on the region in the Late Classic, both in terms of economic contributions and as a major hub of population conglomeration (Ashmore 1980; Jones and Sharer 1980). Major construction at the site appears to have been halted around A.D. 810, although a significant population still occupied the site. This large occupation would stay at the site throughout the entirety of the Terminal Classic, eventually being abandoned during the Early Postclassic around A.D. 1250 (Willey 1986:25). At Copan, there appears to be a limited post-dynastic presence at the site. This occupation does not appear to exceed a small population, though interestingly this population strongly breaks ties with the Classic period occupation present at the site. The Ejar group that inhabits the site during the Terminal Classic and Early Postclassic are more strongly aligned in many aspects, including material culture, construction and ideological beliefs with groups inhabiting central Honduras to the south and east (Kam Managan and Canuto 2009).

The northern lowlands, the area where Vista Alegre is located, has a slightly different history than the rest of the Maya realm. While the majority of regions were in decline, the northern Yucatán was experiencing a period of growth and prosperity. There are two spatial histories that are significant in the northern Peninsula during the Terminal Classic, and they are important to distinguish from one another.
In the west, the Puuc centers came to power around AD 750. These centers generally are overlapping in power with Chichén Itzá, as well as Cobá, although Cobá appears to have begun its decline slightly earlier than the other centers. The Puuc hills were home to a diverse landscape in comparison to the rest of flat northern Maya lowlands. In this region we see the development of the Puuc style, an original set of motifs and architectural styles. These Puuc centers developed as small kingdom states, with various regional alliances developing as they grew in size and power. War was common amongst these communities, and is evidenced by large defensive wall structures (Schele and Mathews 1998:234-235; Walters and Kowalski 2000). Perhaps the most important aspect of the rise of these Puuc communities was the political fighting between them that caused
rapid growth and conquest, but a short reign of power due to the shaky pillars of governmental strength. Essentially, these communities set up strong architectural and agricultural systems in a water scarce environment with dense populations, which contributed to infighting between communities. However, by the late ninth or early tenth century, unification was supposedly achieved under the king of Uxmal, who participated in a multepal governmental system (Grube 1994:323-324). This governmental structure may have set precedent for all leadership systems in Postclassic cities, although this is still debated by scholars (Demarest, Rice and Rice 2004:560).

Chichén Itzá and Cobá are located in the center and east of the Peninsula respectively see (Figure 1). Cobos (2004) outlines Chichén Itzá’s place as a concurrently rising state with those of the Puuc hills. Chichén and Cobá were great rival cities in the central peninsula with economic and violent conflicts with one another. Tensions, rivalries, alliances, and conquests were present on the Peninsula, with complex interactions amongst sites. An example of these conquests that archaeologists can test was the great sacbe between Yaxuná and Cobá, a construction 100 km long, associated with the sacking of the city by Cobá in the Late Classic, exhibited by a dramatic realignment of the ceramic and ceremonial wares at the site (Ambrosino et al. 2003). The site then later fell to the Itzá as they extended their dominance over large portions of the Peninsula (Andrews and Robles 1986). Overall, the expertise economically of Chichén as well as the strength of the community in the interregional sphere influenced the Itzá’s durability in the region over their great rivals. Despite this, Chichén appears to only have outlived Cobá and the Puuc center by around 100 years, eventually declining itself around AD 1050 (Cobos 2004).
3.3 Terminal Classic Ceramic Economics

The transitional period between the Late Classic and Postclassic Maya marked a wide variety of changes in terms of economic organization across the Maya lowlands. Masson (2001a) recently highlighted the changes regional economic shifts had on ceramic diversity from Classic to Terminal Classic to Postclassic periods. Although this study outlines a chronological sequence across a wide geographical area, of significance for my project is the decline in stylistic diversity across Mesoamerica during the Terminal Classic. This lack of diversity is also evident in the Preclassic period. Rice (1989:111), although not specifically referring to the Classic period, offers an explanation for the rise in ceramic heterogeneity in three ways: the existence of fewer products or producers, controlled production, or it can represent mass production and standardization among highly complex societies (as cited in Masson 2001b:181). Rice also describes the reasoning behind the diversification of ceramic types during the flourishing Classic period as a result of increased social variety and status, as well as the specialization of different roles, tasks and activities that require a range of ceramics (Rice 1987:79, 83 as cited in Masson 2001b:181).

Perhaps the change from Preclassic Maya lack of diversity in ceramic assemblages to the Classic Maya collections representing a wide range of types and varieties makes logical sense; as the complexity of the society increases so should its variety of goods and services available. Also during this period was a noticeable period of political balkanization, with a strong influence of combative kingship at various communities. Perhaps then, as these lowland Maya societies reached their ‘peaks’ and began to decline, the lack of ceramic diversity also follows the same logic in reverse. However, it is important not to consider the ‘collapse’ of Maya centers in the lowlands as a decline of the civilization. It is much more
appropriate to consider this transitional period as one of reconstruction and reorganization rather than a disassembling. The majority of the Classic period economies in these Maya states were argued to be under the auspices of the elite class centered around a solar place or tributary economic system (McAnany 2010; Smith 1974), whereas the Terminal and Postclassic economies transitioned into a much stronger market-based, panlowland commercial system (Masson 2001a; West 2002), although this assertion is recently under critique by Masson and Freidel (2012). Blanton et al. (1996) describe a dual processual model in which both the Preclassic and Postclassic Maya exhibited a much stronger focus on public architecture and spatial distribution (i.e. public spaces such as large plazas like those iconically at Chichén Itzá for group activities) as opposed to individual, ruler-oriented iconography and associated monumental architecture. Rathje (1975:421) “noted 25 years ago that Postclassic states cast aside inefficient investments of social energy such as labor-intensive monumental works that glorified individual political campaigns during the Classic period in favor of pursuits that resulted in greater affluence among all members of societies through an emphasis on inclusive patterns of commercial production and exchange” (as cited in Masson 2001b:182). However, Brown and colleagues (2012) call into the question the notion of a common Postclassic affluence, in particular at Mayapán, with an interpretation of the distribution of households, based on spatial extent, as a sign of widespread poverty rather than wealth. Regardless of whether we should use the term ‘poverty’ to apply to the inhabitants of Mayapán, it is clear that a substantial economic and political realignment had occurred by the Postclassic period.
4. VISTA ALEGRE

4.1 Overview of the Site

Vista Alegre is located on an island along the northern coast of the Yucatan Peninsula in the modern Mexican state of Quintana Roo, roughly 7.5 km east of the modern port town of Chiquilá (see Figure 1). The site as it exists today is accessible only by boat, as it is tucked within a deep mangrove forest. Lagoons surround the site.

4.2 Occupational History

Vista Alegre has historically had little archaeological study. While the academic community has known about the site since at least 1954, a deep interest in the site has only recently begun to blossom. William Sanders first visited Vista Alegre excavating four test pits as well as making limited surface collections (Sanders 1955, 1960). After Sanders’ visit, the site was not investigated again until Jack Eaton’s coastal survey work (Eaton 1978:45). Next to visit the site were Susana Gurrola and Eugenia Romero while undertaking investigations of the Yalahau Lagoon and coastal trading (Romero and Gurrola Briones 1995). Drs. Dominique Rissolo and Jeffrey Glover are now primary investigators studying the site. They first visited the site in 2002, and after a field season there in 2005, they started the Proyecto Costa Escondida (PCE) the following year. The following overview of the site’s occupational history is based on the work done by Glover, Rissolo, along with Drs. Joseph W. Ball, and Fabio E. Amador (Glover et al. 2010).
In order to fully understand the specific episode in the site’s long history in which this study focuses, a brief history should be considered. Vista Alegre has four major periods of occupation, ranging from 800/700 B.C. until essentially the end of the Postclassic period in the early 16th century (see Glover et al. 2011a, 2011b). Glover and Rissolo have conducted the preliminary ceramic analysis of the Vista Alegre materials with the invaluable assistance of Dr. Joseph W. Ball, Dr. Jennifer Taschek, and Dr. Fabio Amador. It is this work that laid the foundations for my research.

4.3 Vista Alegre I

The first period of occupation was between 800/700-450/400 B.C. The Early Nabanche and Mamom materials recovered evidence this period. Of particular interest are the Savana Orange sherd and Joventud-slipped figurine fragments (Glover et al. 2011a). Due to the significance of these figurines for household rituals during the Formative period, trade does not appear to be a valid explanation for the movement of these items. Due to the presence of Savana Orange ceramics at the site, the a possible population to have first inhabited the site would be settlers from the Petén-Belize area, though this is type of movement does not represent the current population movement tracks in the Yalahau region (Andrews 1990; Rissolo et al. 2005; Stanton and Ardren 2005). Further field seasons at the site are necessary to clear up this chronological population movement complexity (Glover and Rissolo 2010:137).
4.4 Vista Alegre II

The second period of major occupation is categorized in two phases. The first phase ranges from A.D. 100/150-400/450, in which a considerable population inhabited the site. Significant during this time period is the apparent connections with coastal as well as inland communities evidenced by the presence of the major inland ceramic groups of Carolina, Sierra, and Tancah (see Amador 2005; Glover 2012). Also intriguing during this time period is the appearance of Caribal and San Felipe groups, which are most likely produced in the south but do not appear at inland sites (Ball 1978, Glover and Rissolo 2010:138).

The second phase, A.D. 400/450-650, is characterized by the presence of the Camichen group as well as trading wares from the western and southern lowlands (Glover and Rissolo 2010:138). The specific varieties within these groups support the notion that occupation was continuous even when inland communities were beginning to depopulate on a regional scale (Glover 2006, 2012). The site appears to be abandoned by A.D. 650 at the latest; signified by the absence of pan-lowland decorative finewares (Glover and Rissolo 2010:138).

4.5 Vista Alegre III

The third major phase at the site, A.D. 850/900-1100, is characterized by the influence of a major regional power, Chichén Itzá. This time period is the most significant to the present study because of the control asserted by Chichén in its regional dominance over circum-peninsular trade routes (see below). Another interesting aspect of the operations of the inhabitants of Vista Alegre during this period is the complexity of trade
relations with the Maya lowlands and Mesoamerica more broadly. The information described by the ceramic diversity recovered at the site paints a complex web of relationships with different groups (see Glover and Rissolo 2010; Glover et al. 2011b). Namely, the ceramic sphere generally associated with Chichén, the Sotuta sphere, appears incompletely in the material assemblage. While Balantun Black-on-slate and Dzitas slate wares are abundant at the site, Sisal and Dzibiac groups are noticeably absent. Interestingly, Ticul Thin Slate and Vista Alegre Striated are present, both of which are part of the eastern Cehpech sphere, a different but overlapping (both spatially and temporally) sphere (see Robles and Andrews 1986 for more information on this debate).

4.6 Vista Alegre IV

The fourth and final occupational period at Vista Alegre, A.D. 1100-1550, is less of a permanent residential period and appears to mark the site becoming the locale for pilgrimage. The ceramic assemblage representing this period is mostly censer material, a mix of Chen Mul Modeled and Cehac Hunacti Composite types, found mostly around the pyramid at the site. In addition, Payil and Palmul types were recovered which are indicative of pilgrimage activities such as burning incense and food offerings. Also recovered at the site is a carved serpent head with stylistic similarities to Mayapan, as opposed to Chichen Itza (Glover and Rissolo 2004), posing interesting question about the nature of the site and to whom the site could have served as a pilgrimage destination (Glover et al. 2011b).
4.7 Vista Alegre Striated

Vista Alegre Striated is a utility ware on which this analysis is based. Sanders (1960:248) first described the type in his regional overview. Vista Alegre has multiple forms and variations within the type. Three major varieties are represented: Vista Alegre Striated: Vista Alegre, Vista Alegre Striated: Chen Rio, and also Vista Alegre Striated: Unspecified (this is common when the characteristics of this variety do not fit well with the two other varieties). The major differentiation between the Chen Rio and the Vista Alegre varieties is the vessel form. Chen Rio forms have a long neck, usually with vertical striations on this extension only. Vista Alegre Striated: Vista Alegre vessels, on the other hand, are neckless *tecomates*. Important to my research question is variation within this type. While several characteristics signify clearly the Vista Alegre Striated type, it is variation within the type and variety that are significant to my study.

Figure 2 - Vista Alegre Striated Rim Forms from the site of Vista Alegre
The type has been classified as part of the Late Classic eastern Cehpech sphere by Robles (1990:179). The color is wide-ranging and includes a light gray (5YR 5/1), dark gray (5YR 4/1), pink (5YR 7/6), and yellowish brown (10YR 4/4) (Rodriguez 2004:97). I found in my analysis the coloring to be even more diverse including (7.5YR 7/6) and many other ranges on the light yellow/brown scale.

The paste of Vista Alegre Striated is medium to coarse with medium compaction, evidence of low firing temperatures. The surface of the vessel is coarse, with exterior striations being the diagnostic characteristic. These striations can appear on both body and rim; however, this varies, with some vessels displaying striations on only rim or only body. The striations also vary in terms of thickness, direction, and density.

Vista Alegre Striated: Vista Alegre only appears as a tecomate, and the bottom of the vessel is convex with a varying globular shape and handles are often present. When present these handles can be attached in a vertical or horizontal position. The rims of the variety Vista Alegre are usually internally thickened, but also appear in an external thickened and flattened form, as well as direct and thickened (Amador 2005:213; see Figure 10 for various examples of Vista Alegre Striated: Vista Alegre rim formations).

Vista Alegre Striated has appeared throughout the eastern and coastal Maya lowlands, including in Quintana Roo at Cobá (Robles 1990:178-179), El Meco (Robles 1986:100), San Miguel, Chiquilá, Vista Alegre, Aguada Grande, Cozumel, Monte Bravo, El Diéz, Santa María (Sanders 1960:189-202), as well as Xcaret (Rodríguez 2004:97-98, Camacho 2001:82-83), Kinhil (Rodríguez 2004:97-98), San Gervasio (Peraza 1993:163-164), Actún Toh, Actún Tacbi Ha (Rissolo 2001:315), as well as Ox Mul, Kimin Yuk, and other unnamed sites (Amador 2005). In Yucatán Vista Alegre Striated has been recovered
at Isla Cerritos, Emal, El Cuyo sur (Ball 1978:114-115), Punta Cerritos, Paso Holuntún (Rodríguez 2004:97-98), sites in the Chikinchel region (Kepecs 1999:154) and Xcambó (Jiménez 2002:79-80), and also appears in Campeche at Cambalam (Rodríguez 2004).
5. METHODS

In December 2012, I spent a week in Quintana Roo, Mexico working in a lab set up for the PCE project by Drs. Glover and Rissolo. During this time in the lab, I recorded various attributes of 187 Vista Alegre Striated: Vista Alegre sherds. While many body sherds were available for analysis, this study only analyses the rims of these vessels. Among these attributes are circumference of the vessel, thickness of the rim, orientation of the handle (horizontal or vertical, if available), striation mechanism relative to handle addition (striations under the handle before pasting, versus handle attached then striations added) striations present of absent on the rim of the vessel, type of lip manipulation (as discussed below), inclusions (including type and percentage following the Munsell system), and color (following the Munsell system).

In this analysis were sherds from the excavations conducted at Vista Alegre by Jeffrey Glover, as well as various regional sites excavated by Fabio Amador (2005). Included in this collection from the site of Vista Alegre itself was the variety from the pit feature (Lot 1004) in Unit 8, as well as several other lots from the site. My regional sample includes rim sherds from Ox Mul, Kimin Yuk, Monte Bravo, and two surface sherds from Sites 45 and 32 (from Amador 2005; see Figures 6 and 7).
Figure 3 – Unit Excavations and VA Site Map
Figure 4 - Lot 1004 Pit Feature Before Excavation

Figure 5 - Lot 1004 Pit Feature After Excavation
Figure 6 - Surface Collection Sites by Glover (2006:Figure 5.2) and Amador (2005)
Figure 7 - Excavated Sites by Glover (2006:Figure 5.3) and Amador (2005)
6. RESULTS

The first focus of the data analysis is based on the rim forms of Vista Alegre Striated: Vista Alegre. Multiple rim forms exist, and these forms have been diagrammed elsewhere (see Amador 2005:223, 224; Robles 1990:180; Rodriguez 2004:99, also Figure 4). By analyzing the diversity of forms, an understanding of production processes can give insight into whether a local potter was producing Vista Alegre Striated vessels or if various producers, from a wider area, manufactured those vessels that ended up deposited at Vista Alegre.

6.1 Total Sample

The rim measurements were extremely diverse in this study. The smallest rim recovered was only 8mm thick, whereas the largest was 23mm. While producers were probably not standardizing their work down to measurements as small as a millimeter, there is a considerable range indicating some flexibility in the production methods. While some levels of thickness are more common (see Figure 8), the mean thickness of all analyzed rims was 14 mm, and the median 13 mm. The interesting presence of many thicknesses outside of the average range shows a lack of strict standardization within this utilitarian vessel type.
Even those vessels with a rim thickness that conform to the general mean exhibit considerable diversity (Figure 9). I use the over-arching term ‘internal thickening’ (Figure 10, 2a) to describe a massing of clay on the rim of the interior of the vessel which is not visible on its exterior. I have further divided this category into ‘slight internal thickening’ (Figure 10, 3a) which should serve as an intermediate to ‘direct’ (Figure 10, 1b) and ‘internal thickening’ to attempt to show the diversity of thickness in this category, which is also notable with the rim thickness measurements. As seen in Figure 9, the ‘internal thickening’ category represents the vast majority of the rim forms along with slight internal thickening. Also present in low numbers are a ‘flat top’ form (Figure 11), as well as an ‘external thickening’ form (Figure 10, 4a).
A goal of this study is to understand the diversity of forms within a spatial context. However, this inquiry has proven complex, as a cluster of particular attributes do not directly correlate with a particular context. Rather, the diversity of forms appears to be in a variety of locations. It is my opinion that various potters at multiple locations produced the Vista Alegre Striated vessels found within my sample. Due to the relatively simple manufacturing process of this particular ware (i.e. low firing temperature, no decoration aside from striations that do not require any special skill or training to make), it is quite feasible that less than hyper-skilled potters could have made these vessels for domestic purposes as opposed to the skills required to produce the slate wares that were common in the Terminal Classic across the northern peninsula Cehpech and Sotuta spheres (Rice and Forsyth 2004:45-47). The data of this study do not contradict this notion; if a single potter was the only producer of Vista Alegre Striated vessels, a much greater degree of
standardization would be expected, especially given the pottery traditions of the Terminal Classic period and the tendency to mass produce (see Masson 2001a; West 2002). However, given the utilitarian nature of this particular type, the production would have probably been more ‘relaxed’, with less attention paid to exact conformity. This notion is backed up by the considerable variation of rim forms in this study at the various spatial scales.

Figure 10 - Proposed Vessel Forms in Pit Feature (drawing by Jennifer Taschek)
6.2 Pit Feature

The pit feature was the original inspiration for this research due to the observed diversity during excavation and analysis. My detailed recordings confirm this variation. In total the pit feature contained 27 rim sherds. Rim thickness ranged from 11 mm to 18 mm, with a mean of 14.09 mm and a median of 14 mm. The mean circumference of the whole vessel was 18.55 cm of the 20 rims where this measurement could be taken.

Perhaps the most diverse characteristics recorded in the pit feature are associated with handles. In terms of handle direction, 13 displayed vertical handles, 6 horizontal, and 8 undeterminable. Handles also varied considerably in terms of proximity to the rim of the vessel, although no measurements were taken to reflect this. Rim manipulation was relatively constant, with 24 internally thickened and 3 direct. Of course, this number 24 is variable to the degree to which thickening occurs, as is evidenced by the diversity in rim thickness measurements. With the exception of 1 sherd, all samples in the pit feature exhibited striations on the rim of the vessel.
6.3 Intrasite Sample

In my intrasite comparison I analysed 138 sherds from excavations across the site. This comparison encompasses vessels from the entirety of the Terminal Classic period, representing a larger span of time theoretically than the pit feature. Also in this sample are several units from around the site, including units 2 through 9 (see Figure 3), suggesting various depositional situations.

Rim thickness in the intrasite sample ranged from 8 mm to 22 mm, with the mean and median both being 14 mm. The mean vessel size was 26 cm, while the median was 22 cm. The circumference of the vessels varied from 9 cm to 41 cm. Rim manipulation was interestingly diverse, with 4 direct, 3 externally thickened, 9 ‘flat top’, 75 internally thickened, 33 lightly internally thickened, and 3 not determinable.

6.4 Regional Sample

In the regional sample the data tended to be even more diverse than the intrasite sample, as expected. I analysed 22 rims from the various sites mentioned above. The average rim thickness was 15.25 mm, with a median of 15 mm. Only 8 vessels had determinable circumferences, with the medium value being 17 cm, but ranging from 12 cm to 22 cm. Although only distinguishable on 3 vessels, all striations were created prior to handle attachment.

Internal thickening was the norm at the regional scale as well, including 14 internally thickened, 1 light internal thickened, 1 extremely internally thickened, and 5 ‘flat top’. ‘Flat Top’ forms do not appear in the pit feature, though they do appear at Vista Alegre in other contexts. Rim striations were various as well, with 11 not exhibiting striations on
the rim of the vessel and 9 present, with 2 not determinable. Perhaps one interesting area of disagreement that could represent a noticeable variation between sites would be striations presence or absence on the rim of the vessel. At Kimin Yuk, Site 45, and Site 32 all analyzed sherds did not have striations present on the rim of the vessel. At Ox Mul, striations on the rim were absent in 9 out of 11 sherds. However, at Monte Bravo, all analyzed sherds had striations present on the rim. At Vista Alegre itself the sherds were likely to have striations on the rim, with only 21.48% of the analyzed sample missing rim striations.
7. DISCUSSION

A primary goal of this study is to understand variation within a single depositional context; one that the excavated pit feature (Lot 1004) affords us. All of the vessels recovered in this feature generally represent the expected trend: a defined, repeated type of rim manipulation (internally thickened) However, there are some interesting aspects of this depositional episode that could provide some insight into the characteristics of Vista Alegre production in particular temporal contexts. This feature contained the most voluminous and diverse examples of both handle directions: 13 vertical and 6 horizontal, with 8 undetermined. Rim forms represented were generally uniform, with 14 internally thickened and 3 direct. All samples exhibited striations on both the body of the vessel and on the rim. While this sample does give insight into the tendencies of the production of these vessels during this particular episode, this analysis will be extremely useful when compared to other samples from other sites and contexts.

Figure 10 is a representation of the proposed vessel forms in the pit feature (Joe Ball and Jennifer Taschek 2013, personal communication). While I did not produce these drawings I think they do an excellent job of portraying the diversity within the pit feature that cannot be directly displayed through measurements alone. Rim manipulation measurements are a case-in-point. While clearly there are variations in rim thickness, it is the degree to which they vary based on lip form that makes them significant, as is shown graphically by this figure. These drawings also do an excellent job of showing how varied the striations on the vessels themselves appear. The striations are quite variable in terms of depth, width, direction and pattern, suggesting a non-standard technique for their application, which could be a result of freedom to express artistic ideas, a variety of
workshops, or simply the result of a manufacturing process based more around utility (i.e. heat dispersal when heated and picked up) rather than aesthetics.

Because the samples at the rest of the site are more than likely a diverse glimpse into the different traditions of different times, it is reasonable that the forms would be more varied. The forms of all other locations of recovery in other units at Vista Alegre exhibit very similar results to those of the pit feature, with the exception of the appearance of flat rimmed vessels, several externally thickened vessels that did not display flat rims, and rims with greater variation in the amount of internal thickening that occurred. An interesting point of comparison is handle direction and appearance. While a larger sample size would be ideal; the 4 horizontal handles appearing in all other units analyzed at Vista Alegre represent 5.06% of the 138 analysed sherds: 2 less than appeared in the pit feature, while the vast majority of handles recovered in these units were vertical (24 or 30.38%). This could represent some interesting tendencies in handle production. Also, striations appearing only on the body of the vessel and absent on the rim do not appear in the pit feature, this surface treatment does make scattered appearances throughout the rest of the site.

In terms of the regional comparison, the rims from the pit feature relate in a similar way as they did to other contexts at Vista Alegre, but there are a few notable distinctions. No horizontal handles appear outside of Vista Alegre, although this could be explained simply by a lack of samples at hand. At Monte Bravo, all vessels exhibit an internal thickening of the rim; while at Ox Mul 4 of 11 are flat topped rims, a form absent in the feature. Most interesting are the rim striation statistics, with all rims containing striations at Monte Bravo, but 9 of 11 at Ox Mul and 4 of 5 at Kimin Yuk, Site 45, and Site 32 all
exhibiting an absence. Chronological disparities exist between regional populations and the population at Vista Alegre and Kimin Yuk (Amador 2005:113). The regional sites had almost no Terminal Classic sherds outside of Vista Alegre Striated. Glover (2012) contends that in those cases Vista Alegre Striated may have continued into the Postclassic. This long time depth of use would certainly be a contributing factor to the variations found in the regional sample.
8. CONCLUSION

The diversity observed within this particular type of ceramic draws attention to many themes in both methods of ceramic analyses as well as the nature of ceramic production and consumption during the Terminal Classic period. While the type-variety concept is helpful in understanding how ceramics recovered at different sites are similar to one another, there is much left to be studied that the system simply does not account for. Specifically in this study, many rim forms are represented. While technically one variety, its diversity holds important information for those willing to analyze in depth these modal characteristics.

This particular ware is thought to be mainly a cooking and transport vessel (Glover and Rissolo 2010). Given these characteristics, it is feasible that local potters could have certainly been producing this ware at a small scale at various sites across the region. The data show a great diversity within not only the sample as whole, but even within the analyzed sherds at specific sites. Stated another way, no characteristics of the sherds recovered in particular contexts at Vista Alegre or at other sites I analysed in the Yalahau region appear to display a distinct ‘signature’ of a single production locale. Perhaps the presence or absence of rim striations could run counter to this, but until a much larger sample size can be analyzed, this kind of statement cannot be made with any confidence. Certainly, Vista Alegre Striated is widespread in the eastern and northern littoral lowlands and was used commonly during the Terminal Classic period, but it appears to be widely produced evidenced by the diversity of rim forms following very little patterned characteristics.
The significant comparisons between the single depositional episode exhibited by the pit feature as well as the other contexts gives an interesting glimpse into production processes and how they may have changed over time and from site to site. The threefold comparison of pit feature diversity, feature versus Vista Alegre, and feature against regional data is telling and helps create a picture of the diversity within this single type of vessel. Of course, the lack of extensive intersite comparative data is regrettable. Further study will focus on this lack of intersite data. However, in the limited data recorded, some interesting themes are present that shed light on the production variation of these vessels, especially in consideration of presence or absence of striations on the rim of the ceramic, handle direction tendencies, and rim forms. While much more comparative work must be done to verify the implications of these trends; they are certainly present in these data.

These results are interesting in that they present some conclusions that are different from the expectations. Since the diversity in the pit feature goes against the homogeneity expected in a single depositional episode, this study requires some critical thought into what types of situations could cause these results. For example, did the inhabitants at the site have to trade for items as basic as cooking vessels? To envision this possibility, one must imagine what type of economy and population existed at the site. Glover and Rissolo (2010) have posited ties between Chichén Itzá and Vista Alegre, and I believe that this is an important consideration when understanding the situation at Terminal Classic Vista Alegre. However, it is important to keep in mind that no Vista Alegre Striated vessels have been found at Chichén Itzá itself, but rather in the Yalahau region alone. It is my opinion that these vessels were used at Vista Alegre for food rations for resident populations. For example, the situation would include professional merchants at
the site that are not producing their own food, but are being offered the food as payment or as a bonus for their work at the site. Another possibility that is not necessarily independent from the previous scenario would be traveling merchants at the site paying for local food and shelter. Vista Alegre’s position on the coast places it well as a trading outpost, and it certainly functioned as a stop along a trading route for merchants. This would have been a great opportunity for the merchants stationed at Vista Alegre to intervene and influence, and certainly interact and intermingle with the travelers along the way.

Another possibility would be that several people were making these vessels and distributing them amongst the population at the site. The ubiquity of this vessel at the site certainly shows a rich production of the design, but the considerable variation also suggests diversity in producers. Were these producers creating these vessels and gaining wealth through distribution of these containers? My inclination is that this conjecture is less likely, due to the relative ease of manufacturing this ware, as well as the strong presence of other more ‘fancy’ pottery clearly circulating through the site. Perhaps the most convincing scenario is that multiple producers were creating these as part-time ventures. The merchants’ families, or perhaps the merchants themselves, could have been creating these wares and distributing them to other merchants at the site on a part-time basis. After all, everyone must eat.

While some intrasite diversity was expected, variation also exceeded expectations. However, when considering the implications of the diversity contained in the pit feature, perhaps it becomes more expected to observe a large amount of diversity in a longer temporal sample. What is certain is that the ware served as the main cooking vessel and was not expensive, both as a commodity and in terms of time or skill, and therefore one
would expect to see little diversity if a single producer of the vessel was the case. Should the vessel production take place in multiple locations by multiple producers, a greater diversity of forms is expected. However, more study and excavation at the site and a larger regional sample will prove telling in isolating these trends and unlocking the story of this vessel and the inhabitants that used it.
9. FUTURE RESEARCH

I would like to continue this research in a variety of ways. The most important way to determine the exact function of these vessels would be to conduct starch grain analysis on unwashed samples. This type of research would allow a more definitive statement about what these vessels contained, and by extension their function.

Another important, and probably more reasonable, project would be to return and visit the comparative collection in Merida. This would allow access to a much larger sample of these vessels. With this larger regional sample size, I would gain a much more detailed glimpse into the diversity of forms present across the region. The most diverse sample, as expected, was the regional sample. I have a great interest in recording the regional patterns of this ware across the Yucatán. For example, the ‘Flat Top’ rim manipulation was most common at Monte Bravo, but not at any other site. Perhaps certain patterns like this are indicative of specific locales of manufacture. Only a larger sample size will reveal this.

I would also like to expand my recording of the types of striations, including direction of striation as well as depth and width of striation. Perhaps if a specific type of item was used consistently to striate some vessels, or perhaps a certain type of shell was used for another, it could be telling about the persons constructing these vessels and may make it much more possible to understand the production practices. Another consideration I would like to document more fully would be the attachment mechanism for the handles. While I did record this on some samples that exhibited a handle, my sample was too small to conclude anything concrete about the mechanism. It is interesting that handles appear to
have applied both before and after striation, and this could have interesting implications about who was making these vessels.

Another aspect of continuing the analysis of this vessel type is through laser ablation or x-ray fluorescence technologies. If particular clusters of attributes can be linked with specific chemical signatures, this would undoubtedly provide significant insight into the diversity of production locales. Overall, a study of this type of “everyday” vessel reveals many aspects of the economic situation at this coastal Maya port and warrants an analysis of this type on a larger scale.
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