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Late Classic Río Viejo Mound 1 Construction and Occupation, Oaxaca, Mexico

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Late Classic Río Viejo Mound 1 Construction and Occupation, Oaxaca, Mexico

By

Harold Barry Andrew Baillie

B.A., American University, 2007

A thesis submitted to the
Faculty of the Graduate School of the
University of Colorado in partial fulfillment
of the requirement for the degree of

Master of Arts

Department of Anthropology

2012
This thesis entitled:
Late Classic Río Viejo Mound 1 Construction and Occupation, Oaxaca, Mexico
written by Harold Barry Andrew Baillie
has been approved for the Department of Anthropology

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Arthur Joyce

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Gerardo Gutierrez

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Payson Sheets

Date ________________

The final copy of this thesis has been examined by the signatories, and we
Find that both the content and the form meet acceptable presentation standards
Of scholarly work in the above mentioned discipline.
Abstract

This thesis presents the results of an examination of the Late Classic Yuta Tiyoo phase (500-800 CE) occupation of the Río Viejo Mound 1 or acropolis. Mound 1 is located at the center of the Río Viejo site, the Late Classic polity seat in the lower Río Verde region of Oaxaca, Mexico. The study of architecture as well as the archaeological material dating to the Late Classic period (i.e., ceramics, lithics, osteological remains, carved stone monuments) allows for inferences concerning activities which took place on the region’s largest monumental building.

The primary attention of the archaeology of the lower Río Verde valley over the past twenty years has focused on the rise and fall of Terminal Formative complex polity accredited with the original construction of Mound 1. Previous perspectives of the Late Classic alterations of Mound 1 described modest construction during the Yuta Tiyoo phase. In contrast to these perspectives and in light of new information, the analysis of the architecture and artifacts depicts a highly active Yuta Tiyoo society. The changes in use and form of Mound 1 suggest a shift in the social and political practice at Río Viejo during the Late Classic period. Analysis of architecture and artifacts indicates a highly stratified Late Classic society with leadership focused on the consolidation and aggrandizement of power at Río Viejo.

This thesis of the Late Classic Río Viejo Mound 1 is important to the field of archaeology on two separate levels: local and regional. On a local level the understanding of a more complete life history of the Río Viejo Mound 1 and the political authority of the Late Classic Río Viejo polity answers questions left unanswered by previous investigations of the Lower Río Verde. This analysis will bridge the gap between the research conducted on the Terminal Formative
(150 BCE – 250 BCE) and analyses of the Postclassic (800-1100 CE). On a regional level this work will fit in with the larger field of Oaxacan and Mesoamerican archaeology. Regional connections of ceramic production, architectural design, and lithic trade will bring into focus the larger interaction between communities beyond the constructed social boundaries.
For Harold and Paula Baillie
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This thesis would not have been possible without the support of my friends, family, colleagues, and teachers, none of which are mutually exclusive.

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This thesis represents approximately 25 years of archaeological research throughout the lower Río Verde valley. As such, this thesis should serve as a tribute to all those who have participated in the excavation and documentation of the archaeological sites throughout the region. Specifically this thesis is dedicated to all those who I have pestered with questions, and who have helped, and sometimes forced me to think critically about coastal Oaxaca, Mound 1, and archaeology in general. This includes David Williams, Jeff Brzezinski, Jakob Sedig, Erin Baxter, Caitlin Sommer, Kellam Throgmorton, Guy and Ivy Hepp, Morgan Koukopoulos, Esteban Fernandez, Nick Damp, and many others.

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archaeological regions. Art’s academic prowess and research focus is a constant motivation to go further and work harder.

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Chapter 1: Introduction

This thesis presents the results of an examination of the Late Classic Yuta Tiyoo phase (500-800 CE) occupation of the Río Viejo Mound 1 or acropolis. Mound 1 is located at the center of the Río Viejo site, the Late Classic polity seat in the lower Río Verde region of Oaxaca, Mexico. The study of architecture as well as the archaeological material dating to the Late Classic period (i.e., ceramics, lithics, osteological remains, carved stone monuments) allows for inferences concerning activities which took place on the region’s largest monumental building.

Data on the Late Classic occupation of the acropolis are derived from excavations directed by Dr. Arthur Joyce (University of Colorado at Boulder) in 2000 (Río Viejo 2000 Operation A - RV0A), Joyce and Dr. Sarah Barber (University of Central Florida) in 2009 (Río Viejo 2009 - RV09), as well as a Ground Penetrating Radar (GPR) survey, by Barber, of the structure conducted during the summer of 2008. Much has been written about the initial construction and occupation of Mound 1 during the Terminal Formative period, as well as the occupation of the acropolis by common people after the collapse of the Late Classic polity (Barber & Joyce 2007; Hedgepeth 2010; Joyce et al. 2001; Joyce 2006, 2008, 2010). Less attention has been paid to the occupation and use of Mound 1 during the Late Classic when Río Viejo was an urban center and polity seat. Analysis of architecture and artifacts indicates a highly stratified Late Classic society with leadership focused on the consolidation of power at Río Viejo.

Drawing from the information derived from the various field seasons, this thesis will illustrate the dramatic social, political, and religious changes in Late Classic Chatino society.
Late Classic architecture, monumental art, mortuary practices, and feasting activities indicate a significant shift in the nature of political authority, relative to the more corporate forms of government inferred for earlier periods. These data suggest that access to the civic-ceremonial center of Río Viejo was limited and that political authority in the Late Classic was more exclusionary.

This thesis will prove to be important to the continued research in the lower Río Verde region on two separate levels: local and regional. On a local level the understanding of a more complete life history of the Río Viejo Mound 1 and the political authority of the Late Classic Río Viejo polity answers questions left open by previous investigations of the Lower Río Verde. This analysis will begin to fill the gap of information left by the research focused on the Terminal Formative (150 BCE – 250 BCE) and Postclassic periods (800-1100 CE). On a regional level this work will fit in with the larger field of Oaxacan and Mesoamerican archaeology. Regional connections through lithic trade and the use of pan-Mesoamerican imagery will begin to bring into focus the larger interaction between Río Viejo and other Mesoamerican communities beyond the constructed social boundaries.

*Background*

The variable landscape of the Mexican state of Oaxaca has become important to the analysis and understanding of ancient complex societies. The topography of Oaxaca ranges from high peaks to tropical lowlands. A popular myth among researchers studying in Oaxaca is Hernán Cortés’ description of the territory given to Charles V, King of Spain. It is said that when asked to describe Oaxaca, Cortés crumpled a piece of paper placed it on the table in front of him and equated the chaotic form of the paper to the whole of the Oaxacan landscape. The
lower Rio Verde valley is a prime example of Cortés’ fictional description of the rugged landscape.

Figure 1.1: Mexican State of Oaxaca

The lower Rio Verde valley is unique on two levels. First, the landscape is created as a result of the colliding of two tectonic plates: the Cocos and North American Plates. The intersection of the two plates creates a massive uplift resulting in the Sierra Madre del Sur and Occidental mountain ranges. While the Sierra Madre del Sur and Occidental mountain ranges dominate the Oaxacan landscape, creating the treacherous mountainous terrain with various highland valleys, the southern margin of the state descends rapidly into the Pacific Ocean. The rapid descent of the Sierra Madre del Sur produces a myriad of ecological zones, contributing to the high biodiversity of the region.
While the lower Rio Verde valley has climatic and environmental characteristics similar to those in other areas along the Mexican Pacific coast, the Rio Verde makes this drainage basin unique. The Rio Verde drains an area of over 17,680 km², making it one of the largest

Figure 1.2: Lower Río Verde Region and Archaeological Sites (Levine 2002: 30)

Figures, second to the Río Balsas, along the Pacific coast of Mesoamerica (Joyce 1991). The reliable water source and nutrient-rich soils of this area made the lower Rio Verde valley an ideal area for human occupation and supported the development of complex societies spanning the Archaic to the Postclassic and Colonial periods.
Paleoenvironment of the Lower Rio Verde Valley

As part of an interdisciplinary paleoenvironmental and archaeological study of the lower Rio Verde valley, Arthur Joyce, Ray Mueller, and Aleksander Borejsza (Joyce & Mueller 1997: Muller et al. nd) investigated periods of geological change during the Holocene (11,500 BP to the present) along the Rio Verde. The ongoing research is based on systematic evaluation of stratigraphic profiles exposed by the river cuts in the highlands and cores removed from highland and lowland valleys along the river. The highland valleys of Oaxaca and Ejutla lie approximately 1500 to 1700m above sea level, while Nochixtlán valley is significantly higher at 2000 to 2500m. These highland valleys receive approximately 400 to 1000mm worth of annual rain. Winding through the valleys, drainages feed into the Rio Verde as it flows through deep gorges that cut through the Sierra Madre del Sur mountain range (Joyce & Mueller 1997). Due to the physical construction of these deep gorges, the runoff and sediments from the highland valleys traveling down the Rio Verde do not accumulate until reaching the lower valley as the terrain levels and sediments are released along the coast line. The lower Rio Verde valley is therefore highly sensitive to the geomorphic changes which were occurring in the highland valleys (Joyce & Mueller 1997; Goman et. al. 2005).

Joyce and Mueller analyze links between the highland and lowland valleys to “examine both geomorphic changes in the highlands and how they may have affected people and environments in the lowlands” (Joyce and Mueller 1997:77). As a result of this study, the researchers determined six separate periods of geomorphic change and placed them within six fill cycles (0-6), or periods of sediment accumulation in river cuts (Mueller et al. nd). For the
purpose of this thesis, fill cycle 2 represents the most significant geomorphic change due to the impacts preceding and following the Late Classic Yuta Tiyoo phase.

Fill cycle 2, which possibly extends to approximately 4000 BCE, definitely dates between the Early Formative to the Early Postclassic periods (1200 BCE – 1100 CE) (Mueller et al. nd). During fill cycle 2 populations grew substantially, as did the use and development of the landscape in the highland valley’s. The archaeological survey indicates that the population increased in the Valley of Oaxaca by approximately twenty-eight fold, the Ejutla Valley by approximately thirteen fold, and the Nochixtlán valley by about double during the Formative Period (Joyce & Mulleur 1997). The increase in population is associated with the intensification of agriculture on piedmont areas. Erosion in the highland valleys led to aggradation of nutrient rich soils in the lowlands. While climate has not been ruled out as a factor of the erosion during this period, anthropogenic changes rather than climatic change seems to have been a more significant factor ((Mueller et al. nd)).

As fill cycle 2 was nearing its end during the Early Postclassic Period (800-1100 CE), evidence suggests that the input of sediment into the river system remained sufficiently high, allowing the river to remain braided (Mueller et al. nd). Since population during the Early Postclassic decreased in the highland areas, researchers have attributed the continual erosion events to the lack of maintenance of the lama bordo terracing (Mueller et al. nd). It is not until the Early Colonial period that vegetation returns to the terraced areas that erosional events in the highlands diminished and lowland soil aggregation decreases.

Peoples of the Lower Rio Verde Valley
Due to the lush agricultural lands and access to a variety of wild plants and animals, it is no wonder that the lower Rio Verde valley has a long history of human occupation.

Anthropological and ethnographic studies have revealed that there are currently sixteen different indigenous languages spoken in Oaxaca (Swadesh 1967), two of which are currently spoken in the lower Rio Verde valley: Chatino and various dialects of Mixtec (Winter 1998, Barber 2005). Chatino and Mixtec belong to the Otomanguean phylum, the oldest and largest language family in Mesoamerica (Hill 2006).

Current linguistic studies of the Chatino have grouped the language within the Zapotecan family (Swandeish 1967). Evidence of separation of proto-Chatino from Zapotecan dialects ranges from 18 to 24 minimum centuries (Swadesh 1967:93-95). Chatino is divided into at least three discrete dialects that separated approximately five to six centuries BP (Greenberg 1981: 23). The three dialects most likely developed after contact with the Spanish, due to the divisions created by Spanish social policy. The three dialects are Taitpec, Taltaltepec, and Zenzontepec which share their names with the Chatino centers in which they are spoken (Greenberg 1981: 25).

Over the past millennium, the Chatino people have dealt with the domination and influence of outside peoples three times: the Mixtec during the Late Postclassic period (1150-1522 CE), the Aztec during the Late Postclassic period (1400-1522 CE), and the Spanish and Mexican governments during the Colonial period and Mexican Nationalization (1522-present) (Barabas & Bartolome 1979, 1982; Codex Bodley; Greenberg 1981). Despite the various periods of outside influence, the Chatino have managed to maintain some levels of collective identity which are visible throughout the past into the present. While much of the ethnographic
and archaeological information describes the domination of the Chatino by the Mixtec, there are also clear signs of negotiation, resistance, and rebellion (Barabas & Bartolome 1979, 1982).

Associated with the Postclassic and Colonial periods are a small number of analyses of the Chatino by ethnographers Miguel A. Bartolome, Alicia M. Barabas (1979, 1982) and James Greenberg (1981). Through the use of both archaeological and ethnological evidence as well as the native written documents, such as the Codex Bodley, researchers are better able to interpret the Chatino prior to the interaction with Europeans. However, archaeological research is necessary to build upon the ethnographic material to produce a better understanding of the deep historical past of the Chatino.

Archaeology of the Lower Rio Verde Valley

This section will briefly review some of the archaeological research and its results. Evidence from sites such as La Consentida, Charco Redondo, Cerro de la Cruz, San Francisco de Arriba, and Río Viejo have developed a comprehensive temporal sequence for the region, revealing various periods of development and change. Currently the Formative ceramic sequence is based on excavations and artifacts collected from Cerro de la Cruz and Río Viejo.

Beginning during the 1950’s Dr. Donald Brockington, University of North Carolina at Chapel Hill, and his students began the first systematic studies along the Oaxacan coast. Survey led by Brockington took place between 1969 and 1970 (Brockington 1969, 1970, 1973, 1974). During these investigations, Brockington and his team verified the existence of 128 archaeological sites along the coast of Oaxaca.

Lacking evidence for a pre-ceramic period during the archaic, Brockington focused on the ceramics dating to the time periods Late Preclassic (400–200 BCE) and Terminal Preclassic
Periods (200 BCE – 250 CE), based on crossties with the Caso et al. (1967) ceramic typology developed at the Zapotec site of Monte Alban. Through these studies Brockington and his colleagues began to attribute the materials to the Chatino peoples. Brockington’s archaeological interpretation that the area was controlled by the Chatino is compatible with both the linguistic separation of Chatino from Zapotecan ca. 18-24 centuries ago and the Chatino occupation of the area around the archaeological site of Chila (Swandesh 1967), one of the sites analyzed by Brockington (1974; Brockington et al 1974a, 1974b). Chila and the surrounding areas were documented as Chatino towns during the period of Spanish conquests. Archaeological information has also been linked to predominantly Chatino areas of Zenzontepec, Juquila and Nopala (Bartolome & Barabas 1982; Greenberg 1981).

After a decade and a half of archaeological inactivity following Brockington’s investigations of the Coastal region of Oaxaca, archaeological excavations throughout the region resumed (Grove 1988; Gillespie 1987; Joyce and Winter 1989). Most recently, Arthur Joyce (1988; 1994; 1995; 2000; 2009), Sarah Barber (2005), and their students have completed archaeological investigations in the lower Rio Verde valley. These excavations have increased our understanding of the date of foundation and life histories of various Chatino and Mixtec communities. The most recent of these investigations has furthered the understanding of the growth, influence, and decline, of the Terminal Formative Río Viejo polity (150 BCE – 250 CE) (Barber 2005; Barber & Joyce 2007; Joyce 2004, 2005, 2006, 2008, 2010).

During his dissertation research, Joyce (1991) excavated the sites of Cerro de la Cruz, Río Viejo, La Consentida, and Loma Reyes. From these excavations Joyce constructed the current ceramic sequence for the region. Joyce’s ceramic sequence contains eight periods of ceramic change, shown below in Table 1.1.
Prior to the development of the urban center at Río Viejo, the lower Verde Valley consisted of two sub-regional polities: Charco Redondo and San Francisco de Arriba (Joyce 2008). Both polities grew significantly during the Minizundo phase (400 – 150 BCE), gaining a larger influence over the area as signified by the scaling up of social complexity. The scaling up is seen with the regional settlement hierarchy, mortuary patterns, residential data, and an increase in scale of public ceremonies and construction of monumental architecture (Joyce 2008).

Joyce, Barber, and their colleagues argue for a more egalitarian political authority during the Late Formative period, which restricted the aggrandizement of rulership (Barber 2005; Barber & Joyce 2007; Joyce 2004, 2005, 2006, 2008, 2010).

During the Miniyua phase (150 BCE – 100 CE) construction of monumental architecture at the sites of Río Viejo, Cerro de la Virgen, Yugüé, and San Francisco de Arriba, demonstrates
increasing social complexity and regional political authority centered at Rio Viejo. These structures defined areas of ritual and daily performances which continued to reinforce the collective identity of the local community. Ritual feasting increased during the early Terminal Formative Miniyua phase, suggested by the increase in proportions of elaborate serving vessels in areas of non-elite activities at Río Viejo and the increase of large cooking features with evidence of feasting activities close to public buildings at Yugüe (Levine 2002; Barber 2005).

At the end of the Chacahua phase (100 – 250 CE) the structures that make up Mound 1, a massive building standing 7m above the floodplain and covering an area of 350 m by 200 m, were burned. The burning of Md1 was most visible in the excavations of Op. RV0A, located on the L-shaped Structure 2. While there is no definitive explanation for the abandonment and burning of the late Terminal Formative structures, social conflict between community leaders and the rest of the populous could have led to a revolt. Alternatively, conflict and conquest by an outside political entity, possibly Teotihuacan, could have led to the collapse of the Terminal Formative polity (Joyce 2010).

After the abandonment of Rio Viejo at the end of the late Terminal Formative Chacahua phase, archaeological evidence suggests a dramatic decline in site size during the Early Classic Coyuche phase. It is not until the Late Classic Yuta Tiyoo phase that activity at Rio Viejo resumes. It is the aim of this thesis to analyze the rebuilding and reoccupation of Md1 during the Late Classic period.

Structure of Thesis

This study is a descriptive synthesis of the previous research conducted on Md1 combined with the results of the 2009 field season (RV09) and artifact analysis in 2010. This information will facilitate the development and testing of hypotheses dealing with cultural,
economic, and political patterns in the lower Río Verde valley during the Late Classic Yuta Tiyoo phase.

The focus of Chapter 2 will be on the architectural features of Late Classic Río Viejo Mound 1. This chapter draws from the information gained during the excavation conducted in 2000 (RV0A), and 2009 (RV09,) as well as the GPR research conducted during the summer of 2008. The discussion of this material is based on field notes, informes, and published material describing the research under the direction of Joyce during the 1988 (RV88), 1994-95 (RVSPM), and 2000 (RV0A) seasons, and Joyce and Barber during the 2008 (RV08) and 2009 (RV09) field seasons.

Following an examination of architectural features of Mound 1, Chapter 3 will review the carved and uncarved stone monuments from Río Viejo located on Md1. Stone monuments can act as important visible markers of an individual or group’s claim of ownership or dominance over an area. Current information from the excavations of the acropolis date all the carved and uncarved monuments located on Md1 solely to the Late Classic Yuta Tiyoo phase. Of the fifteen carved stone monuments found across the site, thirteen date to the Late Classic and two date to the early Postclassic Yugue phase (Urcid & Joyce 2001; Joyce 2010a). A third Early Postclassic monument was moved from Río Viejo to Jamiltepec in the 19th century (Urcid & Joyce 2001: 209).

Chapter 4 is an examination of the burials and burial practices of the Late Classic Yuta Tiyoo phase that were performed on Md1. Similar to the presence of stone monuments, the presence of burials can be markers of an individual or group’s claim of ownership or dominance over an area. These less visible markers are also important indicators of the social and political milieu during which they were interred.
Chapter 5 will review the ceramic typology of the Late Classic Yuta Tiyoo phase developed by Joyce and augmented by this study. This chapter is imperative to the understanding of the Op. RV09 E midden, described in Chapter 6, and will provide a template for future studies of Yuta Tiyoo phase deposits in the Lower Rio Verde Valley region.

In Chapter 6, I will focus on the Operation (Op.) RV09 E midden, located on the western edge of the sunken patio. Op. RV09 E revealed a midden, which can be associated with ritual feasting. The cultural materials recovered included ceramics, varying from musical instruments and figurines, to large storage and serving vessels, obsidian prismatic blades, and bone. Each type of cultural material will be described and associated with the two strata from which they were excavated. It seems probable that the midden formed as the result of repeated discard events over an extended period of time.

In Chapter 7, architectural and archaeological data will be used to develop a more complete understanding of the Late Classic Río Viejo Mound 1 and the political authorities who occupied that space. This chapter will add to past research in the lower Río Verde. The final chapter will provide an overview of the Late Classic period in the region and conclude with an interpretation of why the Late Classic polity at Rio Viejo collapsed ca. 900 CE.

Brief Word on Theory:

Germane to theoretical perspectives of political authority, discussed in this thesis, is the dialectic relationship between commoners and the ruling elites, represented by physical manifestations of social status. Currently, the dual-processualist model has introduced a larger amount of variability to the discussion of political authority (Blanton et al. 1996). However, the creation of a corporate and network dichotomy minimalizes the variability of political authority and everyday negotiation of power, leaving little room for change of a society or group from
within. This thesis emphasizes the development of a more exclusionary political authority, that stresses the power of the few, the ruling elite, over the many, the commoners, rather than one that is more egalitarian, which stresses equality and deemphasizes individualized power. The use of terms exclusionary and egalitarian represents poles on a continuum, and seeks to avoid the value laden definitions of corporate and network.

The continuous social negotiation positioned actors characterized by varying identities, interests, emotions, knowledge, outlooks, and dispositions in opposition (Joyce 2008: 223). These negotiations would have played out both hierarchically and heterarchically allowing commoners the power to create and affect hegemonic forces, as well as the development and propagation of hegemonic forces by ruling elite. The effects of social negotiations would have been performed through the daily practices across the site and specifically on and around monumental architecture, which were often areas of interaction between social groups.

By incorporating the concepts discussed above, in addition to the historical developments of Mound 1 at Río Viejo, I am better able to comprehend both the social and political changes of the Rio Viejo polity during the Late Classic period. By discussing the interactions between the social status groups and their practices on the constructed landscape, I will piece together the various tesserae’s which develop the life history of Md1. The deeper understanding of the life history of Md1 will allow me to better fit site specific material into the larger regional narrative, and allow for a discursive discussion between local and regional activities.
Chapter 2 – Site and Architecture

Figure 2.1: Map of Mound 1 (modified from Joyce 2010)

Archaeological evidence at the site of Río Viejo suggests that by the Terminal Formative Period (150 BCE – 250 CE) the lower Río Verde Valley was the locus of a state polity with its capital at the urban center of Río Viejo (Joyce, 1993, 1999, 2000). Río Viejo grew in size from 25ha during the Late Formative to 200ha during the late Terminal Formative (Joyce 2010). The growth in size at the site reflected the development of a late Terminal Formative regional polity
focused on supra-communal activities. The importance of the site and regional polity culminated with the construction of the civic-ceremonial center located on Mound 1.

Md1 is a massive earthen structure standing at least 7m above the floodplain and covering an area of 350 m by 200 m (Joyce et. al. 1999). Associated with the platform are two large substructures (Structures 1 and 2) rising a total of 17m above the flood plain, connected by a plaza (Figure 2.1). At the center of the acropolis is a sunken patio, surrounded by Structures 1 to the northwest, Structure 2 and Structure 3 to the northeast, and four other smaller structures, Structures 4, 5, 6, and 7, dispersed along the southern edge of the acropolis. The total volume of the acropolis is approximately 540,000m³ (volume modified from Joyce 2010), almost a sixth of the volume of the Great Pyramid at Cholula and approximately half of the volume of the Pyramid of the Sun at Teotihuacan, the two largest Pre-Columbian structures in the New World (Guinness World Records; Millon & Drewitt 196: 361).

The emphasis on communal activities and an egalitarian political authority during the Terminal Formative Period hindered the development of a powerful elite class and muted the expression of social inequality at Río Viejo (Barber 2005; Joyce 2003, 2005, 2006, 2008, 2010a). Political authority was continually negotiated among regional leadership, local leadership and the larger populous. The negotiation of political authority appears to have been rather tenuous. Therefore the development of monumental architecture during the Terminal Formative was less a way of reinforcing the power of local or regional leaders, but rather emphasized the celebration of Chatino society as a whole. Md1 became a prominent symbol of social cohesion and the creation of supra-communal activities.

After the collapse of the Terminal Formative polity and the abandonment of Md1, site size declined dramatically to 75ha during the Early Classic (250–500 CE) (Joyce 2010).
Following a period of political fragmentation during the Coyuche phase Río Viejo reemerged as a regional center during the Late Classic Yuta Tiyoo phase (500–800 CE). During the Late Classic the site of Río Viejo reached its largest extent at 250ha (Joyce 2010) (Figure 2.2).

The Late Classic Yuta Tiyoo phase polity differed drastically from its Terminal Formative predecessor. The shift in the Chatino polity is represented by modifications of Mound 1 that restricted access. Carved stone monuments reinforced the power and importance of elites, and developed symbolic and ritual activity that favored the few over the many (Urcid 2005).

Across the site, platform mounds displayed signs of Late Classic construction and occupations. Evidence of household activities on all mounds, with the exception of Md1 and Md5, suggest that these were residential or multiuse platforms. Mounds 2, 8, 9, and 11 also supported large structures, possibly public buildings (Joyce et al. 2001)(Figure 2.2). The largest platform, Mound 8 covered approximately 16ha and stood approximately 4.5m above the floodplain (17m a.s.l.) (Joyce et al. 2001).

The focus of this chapter is to trace the historical developments and the architectural features of Mound1, the ceremonial center at Río Viejo, from its earliest known construction to the latest occupation. While the focus of this thesis is on the Late Classic construction, analysis of the earlier construction episodes is necessary for the overall understanding of how Md1 reflects changing political authority at Río Viejo. The information in this thesis pulls from evidence recovered from research conducted in 1988 (RV88), 1994 & 1995 (RVSP), 2000 (RV00), and 2009 (RV09,) as well as the GPR analysis conducted during the summer of 2008 (RV08).
Figure 2.2: Site Map of Río Viejo (Joyce 2010)
Md1 Excavations

While there have been multiple field seasons, in the Lower Río Verde region, excavations at Río Viejo have only taken place during the 1988, 1994, 1995, 2000 and 2009 seasons. Extensive excavations into Md1 took place during the 2000 and 2009 seasons. During the spring of 2000 a five month field season was designed to examine the social organization and occupation of Structure 2 (RV0A – Río Viejo 2000 Operation A). Excavations reached a maximum depth of 3.2m (26.37m a.s.l.) below the modern surface of St2, and covered a total area of 242m² (Joyce & Levine 2001).

In 2009 (RV09 – Río Viejo 2009) a three month field season was conducted. Nine separate operations, Ops RV09 A through I, were designed to clarify the date of construction and modification, types of structures (e.g. palace, temples), and overall use of Md1 (Figure 2.3)(Barber & Joyce 2011, Joyce & Barber 2011). Many of the operations were chosen due to GPR anomalies detected during a 2008 survey, conducted by Barber, while others were distributed throughout Md1 to better understand its construction history. During the RV09 season a total of 42.56m² was excavated across Md1, with depths ranging between 20cm and 5.2m.

The 2009 analyses furthered the understanding of the growth, influence, and decline, of the Terminal Formative (150 BCE – 250 CE) Río Viejo polity. While the aim of the RV09 excavations was focused on the Terminal Formative occupation, excavations also provided significant information on the construction and use of Md1 during the Late Classic.
Early and Late Terminal Formative Construction

The earliest known construction episode of Md1 occurred during the late Miniyua phase or early in the Chacahua phase with the erection of Str1. Str1 is a large substructure, dominating the northwestern portion of the acropolis, towering approximately 17m above the floodplain (31m a.s.l.). At the center of Str1 is a large historic looters pit, dug into the upper most portions of the structure.
The single 1 x 1m excavation unit, Op. RV09 B, reached a maximum depth of 3.3m (23.917m a.s.l.) below the modern surface (27.217m a.s.l.) and exposed multiple layers of construction fill (Brzezinski 2011b). The construction method used in the erection of Str1 is a layering of basketloads of earth, similar to the method used during the Late Classic Yuta Tiyoo phase. Sediment for the construction of Str1 most likely came from the nearby floodplain or river bed, represented by the soil texture and the low amount associated artifacts (Op. RV09 B-F8 through Op. RV09 B-F5) (Brzezinski 2011b). This construction was less complex than the structured fill, associated with Chacahua phase constructions, and probably went rather rapidly.

The erection of Str1 and portions of Md9, located on the eastern portion of the site, are currently the only archaeological evidence of monumental construction at Río Viejo possibly dated to the early Terminal Formative Miniyua phase (Joyce 1991a). The next earliest known construction episodes likely occurred during the Terminal Formative Chacahua phase, represented by the creation of various fill and occupational levels found in Str4 and Str2.

The earliest construction episode of Str4 exposed during the excavation of Op. RV09 F is an earthen floor or possible occupational surface (Op. RV09 F-F9-s2) finished with thin adobe blocks (Op. RV09 F-F9-s1) at a height of 20.13m a.s.l. (Joyce & Baillie 2011). The function of the occupational surface is currently unclear, however the earliest known construction of Str4 could have been an area of activity used by workers during the construction of the other structures during the late Terminal Formative Chacahua phase.

Overlaying the occupational surface are two separate layers of late Terminal Formative Chacahua phase fill. The first fill layer (Op. RV09 F-F5) consisted primarily of a highly compacted clay, which extended the surface area of the structure (Joyce & Baillie 2011). The second fill layer (Op. RV09 F-F4) overlaying this construction is another Chacahua phase fill
layer, which is an elaborate structured fill. The use of this complex construction method suggests strategic planning as well as the procurement of multiple sources of sediment.

Structured fill, formal arranged fill deposits, was also used in the earliest known construction of Str2. Str2 is an L-shaped structure located on the eastern portion of Md1 approximately 55m east of Str1. Str2 stands approximately 17m above the floodplain (29.57m a.s.l.) and was the focus of the RV0A excavations. The use of structured fill as a construction technique has been documented in the construction of other monumental architecture throughout Mesoamerica, such as the Pyramid of the Moon Complex at the site of Teotihuacan and the Great pyramid at Cholula (Joyce & Barber 2011; Levine & Joyce 2000; Marquina 1964:117).

Situated atop the structured fill of Str2 was a single Chacahua phase substructure, Md1-Str2-sub2. Eroded and poorly preserved remains of the Chacahua substructure were exposed. Evidence suggests that the substructure was covered in a fine painted stucco plaster. The building was highly fragmented and possibly burned. A carbon sample, calibrated using the CALIB Radiocarbon Calibration Program, was recovered from one of the walls of the structure and provided a date of 254 CE with a single standard deviation of +/- 43 (Levine 2009:402). The date provided by the burned wall coincides with the apparent abandonment of Md1 and the reduction of population and site size at the end of the late Terminal Formative Chacahua phase (Joyce 2003, 2010).

Early Classic Pit-Intrusions into Md1

After the possible burning of Str2 and much of Md1, the acropolis was seemingly abandoned during the Early Classic Coyuche phase (250-500 CE). The only evidence of any activities occurring on Md1 between the end of the Chacahua phase and the beginning of the
Yuta Tiyoo phase are various pit-intrusions. The pit intrusions have been exposed by the excavations throughout Md1 and suggest that occupants of Río Viejo were using the fill from Md1 for construction elsewhere.

In one case there is a hearth feature associated with a pit-intrusion beneath the southeast portion of Str4. Exposed by Op. RV09 F, the hearth reached a maximum depth of 50 cm (20.64 m a.s.l.) and has a diameter of 85 cm (Joyce & Baillie 2011). The hearth appears to have been used at least once as suggested by the presence of oxidization of the hearth surface and the sediment around it. The low amount of ash and artifacts within the hearth also suggests either limited use or cleaning of the hearth.

Late Classic Construction

Following the period of relative inactivity across Md1, during the Coyuche phase, activity resumed during the Yuta Tiyoo phase as suggested by modifications made to Str1, Str2, Str4, Str6, and the construction of the Sunken Patio. The first fill episodes across the acropolis dating to the Yuta Tiyoo phase involved leveling out the pit-intrusions excavated during the Coyuche phase. The leveling out of the surfaces of the Terminal Formative structures coincides with the construction of the first Late Classic occupational surface, Op. RV09 E-F10 (Joyce and Baillie 2011).

Op. RV09 E-F10 is a thin, sandy, and compact occupation surface covering the late Terminal Formative Chacahua phase constructions and refilled pit-intrusions. A similar occupational surface, Op. RV09 D-F3 was located between Str4 and Str5 (Hedgepeth et al. 2011). These earliest constructions suggest the initial re-occupation and revitalization of Md1.
Overlaying the remodeled Chacahua phase construction, as represented by Op. RV09 E-F10 and Op. RV09 D-F3, a second more grandiose construction occurred, changing both the appearance and accessibility of Md1 (Barber & Baillie 2011a; Hedgepeth 2011). While the majority of excavation units into Md1 had Late Classic construction ranged between 0.5m to 2m, Op.’s RV09 C and RV09 E exposed a tremendous amount of construction. This grandiose construction episode, overlaying Op. RV09 E-F10, the oldest found Late Classic occupational level in this portion of the acropolis, was most likely the beginning of the construction of the sunken patio.

Figure 2.4: Stratigraphic Profile of Op. RV09 E (modified from Barber & Baillie 2011 Fig. 6.1)
Data collected from Op. RV09 C and Op. RV09 E demonstrates that the bulk of the sunken patio on Mound 1 was built during the Late Classic Yuta Tiyo phase. Op. RV09 E was located on the western edge of the sunken patio and was placed over an anomaly detected by GPR in 2008 (Barber 2009). Op. RV09 E consisted of one 1x1m unit, which penetrated to a depth of 5.08m (14.53m a.s.l.) below the modern surface (19.61m a.s.l.) (Barber & Baillie 2011a)(Figure 2.4). Op. RV09 C was located at the center of the sunken patio, 50m southeast of Structure 1. Op. RV09 C consisted of a 3 x 1m unit that penetrated to depths of 5.2m (13.01m a.s.l.), 2.1m (16.11m a.s.l.), and 1.6m (16.61m a.s.l.) below the modern surface (18.21m a.s.l.) (Hedgepeth 2011).

Both construction sequences exposed by Ops RV09 C and RV09 E suggest a repetitive and rather invariable layering of the fill in this area of the sunken patio that represents a construction technique by means of piling unconsolidated basket loads of fill. The slight differences in soil texture and color represent the use of various sources. Throughout all stratigraphic layers there is a consistently high presence of Yuta Tiyo phase sherds, mixed with a small percentage of redeposited Miniyua, Chacahua, and Coyuche phase sherds (Barber & Baillie 2011; Hedgepeth 2011).

Built atop the earliest Yuta Tiyo phase fill layers are two strata, designated Op. RV09 E-F6 and F5. Op. RV09 F6 and F5 were determined to be a midden feature in the field due to the high concentration of artifacts. The midden feature is situated within a clay-silt matrix with a total maximum thickness of 0.53m (Barber & Baillie 2011a, 2011b). The midden was divided into two stratigraphic layers due to a shift of matrix color and texture. F6 also contained a larger amount of shell flecks. Artifacts excavated from the midden include elaborate Late Classic ceramics, obsidian prismatic blades, and animal bone. The ceramic forms vary from musical
instruments and figurines, to large storage and serving vessels. The midden was thoroughly analyzed during the summer of 2010 and reported in Chapter 6.

The midden yielded high concentrations of relatively intact small to medium sized gray and orange ware serving vessels and a small number of course brown ware cooking or preparation vessels (Table 2.1). The intact nature of the vessels and other associated objects indicate that the midden was formed in a primary context. The large amount of small to medium sized gray and orange ware serving vessels, as well as the large quantities of musical instruments and figurines suggests that the midden is the result of feasting. The low amount of coarse brown ware food preparation vessels indicates that cooking was conducted off of Mound 1 in another area on the site.

<table>
<thead>
<tr>
<th>Paste Distribution by Count</th>
<th>Paste Distribution by Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>F5</td>
</tr>
<tr>
<td>Coarse Brown ware</td>
<td>1744</td>
</tr>
<tr>
<td>Gray ware</td>
<td>776</td>
</tr>
<tr>
<td>Orange ware</td>
<td>944</td>
</tr>
<tr>
<td>Total</td>
<td>3464</td>
</tr>
</tbody>
</table>
Table 2.2: All Rio Verde Middens Count and Weight Rim and Decorated Body Sherds by Paste Type (Barber 2005; Levine 2002; Workinger 2002)

<table>
<thead>
<tr>
<th>Site</th>
<th>Phase</th>
<th>Total</th>
<th>Coarse Brown ware</th>
<th>Gray ware</th>
<th>Orange ware</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Count</td>
<td>Weight</td>
<td>Count</td>
<td>Weight</td>
</tr>
<tr>
<td>Op. RV09 E-F5-F6</td>
<td>Yuta Tiyoo</td>
<td>624</td>
<td>12549</td>
<td>55</td>
<td>2468</td>
</tr>
<tr>
<td>Op. CR86 P-F2-15</td>
<td>Minizundo</td>
<td>408</td>
<td>12685</td>
<td>167</td>
<td>5327</td>
</tr>
<tr>
<td>Op. SFA99 E-F13-21</td>
<td>Minizundo</td>
<td>324</td>
<td>5597</td>
<td>189</td>
<td>3620</td>
</tr>
<tr>
<td>Op. YG0C-F13-14, F16-17</td>
<td>Minizundo</td>
<td>85</td>
<td>2575</td>
<td>57</td>
<td>2016</td>
</tr>
<tr>
<td>Op. YG0B-E10-12</td>
<td>Miniyua</td>
<td>553</td>
<td>14467</td>
<td>131</td>
<td>5819</td>
</tr>
<tr>
<td>Op. RA0B-E14-19</td>
<td>Miniyua</td>
<td>271</td>
<td>5556</td>
<td>18</td>
<td>1255</td>
</tr>
<tr>
<td>Op. RV94 B-F6-14</td>
<td>Miniyua</td>
<td>628</td>
<td>13604</td>
<td>115</td>
<td>4771</td>
</tr>
<tr>
<td>Op. VR F38</td>
<td>Chacahua</td>
<td>80</td>
<td>5485</td>
<td>50</td>
<td>3923</td>
</tr>
<tr>
<td>Op. YG F42</td>
<td>Chacahua</td>
<td>458</td>
<td>13164</td>
<td>173</td>
<td>11357</td>
</tr>
<tr>
<td>Op. YG F47</td>
<td>Chacahua</td>
<td>89</td>
<td>3979</td>
<td>29</td>
<td>2035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Phase</th>
<th>Other Paste Type</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Op. RV09 E-F5-F6</td>
<td>Yuta Tiyoo</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Op. CR86 P-F2-15</td>
<td>Minizundo</td>
<td>239</td>
<td>58.5</td>
</tr>
<tr>
<td>Op. SFA99 E-F13-21</td>
<td>Minizundo</td>
<td>125</td>
<td>39</td>
</tr>
<tr>
<td>Op. YG0C-F13-14, F16-17</td>
<td>Minizundo</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Op. YG0B-E10-12</td>
<td>Miniyua</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>Op. RA0B-E14-19</td>
<td>Miniyua</td>
<td>106</td>
<td>39</td>
</tr>
<tr>
<td>Op. RV94 B-F6-14</td>
<td>Miniyua</td>
<td>149</td>
<td>24</td>
</tr>
<tr>
<td>Op. VR F38</td>
<td>Chacahua</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Op. YG F42</td>
<td>Chacahua</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Op. YG F47</td>
<td>Chacahua</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Currently there have been a total of ten middens excavated in the lower Río Verde valley (Table 2.2). Of the ten, only two middens, Op. VR F38 excavated at Cerro de la Virgen, and Op. YG0C-F13-14, F16-17 excavated at Yugüe, have been definitively determined to have been in a domestic context. The Cerro de la Virgen midden was excavated at the edge of Terrace 1-sub2, the first iteration of the terrace on the southeast side of the site core (Barber 2005: 140). Dating to the Chacahua phase (100-250 CE), the midden is comprised of 62.5% coarse brown ware sherds making up 71.5% of the total weight of the midden (Barber 2005:414). The Yugüe midden had what was excavated from the southeast side of Platform 1. The midden dates to the Minizundo phase and is comprised of 67% coarse brown ware sherds making up 78% of the total weight of the midden (Levine 2002: 227). The high percentage, in both count and weight, of coarse brown ware sherds, and the low percentage of fine ware sherds (i.e. fine brown ware, gray ware, orange ware) or imports, as well as the lack of any special finds artifacts, such green stone beads, suggests that the Op. VR F38 was the product of domestic activities (Table 2.2).

Similar high percentages of coarse brown ware sherds and low percentages of fine ware sherds were exposed in a midden excavated at San Francisco de Arriba (Op. SFA99 E-F13-21), (Table 2.2). Due to the presence of redeposited material, the fragmentary and eroded condition of the sherds, and the high amount of imported ceramics, the San Francisco de Arriba midden was determined to be in a secondary context (Levine 2002:99; Workinger 2002).

Conversely, six of the remaining seven middens, Op. CR86 P-F2-15, Op. YG 0B-E10-12, Op. RA0B-E14-19, Op. RV94 B-F6-14, Op. YG F42, Op. YG F47, and Op. RV09 E-F5-F6, yielded a high percentage, in both count and weight, of fine ware (i.e. orange, gray, and brown) rim sherds, and a low percentage of coarse brown ware rim sherds (Table 2.2). The low amount of coarse brown ware cooking and storage vessel may also suggest that the six middens were the
product of communal or ritual feasting. During ritual feasting food production would have occurred separately from the feasting areas. The foodstuffs were then likely transported in relatively few large course brown ware vessels. The large vessels would account for the high presence of coarse brown ware body sherds found in middens formed as a result of feasting activities (see Chapter 6). The presence of special finds artifacts, such as green stone beads, in each of the middens may also bolster the likelihood of feasting activities or could suggest domestic refuse associated with individuals from an elevated social class (Levine 2002: 103).

Following the deposition of the midden, a layer of fill (Op. RV09 E-F4) and one occupational area (Op. RV09 E-F3) were constructed. The covering of the midden layers leveled out the area of activity. The occupational level is thin (5cm), compact, and contained few artifacts, all of which are characteristic of Late Classic Yuta Tiyoo phase occupational areas in the region. The most recent construction in this area of Md1 is signified by two occupational levels, Op. RV09 E-F2 and Op. RV09 E-F1. It is possible that during these later construction episodes of the sunken patio, represented by the construction of Op. RV09 E-F4 through F1, and Op. RV09 C-F6 through F4, coincided with the final construction episodes elsewhere on Md1 (Hedgepeth 2011).

Approximately 25m west of Str2 the most recent Late Classic construction in the area, Op. RV09 A-F3-s1 & s2, covered the fallen or toppled uncarved stone monument (Op. RV09 A-F4). Associated with the uncarved stone monument were various elaborate burials, B55-I64, B56-I65, B58-I67, and associated offerings (Brzezinski & Aguilar 2011). Each burial was interred within the stratigraphic layers, Op. RV09 A-F7 or Op. RV09 A-F3-s2, and was likely associated with or marked by the plain stela, which rests upon the fill layer Op. RV09 A-F7. Detailed descriptions of each of the burials will be discussed in Chapter 4.
Figure 2.5: Burials and Uncarved Stone Monument Op. RV09 A

Figure 2.6: Op. RV09 A Stratigraphic Profile of Plain Stela (Brzezinski & Aguilar 2011)
The plain stela, which will be discussed in Chapter 3, measures 1.32m x 0.90m x 0.44m and was likely the central focus of the Late Classic period cultural activities that took place in the area of Op.RV09 A (Brzezinski & Aguilar 2011). A second possible plain stela or uncarved stone monument (Op. RV09 A-F5) was also partially exposed approximately 3.5m southwest of the Op. RV09 A-F4 (Brzezinski & Aguilar 2011). Future work is necessary to fully describe the positioning and life history of Op. RV09 A-F5.

An elaborate offering was exposed directly east of Op. RV09 A-F4. The offering included a large upside down cylindrical, coarse brown ware bowl measuring approximately 0.70m in height, and approximately 0.63m in diameter (Brzezinski & Aguilar 2011). Interred within the vessel, was a probable adult female (B55-I64) burial, in a tightly flexed or bundled position. Associated with the burial were various funerary offerings including a greenstone bead, the tusk of a peccary, and an obsidian flake. All burials, including B55-I64, will be discussed in detail in Chapter 4.

The interment of B55-I64 is positioned between two stratigraphic layers, the fill layer upon which the plain stela originally sat, Op. RV09 A-F7, and the fill layer that covered the plain stela, Op. RV09 A-F3-s2 (Brzezinski & Aguilar 2011). The lower portion of B55-I64 likely intruded into Op. RV09 A-F7 in preparation for the interment of the burial and the upper portion of the vessel was subsequently covered by construction of Op. RV09 A-F3-s2. However, similarities between the sediments of Op. RV09 A-F7 and Op. RV09 A-F3-s2 proved to be problematic in determining a definitive depositional history of B55-I64.

Stone architecture or stone foundations supporting structures dating to the Yuta Tiyoo phase were fragmented and poorly preserved. These architectural features imply that one or
more Late Classic structures stood upon Str2 and Str4 during the Late Classic and were later dismantled. The dismantling or destruction of any possible substructures on Md1 occurred during the Early Postclassic period and a number of commoner households were constructed.

Occupation of Md1 continued into the Early Postclassic Yugue phase. Late Classic deposits were initially covered by 0 to 0.20m of construction fill during the Early Postclassic. The Md1 occupation during the Early Postclassic is epitomized by the construction of commoner households in areas claimed by elites during the Late Classic period. Situated atop Str2 were low platforms on which, wattle and daub houses were constructed. These Early Post-Classic structures and their connection with the broader Postclassic Río Viejo have been described in more depth by Joyce and King (Joyce 2010, 2008; Joyce et al. 2001; Joyce & King 2001; King 2011, 2008, 2003).

Discussion

The construction of Md1 was an ongoing process which spanned centuries. Expanding during the Terminal Formative and Late Classic constructions, and contracted, during the Early Classic when pit intrusions were dug into the Terminal Formative construct. The shifts in occupation and construction to Md1 represent the changing political and social milieu during its long life history. Evidence from the excavations of the sunken patio, described previously, suggests that prior to the Late Classic Yuta Tiyoo phase modification, Md1 was not a single large platform with several structures situated atop, but seven large, freestanding structures surrounding a courtyard or plaza (Joyce & Barber 2011).

Following a period of seemingly destructive activity, as suggested by pit intrusions into the standing structures, during the Early Classic, Md1 was reoccupied during the Late Classic
Yuta Tiyoo phase. Across the sampled portions of the acropolis there is little evidence for dramatic changes to or manipulation of the original seven structures. There is between 0.5 and 2m of Late Classic fill that leveled the pit-intrusions and raised the late Terminal Formative structures. The majority of the leveling of pit-intrusions and additions to the freestanding structures was made with basketloads of sediment taken from the nearby floodplain. However, in the case of Str5 the pit intrusions were refilled with a mixture of basketloads of sediment as well as redeposited structured fill originally dating to the Chacahua phase.

The greatest modification to Md1 during the Late Classic Yuta Tiyoo phase was the construction of the sunken patio. The construction of the sunken patio, exposed by Op. RV09 C and RV09 E, raised the possible Terminal Formative plaza over 5m, from at least 15.6m a.s.l. to 20.8m a.s.l. (Hedgepeth 2011; Joyce & Barber 2011). The construction of the sunken patio coupled with the 0.5m to 2m of fill raising the other late Terminal Formative structures dramatically changed the form of the acropolis. While the evidence suggests that during the Late Terminal Formative there were several freestanding buildings situated around an open plaza, now there was a single acropolis.

The development of restrictions in access to areas once with open access was one of the most dramatic architectural changes made to Md1. Similar to the restrictions to the main plaza of Monte Albán form of the Terminal Formative to the Classic period (Joyce & Barber 2011; Joyce & Weller 2007), the raising of the plaza at Río Viejo restricted access, both physically and symbolically, to socially and ritually significant space. The construction also represents a shift in the nature of political authority relative to the more egalitarian forms of government inferred for earlier periods.
The restriction of access to politically and ritually significant space suggests a more exclusive political authority, which emphasized the power of a few rather than the whole (Barber & Joyce 2011; Joyce 2008). Ritual and political performance, while present in the household context and daily lives of commoner populations, was controlled on a grand level by those with access to Md1. The social inequality between rulers and commoners was further propagated through the erection of carved stone monuments on once communal space.

The final period of visible construction to Md1 is dated to the Postclassic. During the Postclassic, Late Classic architecture was dismantled to construct commoner households (Joyce 1991, 2004, 2008, 2010). The Early Postclassic houses constructed on Mound 1 were made of wattle and daub, single-room structures with stone foundations. Much of the stone foundations were mined from Late Classic architecture. The Early Postclassic structures and their connection with the broader Postclassic Río Viejo have been described in more depth by King (2003) and Joyce et al. (2001).
Chapter 3 – Carved Stone Monuments

The physical experience of Md1 during the Yuta Tiyoo phase was heavily restricted by the raising of the Terminal Formative courtyard or plaza in the creation of the sunken patio (Barber & Joyce 2011; Joyce & Weller 2007). Current research suggests that the sunken patio removed commoner populations from socially and ritually significant areas that were once accessible. Carved and uncarved stone monuments would have acted as powerful markers of elite appropriation of space further removing commoner’s ability to associate with the civic-ceremonial center.

Currently, fifteen stone monuments have been located throughout Rio Viejo, thirteen of which date to the Late Classic period (Urcid & Joyce 2001). The majority of the carved stone monuments depict elaborately adorned individuals, probably rulers. The rulers’ depictions suggest an ideological shift from the late Chacahua phase, focused on restricting aggrandizement of regional leadership, to the Yuta Tiyoo phase, which focused on the institution of kingship. The rulers depicted on the carved stone monuments at Rio Viejo would have played significant roles in the economic, religious, and political activities throughout the region.

There are seven carved stone monuments and numerous uncarved stone monuments dating to the Yuta Tiyoo phase on and around Md1 (Urcid & Joyce 2001). Located on the acropolis are three carved stone monuments, Monuments 1, 8, and 12. Located on the fringes of the acropolis are 4 carved stone monuments, Monuments 2, 9, 11, and 13. Each of the stone monuments represented the importance and the dominance of the rulers they depicted, and
reinforced the importance of local leadership and connections with sacred space (Connerton 1989).

The placement of carved stone monuments around the fringes of the acropolis served as important indicator of power and appropriation of space between commoners and elites. The depiction of elaborately adorned rulers presented commoners or other elites with a formidable image of the individual occupying or claiming authority over that space. Markers also legitimized the individual’s claim to space by incorporating Chatino and Mesoamerican imagery, such as the depiction of felines (Urcid & Joyce 2001; Urcid 2005). Feline imagery, specifically the jaguar, was a common marker of social and ritual power in the Valley of Oaxaca and likely severed as similar indicators of power in the lower Río Verde region (Urcid 2005). The three carved stone monuments located on Md1 would have also provided important social markers among the elites themselves.

The depiction of rulers or elites on carved stone monuments was key reference points for the expression of social identity, with and sometimes in opposition to the overall group identity (Knapp & Ashmore 1999:18-19). This chapter will describe each of the stone monuments found on and around Md1, and discuss their depictions.

*Carved Stone Monuments located on Md1*

Monument 1 is currently the largest carved stone found at Rio Viejo, measuring 4 x 1.5 x .33m (Urcid & Joyce 2001). The monument was found slanted near the northern edge of plaza of Md1 with the carved side facing Str1. The only evidence of carving on Monument 1 is the glyph 2 Jaguar. The Jaguar glyph matches the fourteenth position in the 20 day-name list of Zapotec, Nuine, and later Mesoamerican calendars (Urcid & Joyce 2001: 156-157, 204). The
carved portion depicts the frontal view of a feline’s head placed within a cartouche marked by a single line. Two numerical dots appear below the single line. A more elaborate Glyph 2 Jaguar is depicted on Monument 11 and jaguar themes are depicted on the majority of the carved stone monuments.

Figure 3.1: Monument 1 (from Urcid & Joyce 2001: Fig. 10)

The position of Monument 1 is rather enigmatic. Unlike the positioning of the other carved stones on Md1, Monument 1 breaks with the possible axial alignment in relation to the architectural surroundings (Urcid and Joyce 2001: 204). The carved portion of Monument 1 faces Str1, restricting the maximum visibility of the message depicted. The positioning of the
monolith may have been deliberately positioned so that a select group of passersby may have been viewed its carving. Alternatively the monolith may have moved from its original position, most likely during the Early Postclassic Yugue phase.

Monument 8 was found at the base of Str2, north of Op. RV09 A. Monument 8 was found fallen with its carved surface facing upward, and was eroded due to the elements. Measuring 2.02 x 1.47 x 0.25m Monument 8 is one of the most intricate carved stone monuments at the site and depicts an individual, presumably a ruler, standing with arms crossed over his/her chest, with the face in left profile. The calendrical name “10-Eye” is associated with the individual, who is adorned in an elaborate outfit including a jaguar buccal mask, sandals, earspools, and headdress (Urcid and Joyce 2001).

Figure 3.2: Monument 8 (from Urcid & Joyce 2001: Fig. 11)
Formed in the headdress of the individual depicted on Monument 8 are two different images. The first is a jaguar head and paw protruding from the back of the headdress. A similar image is depicted on Monument 11 found on the eastern periphery of Md1. The use of jaguar symbolism depicts the associated individuals as strong or powerful. The second image associated with the headdress of the individual is the Glyph U. Glyph U has commonly referred to a mythological bird in various Mesoamerican cultures (Urcid and Joyce 2001: 204). For the Zapotec, the Glyph U generally refers to the deity Cozaana or Coxana, the god of creation, or of all animals (Tavarez 2010; Sellen 2002). Due to the related cognates the Glyph U may also have represented the god Cosana, for the Chatino, who is considered to be the god of ancestors (Berlin 1988: 19).

The placement of Monument 8 suggests that the monolith was reused, possibly during the Early Postclassic, to form the corner of a wall built along the middle portion of Str2 as the plaza opens to the rest of Md1. Comparable reuse of carved stone monuments has been documented in the construction of various buildings at the Zapotec site of Monte Alban (Winter 1989).

Similar to the positioning of Monument 8, Monument 12 formed part of a wall at the base of the Str1. The carved stone monolith measures 1.95 x .83 x .20m and is carved on the southeast portion, facing the plaza (Urcid and Joyce 2001). The arrangement of the carved portrait suggests that the lower portions of the monolith are missing. Fully intact, Monument 12 would have towered prominently on Md1. The remaining carved potion of the monument depicts an elaborately adorned human figure in profile. The individual’s face is still visible ornamented with an ear spool, a possible headdress, as signified by a group of feathers in the upper portion of the monument, and a beaded necklace or pectoral on the torso (Urcid and Joyce 2001). While the monolith was excavated in situ at the wall at the base of Str1 the missing
portion of the monument suggests that it was reused in the construction of the wall. The final placement of Monument 12 likely occurred during the end of the Late Classic period or during the Early Postclassic period (Joyce et al. 2001).

Figure 3.3: Monument 12 (from Urcid & Joyce 2001: Fig. 9)

Uncarved Stone Monuments

Uncarved stone monuments or plain stelae are common along the western coast of Oaxaca (Jorrin 1974). The significance and purpose of uncarved stone monuments is not fully clear (Jorrín 1974:26-33). Usually found in public ceremonial or ritually based settings, such as
the area at the base of Str2, the monuments could have served as commemorative markers of specific events, dedicated to political rulers, calendrical-astronomical markers, ritual but non-calendrical memorials, or a combination (Urcid 1993:148; Bove 2002:26). Non-durable pigments might have also been used to decorate the surfaces of these monoliths.

Currently there are numerous uncarved stone monuments or plain stelae located on the surface of Md1 (Urcid & Joyce 2001). Two uncarved stone monuments, Op. RV09 A-F4 and Op. RV09 A-F5, were found associated with various burials and a complex offering (Brzezinski & Aguilar 2011). Op. RV09 A-F4 was exposed in the excavation of Op. RV09 A, located between Str.2 and the sunken patio. Measuring 1.32 m x 0.90 m x 0.44m, RV09 A-F4 was erected during the first Late Classic Yuta Tiyoo construction episode in this area (Brzezinski &

![Figure 3.4: Uncarved Stone Monument (Op. RV09 A-s4)](image-url)
Stratigraphic evidence suggests that the erection of the monolith most likely took place during the same period as the interment of three burials: B55-I64, B56-I65, and B58-I67. During a later Late Classic construction phase, Op. RV09 A-F4 was placed flat and later interred with the burial B55-I64. Alternatively, Op. RV09 A-F4 could have fallen over and was used as construction fill in the later alteration of the Late Classic Md1. The burials will be more thoroughly described in Chapter 4.

*Carved Stone Monuments located around the Fringes of Md1*

![Figure 3.5: Monument 2 (from Urcid & Joyce 2001: Fig. 12)](image)

Monument 2 was originally documented by Marcus Winter (1987:4), during excavations associated with the Rio Verde Archaeological Project (RVAP). The monument was located just off the north base of Md1 however during later field seasons researchers were unable to locate the monolith. Monument 2 was probably displaced or destroyed during the construction of a nearby irrigation channel. According to the descriptions recorded by Winter (1987), the stone
measured 4.25 x .5 x .2m and depicted a standing personage possibly holding a staff, similar to Monument 11. The individual was possibly adorned in a buccal mask, a headdress, and sandals. A glyph representing the person’s name and dates of reign may have been carved below the feet.

Monument 9 was located during the Rio Verde Formative Project (RVFP) field season in 1988, along the northern edge of Md1. Like Monument 2, Monument 9 was later disturbed and broken into two fragments during the construction of the irrigation channel (Urcid & Joyce 2001). The carved portions of Monument 9 were later located allowing for a full depiction of the individual portrayed on the monolith. At its completed construction, the monolith measured 2.5 x .86 x 0.5m and depicted an elaborately dressed individual positioned comparable with the personage of Monument 8 (Urcid & Joyce 2001). The individual is adorned in beaded necklace and ear spools. A single glyph was documented next to the individual’s face, possibly signifying the person’s name, however the form and meaning is unknown.

Figure 3.6: Monument 9 (from Urcid & Joyce 2001: Fig. 12)
Monument 11 was located on the east periphery of the acropolis, covered by a thin layer of sediment (Urcid & Joyce 2001). The monolith is currently fallen on its posterior with the carved portion facing up. Whether or not Monument 11 is in or near its original placement is unclear. Portions of the stone have been flaked and the monument is incomplete at the base. The modifications made to the monolith suggest that it was moved, possibly during the Early Postclassic period. At present size, Monument 11 measures 1.73 x 0.83 x 0.12m. The carved portion depicts an elite individual gripping a zoomorphic staff. The person is adorned in a complex pendant and an elaborate headdress. Protruding from the back of the headdress is a jaguar’s head. Above the headdress is another jaguar associated with two calendric circles, representing the glyph 2 Jaguar. The glyph Jaguar corresponds to the fourteenth position of the 20 day-name list of the Mesoamerican calendar (Urcid 2005). Positioned in front of the jaguar is

Figure 3.7: Monument 11 (from Urcid & Joyce 2001: Fig. 14)
the “blood” glyph, which possibly makes reference to auto-sacrificial bloodletting (Urcid & Joyce 2001; Urcid 2005).

Unlike the other monuments found on and around Md1, Monument 13 might have had a specific ritual use (Urcid & Joyce 2001). Monument 13 is located along the northern fringe of Md1 and measures 2.36 x 1.54 x 0.25m. The surface of the monolith is covered with small shallow circular depressions, with a diameter between 4 and 15cm. The circular depressions are connected by linear shallow channels which could have allowed for liquids to fill each depression and flow into the next. In contrast to the other monuments on and around Md1, Monument 13 may have been part of Early Postclassic ritual performance. Documented along the Pacific coast of west Mexico, this form has been largely associated with autosacrificial bloodletting or ritual water activities (Urcid and Joyce 2001: 205-207). Similar depressions have also been identified on rock outcrops on the eastern end of the site.

Discussion

Similar to the appropriation of place and space by elites through the creation of the sunken patio, stone monuments acted as visible markers of an individual or group’s claim of dominance over an area. The stone monuments located on and around Md1, with the exception of Monument 13, date to the Late Classic Yuta Tiyoo phase and allow for a deeper understanding of the social milieu during this period. The individuals depicted on the carved stone monuments at Rio Viejo have been associated with the ruling dynasty and represent a significant shift in both the daily and ritual experiences of the Chatino people during the Late Classic.
The predominant theme of the carved stone monuments on Md1 is the promotion, reaffirmation, and aggrandizement of rulers. The appearance of individuals in their most elaborate adornments served as important indicators of power to both commoners and elite. Depending on their original locations, those monuments surrounding the base of Md1 would have served as powerful signs to those not accustomed to gaining access to the ritual space. Those monuments located on Md1 would have served as powerful signs reinforcing the power once access was gained. The rulers depicted also used iconography which connected their earthly existence to the sacred world. The association of the kingship with deity imagery legitimized both their rule and their occupation of ritually important space.
Chapter 4 – Late Classic Yuta Tiyoo Burials on the Acropolis

Shifts in burial or mortuary practices can represent a multitude of changes in social practices, memory, and landscape (Ashmore & Geller 2005; McAnany 1995; Renfrew 1976). This thesis takes the position that the “interment of the dead is frequently recognized as a powerful means for claiming land tenure and identity with a place” (Ashmore 2002:1178). The interment of individuals throughout the site can therefore mean different things to those who occupy and practice everyday life in that space.

While a burial within the household often expresses connections between the deceased and the living, both symbolically and physically, ritual burials within monumental architecture would have stressed the importance of ritual connections between whole communities and civic ceremonial centers. Ritual interments were usually autochthonous to the local community, and interments of local individuals on and into monumental architecture would have cemented the connection between commoners, who lacked access to ritual space during the Late Classic, and Md1 (Urcid 2005). The elite appropriation of that place, in the form of carved stone monuments, reaffirmed elite connections with the sacred, and provided a powerful means for claiming land tenure and identity.

Late Classic Burials

A total of 60 burials including 69 individuals have been exposed during various seasons of excavations at the site of Rio Viejo. Of those interments a total of eleven burials, 18% of the
total burial assemblage, and fifteen individuals, 22% of the total number of interred individuals, have been definitively dated to the Late Classic Yuta Tiyoo phase. The individuals varied in age, from a child, aged 3.5 to 4.5 years at the time of death, to an elderly adult, of 50+ years at the time of death.

Of the eleven Yuta Tiyoo burials, five single burials were located in the construction of Md1. In what follows, I will provide a detailed review of those five burials. Two burials have been broadly dated between the late Terminal Formative Chacahua phase and the Late Classic Yuta Tiyoo phase. These burials will be described and their possibility of Late Classic interment discussed. The analysis will proceed according to the different areas in which the burials were identified.

The excavations of Op. RV09 A, located 25m west of the base of Str2, exposed four burials dating to the Late Classic Yuta Tiyoo phase (Brzezinski & Aguilar 2011; Joyce & Barber 2011). The interment of the individuals seemingly took place during two separate episodes. The interment of these burials was most likely associated with the erection of an uncarved stone monument, Op. RV09 A-F4 (Barber & Joyce 2011). During a later construction episode, the uncarved stone monument was possibly toppled over and interred with a complex offering. The meaning of the erection of Op. RV09 A-F4 and the placement of the burials reinforces the social and ritual importance of this area. The interment of Op. RV09 A-F4, during the later modification, may suggest a shift in the political leadership or the passing of rulership to a new generation. The need to legitimate or reinforce the power of new leadership might have been reflected in the reuse of the social meaning associated with that space and place.
The oldest of the burials dating to the Late Classic Yuta Tiyoo phase in this area, as suggested by the stratigraphic evidence, is Burial 58 – Individual 67 (Brzezinski & Aguilar 2011). B58-I67, as well as the other burials exposed by Op. RV09 A, is interred in the area around and below the uncarved stone monument, Op. RV09 A-E4, in the thick fill layer Op. RV09 A-E7. Located in the northeast portion of Op. RV09 A, the individual was laid in an extended, prone position with the head oriented to the south. Due to time constraints during the RV09 season, B58-I67 was not fully exposed and future excavations are necessary to determine the individual’s age, sex, size, and possible indications of his/her demise.

A second partial Yuta Tiyoo burial exposed by the excavations of Op. RV09 A, Burial 59 – Individual 68, was identified south of B58-I67 in the southern portions of Op. RV09 A (Brzezinski & Aguilar 2011). The burial (B59-I68) was not fully excavated during the 2009 season. A single lower leg long bone and various skull fragments were partially exposed in strata Op. RV09 A-F7. Specific conditions of the interment of the individual are currently unclear and future excavations are need to fully understand the interment process.

Located just above and slightly south of B58-I67 was a nearly complete, over 90%, burial of an adult female, Burial 56 – Individual 65 (Brzezinski & Aguilar 2011). B56-I65 is an extended interment placed in the prone position, head positioned south with her face turned to the east. The body was oriented 178-358º (from head to toe). At the time of death the individual stood between 1.45 -1.50m tall. Both stratigraphic and ceramic evidence date the burial to the Yuta Tiyoo phase. The deepest portions of B56-I65 indicated that the burial was interred within the fill layer, Op. RV09 A-F7. However, the uppermost depths of the individual were situated just below the stratigraphic break between Op. RV09 A-F7 and the overlying fill layer of Op. RV09 A-F3 (Brzezinski & Aguilar 2011). It is likely that a shallow pit was dug into Op. RV09
A-F7 and then her remains were interred and covered with the displaced sediment during the construction of the stratigraphic layer Op. RV09 A-F3-s2.

Figure 4.1: Burial 56-Individual 65
Associated with her burial were numerous offerings, including four ceramic vessels (Brzezinski & Aguilar 2011). Three gray ware vessels were placed around and on the remains of
the individual. The first vessel, a gray ware semispherical bowl, was placed 0.10m from the right elbow, and was removed along with the contained sediment before a photograph was taken. As a result, this bowl type remained undocumented. A shallow gray ware conical bowl (GW Type 1) was broken on the dorsal side of the individual’s pelvis covering a single obsidian prismatic blade, located 0.03m below the broken vessel. Approximately 0.40m west of the right femur, was the third associated gray ware, an elaborately decorated offering vessel (GW Type 18). Resting upon the right dorsal side of the elbow was a single undecorated orange ware vessel (OW Type 32).

Figure 4.3: Burial 55-Individual 64
During the later construction episode, dating to the Late Classic Yuta Tiyoo phase, Burial 55 – Individual 64 was interred just east of the uncarved stone monument, Op. RV09 A-F4 (Brzezinski & Aguilar 2011). The vessel containing the individual was a large cylindrical, coarse brown ware bowl measuring approximately 0.70m in height, and approximately 0.63m in diameter. The remains belonged to an adult female and were found in the lowest 0.10m of the vessel (19.8m a.s.l.). The positioning of the individuals remains suggest that at the time of her interment, she was placed in a tight flexed position. The flexed position and the associated funerary objects, which included a greenstone bead, obsidian blade, and a peccary tusk, suggest that the individual was possibly interred as a bundle, although no traces of fabric were found. There were several portions of the remains that were missing, including all the bones of right arm and right hand. After an expedient field analysis of the right scapula, there were no clear cut
or butcher marks that would suggest dismemberment of the right arm, however future analysis is necessary. The bowl with the burial was placed upside down on grano-diorite slabs (19.7m a.s.l.).

![Image](image_url)

**Figure 4.5: Burial 55-Individual 64**

A similar burial, possibly dating to the Yuta Tiyoo phase, was excavated during the RV95 season. Burial 24 – Individual 32 was part of several salvage excavations conducted to document burials eroding close to the surface or disturbed by recent looting. B24-I32 was identified eroding out of the surface of Mound 9, on the eastern portion of the site. The young adult female was interred within a large coarse brown ware jar, similar to the vessel that contained I64. The vessel that contained I32 had a diameter of approximately 0.60m and was decorated on the exterior with an applique bearded human face. Located immediately outside the vessel were two fragmentary burials, Burial 24 – Individual 30, a possible adult male, and
Burial 24 – Individual 31, an adult female. The similarities between B24-I32 and B55-I64 suggest a uniform mortuary or ritual burial practice dating to the Late Classic.

While the majority of Late Classic burials exposed in the construction of Md1 were found in the excavation area Op. RV09 A, a single burial, Burial 60 – Individual 69 was located in the Late Classic construction of Str6, exposed by Op. RV09 I, along the southeastern margin of Md1 (Joyce 2011). B60–I69 was only partially exposed during the 2009 season due to time constraints. The fragment of an adult maxilla was collected, but further excavations will be needed to identify a more detailed description of the individual.

All of the fully exposed burials dating to the Late Classic Yuta Tiyoo phase are associated with some form of offering or associated funerary objects. However, continued excavations, on and off Md1, are needed to better understand Late Classic Chatino mortuary practices. Two other burials located in the area between Str4 and Str5 may present cases of less elaborate Late Classic mortuary events.

**Possible Late Classic Burials**

While the five burials discussed previously have been definitively dated to the Yuta Tiyoo phase there are two other burials which may have been interred at this time, although the evidence is equivocal. Both Burial 54 – Individual 63 and Burial 57 – Individual 66 were exposed during the excavations of Op. RV09 D, located on the southern margin of Md1 between Str4 and Str5.
Figure 4.6: Burial 54-Individual 63 (Hedgepeth et al. 2011)

Burial 54 – Individual 63, exposed in the northern portion of the 4 x 4m excavation unit was heavily degraded (Hedgepeth et al. 2011). Approximately 10-15% of the original osteological material was preserved, making sexing and detail age description, beyond adult, impossible. However, the orientation of the long bones and other scattered bone in association with the location of skull fragments allowed for an overall orientation of 208 ° - 28 ° (head to toe). B54-I63 may represent the earliest burial thus far identified on the acropolis. The
stratigraphic and ceramic evidence suggests that the burial took place during the transition between the late Terminal Formative and the Early Classic period.

Figure 4.7: Burial 54-Individual 63

The second burial, Burial 57 – Individual 66, exposed during the excavation of Op. RV09 D was much more complex than B54-I62. B57-I66 is a juvenile individual laid in a supine, extended position oriented 200° - 20° (from head to toe)(Hedgepeth et al. 2011). The biological sex of the individual was inconclusive due to the poor condition of the remains, however the remains were articulated with no signs of intrusion, suggesting that the burial was in primary context and was not disturbed. The skull of the individual was not present; however some teeth were collected from the sediment adjacent the clavicle ruling out the possibility of sacrificial
decapitation. Water runoff through this area of Md1 seems to be the primary force resulting in the destruction of the skull.

Figure 4.8: Burial 57-Individual 66

No offerings were exposed during the excavation of the burial, but three Chacahua phase sherds were found adjacent to the right humerus (Hedgepeth et al. 2011). The sherds may have been originally part of a vessel offering. The extended position of the individual placed the lower portions of the interment across a floor that was damaged by fire dating to the Chacahua phase, similar to the burning found on Str2. The positioning of the individual on this surface and the presence of the three Chacahua phase sherds suggests one of two possibilities for a timeframe of interment. The first possibility is that the interment took place shortly after the Chacahua phase floor was burned. Alternatively the interment possibly took place when the Late Classic
Yuta Tiyoo phase Md1 was reoccupied. This possibility is supported by the stratigraphic evidence which suggests the Op. RV09 D-F7, in which the burial was interred, dates to the Late Classic Yuta Tiyoo phase.

Figure 4.9: Burial 57-Individual 66

Discussion of Burials

While the assemblage of Late Classic Burials at the site of Rio Viejo is small and the assemblage exposed by excavations into Md1 is even smaller and important evidence into social and mortuary practices of the Late Classic Chatino may be gleaned. Burials B58-I67, B59-I68,
and B56-I65 were associated with Op. RV09 A-F4. The construction of the sunken patio and the erection of carved and uncarved stone monuments were most likely the first initiatives made by rulers to claim space, previously considered to be communal or at least part of a more open society. The appropriation of such space could have created strain between rulers and commoners.

The interment of B55-I64, in Op. RV09 A-F3-s1, occurred during a later construction to Md1. It is probable that the interment of the burial, into both Op. RV09 A-F7 and Op. RV09 A-F3-s2 occurred at the same time that the uncarved stone monument, Op. RV09 A-E4, was covered by Op. RV09 A-F3-s1 and Op. RV09 A-F3-s2 (Brzezinski & Aguilar 2011). A similar form of interment, B24-I32, is present in the construction of Md9, located on the eastern end of the site. The use of interments within ceramic vessels may represent the practice of a new form of ritual performance, not seen before or after the Late Classic Yuta Tiyoo phase.

Individuals buried within large ceramic vessels appear to be rare in Oaxaca in general. Current evidence of burials within jars during the Classic period has been documented in the southern Isthmus of Tehuantepec (Zeitlin 1978:71-72). Judith Zeitlin recovered two urn burials at the site of Saltillo, including one containing the decapitated heads of at least 10 adult males. However, the interment of the decapitated heads presents a different social context than the burials found at Rio Viejo. Decapitation, through sacrifice, is an indicator of warfare in the area (Redmond & Spencer 2006). B55-I64 represents an individual whom was interred with care and associated funerary objects. The interment therefore suggests that she was part of a Chatino cultural group and most likely died of either natural causes or ritual sacrifice.

If the practice of bundled or flexed burials within vessels was a trend within the Late Classic Chatino society it did not continue after the collapse of the Late Classic polity. Possible
analogs to individuals contained within ceramic vessels can be made with the interment of slightly flexed fetuses or neonates in ceramic vessels found in the Valley of Oaxaca (Urcid 2005:30). The rarity of these interments throughout Oaxaca as well as the lack of continuing practice after the Late Classic period suggest this specific ritual performance could be unique to the Chatino people during the Late Classic Yuta Tiyoo phase. Future investigations of Md1 and across the site are necessary for a more comprehensive understanding of Late Classic Yuta Tiyoo burial or mortuary practices.
Chapter 5: Late Classic Yuta Tiyoo Phase Ceramic Typology

Introduction:

This chapter will present a summary of the Late Classics ceramic material excavated in the Lower Rio Verde Valley. Imbedded in this summary will be a review of the ceramic typology developed by Arthur Joyce (1991, Lab Notes; Joyce et al. 2001) during his dissertation research and bolstered by my research during summer of 2010.

Ceramic Background

The classificatory method used for the material of the lower Rio Verde Valley follows the taxonomic system developed for highland Oaxaca ceramic chronologies (Caso et al. 1967; Drennan 1979; Kowaleski et al. 1978; Joyce 1991; Martínez López et al. 2000). While the system of classification developed by Caso et al. (1967) was the primary taxonomic method used in the region, allowing for cross regional ties to be identified through the analysis of formal and stylistic attributes, documented problems have led to greater refinement of ceramic research (Blanton 1979; Kowaleski et al. 1978). The process by which sherds are typed follows a method of grouping each artifact into sequentially more discrete categories based on technological, formal, and decorative elements (Joyce 1991: 122).

Methodology

Ceramic analysis for the lower Rio Verde valley begins with the analysis of the broadest category; that is paste type. Paste type includes the analysis of color, grain size, and type and
size of inclusions or temper. Joyce’s (1991) typology describes three different paste colors present in the Yuta Tiyoo phase, Gray (gris), Brown (café), and Orange (anaranjado). Color of ceramics is based on the firing process. Orange and brown ware ceramics gain their coloring due to the oxidized firing process, while gray wares are created in a reduced firing process. Gray and orange wares were primarily used as decorated serving vessels, while coarse brown wares were undecorated storage and cooking vessels. Without domestic middens from the Late Classic it is difficult to describe household assemblages. However, ceramic research by Joyce (1991), as well as the information provided by the midden research in Chapter 6, suggests that the frequency of orange wares increased during the Yuta Tiyoo phase, while gray wares remained at similar levels to the Early Classic. The use of coarse brown wares in non-cooking capacities seems to have dropped significantly, due to the increase in use of orange ware vessels.

The grain size and type of inclusions or temper have been categorized along a continuum from Fine, Fine-Medium, Medium, Medium-Coarse, and Coarse based on the visual analysis. These attributes serve as important indicators of the processes of refinement conducted in ceramic manufacture. They are also indicative of the clay procurement and areas of manufacture. During the Yuta Tiyoo phase, wares colored gray and orange were the most common fine-wares lacking any major inclusions, and possibly went through a process of sieving before the clays were prepared for formation and firing. The wares colored brown were primarily coarse-wares, possessing large inclusion or temper, both organic and inorganic, that were either left in after being mined or added during the preparation before formation and firing. Coarse-wares were utilitarian and were most likely used for storage of foods and liquids, as well as in the production of foods, due to its ability to distribute heat throughout the vessel while not cracking or breaking.
Continuing to the next more inclusive classificatory grouping is vessel form, associated with the groupings discussed previously. Vessel form can be broadly grouped as a bowl, jar, or comal. The type of bowl, jar, or comal is further defined based on specific attributes of the vessel, such as vessel type (conical, semispherical, cylindrical, composite silhouette bowls), wall form (incurving, outcurving, outleaning, inleaning), base form (flat, rounded), rim form (direct, incurving, outcurving, inleaning, outleaning, outangled, everted), lip form (direct, incurving, outcurving, inleaning, outleaning, beveled interior, beveled exterior, tapered), presence of supports, presence of handle, and presence of spout.

The final most inclusive grouping of ceramics is focused on the presences of surface treatments, and decorative motifs. Surface treatments can vary in form and style. One broad category of surface treatment is surface displacement or penetration, which is the removal or displacement of the clay during various stages of the drying process. The category of surface displacement or penetration includes different effect including punctations, incising, stamping, perforating or piercing, and carving, which are described below.

- Punctates or punctation depressions are usually created before the clay dries using a sharp or pointed tool. A piece of reed, an awl, or even a finger can be used to form punctuations often displacing portions of the clay of the vessel.

- Incising is the process of cutting or pressing lines into the surface of the vessel without fully penetrating through that surface. Incising can take place during various periods of the drying process or post firing. The type of instrument used can be reflected in the size of the incision and the point at which the incised line occurred.

- Similar to incising is the process of carving, which removes thick portions of clay, leather dry or hard, with a sharp implement.
- Stamping is the process of impressing a repeated design using a tool. Rouletting is the process of impressing and rolling a cylindrical tool across the surface of the clay to create a constant design. Rocker stamping is the process of rocking a tool back and forth across the surface of a vessel creating a continuous and distinctive pattern.

- Perforating or piercing is the process of cutting through the entirety of the thickness of the vessel wall and removing portions of the wet or leather dry clay to create a patterned design.

Alternative methods of decorating ceramic vessels include the addition of appliqués, polishing and burnishing, painting and adding pigmentation, slip decorating, and glazing (Rice 1987). Decorative motifs can have symbolic meaning that may be accessible through interpretation. The interpretation and analysis of decorative motifs is the most subjective on the part of the researcher and must proceed in the frame of deep historical context and interregional comparisons. The use of regional ethnographic material may be of particular use for further studies of decorative motifs.

Currently there are eight ceramic phases in the lower Rio Verde valley, each named for a location in the region. What follows in the rest of this chapter will be the description of the Yuta Tiyoo phase ceramic typology developed by Joyce (1991; 1988 Manuscript on file; Joyce et al. 2001) and added to in the course of my ceramic analysis during the summer of 2010. The construction of the typology that follows is focused on rim sherds.

*Gray Ware Types:*

Gray ware types can be divided into two broad categories based on vessel form: bowl, and jar. Currently there is no ceramic evidence of gray ware comales. The bowl category is further separated into five subcategories: conical bowls, semispherical bowls, cylindrical bowls,
composite silhouette bowls, and incurving wall bowls or neckless jars. In addition to the vessel form categories, handles and supports have been stylistically defined and quantified. This section will be broken down into each one of the three categories and further divided into subcategories.

**Bowls**: (GW Type 1 – GW Type 37)

**Conical Bowls**: (GW Type 1 – GW Type 13)

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**Figure 5.1: GW Type 1**

GW Type 1 – Undecorated

GW Type 1 is currently the most ubiquitous gray ware form found during the Yuta Tiyoo phase. This type is a grouping of the various undecorated conical bowls. The wall form is commonly outleaning, occasional outcurving, and rare slightly incurving. The most common rim and lip form is a direct rim with a rounded lip, and outcurving rim with a rounded lip.
Occasionally a direct rim with an externally thickened, rounded lip occurs. Rare examples include outleaning rims with a tapered lip, outcurving rims with a tapered lip, and everted rims with a rounded lip. The surface treatment of the GW Type 1 is highly variable. The internal surface of the vessel is most commonly burnished, partially burnished, or smoothed. Occasionally the vessel is wiped on the rim with a burnished body, or partially burnished over wiped. In rare occasions the whole vessel is heavily burnished.

Figure 5.2: GW Type 2

GW Type 2 – Undecorated with Solid Nubbin Supports

GW Type 2 is an undecorated conical bowl, and is commonly found during the Yuta Tiyoo phase. It is distinguished from GW Type 1 due to the presence of three to four small, solid nubbin supports. The wall form is most commonly outleaning and occasionally slightly incurving. The rim form is most commonly direct with a rounded lip. Occasionally the vessel has a direct rim with a tapering lip, an outcurving rim with a notched lip, or an outcurving rim with a rounded lip. The surface of the vessel is commonly burnished or smoothed on the interior and partially burnished on the exterior, and occasionally smoothed or scrapped on the exterior.

GW Type 3 – Undecorated with Hollow Tubular Supports (Not Drawn)

GW Type 3 is also an undecorated conical bowl, yet is distinguished from GW Type 1 and Type 2 due to the presence of three to four hollow tubular supports. GW Type 3 is much
less common then GW Type 1 and Type 2. The wall form is outcurving and has a rim form that is either tapering with a rounded lip or direct with a rounded lip. The surface of the vessel is partially burnished on the interior and wiped on the exterior.

**GW Type 4 – Undecorated with Flange (Not Drawn)**

GW Type 4 is a rare undecorated conical bowl with a flange on the exterior body. The rim is direct with a rounded lip. The vessel surface is burnished over wiped on the interior and burnished on the exterior.

**Figure 5.3: GW Type 5**

**GW Type 5 – Interior Incised**

GW Type 5 is a common interior incised conical bowl. The decorations most likely occurred when the clay was dry due to the clean, deep incisions into the vessel. The miscellaneous incised decorations range from horizontal lines along the rim to decorative panels of complex motifs encircling the interior rim of the vessel. The wall form is most commonly outleaning, occasionally outcurving, and rarely slightly incurving. The rim form is most commonly direct with a rounded lip, but is also occasionally outcurving with a tapering lip, or outcurving exterior thickened with a rounded lip. The interior surface of the vessel is commonly burnished or burnished over wiped and occasionally smoothed. The exterior surface of the
vessel is commonly partially burnished or partially burnished over wiped, and occasionally burnished or wiped.

GW Type 6 – Everted Rim Incised (Not Drawn)

GW Type 6 is a conical bowl with an everted rim with incised decorations encircling the vessel on the rim. Like GW Type 5, the incised decorations range from horizontal lines to decorative panels of complex motifs encircling the rim of the vessel. The wall form is most commonly outleaning, and occasionally outcurving. The rim form is either everted with a rounded lip or everted with a tapered lip. The interior surface of the vessel is burnished and the exterior surface of the vessel is partially burnished.

Figure 5.4: GW Type 7

GW Type 7 – Incised Base with Hollow Supports

GW Type 7 is a conical bowl that is elaborately incised on the interior base and held up by hollow supports. Type 7 is common during the Yuta Tiyoo phase. The most common incised motif for this type is a series of alternating incised circles and 1cm long flaring line segments surrounding a central complex image. One example of the most elaborate Type 7 vessel depicts the image of a turkey at the center of the vessel and will be discussed further in Chapter 6 along
with other artifacts from the Op RV09 E midden. Each of the Type 7 bowls are supported by four supports and can range from plain hollow supports to elaborately designed “bat-head” effigy supports. The effigy supports are established during the Late Classic, but carry through to the Early Postclassic.

The wall form of GW Type 7 is most commonly outleaning, and occasionally outcurving. The rim form is commonly outcurving with a rounded lip or direct with a rounded lip, and occasionally everted with a round lip. The interior surface is commonly burnished, burnished over wiped, or smoothed, occasionally partially burnished over wiped. The exterior surface is commonly burnished, burnished over wiped, or smoothed, and occasionally partially burnished over wiped.

Figure 5.5 GW Type 8
GW Type 8 – Exterior Incised with Miscellaneous Decorations

GW Type 8 is the second most common gray ware vessel during the Yuta Tiyoo phase. Type 8 is an exterior incised conical bowl, most likely decorated when the clay was leather dry due to the clean, deep incisions into the vessel. The miscellaneous incised decorations range from horizontal lines along the exterior rim of the vessel, to decorative panels of complex motifs encircling the exterior rim portion of the vessel. The wall form is most commonly outleaning, and occasionally outcurving or slightly incurving. The rim form is most commonly direct with a rounded lip. Occasionally the rim is outcurving with a rounded lip. On rare examples the rim is direct with an exterior thickened and rounded lip, outangled with a rounded lip, or everted with a rounded lip. The interior surface of the vessel is commonly burnished, and occasionally smoothed, partially burnished, or wiped. The exterior surface of the vessel is commonly burnished, occasionally partially burnished or smoothed, and rarely wiped.

Figure 5.6: GW Type 9

GW Type 9 – Exterior Incised with Thick Wavy Line

GW Type 9 is an exterior incised conical bowl with a thick wavy band going around the rim portion, and occurs occasionally during the Yuta Tiyoo phase. Below the wavy band other incised decorations such as horizontal lines are often present. The wall form is commonly outleaning and occasionally slightly incurving. The rim form is commonly direct with an
exterior thickened, rounded lip, and occasionally direct with a rounded lip or outcurving with a rounded lip. Interior surface treatments for GW Type 9 are most commonly burnished and burnished over wiped. Exterior surface treatments are most commonly smoothed and occasionally burnished or partially burnished.

**Figure 5.7: GW Type 10**

GW Type 10 – Exterior Incised with Panel Designs

GW Type 10 is an exterior incised conical bowl with an interior thickened rim, and occurs occasionally during the Yuta Tiyoo phase. Incised horizontal lines form panels containing curvilinear, diagonal, opposing diagonal or rectilinear lines. The wall form is commonly outleaning or slightly incurving. The rim form is commonly direct with interior thickening and a rounded lip. Occasionally the rim form is outcurving with interior thickening and a rounded lip. On rare examples the rim is outangled with interior thickening and a rounded lip. The surface treatment is commonly burnished and occasionally partially burnished on both the interior and exterior.
GW Type 11 – Exterior Incised with Panel Designs

GW Type 11 is an exterior incised conical bowl. Incised horizontal lines form panels containing diagonal lines alternating with either diagonal, horizontal, or zig-zag lines. The wall form is commonly outleaning. The rim form is commonly direct with a rounded lip, or outcurving with a rounded lip. The interior surface treatment is commonly burnished or burnished over wiped. The exterior surface is commonly burnished, and occasionally burnished over wiped or smoothed.

GW Type 12 – Exterior and Interior Incised Design (Not Drawn)

GW Type 12 is rare during the Yuta Tiyoo phase. It is incised on both the exterior and interior of the vessel. The decoration is located on the body of the vessel below a rim flange. The motifs formed by the incisions on the body are commonly curvilinear and rectilinear. The rim flange is decorated with puntuations. The wall form is outleaning with a direct rim form and a rounded lip. The interior surface is burnished and the exterior is partially burnished.
GW Type 13 – Red Painted (Not Drawn)

GW Type 13 is a conical bowl with red paint on the interior or exterior. GW Type 13 is rare in the Yuta Tiyoo phase. The wall form is outleaning with a direct rim and rounded lip. The surface can be burnished or partially burnished on the interior and partial burnished on the exterior.

Conical/Semispherical Bowls (GW Type 14 – GW Type 16) – The construction of an overlapping category for conical and semispherical bowls is needed for three gray ware types, 14, 15, and 16. Each type has divergent, incurring walls that include examples that can be either conical or semispherical in form. Due to the resemblance in attributes, as well as the presence of notched rims or rim flanges they have been lumped into a single category.

Figure 5.9: GW Type 14
GW Type 14 – Exterior Rim Flange

GW Type 14 is a conical/semispherical bowl with an exterior rim flange and is often notched. GW Type 14 is common during the Yuta Tiyoo phase. The rim form is commonly direct with a rounded rim and occasionally direct with a tapering rim. The interior surface is most commonly burnished. Occasionally the vessel is partially burnished over a wiped rim with a burnished body. On rare occasions it is partially burnished. The exterior surface treatment is commonly a wiped rim with a smoothed body or a wiped rim with a partially burnished body, and rarely a wiped rim with a scraped body.

GW Type 15 – Exterior Incised Rim Flange (Not Drawn)

GW Type 15 is a conical/semispherical bowl with notched exterior rim flanges and incised decorations on the interior. Incised motifs are usually curvilinear or rectilinear. The rim form is direct with a rounded rim. The interior surface is burnished, and the exterior surface has a wiped rim and a partially burnished body.

GW Type 16 – Notched or Grooved Rim with Ring base or Nubbin Support

GW Type 16 is a conical/semispherical bowl with a notched or grooved rim and a ring base or nubbin support. The rim forms are commonly outangled, notched and have a rounded lip or are outcurving, notched and have a rounded rim. Occasionally the rim is outcurving, grooved and notched, and has a rounded lip. On rare occasions the rim is everted, notched, and has a rounded lip. The interior surface treatment is commonly a wiped rim with a burnished body. Occasionally the vessel has a wiped rim with a partially burnished rim or a wiped rim with a wiped over partially burnished body. The exterior surface treatment is commonly scraped and occasionally wiped or smoothed.
Semispherical Bowls: (GW Type 17 - GW Type 20)

GW Type 17 – Undecorated

GW Type 17 is an undecorated semispherical bowl and comprises the third largest category of the Yuta Tiyoo phase gray wares. The Rim form is commonly direct with a rounded lip, occasionally outcuring with a rounded lip, and rarely direct with a tapering lip or direct with a flattened lip. The interior surface treatment of the vessel is commonly burnished. Occasionally the vessel is burnished over wiped, smoothed, or has a wiped rim with a smoothed body. The exterior surface treatment of the vessel is commonly partially burnished, and occasionally a wiped rim with a partially burnished body or burnished over wiped.
Figure 5.11: GW Type 17

Figure 5.12: GW Type 18
GW Type 18 – Exterior Incised Decoration

GW Type 18 is an exterior incised semispherical bowl and occurs occasionally during the Yuta Tiyoo phase. The incised motifs are commonly horizontal lines creating panels of curvilinear lines, s-curves, step-frets or zig-zags, occasionally just horizontal lines, and rarely, only curvilinear lines. The rim form is commonly direct with a rounded lip. Occasionally the rim is outcurving with a rounded lip. On rare occasions the rim is direct and tapering with a rounded lip, incurving with a rounded lip, everted with a rounded lip, or direct and interior thickened with a rounded lip. The interior surface treatment is commonly burnished. Occasionally the vessel is partially burnished, with a wiped rim and a smoothed body, or just smoothed. On rare occasions the vessel has a burnished over wiped rim with a burnished body.

GW Type 19 – Exterior and Interior Incised Decoration (Not Drawn)

GW Type 19 is a rare exterior and interior incised semispherical bowl. A decorative motif is created by incisions in a wavy line formed around the rim portion of the vessel. The rim is direct with a rounded lip. The interior surface treatment is burnished and the exterior surface treatment is smoothed.

Figure 5.13: GW Type 20
GW Type 20 – Notched Lip

GW Type 20 is a rare notched lip semispherical bowl. The rim form is direct and exterior thickened with a flat grooved and notched lip. The interior surface treatment is burnished, partially burnished, or burnished over wiped. The exterior surface treatment is burnished, partially burnished, and burnished over wiped.

Vessels with Thick Diagonal Grooves (GW Type 21 – GW Type 23) - This category has been separated from the formal bowl categories due to its highly distinctive decorative characteristics. Bowls with an exterior diagonal grooves and incised decorative elements creates a distinctive category that necessitates a separate categorization, encompassing conical, semispherical, and cylindrical bowls.

Figure 5.14: GW Type 21

GW Type 21 – Conical Bowl with Diagonal Grooves

GW Type 21 is a conical bowl with diagonal grooves on the exterior. The vessel is often incised on the upper wall above the grooves. The incised decorations contained within carved
panels forming loops or zig-zags motifs. The wall forms are commonly outleaning and occasionally outcurving. The rim form is either direct with a rounded lip or outcurving with a rounded lip. The internal surface treatment is burnished, and the exterior surface treatment is burnished or wiped with a partially burnished body.

GW Type 22 – Semispherical Bowl with Diagonal Grooves (Not Drawn)

GW Type 22 is a semispherical bowl with diagonal grooves on the exterior with wavy incised lines on the upper body above the grooves. The rim is direct with a rounded lip. The interior surface is partially burnished over wiped and the exterior surface treatment was unobtainable due to erosion.

![Diagram of GW Type 22](image)

*Figure 5.15: GW Type 22*

GW Type 23 – Cylindrical Bowl with Diagonal Grooves

GW Type 23 is a cylindrical bowl with diagonal grooves on the exterior and incised decorations on the upper portion of the vessel above the grooves. The rim form is direct with a
rounded lip. The interior surface treatment is burnished and the exterior is smoothed or partially burnished.

*Cylindrical Bowls (GW Type 24 – GW Type 26):*

GW Type 24 – Exterior Incised on Rim (Not Drawn)

GW Type 24 has exterior incising along the rim of the cylindrical bowl, and is rare during the Yuta Tiyoo phase. The rim form is outcurving with a rounded lip. The incised decorations on the rim are either curvilinear or horizontal lines. All recorded sherds from of Type 24 were highly eroded.

![Figure 5.16: GW Type 25](image)

**Figure 5.16: GW Type 25**

GW Type 25 – Exterior Incised Design

GW Type 25 is an exterior incised cylindrical bowl and is common during the Yuta Tiyoo phase. The incised designs are commonly horizontal lines creating panels containing curvilinear lines, s-curves, vertical wavy lines, step-frets, zig-zags, or a combination of designs.
Occasionally the incised designs are just horizontal lines, just punctuations, carved panels with punctuations, rectilinear lines or curvilinear lines. On rare occasions the incised designs are just curvilinear or rectilinear lines. The rim form is commonly direct with a rounded lip. Occasionally the rim is outcurving with a rounded lip. On rare occasions the rim is outcurving with an exterior thickened band and a rounded lip, outcurving with a flattened lip, direct with a flattened lip, or outcurving and slightly thickened interior with a rounded lip. The interior surface treatment is commonly burnished. Occasionally the interior is burnished over wiped, smoothed, wiped, or a wiped rim with a smoothed body. On rare occasions the interior is partially burnished over wiped. The exterior surface is commonly burnished over wiped, smoothed, or burnished over wiped rim with a burnished body. On rare occasions the exterior is wiped rim with a smoothed body.

GW Type 26 – Exterior Incised with Incised Everted Rim (Not Drawn)

GW Type 26 is a rare cylindrical bowl during the Yuta Tiyoo phase. The vessel has an everted rim with an incised decoration on both the rim and exterior surface. The everted rim has a rounded lip and all examples found had highly eroded surfaces.

Composite Silhouette Bowls: (GW Type 27 – GW Type 32)

GW Type 27 – Undecorated (Not Drawn)

GW Type 27 is an undecorated and unrestricted composite silhouette bowl. The wall form of the vessel is outleaning both on the upper and lower portions. The rim form is outcurving with a rounded lip or direct with a rounded lip. The interior surface treatment is partially burnished or burnished, and the exterior surface treatment is burnished.

GW Type 28 – Undecorated with Exterior Flange (Not Drawn)
GW Type 28 is an unrestricted composite silhouette bowl with a flange on the exterior wall of the vessel. The wall form on the lower portion is incurving and the upper portion is outcurving. The rim form is direct with a rounded lip. The interior surface treatment is partially burnished over wiped and the exterior surface treatment is wiped.

GW Type 29 – Undecorated with Notched Rim (Not Drawn)

GW Type 29 is an undecorated, unrestricted composite silhouette bowl with a notch rim. The wall form is outcurving on the upper portion and incurving on the lower portion. The rim form is direct with a rounded lip. The interior surface treatment is partially burnished over wipe, and the exterior surface is wiped.

![Figure 5.17: GW Type 30](image)

GW Type 30 – Exterior Incised

GW Type 30 is an exterior incised, unrestricted composite silhouette bowl. The motifs formed by the incised lines form complex wavy designs just below the rim. The wall form is either vertical on the upper portion and incurving on the lower portion or outleaning on the upper
portion and incurving on the lower portion. The interior and exterior surface treatment is burnished.

Figure 5.18: GW Type 31

GW Type 31 – Unrestricted Decorated Ridge or Flange and Exterior Incised

GW Type 31 is an unrestricted composite silhouette bowl with a decorated ridge or flange on the exterior wall and with exterior incising. The motif formed on the flange is commonly a wavy line or occasionally punctuations. The incised lines on the upper portion of the exterior wall of the vessel are horizontal lines forming decorative panels containing either s-curves, step-frets or diagonal lines. The wall form is commonly outcurving on the upper wall and incurving on the lower wall. Occasionally the wall form is outleaning on the upper wall and incurving on the lower wall or outleaning on the upper wall and outleaning on the lower wall. On rare occasions the wall form is vertical on the upper wall and outleaning on the lower wall or vertical on the upper wall and incurving on the lower wall. The interior surface treatment is commonly burnished over wiped, and occasionally burnished or smoothed. The exterior surface treatment is commonly burnished, occasionally smoothed, and rarely with a wiped rim and smoothed body.
Figure 5.19: GW Type 32

GW Type 32 – Restricted Decorated Ridge or Flange and Exterior Incised

Type 32 is a restricted composite silhouette bowl with a decorated ridge or flange on the exterior wall and exterior incised. The motif formed on the flange is commonly a wavy line, slashes or occasionally punctuations. Incised decorations are commonly formed on upper portion of the vessel. The designs are commonly horizontal lines forming decorative panels containing s-curves, s-curves and dots, zig-zag lines and step-frets, curvilinear lines, or diagonal lines. On rare occasions the designs are just curvilinear lines or connected V forms. The wall form is inleaning on the upper portion and incurving convergent on the lower portion. The rim form is outcurving with a rounded lip or direct with a rounded lip. The interior surface treatment
is commonly a wiped rim with a smoothed body, and occasionally partially burnished, smoothed, or burnished. The exterior surface treatment if either burnished or smoothed.

_Incurving Wall Bowl/Neckless Jar: (GW Type 33 – GW Type 37)_

GW Type 33 – Undecorated (Not Drawn)

GW Type 33 is an undecorated incurving wall bowl or neckless jar with a direct rim and rounded lip. The interior and exterior surface treatment is burnished.

GW Type 34 – Exterior Incised (Not Drawn)

GW Type 34 is an exterior incised incurving wall bowl or neckless jar. Commonly motifs are decorative panels formed by horizontal lines containing vertical lines, curvilinear lines, or punctuations and vertical lines. Less common are just incised horizontal lines. The rim form is commonly direct with a rounded rim, and occasionally direct with interior thickening and a rounded lip. The interior surface treatment is burnished, smoothed, or partially burnished. The exterior surface treatment is burnished or smoothed.

GW Type 35 – Exterior Incised (Not Drawn)

GW Type 35 is an exterior incised incurving wall bowl or neckless jar. Commonly motifs are decorative panels formed by horizontal lines containing curvilinear lines, rectilinear lines, connected Λ (lamda forms), or zig-zags. Rarely are there just curvilinear lines. The rim form is commonly outcurving with a rounded lip, and rarely outcurving with a slight interior thickened rim and a rounded lip. The interior surface treatment is commonly burnished or partially burnished and rarely with a wiped rim and a partially burnished body. The exterior surface treatment is commonly smoothed and occasionally burnished or partially burnished.
GW Type 36 – Exterior Incised

GW Type 36 is an exterior incised incurving wall bowl or neckless jar. Commonly motifs are decorative panels formed by sets of parallel horizontal lines containing double s-sets. The rim form is commonly incurving and interior thickened with a rounded lip. The interior surface treatment is commonly partially burnished over wiped and rarely only wiped. The exterior surface treatment is commonly heavily burnished over wiped.

GW Type 37 – Exterior Incised with Strap Handle

GW Type 37 is an exterior incised slightly incurving wall bowl or neckless jar with a strap handle. The incised motif on the exterior body portion of the vessel consists of decorative
panels formed by horizontal lines containing curvilinear and rectilinear lines. In one case there is complex incising on the interior of an outcurving rim. The rim form is outcurving with a rounded lip. The interior surface treatment is burnished around the rim and wiped on the body or totally smoothed. The exterior surface treatment is smoothed or partially burnished.

**Jars: (GW Type 38 – GW Type 44)**

GW Type 38 – Exterior Incised on Neck

GW Type 38 is an exterior incised jar with a flange or ridges on a bulge mid-neck. Incised wavy lines are located around the neck or on the flange. The neck form is composite silhouette, leading to a rim that is commonly outcurving with a rounded lip, and occasionally
direct with a rounded lip. The interior surface treatment is commonly wiped, and occasionally is
smoothed, has a wiped neck with a smoothed body, or a wiped neck with a plain body. The
exterior surface treatment is occasionally wiped with a burnished body or wiped with a smoothed
body. Exterior surface treatment for the neck of the vessel is most commonly wiped, but the
majority of sherds recovered from this type were broken and missing potions of the body.

Figure 5.23: GW Type 39
GW Type 39 – Exterior Incised on Neck and Body

GW Type 39 is an exterior incised jar with a flange or ridges on a bulge mid-neck, and is distinguished from Type 40 by the incised designs on both the neck and the body of the vessel. Incised wavy lines are located around the neck or on the flange and more complex incised designs are located on the body. The neck form is composite silhouette, leading to a rim that is outcurving with a rounded lip. The interior surface treatment has either a wiped neck with a plain body or a wiped neck with a smoothed body. The exterior surface treatment is either a wiped neck with a burnished body or a wiped rim with a smoothed body.

GW Type 40 – Exterior Incised with Flange

GW Type 40 is an exterior incised jar on a flange or ridges on a bulge mid-neck and diagonal or vertical grooves, similar to those found on GW Type’s 21, 22, and 23, on the body of the vessel. Incised wavy lines are located around the neck or on the flange, while the grooves are located along the whole of the body of the vessel. The neck form is composite silhouette, leading to a rim that is commonly direct with a rounded rim or occasionally outcurving with a rounded lip. The interior surface treatment is commonly a wiped neck with a plain body or
occasionally totally wiped. The exterior surface treatment is either a wiped neck with a
smoothed body, sometimes a plain or matted body, or occasionally a smoothed body.

GW Type 41 – Exterior Incised on Neck and Body (Not Drawn)

GW Type 41 is an exterior incised jar both on a flange or ridges on a bulge mid-neck and
on the interior portion of the rim of the vessel. Incised wavy lines are located around the neck or
on the flange, while more complex designs are located on the body. The complex designs are
horizontal lines creating decorative panels containing curvilinear lines. The neck form is
composite silhouette, leading to a rim that is either outcurving with a rounded lip or outangled
with a rounded lip. The interior surface treatment is wiped. The exterior surface treatment is
either wiped or smoothed along the neck. The lack of body sherds for this type makes it
impossible to describe a specific surface treatment for the interior and exterior body.

Figure 5.25: GW Type 42
GW Type 42 – Exterior Incised on Body

GW Type 42 is an exterior incised jar with a short outleaning or slightly outcurving neck. Complex incised motifs are located on the body of the vessel. The rim form is direct with a rounded rim. The interior surface treatment is commonly a partially burnished neck with a wiped body or a burnished over wiped neck with a plain body, or occasionally a burnished neck with smoothed body. The exterior surface treatment is commonly a wiped neck with either a smoothed or burnished body.

![Image of GW Type 42]

Figure 5.26: GW Type 43

GW Type 43 – Undecorated Small Cóntaros

Type 43 is a small thin cóntaro with short sharply outcurving necks. The rim form is direct with a rounded rim. The interior surface treatment for the neck is commonly wiped, and rarely smoothed or burnished. The exterior surface treatment is wiped. The lack of body sherds for this type makes it impossible to describe a specific surface treatment for the interior and exterior body.
GW Type 44 – Miniature Jar or Ollita

GW Type 44 is a miniature jar or ollita. These vessels are differentially decorated with a hole for suspension and diagonal grooves on the body, or a strap handle and appliqué along the body of the vessel. The rim form is either direct with a rounded lip or outcurving with a rounded lip. The interior surface treatment is either plain or has a wiped rim with a plain body. The exterior surface treatment either has a wiped rim with a partially burnished or smoothed body, or is totally smoothed.

_Coarse Brown ware_

**Bowls:** (CBW Type 1 – CBW Type 8)

**Conical Bowls:** (CBW Type 1 – CBW Type 2)

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*Figure 5.27: CBW Type 1*
CBW Type 1 – Undecorated

CBW Type 1 is currently the most ubiquitous coarse brown ware form found during the Yuta Tiyoo phase. Type 1 is a broad category of undecorated conical bowls. The wall form is commonly outleaning, or outcurving, and occasionally slightly incurving. The rim form is commonly direct with a rounded lip, and occasionally outcurving with a rounded lip. In rare occasions the rim is outcurving and slightly thickened on the exterior with a rounded lip, direct and slightly exterior thickened with a rounded lip, slightly incurving with a rounded lip, or direct with a flattened lip. The surface treatment of the vessel is highly variable. The interior surface of the vessel is most commonly burnished, occasionally partially burnished or smoothed, and rarely wiped, plain, or matted. The exterior surface of the vessel is commonly burnished, occasionally scraped, partially burnished or burnished over wiped, and rarely wiped, smoothed, or plain. While the surface of this form is commonly unslipped or washed there is occasionally orange wash on the interior and exterior of the vessel, and rarely orange wash or a black graphite slip just on the interior of the vessel.

Figure 5.28: CBW Type 2

CBW Type 2 – Undecorated with Rim Flange

CBW Type 2 is a conical bowl with an exterior rim flange. The rim flange is occasionally decorated with punctuations. The wall form is either outleaning or slightly incurving, and some of these walls are very thick. The rim form is either direct with a rounded
lip or outcurving with a rounded lip. The interior surface of the vessel is commonly burnished and rarely plain. The exterior surface treatment of the vessel is slightly more variable. The exterior can be scraped, smoothed, plain, or have multiple treatments. There are various examples of vessels with a partially burnished rim and a scraped body, or with a smoothed rim and a scraped body. In one case an orange wash has been applied to the exterior and interior of the rim.

Semispherical Bowls: (CBW Type 3 – CBW Type 4)

Figure 5.29: CBW Type 3

CBW Type 3 – Undecorated

CBW Type 3 is a grouping of the various undecorated semispherical bowls. The rim form is commonly direct with a rounded lip, and occasionally direct with a flattened lip. In rare occasions the rim is direct and slightly thickened on the interior with a rounded lip, direct and tapering with a rounded lip, or outcurving with a rounded lip. The surface treatment of the vessel is highly variable. The interior surface of the vessel is either burnished, burnished over wiped, smoothed, or plain. The exterior surface of the vessel is commonly scraped, occasionally
burnished, plain, or has a wiped rim with a scraped body, and rarely wiped or smoothed. While the surface of this form is commonly unslipped or washed there is occasionally an orange wash on the interior or a red slip on the interior and exterior of the vessel.

CBW Type 4 – Undecorated (Not Drawn)

CBW Type 4 is an undecorated semispherical bowl that is heavily thickened along the interior of the rim. The dramatic thickening of the Type 4 rim distinguished it from Type 3. This type is similar to Minizundo phase semispherical brown wares but is steeper walled. The rim form is direct and is heavily thickened on the interior with a rounded lip. The interior surface of the vessel is either burnished or smoothed. The exterior surface is burnished or smoothed.

*Cylindrical Bowls: (CBW Type 5)*

CBW Type 5 – Undecorated (Not Drawn)

CBW Type 5 is an undecorated vessel. The rim form is direct with a flattened lip. The interior surface treatment is either smoothed or wiped. The exterior surface is either wiped or plain/matted.

*Composite Silhouette Bowls: (CBW Type 6):*
CBW Type 6 – Undecorated

CBW Type 6 is an undecorated, restricted mouthed composite silhouette bowl. The wall form is incurving on the lower portion and inleaning on the upper portion. The rim form is commonly direct with a rounded lip and occasionally direct with a flattened lip. The interior surface is either burnished, partially burnished over wiped, smoothed, or plain/matted. The exterior surface is commonly smoothed and occasionally partially burnished. In some cases the interior and exterior of the vessel has an orange to red slip or wash. There are also two examples of strap handles added to the body of the vessel.

_Incurving wall bowls/Neckless Jars: (CBW Type 7 – CBW Type 8)_
CBW Type 7 – Undecorated

CBW Type 7 is an undecorated incurving wall bowl or neckless jar. The rim form is commonly outcurving with a rounded lip or direct and tapering with a rounded lip, and occasionally direct with a flattened lip. The interior surface is commonly burnished, plain, or matted, and occasionally wiped. The exterior surface is commonly burnished, occasionally partially burnished, and rarely scraped. In one example a red slip was added to the exterior of the vessel.

CBW Type 8 – Undecorated with Large Strap Handle
CBW Type 8 is an undecorated incurving wall bowl or neckless jar with a large strap handle. The rim form is direct with a rounded lip. The interior surface is smoothed and the exterior surface is partially burnished.

**Jars: (CBW Type 9 – CBW Type 13)**

CBW Type 9 – Undecorated Jar

CBW Type 9 is an undecorated jar. The neck form of the vessel is outcurving and usually meets the body at a curve. The rim form is commonly direct with a rounded rim, occasionally direct with a flattened rim, and rarely direct with a tapering rim. The interior surface treatment of the vessel is commonly smoothed with a plain body or burnished neck with a plain body, and occasionally wiped. The exterior surface treatment of the vessel is commonly
burnished or smoothed, occasionally wiped with a smoothed body, and rarely wiped. Occasionally a red slip or wash is added to the interior neck and the whole of the exterior surface, and rarely an orange wash is added to the interior neck and the whole of the exterior surface.

Figure 5.34: CBW Type 10

CBW Type 10 – Undecorated Jar with Thick Walls

CWB Type 10 is a thick walled, undecorated jar. The neck form of the vessel is outcurving, exterior thickened, and usually meets the body at a curve. The rim form is direct with exterior thickening, and has a rounded lip. The exterior and interior surfaces of the vessel are smoothed.
Figure 5.35: CBW Type 11

CBW Type 11 – Undecorated Jar with Large, Long Neck

CBW Type 11 is a large, long necked, undecorated jar. The neck form is either outcurving or outleaning and meets the body of the vessel at an angle. The rim form is direct with a rounded lip. The interior surface of the vessel is smoothed along the neck and scraped on the body. The exterior surface is either smoothed or heavily burnished.
CBW Type 12 – Undecorated Jar with Small, Short Neck

CBW Type 12 is a small, short necked, undecorated jar. The neck form is outcurving and meets the body of the vessel at a curve. The rim form is commonly direct with a rounded lip and occasionally direct with a tapered lip. The interior surface of the vessel is smoothed along the neck and plain on the body. The exterior surface is either smoothed or smoothed over wiped.

CBW Type 13 – Undecorated Short Neck

CBW Type 13 is a short necked, undecorated jar. The neck form is sharply outcurving and meets the body of the vessel at a curve. The rim form is direct with a rounded lip. The interior surface of the vessel is either smoothed along the neck and plain on the body or burnished around the neck with a plain body. The exterior surface is either burnished or burnished over wiped.
Orange Ware: (OW Type 1 - OW Type 40)

Bowls: (OW Type 1 – OW Type 38)

Conical Bowls: (OW Type 1 – OW Type 8)

Figure 5.38: OW Type 1

OW Type 1 – Undecorated

OW Type 1 is an undecorated conical bowl. The wall form is commonly outleaning, and rarely slightly incurving, or outcurving. The rim form is commonly direct with a rounded lip or outcurving with a rounded lip. Occasionally the rim is direct with a tapering lip or outangled with a rounded lip. In rare occasions the rim is outangled with a tapering lip, everted with a rounded lip, or direct with a flattened lip. The interior surface is commonly burnished, occasionally burnished over wiped, and rarely wiped or smoothed. The exterior surface is commonly smoothed, partially burnished or burnished. Occasionally the exterior is burnished
over scraped or partially burnished over scraped. In rare occasions the exterior is wiped or partially burnished with a wiped rim.

Figure 5.39: OW Type 2

OW Type 2 – Red Paint

OW Type 2 is a conical bowl decorated with red paint. The wall form is commonly outleaning, occasionally slightly incurving, and rarely outcurving. The rim form is commonly direct with a rounded lip. Occasionally the rim is direct with a tapering lip or outcurving with a rounded lip. In rare occasions the rim is outangled with a flattened lip or direct with a flattened lip. The interior surface is commonly burnished. The exterior surface is commonly burnished. Occasionally the exterior is partially burnished or burnished over wiped. In rare occasions the exterior is burnished over scraped. The red paint is commonly on the interior only, exterior only, or on both the interior and exterior of the vessel. The paint is most commonly covering all of the
surfaces or in the form of horizontal bands across the body and rim of the vessel, and occasionally vertical bands from base to rim.

Figure 5.40: OW Type 3

OW Type 3 – White Paint

OW Type 3 is a conical bowl decorated with white paint. The wall form is outleaning. The rim form is commonly direct with a rounded lip, and occasionally direct with a tapering lip or outcurving with a rounded lip. The interior surface is commonly burnished. The exterior surface is commonly burnished, and occasionally partially burnished, burnished over wiped or burnished over scraped. The white paint is commonly on the interior of the vessel and occasionally on the exterior or both interior and exterior of the vessel. The paint commonly covers all of the surfaces and occasionally horizontal bands across the body and rim of the vessel. In the example provided by Figure 5.40 much of the eroded.

OW Type 4 – Red and White Paint (Not Drawn)
OW Type 4 is a conical bowl decorated with both red and white paint. The wall form is commonly outleaning and rarely slightly incurving. The rim form is commonly direct with a rounded lip, occasionally direct with a tapering lip or outcurving with a rounded lip, and rarely outcurving with a tapering lip. The interior surface is commonly burnished. The exterior surface is commonly burnished, and occasionally burnished over scraped. The paint is commonly found on the interior or interior and exterior surfaces, and rarely just on the exterior. The red and white paint commonly forms horizontal bands, often alternating colors extending down the rim and body of the vessel. Occasionally the whole of the vessel is covered with alternating sections or horizontal bands of red and white paint. On rare occasion there are swirls of red and white paint across the surface of the vessel.

Figure 5.41: OW Type 5
OW Type 5 – Exterior Incised

OW Type 5 is an exterior incised conical bowl. The wall form is commonly outleaning, occasionally outcurving, and rarely incurving. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct with a tapering rim. The interior and exterior surfaces are commonly burnished. The incised designs are most commonly horizontal lines just below the rim, occasionally parallel lines or curvilinear lines, and rarely zig-zags.

OW Type 6 – Exterior and Interior Incised with Rim Flange (Not Drawn)

OW Type 6 is an exterior and interior incised conical bowl with a rim flange. The incised designs on the body of the vessel are commonly curvilinear and rectilinear. The rim flange is occasionally decorated with punctuations. The wall form is either outleaning or outcurving. The rim form is direct with a rounded lip or outcurving with a rounded lip. The interior surface is either burnished over wiped, partially burnished, or wiped only. The exterior surface is either burnished over wiped or partially burnished.

Figure 5.42: OW Type 7
OW Type 7 – Exterior Incised with Red or Orange Slip

OW Type 7 is an exterior incised conical bowl with a red or orange slip on the interior and exterior surfaces. The wall form is outleaning. The rim form is commonly outcurving with a rounded lip, and occasionally direct with a rounded lip or outleaning with a rounded lip. The interior and exterior surfaces are commonly burnished and rarely burnished over wiped. The incised motifs are commonly horizontal lines, and occasionally horizontal lines creating decorative panels containing curvilinear lines or step-frets.

OW Type 8 – Exterior Flange (Not Drawn)

OW Type 8 is a conical bowl with a flange on the exterior and rarely incised decorations on the exterior. The wall form is outleaning. The rim form is either direct with a rounded lip or direct with a tapering rim. The interior and exterior surfaces are either burnished or burnished over wiped. The incised decorations are horizontal lines.

Semispherical Bowls: (GW Type 9 – GW Type 21)

Figure 5.43: OW Type 9
OW Type 9 – Undecorated

OW Type 9 is an undecorated semispherical bowl. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished, or burnished over scraped. Occasionally the exterior is wiped. On rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scraped with a wiped rim or smoothed.

OW Type 10 – Red Paint (Not Drawn)

OW Type 10 is a semispherical bowl decorated with red paint. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished, or burnished over scraped. Occasionally the exterior is wiped. In rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scraped with a wiped rim, or smoothed. The painted decorations are usually on the interior and occasionally on the exterior or both the interior and exterior. Common decorations include entire surfaces, horizontal bands on the rim, horizontal bands on the body, or diagonal bands on the body. Less frequent designs are step frets or vertical bands.
Figure 5.44: OW Type 11

OW Type 11 – White Paint

OW Type 11 is a semispherical bowl decorated with white paint. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished or burnished over scraped. Occasionally the exterior is wiped. On rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scraped with a wiped rim, or smoothed. The painted decorations are commonly on the interior and occasionally on the exterior or both the interior and exterior. Common decorations include entire surfaces, horizontal bands on the rim, or horizontal bands on the body. Less frequent designs are vertical bands, circles, or U-shaped dips.
OW Type 12 – Red and White Paint

OW Type 12 is a semispherical bowl decorated with both red and white paint. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished or burnished over scraped. Occasionally the exterior is wiped. On rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scrapped with a wiped rim or smoothed. The painted decorations are commonly on the interior, the exterior, and both the interior and exterior. The common decorations include the entire surfaces, alternating horizontal bands of red and white paint from the rim down to the body. Less frequent designs are circles and bands. There are some examples of red paint over
white paint creating complex designs. In the example provided by Figure 5.45 much of the eroded.

Figure 5.46: OW Type 13

OW Type 13 – Red and Cream Paint

OW Type 13 is a semispherical bowl decorated with both red and cream paint. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished, or burnished over scraped. Occasionally the exterior is wiped. On rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scraped with a wiped rim, or smoothed. The painted decorations are commonly on both the interior and exterior of the vessel, and occasionally just on the interior. Common
decorations include entire surfaces along with horizontal bands of red and cream paint sometimes alternating from the rim down to the body.

**OW Type 14 – Orange Paint (Not Drawn)**

*OW Type 14 is a semispherical bowl decorated with orange paint. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip, and rarely direct or outcurving with a tapering lip. The interior surface is commonly burnished and occasionally partially burnished. The exterior surface is commonly burnished, partially burnished, or burnished over scraped. Occasionally the exterior is wiped. On rare occasions the exterior is smoothed with a wiped rim, partially burnished with a wiped rim, smoothed with a burnished rim, scraped with a wiped rim, or smoothed. The painted decorations are only on the interior surface of the vessel.*

**OW Type 15 – Red Paint with Exterior Ridges and Incising (Not Drawn)**

*OW Type 15 is a semispherical bowl decorated with red paint, ridges, and incised decoration on the exterior. The rim form is direct with a tapering lip. The interior and exterior surface is burnished. The red paint covers the entire surface of the interior and only the rim of the exterior. Just below the painted area on the exterior is decorative panel formed by 2 ridges with vertical incised lines between the ridges.*

**OW Type 16 – OW Type 20**

*OW Type 16 through OW Type 20 are all exterior incised semispherical bowls, but have been broken down into five distinct types based on the specific motifs.*

**OW Type 16 – Exterior Incised (Not Drawn)**

*OW Type 16 is an exterior incised semispherical bowl. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip or direct with a tapering lip, and*
rarely outangled with a rounded lip. The interior surface is commonly burnished or burnished over wiped, and occasionally partially burnished. The exterior surface is commonly burnished and rarely partially burnished. The vessel is incised with 1 to 5 horizontal lines below the rim, most commonly 3 or 4 lines. The vessels also rarely have red slip.

OW Type 17 – Exterior Incised (Not Drawn)

OW Type 17 is an exterior incised semispherica bowl. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip or direct with a tapering lip, and rarely outangled with a rounded lip. The interior surface is commonly burnished or burnished over wiped, and occasionally partially burnished. The exterior surface is commonly burnished and rarely partially burnished. The vessel is incised with 1 to 4 horizontal lines, most commonly 3 or 4 lines, below the rim. Decorative panels are formed by the horizontal lines and contain s-curves and occasionally double s-curves. The vessels also rarely have red slip.

Figure 5.47: OW Type 18

OW Type 18 – Exterior Incised

OW Type 18 is an exterior incised semispherical bowl. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip or direct with a tapering lip, and rarely outangled with a rounded lip. The interior surface is commonly burnished or burnished over wiped, and occasionally partially burnished. The exterior surface is commonly burnished
and rarely partially burnished. The vessel is incised with 3 to 5 horizontal lines, most commonly 3 or 4 lines, below the rim. The horizontal lines formed decorative panels containing horizontal slashes often alternating with s-curves and divided by vertical lines. The vessels also rarely have red slip.

Figure 5.48: OW Type 19

OW Type 19 – Exterior Incised
OW Type 19 is an exterior incised semispherical bowl. The rim form is commonly direct with a rounded lip, occasionally outcurving with a rounded lip or direct with a tapering lip, and rarely outangled with a rounded lip. The interior surface is commonly burnished or burnished over wiped, and occasionally partially burnished. The exterior surface is commonly burnished and rarely partially burnished. The vessel is incised with 2 to 6 horizontal lines below the rim. The horizontal lines formed decorative panels containing miscellaneous designs such as hatched triangles, cross-hatching, loops, step-frets, curvilinear lines, and zig-zags. The vessels also rarely have red slip.

![Figure 5.49: OW Type 20](image)

**Figure 5.49: OW Type 20**

OW Type 20 – Exterior Incised with Ridges

OW Type 20 is an exterior incised semispherical bowl with ridges. Type 20 is decorated with incised horizontal lines along the body, and ridges usually around the basal portion. The rim form is commonly direct with a rounded lip and occasionally direct with a tapering lip. The interior surface is commonly burnished and occasionally burnished over wiped.
OW Type 21 – Wide Everted Rim

OW Type 21 is a semispherical bowl with a wide everted rim. The rim form is everted with a rounded lip or slightly everted and offset with a rounded lip. The interior and exterior surface is completely plain. The presence of fingerprints or marks can be seen from the construction of the vessel.

*Exterior Carved and Modeled Bowls: (OW Type 22 – OW Type 24)* This category has been separated from the formal attributes of bowl form due to its highly distinctive decorative characteristics. OW Type 22, 23, and 24 are possibly the most elaborate Yuta Tiyoo vessel type.
OW Type 22 – Semispherical Bowl: Exterior Carved and Modeled

OW Type 22 is a semispherical bowl with exterior carved and modeled designs usually with an incised exterior. The rim form is commonly direct with a rounded lip, and occasionally direct with a tapering lip, direct with a flattened lip, or outcurving with a rounded lip. The interior surface is commonly burnished and rarely smoothed. The exterior surface is commonly burnished and occasionally burnished over wiped or burnished over scraped. The exterior surface also rarely has a red slip.

Figure 5.52: OW Type 23

OW Type 23 – Cylindrical Bowl: Exterior Carved and Modeled

OW Type 23 is a cylindrical bowl with exterior carved and modeled designs usually with an incised exterior. The rim form is commonly direct with a rounded lip, and occasionally direct with a tapering lip, direct with a flattened lip, or outcurving with a rounded lip. The interior surface is commonly burnished and rarely smoothed. The exterior surface is commonly burnished and occasionally burnished over wiped or burnished over scraped. The exterior surface also rarely has a red slip.
OW Type 24 – Conical Bowl: Exterior Carved and Modeled

OW Type 24 is a conical bowl with exterior carved and modeled designs usually with an incised exterior. The wall form is outleaning. The rim form is commonly direct with a rounded lip, and occasionally direct with a tapering lip, direct with a flattened lip, or outcurving with a rounded lip. The interior surface is commonly burnished and rarely smoothed. The exterior surface is commonly burnished and occasionally burnished over wiped or burnished over scraped. The exterior surface also rarely has a red slip.

Cylindrical Bowls: (OW Type 25 – OW Type 31)
OW Type 25 – Undecorated

OW Type 25 is an undecorated cylindrical bowl. The rim form is commonly direct with a rounded lip, and rarely direct with a tapering lip, outleaning with a rounded lip, or direct with a flat lip. The interior surface treatment is commonly burnished, occasionally burnished over wiped. The exterior is commonly burnished.

OW Type 26 – Red Paint or Slip (Not Drawn)

OW Type 26 is a cylindrical bowl with red paint or slip. The rim form is commonly direct with a rounded lip, and occasionally direct with a flattened lip. The interior and exterior surfaces are both burnished. The red paint or slip is commonly on both the interior and exterior of the vessel and occasionally just on the exterior.

OW Type 27 – White Slip (Not Drawn)

OW Type 27 is a cylindrical bowl with a white slip. The rim form is commonly direct with a rounded lip. The interior and exterior surfaces are both burnished. The white slip is commonly on the exterior of the vessel.
Figure 5.55: OW Type 28

OW Type 28 – Red Paint on Cream Slip

OW Type 28 is a cylindrical bowl with red paint on a cream slip. The rim form is commonly direct with a rounded lip, and occasionally direct with a flattened lip. The interior surface is commonly burnished, and occasionally burnished over wiped or partially burnished over wiped. The exterior surface is burnished. The cream slip covers both the interior and exterior surfaces and the red paint forms complex designs on the exterior surface, including interconnecting diagonal and horizontal bands.

OW Type 29 – Orange Wash (Not Drawn)

OW Type 29 is a cylindrical bowl with orange wash on the exterior surface. The rim form is direct with a rounded lip. The interior and exterior surfaces are both burnished.
OW Type 30 – Exterior Incised

OW Type 30 is an exterior incised cylindrical bowl. The rim form is commonly direct with a rounded lip, and occasionally outcurving with a rounded lip. The interior surface is commonly burnished, and occasionally burnished over wiped. The exterior surface is burnished. The exterior incised motifs are commonly horizontal lines, or horizontal lines creating panels containing curvilinear and rectilinear lines.

OW Type 31 – Cylindrical Cup with Exterior Incising

OW Type 31 is a small cylindrical cup with incised decoration on the exterior. The rim form is direct with a rounded lip or direct with a tapered lip. The interior surface is partially
burnished over smoothed, or smoothed. The exterior surface is burnished over scraped. The incised decorations are commonly horizontal lines.

*Composite Silhouette Bowls: (OW Type 32 – OW Type 38)*

**Figure 5.58: OW Type 32**

OW Type 32 – Undecorated

OW Type 32 is an undecorated composite silhouette bowl. The wall form is commonly outleaning on the upper portion and incurving on the lower portion. Occasionally the wall form is outleaning on the upper portion and outleaning on the lower portion. The rim form is commonly direct with a rounded lip. Occasionally the rim is direct with a tapering lip or outcurving with a rounded lip. The interior surface is commonly burnished, and occasionally smoothed. The exterior surface is commonly burnished.
Figure 5.59: OW Type 33

OW Type 33 – Red Paint

OW Type 33 is a red painted composite silhouette bowl. The wall form is commonly outleaning on the upper portion and incurving on the lower portion, and occasionally outleaning on the upper portion and outleaning on the lower portion. The rim form is commonly direct with a rounded lip, and occasionally direct with a flattened lip. The interior surface is commonly burnished, and occasionally smoothed. The exterior surface is commonly burnished or burnished over scraped, and occasionally scraped with a wiped rim. The red paint is decorated only on the interior, just the exterior, or both the interior and exterior. The painted motifs are commonly a single horizontal band around the rim of the vessel. Occasionally there are multiple horizontal bands along the body of the vessel.
Figure 5.60: OW Type 34

OW Type 34 – Exterior Incised

OW Type 34 is an exterior incised composite silhouette bowl. The wall form is commonly outleaning on the upper portion and incurving on the lower portion, and occasionally outleaning on the upper portion and outleaning on the lower portion or inleaning on the upper portion and outleaning on the lower portion. The rim form is commonly direct with a rounded lip, or outcurving with a rounded lip. Both the interior and exterior surfaces are commonly burnished. The incised motif on the vessel is commonly horizontal lines or horizontal lines creating a panel that contains rectilinear lines.

OW Type 35 – Undecorated with Flange (Not Drawn)

OW Type 35 is a composite silhouette bowl with an exterior flange connected at the break between the two walls. The wall form is commonly outleaning on the upper portion and incurving on the lower portion, and occasionally outleaning on the upper portion and outleaning on the lower portion. The rim form is commonly direct with a rounded lip. The interior surface is commonly burnished, or burnished over wiped. The exterior surface is commonly burnished.
Figure 5.61: OW Type 36

**OW Type 36 – Exterior Incised**

OW Type 36 is an exterior incised composite silhouette bowl. The wall form is commonly outleaning on the upper portion and incurving on the lower portion, and occasionally outleaning on the upper portion and outleaning on the lower portion. The rim form is commonly outcurving with a rounded lip, and occasionally direct with a rounded lip. The interior surface is commonly burnished, burnished along the rim and smoothed on the body, or smoothed. The exterior surface is commonly burnished.

Figure 5.62: OW Type 37

**OW Type 37 – Red and Orange Paint**

OW Type 37 is a red and orange painted composite silhouette bowl. The red paint decorates the interior and exterior rim portion and the orange paint covers the exterior body. The
wall form is commonly outcurving on the upper portion and outleaning on the lower portion. The rim form is commonly direct with a flat lip. Both the interior and exterior surfaces are burnished.

OW Type 38 – Red and Cream Paint (Not Drawn)

OW Type 38 is a red and cream painted composite silhouette bowl. The red paint decorates the interior and exterior rim portion and the cream paint covers the exterior body. The wall form is commonly outleaning on the upper portion and slightly outleaning on the lower portion. The rim form is commonly direct and thickened on the interior with a rounded lip. The interior surface is commonly wiped. The exterior surface is commonly burnished over wiped.

Jars: (OW Type 39 – OW Type 40)

OW Type 39 – Short Neck with Exterior Incised (Not Drawn)

OW Type 39 is a short neck jar with the exterior incised. The neck form is outcurving. The lip form is direct with a rounded lip. The interior surface has a burnished rim and a plain body. The exterior surface is smoothed. The exterior incised motif are horizontal lines forming panels containing s-curves.

OW Type 40 – Short Neck with White Slip or Wash (Not Drawn)

OW Type 40 is a short necked jar with an exterior white slip or wash. The neck form is outcurving. The rim form is direct with a rounded lip. The interior surface is commonly wiped, plain, or has a burnished rim and a smoothed body. The exterior surface is either smoothed or plain. The white slip or wash covers the entirety of both surfaces.
Conclusion:

In this chapter, I have presented a summary of the Late Classics ceramic material excavated throughout the lower Rio Verde valley. The Yuta Tiyoo phase ceramic typology presents interesting insights into the daily lives associated with the construction and use of the Late Classic ceramics. Based on the typological characteristics described previously, I offer broad assessments of the consumptive practices associated with the Yuta Tiyoo phase ceramics.

The production of the gray ware ceramics increased dramatically during the Yuta Tiyoo phase, since its introduction to the region during the Miniyua phase (150 BCE – 100 CE)(Levine 2002). The size of gray ware vessels indicates that they were likely used as serving vessels for the consumption of foodstuffs rather than production or storage of foodstuffs. Conical bowls make up the vast majority of the current gray ware collection, suggesting that it was the preferred form for the Late Classic Chatino. The gray ware conical bowls also demonstrated the largest amount of variability in formal and decorative attributes in the gray wares paste category. This variability suggests that there were less stringent restrictions on the production of certain styles of gray ware vessels.

The production of coarse brown ware vessels during the Yuta Tiyoo phase seems to have revolved around the production and storage of foodstuffs. The production of coarse brown ware vessels not used for the production and storage of foodstuffs seemingly dropped off in frequency during the Late Classic period, as compared to the Terminal Formative. The decline in use is most likely due to the increase in use of fine ware vessels, specifically the increase in gray ware vessels, during food consumption. There is currently no decorated coarse brown ware vessels found during the Late Classic period, reinforcing the utilitarian or functional use of coarse brown ware vessels.
The production of the orange ware vessels seems to have remained relatively unchanged since the Late Terminal Formative period. Like the gray ware vessels, the size of orange ware vessels indicates that they were likely used as serving vessels for the consumption of food stuffs rather than production or storage of food stuffs. Semispherical bowls make up the vast majority of the current orange ware collection and suggest that it was the preferred form of this paste type for the Late Classic Chatino. The semispherical vessels also present the largest variability of decorative attributes in the orange wares paste category, suggesting that there were less stringent restrictions on the production of certain styles of orange ware vessels. The use of paint on orange ware vessels was more common than the other two paste types during this period. The use of various pigments like red, cream, white, and orange decorated the exterior and interior of orange ware vessels, however red is currently the most prevalent pigment chosen during the Late Classic.

The lack of comales, griddles for making tortillas or heating dry foods, of any paste type in the current Yuta Tiyoo collection is rather enigmatic. Whether this is due to the use of another form or style of cooking instrument during this period, or the need for more diverse areas of large scale excavation so to identify areas of food production, future studies of the Yuta Tiyoo phase occupations across the region are needed. Further studies of the regional ceramics are also imperative to continue to advance and refine the ceramic typology. A more in-depth understanding of the Yuta Tiyoo phase typology is also essential to improve our overall understand of the lifeway’s of the Late Classic Chatino.

This typology will prove to be vital in Chapter 6 when describing the Late Classic midden excavated at the western edge of the sunken patio, designated Op. RV09 E-F6-F5, and the social practices associated with ritual feasting. However, it is important to note that further
studies of domestic areas of occupation may change this typology dramatically, and that what follows in Chapter 6 represents ritual events that might stress the use of ceramic types that was mostly not as prevalent in the household of the majority of the Chatino population at Río Viejo during the Late Classic period.
Chapter 6 – Op. RV09 Midden Analysis and Methods

The Late Classic Yuta Tiyoo ceramic typology both informed and was informed by the analysis of the Op. RV09 E midden. Op. RV09 E, a 1 x 1m excavation unit, was located at the western edge of the sunken patio, and penetrated to a depth of 5.08m. Op. RV09 E was chosen to investigate an anomaly detected by GPR (Barber 2008), as well as to expose the construction sequence of the sunken patio. Approximately 0.85m below the modern surface (18.76m a.s.l.) two stratigraphic layers (Op. RV09 E-F6 and F5) were exposed containing a high concentration of artifacts and were interpreted as a midden feature (Barber & Baillie 2011a, 2011b; Barber & Joyce 2011).

The midden feature is situated within a clay-silt matrix with a total maximum thickness of 0.53m. The midden was divided into two stratigraphic layers due to a shift of matrix color and texture. Op. RV09 E-F6 also contained a larger amount of shell flecks. Artifacts excavated from the midden include elaborate Late Classic ceramics, obsidian prismatic blades, and animal bone. The ceramic forms vary from musical instruments and figurines, to large storage and serving vessels. The midden was thoroughly analyzed during the summer of 2010.

This chapter reports the methods and results of the 2010 analysis of Op. RV09 E-F6 and F5. All ceramic artifacts recovered during the 2009 season were processed in two stages. During the first stage, all sherds were cleaned and separated by paste (e.g., coarse brown, gray, orange) using categories previously defined by Joyce (nd, 1991; Joyce et al. 2001). Sherds were subsequently counted and weighed by paste type. The second phase of analysis, conducted at the INAH facility at Cuilapan in 2010, entailed detailed documentation of artifact attributes. Analysis of figurines, musical instruments, and lithics entailed describing artifact features and noting production methods where possible.
Methods of Collection

The analysis of the Op. RV09 E midden focused on rim and decorated body sherds from ceramic vessels as well as documentation of a small collection of figurines and musical instruments. A total of 9,062 sherds were recovered from the midden levels (Table 6.1). Detailed documentation was undertaken for 1,428 decorated body and rim sherds although specific vessel forms could only be determined for 621 sherds. The attributes and attribute states were modified from previous analyses performed by Levine (2003) and Barber (2005). Attribute states for each sherd were recorded in an Excel database for later statistical studies.

Data collection of the midden ceramics followed this general pattern. All ceramics were removed from storage, separated into paste color, and laid out on a laboratory table. The majority of stored sherds had been marked in the field with their Field Specimen numbers, and those unmarked were marked before proceeding with the analysis. Both rim and body sherds were present in the stored collection. A considerable amount of time was spent attempting to refit pieces in order to represent the best sherd profile and to reduce the possibility of that the same vessel was counted more than once in the analysis. Once all refit possibilities had been exhausted, every diagnostic rim and decorated body sherd was examined and its attribute states recorded. Selected sherds were drawn.

The methods used for the collection of information of the special finds material, artifacts that are deemed to have special or significant purpose outside the mundane everyday activities, were fairly similar to that of the ceramics and lithics. All special finds were removed from storage, separated based on form, paste (if ceramic), color, and size. The majority of stored special finds had been marked with their Field Specimen numbers in the field, and those unmarked were marked before proceeding with the analysis. Measurements of length, width,
thickness, and weight were then taken. Each special find was then placed into a typological
category, which differentiated the form, as well as in some cases the function of the artifact.
Designations, such as figurine, whistle, flute, etc. were given to each artifact. After a designation
had been determined, each artifact was described in detail, and multiple photos were taken so
that cross collection comparisons could be made.

Results:

Ceramic Vessels

By both count and weight, coarse brown ware ceramics predominated when all rim and
body sherds were considered. Approximately half of the sample was comprised of this paste
category (see Table 6.1, Figure 6.1, Figure 6.2). In keeping with the Late Classic ceramic
assemblage, the only other paste types present were orange and gray wares. Both occurred in
approximately equivalent proportions, depending on whether weight or count is considered.
Gray ware vessels tend to have thicker walls than orange wares, which is reflected in the higher
weight in the overall assemblage (Table 6.1, Figure 6.2), as well as sherds identifiable type
(Table 6.4).

<table>
<thead>
<tr>
<th>Table 6.1: Paste Count and Weight of Total Op. RV09 E Midden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paste Distribution by Count</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Coarse Brown ware</td>
</tr>
<tr>
<td>Gray ware</td>
</tr>
<tr>
<td>Orange ware</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The abundance of coarse brown ware sherds in the total assemblage is a result of
characteristics of this paste type rather than a reflection of the actual distribution of sherds within
the sample. Coarse brown ware vessels have large temper and can break easily into many small pieces, cracking around the large inclusions of sand and even gravel in the paste. The low average sherd weight of the coarse brown ware vessels in the sample demonstrates high breakage rate of these large vessels (Table 6.2).

Coarse brown ware vessels also tend to be very large, with large orifices and thick walls. The weight of these sherds would have impacted the paste proportion by weight (Table 6.1, Figure 6.2). The weight of the total coarse brown ware collection (Table 6.1, Figure 6.2), relative to the amount of coarse brown ware rim sherds (Table 6.4, Figure 6.3) suggests that there were relatively few large vessels deposited in the Op. RV09 E midden.

![Paste Proportion by Count](image_url)

*Figure 6.1: Paste Proportion by Count*
The average sherd weights of the 1428 rim and decorated body sherds and the 624 sherds which vessel form could be determined were significantly higher. The higher average sherd weights for the Op. RV09 E midden correlated closer with the average sherd weights for other middens from the lower Río Verde Valley (Table 6.3). The average weight of coarse brown ware shreds in the other nine midden contexts studied by Barber (2005) and Levine (2002) ranged from 19.15 g to 78.46 g. Averages for all contexts from each study are reported in
Table 6.3: Average Sherd Weight by Paste Type, Analyzed Sherds

<table>
<thead>
<tr>
<th>Paste</th>
<th>Average Weight (g), Rims and Decorated Body Sherds</th>
<th>Average Weight (g), Sherds of Known Vessel Form</th>
<th>Average Weight (g), Sherds of Known Vessel Form (Barber 2005:407-449)</th>
<th>Average Weight (g), Sherds of Known Vessel Form (Levine 2002:223-230)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse Brown ware</td>
<td>23.15</td>
<td>44.87</td>
<td>71.42</td>
<td>41.25</td>
</tr>
<tr>
<td>Gray ware</td>
<td>17.8</td>
<td>28.39</td>
<td>16.29</td>
<td>14</td>
</tr>
<tr>
<td>Orange ware</td>
<td>7.5</td>
<td>11.57</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Table 6.3. However the average weight of the known vessel forms excavated by Barber (2005) and Levine (2002) are not applicable to the orange ware ceramics because each midden predates the introduction of orange wares into the lower Río Verde valley. The average weight of the gray ware sherds is also heavily impacted by the late introduction of the paste type during the Miniyua phase as well as the abundance of imported vessels.

Due to the differences in the size of vessels, their wall thicknesses, and their breakage rates, the rest of the analysis will focus on the 624 sherds for which forms could be identified.
Table 6.4: Proportion of Vessel Forms by Paste of Rims of Known Form

<table>
<thead>
<tr>
<th>Paste</th>
<th>Count</th>
<th>Proportion (%)</th>
<th>Weight</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange ware</td>
<td>361</td>
<td>58</td>
<td>4175</td>
<td>33</td>
</tr>
<tr>
<td>Gray ware</td>
<td>208</td>
<td>33</td>
<td>5906</td>
<td>47</td>
</tr>
<tr>
<td>Coarse brown ware</td>
<td>55</td>
<td>9</td>
<td>2468</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>624</td>
<td>100</td>
<td>12549</td>
<td>100</td>
</tr>
</tbody>
</table>

When only rims are considered, orange ware ceramics are the dominant ware in the collection (Figure 6.3, Table 6.4). The low proportion of coarse brown ware vessels as well as the lack of any comales indicates that the Op. RV09 E midden was not formed as a result of food preparation or domestic activities. Instead, the high number of small to medium sized orange and gray ware serving vessels indicates substantial food consumption, possibly as a result of ceremonial feasting. Eighty-eight percent of the vessels in the midden were fine ware serving bowls. As indicated by Table 6.5, bowls were the predominant vessel form in the Op. RV09 E midden (see Figure 6.4).

Table 6.5: Proportion Count of Vessel Forms by Paste

<table>
<thead>
<tr>
<th>Vessel Form</th>
<th>Brown ware Proportion (%)</th>
<th>Orange ware Proportion (%)</th>
<th>Gray ware Proportion (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowl</td>
<td>37</td>
<td>6</td>
<td>361</td>
<td>58</td>
</tr>
<tr>
<td>Jar</td>
<td>18</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>9</td>
<td>361</td>
<td>58</td>
</tr>
</tbody>
</table>
Figure 6.4: Proportion Count of Vessel Forms by Paste
Table 6.6: Count of Bowl Form by Paste Type

<table>
<thead>
<tr>
<th>Paste</th>
<th>Conical Bowl</th>
<th>%</th>
<th>Semispherical Bowl</th>
<th>%</th>
<th>Conical/Semispherical Bowl</th>
<th>%</th>
<th>Incurving Wall Bowl</th>
<th>%</th>
<th>Cylindrical</th>
<th>%</th>
<th>Composite Silhouette</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gray ware</td>
<td>123</td>
<td>21</td>
<td>57</td>
<td>10</td>
<td>1</td>
<td>.2</td>
<td>2</td>
<td>.2</td>
<td>3</td>
<td>.3</td>
<td>7</td>
<td>1</td>
<td>193</td>
</tr>
<tr>
<td>Orange ware</td>
<td>119</td>
<td>20</td>
<td>204</td>
<td>35</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>3</td>
<td>17</td>
<td>3</td>
<td>361</td>
</tr>
<tr>
<td>Brown ware</td>
<td>20</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>44</td>
<td>270</td>
<td>46</td>
<td>1</td>
<td>.1</td>
<td>2</td>
<td>.1</td>
<td>22</td>
<td>4</td>
<td>34</td>
<td>6</td>
<td>591</td>
</tr>
</tbody>
</table>

Figure 6.5: Count of Bowl Form by Paste Type
Differences in the proportion of bowl forms by paste type indicate that Late Classic Chatino potters used specific pastes for specific serving vessel forms (Table 6.6; Figure 6.5). The social meaning of differences in bowl form is not yet clear, but may represent shifting preferences in paste over time as orange ware ceramics became more widely accessible. Historically, gray ware bowls were primarily conical or composite silhouette in shape during the later Formative and Early Classic periods (Barber 2008, 2009). The widespread use of orange wares, which first occurs in the Early Classic, coincides with increased predominance of semispherical bowl forms. Semispherical bowls, furthermore, remained the most common bowl form into the Early Post-Classic Yugue phase (Hedgepeth 2010).

The majority of diagnostic rims excavated from the midden feature were small to medium sized (rim diameters of 4 – 20 cm). The most common vessel types identified from the midden were undecorated gray ware conical bowls (GW Type 1), undecorated orange ware semispherical bowls (OW Type 10), and red painted orange ware conical bowls (OW Type 2). Together, these three vessel types comprised 32 percent of bowl rims collected from the midden and 30 percent of the bowl rims by weight collected.

The gray ware (GW) bowl assemblage is dominated by the GW Type 1, which comprises 10 percent of the bowl sherds and 17 percent of the total bowl weight from the midden. Despite the abundance of GW Type 1, its mean weight is just 28.65g, far less than the 219g mean weight of GW Type 7. GW Type 7 is an elaborate conical bowl with incised interior bases and three to four hollow supports (Figures 6.6 and 6.7). Comprising just one percent of the total bowl assemblage, GW Type 7 makes up 15 percent of the total bowl weight, and 30 percent of the gray ware bowl weight.
The gray ware types, which remained comparatively intact, were medium sized, with a diameter of 24 – 27cm. The example depicted below shows the most complete GW Type 7 collected from the Op. RV09 E midden. The center portion of the vessel presents an incised bird or turkey design surrounded by the common circles and flaring line segments found on this type. At the base are three out of four bat-head effigy supports, which are a common marker of the Late Classic Yuta Tiyoo phase. These elaborately designed vessels would have been featured prominently at the feasting activities that took place on Md1. All GW Types are described in Chapter 5 and each GW type found in the Op. RV09 E midden is quantified in Table 6.7 below.

<table>
<thead>
<tr>
<th>Type</th>
<th>F5</th>
<th>F6</th>
<th>Total</th>
<th>Percent</th>
<th>Type</th>
<th>F5</th>
<th>F6</th>
<th>Total</th>
<th>Percent</th>
<th>Mean Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>48</td>
<td>60</td>
<td>31</td>
<td>1</td>
<td>449</td>
<td>1270</td>
<td>1719</td>
<td>33</td>
<td>28.65</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>36</td>
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<td>101</td>
<td>2</td>
<td>50.5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.5</td>
<td>3</td>
<td>32</td>
<td>0</td>
<td>32</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
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<td>0.5</td>
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<td>0</td>
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<td>70</td>
<td>1</td>
<td>14</td>
</tr>
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<td>4</td>
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</tr>
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<td>22</td>
<td>30</td>
<td>16</td>
<td>8</td>
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<td>688</td>
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<td>2</td>
<td>0.1</td>
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</tr>
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<td>1</td>
<td>0.5</td>
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<td>43</td>
<td>1</td>
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<td>9</td>
<td>16</td>
<td>25</td>
<td>13</td>
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<td>223</td>
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</tr>
<tr>
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<td>130</td>
<td>193</td>
<td>100</td>
<td>Total</td>
<td>1287</td>
<td>3886</td>
<td>5173</td>
<td>0</td>
<td>28.65</td>
</tr>
</tbody>
</table>
Figure 6.6: Exterior of GW Type 7

Figure 6.7: Interior of GW Type 7
Table 6.8: Orange Ware Bowl Assemblage

<table>
<thead>
<tr>
<th>Orange ware Type Count</th>
<th>Orange ware Type Weight</th>
</tr>
</thead>
<tbody>
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<td>-----</td>
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<td>15</td>
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</tr>
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<td>38</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
</tr>
</tbody>
</table>

Like the gray ware types, there is one orange ware type, OW Type 10, which is present in greater quantities than the rest (Table 6.8). OW Type 10, described previously, is the most
abundant type among all wares exposed by excavations and has the highest total weight of OW sherds collected. However, OW Type 10 has a relatively low mean weight of 10.97g (Table 6.8). Unlike the gray ware vessels, the orange ware vessels are more diverse and evenly dispersed between types.

Currently, the largest quantity of decorated orange ware sherds exposed by the Op. RV09 E midden is the OW Type 2 (Table 6.8). The red painted, conical bowls made up 7 percent of the total assemblage and 12 percent of the orange ware assemblage. The variance in their painting suggests a certain amount of social malleability when it came to the decoration of painted serving vessels.

The coarse brown ware bowls were very low in number and are limited to three separate type categories: CBW Type 1, 3, and 6. The presence of only 37 identifiable rim sherds (Table 6.9) suggests that large vessel were used in the transport of food, from areas of preparation onto Md1 and subsequently deposited in the area exposed by Op. RV09 E with the gray and orange ware serving vessels.

Table 6.9: Coarse Brown Ware Bowl Assemblage

<table>
<thead>
<tr>
<th>Coarse Brown ware Type Count</th>
<th>Coarse Brown ware Type Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
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<tr>
<td>1</td>
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<td>3</td>
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<tr>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
</tr>
</tbody>
</table>

**Figurines and Musical Instruments**

The Op. RV09 E midden also contained seven ceramic ear spool fragments, fifteen figurines, and five musical instruments (Table 6.10). Three anthropomorphic objects, two
figurines and one whistle, were mold-made. An avian applique flute was also mold-made, possibly representing the Psittacidae or True Parrot family due to the curvature of the beak and the concentric circles around the eyes (Figure 6.8). This form of flute was found in two other occasions, one with an appliqué lizard, possibly an iguana, and another missing the appliqué. While the flutes played a role in the feasting activity, whistles were also very important. Six whistles were recovered from the midden, all formed on the dorsal portion of figurines representing people.

The presence of the whistles and flutes, further bolsters the evidence of ritual or ceremonial feasting. Research in pre-Columbian Mesoamerican organology suggests that the use of musical instruments, like the aerophones found at Rio Viejo, held a favored position in both sacred and feasting activities (Ainsworth 1975). The ornamentation and elaboration of the flutes
would have expressed the symbolism or purpose of the sound projected by the instrument (Ainsworth 1975). The ornamentation and elaboration of the flutes would have also signified the importance of the objects as well as the importance of the ceremonies at which they were used.

<table>
<thead>
<tr>
<th>Table 6.10: Special Finds Ceramic Objects</th>
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<tbody>
<tr>
<td>Class of Artifact</td>
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<tr>
<td>Earspool Fragment</td>
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<tr>
<td>Anthropomorphic Figurine</td>
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<tr>
<td>Zoomorphic Figurine</td>
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<tr>
<td>Anthropomorphic Musical Instrument</td>
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<tr>
<td>Zoomorphic Musical Instrument</td>
</tr>
</tbody>
</table>

**Lithics**

A total of thirty-eight pieces of obsidian was excavated from the Op. RV09 E midden. The thirty-eight pieces of obsidian make up 52% of the obsidian collection sourced from Río Viejo by Williams (n.d.). Of the total assemblage 36 (95%) of the obsidian pieces were prismatic blade fragments and the other two (5%) were flake fragments (Williams n.d.). Williams (n.d.) concluded that 10 of the prismatic blades (26%) were green obsidian from the Pachuca source. The other 28 (74%) pieces were all various shades of gray. The majority of the total assemblage, 23 pieces (61%), came from the Ucareo source in Michoacan; 4 (10%) came from Zaragoza, Puebla, and a single piece (3%) was sourced to Otumba, in the state of Mexico.

**Conclusions**

The artifact assemblage from the Op. RV09 E midden at Río Viejo provides insights into ritual practices on Mound 1 during the Late Classic period. Both context and contents indicate that the Op. RV09 E midden was not formed as a result of domestic activity. Located just west of the Md1 sunken patio, materials in the midden were likely deposited after two distinct feasting
events, as suggested by the two separate stratigraphic layers. The activities that created the midden clearly included food consumption in the form of public feasting given the very high quantity of fine ware serving vessels and low quantity of utilitarian or cookware in the sample. The ritual nature of feasting is demonstrated by the presence of figurines and musical instruments.

The midden sheds light on the process by which feasting activities might have occurred during the Late Classic period. The small amount of obsidian prismatic blades and flake fragments (38 pieces in total) as compared to the large amount of ceramics (621 identified types, 1,428 decorated and rim sherds, and 9,062 total sherds), and association with the low amount of preparation and storage vessels suggests that preparation, including the cutting of food, was conducted elsewhere on the site. The prepared food was then transported to Md1 in a few large coarse brown ware vessels, as indicated by the high weight and quantity of coarse brown ware body sherds and the low quantity of coarse brown ware rim sherds (Table 6.1, Table 6.9).

The two most ubiquitous types exposed by excavations of the Op. RV09 E midden were the undecorated gray ware conical bowl (GW Type 1) and undecorated orange ware semispherical bowl (OW Type 10). These types are also the most abundant types in the current Yuta Tiyoo phase typology (See Chapter 5). Their presence may represent restrictions or preferences in bowl form associated with paste type. However, the presence of 18 other gray ware bowl types and 31 other orange ware bowl types suggests that there was quite a bit of autonomy in the decoration of Late Classic ceramics. Further studies of the certain motifs, like the one conducted by Brzezinski (2011a), may provide more a deeper understanding about the use and importance of certain ceramic types during the Late Classic period.
The presence of the lithic material in the Op. RV09 E midden is also representative of the ability of the Late Classic polity to travel or trade great distances to obtain goods. The obsidian represents social interaction between the Chatino at Río Viejo and various Mesoamerica cultures. The distances that might have been traversed by Chatino traders or the ability to acquire such goods suggests the presence of a powerful ruling elite.

Future studies of the ceramic, lithic, and faunal assemblages, including use-wear analyses, will provide a more complete picture of the activities that took place on the Río Viejo acropolis.
Chapter 7 – Conclusions

Like a mosaic, the attributes of the Late Classic Md1 represent various pieces of a very complicated history at Rio Viejo. This thesis has presented the results of an examination of the Late Classic (500-800 CE) occupation of the Río Viejo Mound 1 or acropolis. Md1 is a massive earthen structure located at the center of the site. The Late Classic polity seat in the lower Río Verde region of Oaxaca, Mexico currently towers at least 7m above the floodplain and covering an area of 350 m by 200 m (Joyce et al. 1999). Associated with the platform are two large substructures (Structures 1 and 2) rising a total of 17m above the flood plain, connected by a plaza (Figure 2.1). At the center of the acropolis is a sunken patio, surrounded by Structures 1 to the northwest, Structure 2 and Structure 3 to the northeast, and four other smaller structures, Structures 4, 5, 6, and 7, dispersed along the southern edge of the acropolis. The study of architecture and the archaeological material dating to the Late Classic period (i.e., ceramics, lithics, osteological remains, carved stone monuments) allows for inferences concerning activities which took place on the region’s largest monumental building.

Drawing from the information derived from the various field seasons and published works, and manuscripts this thesis illustrated the dramatic social, political, and religious changes in Late Classic Chatino society. The Late Classic architecture, monumental art, mortuary practices, and feasting activities indicate a significant shift in the nature of political authority, relative to the more egalitarian forms of government inferred for earlier periods (Barber 2005; Barber & Joyce 2011; Joyce, 1993, 1999, 2000, 2004, 2010). These data suggest that access to
the civic-ceremonial center of Río Viejo during the Late Classic period was limited and that political authority was more exclusionary.

The construction of Md1 and the development of the Late Classic polity was an ongoing process which spanned centuries. Like the shifting form and use of structures at Río Viejo, the political and social milieu was also continuously changing. Evidence from the excavations of the sunken patio, described in Chapter 2, suggest that prior to the Late Classic Yuta Tiyoo phase modifications, Md1 was not a single large platform with several structures situated atop, but several large, freestanding structures surrounding a courtyard or plaza (Joyce 2006, 2008, 2010; Joyce & Barber 2011). During the Miniyua and Chacahua phases political authority was considered more egalitarian and leadership less exaggerated. Following the destruction and burning of the freestanding structures, at the end of the Terminal Formative period (ca. 250 CE), Río Viejo’s physical size and social and political influence throughout the region was greatly reduced.

Succeeding the reduction in size and power of the Terminal Formative Chatino polity, a period of seemingly destructive activity to the standing structures, in the form of pit-intrusions, occurred during the Early Classic. It was not until Md1 was reoccupied during the Late Classic Yuta Tiyoo phase that activity and political power returned to Río Viejo. Across the sampled portions of the acropolis there is little evidence for dramatic changes to the original structures during the Late Classic. The majority of construction across the site ranges between 0.5 and 2m of Late Classic fill that leveled the Early Classic pit-intrusions and raised the Late Classic surface of Md1.

The greatest amount of modification to Md1 during the Yuta Tiyoo phase was the construction of the sunken patio. The construction of the sunken patio, exposed by Op. RV09 C
and RV09 E, raised the possible Terminal Formative plaza over 5m, from at least 15.6m a.s.l. to 20.8m a.s.l. (Barber & Baillie 2011a, 2011b; Hedgepeth 2011). The construction of the sunken patio coupled with the 0.5m to 2m of fill raising the other late Terminal Formative structures dramatically changed the form of the acropolis. While the evidence suggests that during the late Terminal Formative there were several free standing buildings situated around an open plaza, now there was a singular acropolis.

The raising of Md1 restricted access to areas that were once open was possibly the most dramatic change made to Md1 during the Late Classic. Similar to the modifications to the main plaza of Monte Alban at the end of the Terminal Formative to the Classic period (Joyce 2004), the raising of the plaza at Río Viejo restricted access to a socially and ritually significant space. The construction represents both the inception of a new polity in the area, as well as a shift in the nature of political authority. Relative to the more egalitarian forms of government inferred for Terminal Formative polity at Río Viejo, the Late Classic polity saw the development of an exaggerated ruling elite which seemingly controlled the access to Md1.

The restriction of access to politically and ritually significant space and the development of an exaggerated ruling elite suggests a more exclusive political authority, which emphasized the power of the few rather than the many. Ritual and political performance, while present in household contexts and daily lives of commoners, was controlled on a grand level by those who with access to Md1. The social inequality between rulers and vast majority of the population, which for brevity sake will be considered commoners, was further propagated through the erection of carved stone monuments on once communal space.

The elite domination of space is reinforced by the control over and production of an exclusionary ideology. At Rio Viejo the production of power motifs, through the use of the
blood glyph, feline imagery, and elaborate dress, reinforced the power of the individual depicted by connecting him or her to broader Mesoamerican elite ideology. The use of the U-glyph on Monument 11, while being pan-Mesoamerican, may have also connected the depicted ruler with the Chatino deity Cosana, god of the ancestors. The use of local deity imagery associated with rulership would have further separated elite and commoner populations, making the elite intermediaries between the sacred and profane world.

The placement of carved stone monuments, as well as the depiction of rulers as divine beings, reinforced the individual’s claim or control over the space. The control of ideology and ritually important space resigned lower status groups to participate in ritual activities on Md1 as defined by the nobility. Depending on their original locations, those monuments surrounding the base of Md1 would have served as powerful signs to those not accustomed to gaining access to the restricted ritual space, reinforcing the importance of the individual depicted. Those monuments located on Md1 would have served as powerful signs reinforcing the power once access was gained.

The reduction of commoner access to ritually important space and the placement of carved stone monuments created a deceptive relationship of inequality between the ruling elites and commoners. However, this does not mean that the commoner population did not have a say in the everyday and ritual practices at Rio Viejo. Practices that constituted sociopolitical systems during the Late Classic were continuously negotiated among differently positioned actors (Joyce 2008). All actors, elite and commoner, were “characterized by varying identities, interests, emotions, knowledge, outlooks, and dispositions” and positioned themselves within the Chatino society based on those characteristics (Joyce 2008:223). This suggests that social status and the performance of status would have been continually negotiated between groups that could create,
reaffirm, and affect hegemonic forces. One form of social negotiation, which might have played out in during ritual events, was the interment of individuals into socially and ritually important space.

While a burial within the household often expresses connections between the deceased and the living, both symbolically and physically, ritual burials within monumental architecture would have stressed the importance of ritual connections between whole communities and civic ceremonial centers. The communal importance of ritual interments would have also necessitated that the individual interred to be autochthonous to the local community (Urcid 2005). The burial of individuals belonging to the local community into monumental architecture would have served as important mediators in alleviating social tensions and cementing the connection between commoners, who lacked access to ritual space during the Late Classic, and Md1 (Urcid 2005).

B55-I64, excavated at the base of Str2, would have reaffirmed the Late Classic community’s connection to the Md1. B55-I64 represents the development of a new mortuary practice associated exclusively to the Late Classic Chatino. The individual was tightly flexed or possibly bundled and placed within an upturned vessel. Currently there is only one other burial, B24-I32, excavated from the Md9 on the eastern portion of the site, that was interred in a similar method. The rarity of these interments throughout Oaxaca, as well as the lack of continuing practice before or after the Late Classic period suggest this specific ritual performance could be unique to the Chatino people during the Late Classic period. The infrequency of such burials may be a result of the development of new practices aimed at legitimating the power and importance of the ruling elite and negotiating the appropriating of ritual space by the ruling elite.
Similar to the interment of autochthonous individuals into ritual space, the practice of ritual feasting may have also provided another avenue for elites or nobles and commoners to mediate social tensions caused by restrictions of access to ritual space. The connection of commoner identities to monumental architecture would have been reinforced through the performance of ritual feasting on Md1 (Joyce 2008). The Op. RV09 E midden, located just west of the Md1 sunken patio, is currently the best example of feasting activities occurring during the Late Classic.

The Op. RV09 E artifact assemblage also provides insight into ritual practices on Md 1 in the Late Classic period. Both context and contents indicate that the Op. RV09 E midden was not formed as a result of domestic activity. Given that there were two distinct strata, it seems probable that the midden formed as the result of at least two feasting events. The activities that created the midden clearly included food consumption in the form of public feasting given the very high quantity of fine ware serving vessels and low quantity of utilitarian or cookware in the sample. The ritual nature of feasting is demonstrated by the presence of figurines and musical instruments. Whistles and flutes, further bolsters the evidence of ritual or ceremonial feasting. The ornamentation and elaboration of the flutes and whistles would have expressed the symbolism or purpose of the sound projected by the instrument (Ainsworth 1975).

The gray ware types, which remained comparatively intact, were medium sized, with a diameter of 24 – 27cm. Similar to the Yuta Tiyoo typology, conical bowls make up the vast majority of the gray wares collected from the Op. RV09 E Midden. The gray ware (GW) bowl assemblage is dominated by the GW Type 1, an undecorated conical bowl, comprising 10 percent of the bowl sherds and 17 percent of the total bowl weight from the midden. Despite the abundance of GW Type 1, its mean weight is just 28.65g, far less than the 219g mean weight of
GW Type 7. GW Type 7 represents the most elaborate decorated of all the vessels excavated from the Op. RV09 E midden. GW Type 7 is an elaborate conical bowl with incised interior bases and three to four hollow supports. Comprising just one percent of the total bowl assemblage, GW Type 7 makes up 15 percent of the total bowl weight, and 30 percent of the gray ware bowl weight. While the preference of the GW Type 1 may be due to the ease of manufacture due to the low amount of decoration, the use of the GW Type 7 may represent a form that would have featured prominently during feasting activities due to elaborate construction and decoration.

Similar to the prevalence of the undecorated GW Type 1, the orange ware collection is dominated by the medium sized undecorated semispherical bowl, OW Type 10. OW Type 10 is the most abundant type among all wares exposed by excavations and has the highest total weight of OW sherds collected, 998g and 24% of the total weight of the typed OW sherds. However, OW Type 10 has a relatively low mean weight of 10.97g, which may be influenced by its thin walls making vessels easily breakable. Unlike the gray ware vessels, the orange ware vessels are more diverse and evenly dispersed between types. Unlike the gray ware vessels the majority of decoration are pained. Vessels like OW Type 2, which comprises 7 percent of the total assemblage and 12 percent of the orange ware assemblage, are red painted conical bowls. The variance in their painting suggests a certain amount of social malleability when it came to the decoration of serving vessels.

The coarse brown ware bowls were very low in number and are limited to three separate type categories: CBW Type 1, 3, and 6. The presence of only 37 identifiable bowl rim sherds (Table 6.9) suggests that large vessel were used in the transport of food, from areas of preparation onto Md1. The use of large coarse brown ware vessels is indicated by high weight,
22,334g (46% of the total weight), and quantity, 4,637(51% of the total count), of coarse brown ware body sherds and the low quantity of typed coarse brown ware rim sherds (6% of the typed rim sherds).

Evidence for the production of foodstuffs away from the feasting area is bolstered by the low amount of obsidian prismatic blades and flake fragments found in the Op. RV09 E midden. The total 38 pieces of obsidian, 36 prismatic blades and 2 flakes, is dwarfed by the presence of ceramics (621 identified types, 1,428 decorated and rim sherds, and 9,062 total sherds) exposed by the midden. The low amount of obsidian blades found in the midden suggests that preparation, including the cutting of food, was conducted and disposed of elsewhere.

Lithic material collected from the Op. RV09 E midden also provides important information on Late Classic interactions with broader Mesoamerica. The presence obsidian from the Pachuca source in the Basin of Mexico, the Ucareo source in Michoacan, the Zaragoza source in Puebla, and the Otumba source in the state of Mexico represent far reaching interactions with other groups during the Late Classic. The interaction between the Chatino at Río Viejo and broader Mesoamerica may have influenced the production of a powerful elite class, similar to those seen elsewhere in Mesoamerica. However, the indicators of a powerful elite, such as the erection of carved stone monuments and the appropriation of and restriction to ritually important space, through the creation of the sunken patio, was still a product of Chatino society rather than a reaction to or merely a mimicking of broader Mesoamerican traditions.

Future Research:

This thesis of the Late Classic construction and occupation of Md1 at Río Viejo will prove to be important to the continued research in the lower Río Verde region on two separate levels:
local and regional. On a local level the understanding of a more complete life history of the Río Viejo Mound 1 and the political authority of the Late Classic Río Viejo polity answers questions left open by previous investigations of the lower Río Verde. This analysis has begun to fill the gap of information left by the research focused on the Terminal Formative (150 BCE – 250 BCE) and Postclassic periods (800-1100 CE). On a regional level this work will fit in with the larger field of Oaxacan and Mesoamerican archaeology. Regional connections through lithic trade and the use of pan-Mesoamerican imagery will begin to bring into focus the larger interaction between Río Viejo and other Mesoamerican communities beyond the constructed social boundaries.

While current data suggest that access to the civic-ceremonial center of Río Viejo was limited and that political authority in the Late Classic was more exclusionary, future research is necessary at Río Viejo and the surrounding areas to bolster our understand of the Late Classic Chatino society. This thesis has provided a small glimpse of the political, social, and religious milieu of the Late Classic Chatino, activities of the elite or nobility on Md1. To gain a better understanding of the society as a whole, it will be important to excavate Late Classic household contexts as well as other Late Classic sites in the lower Rio Verde valley. This research will allow for a deeper understanding of the daily practices that took place at Río Viejo and provide a description of a larger populous at the site.

Another avenue of investigation, important for the understanding of Late Classic society, pertains to the iconography during the Yuta Tiyoo phase. Similar to the work done by Jeffery Brzezinski (2011a), the interpretation of ceramic motifs may allow for deeper connections to be inferred between the typology, described in Chapter 5, and broader religious and social practices.
Bibliography

Ainsworth, Maryan

Arnold, J. E. and J. Bernard

Ashmore, W.

Arnaud Bustamante, L, M.N. Levine, and A.A. Joyce

Arnold, P. J., III

Barber, Sarah B.,


Barber, Sarah B., and Harold B.A. Baillie


Barber, Sarah B., and Carlo J. Lucido,
Arqueologia y el Centro INAH Oaxaca del Instituto Nacional de Antropologia e Historia. Pg. 274-288.

Barber, S. B. and A. A. Joyce

Bartolome, Miguel A., and Alicia M. Barabas
1982 Tierra de la Palabra: Historia y Etnografia de los Chatinos de Oaxaca. Instituto Nacional de Antropologia e Historia. Mexico

Berlin, Heinrich

Blanton, Richard E., Gary M. Feinman, Stephen A. Kowalewski, Linda M. Nicholas

Blanton, Richard E., G.M. Feinman, S.A. Kowalewski, P.N. Peregrine

Bourdieu, Pierre

Blake, M., B. S. Chisholm, J. E. Clark, B. Voorhies and M. W. Love

Blake, M. and J. E. Clark

Blanton, Richard E., Jill Appel, Laura Finsten, Steve Kowalewski, Gary Feinman, Eva Fisch

Blomster, J. P.

Bodley, Codex.
Oxford, Bodleian Library: Mexico.
Brockinton, D. L.
1973 Archaeological Investigations in Miahuatlán, Oaxaca. Vanderbilt University Publications in Anthropology No. 8: Nashville, TN.

Brockington, D. L., M. Jorrin and J. R. Long
1974a The Oaxaca Coast Project Reports: Part I. Vanderbilt University. Publications in Anthropology No. 8. Vanderbilt University: Nashville, TN.
1974b The Oaxaca Coast Project Reports: Part II. Vanderbilt University. Publications in Anthropology No. 8. Vanderbilt University: Nashville, TN.

Brumfiel, E.

Brzezinski, Jeffrey S.

Brzezinski, Jeffrey S., and Jose Aguilar

Carniero, R.

Caso, Alfonso
1960 Interpretation of the Codex Bodley 2858. Sociedad Mexicana de Antropología, México.

Caso, Alfonso, Ignacio Bernal and Jorge Acosta
Connerton, Paul

Crumley, Carole

Drennan R. D.

Giddens, Anthony

Gillespie, Susan D.

Goman, Michelle, Arthur Joyce, Raymond Mueller

Greenberg, James B.

Grove, David C.
1985  *The Rio Verde Archaeological Project, Oaxaca, Mexico*. Research proposal submitted to the National Geographic Society, Washington, D.C.

Guinness World Records

Hedgepeth, Jessica
Arqueología y el Centro INAH Oaxaca del Instituto Nacional de Antropología e Historia. Pg. 274-288.


Hedgepeth, Jessica D., Jeffrey S. Brzezinski, David T. Williams, & Harold B. A. Baillie

Jorrin, Maria

Joyce, A. A.
1990 Datos de antropología física del Proyecto Río Verde Formativo. Report submitted to the Centro Regional de Oaxaca, Instituto Nacional de Antropología e Historia, Oaxaca, Mexico (CROINAH).
2010b Excavating the Acropolis at Río Viejo, Oaxaca, Mexico: Final Report of Activities
Funded by Grants from CRCW, CARTSS, and the Dean’s Fund for Excellence. (Manuscript). Department of Anthropology, University of Colorado, Boulder.


Joyce, Arthur A. (editor)

Joyce, Arthur A., Laura Arnaud, and Marc N. Levine

Joyce, Arthur, and Harold B.A. Baillie

Joyce, Arthur A., and Sarah B. Barber

Joyce, Arthur A., S.B. Barber, Marc Levine, Hal Baillie
2010 Excavating the Acropolis at Río Viejo, Oaxaca, Mexico. Paper presented at 75th annual meeting of Society for American Archaeology at St. Louis, MO.

Joyce, Arthur, Raymond Mueller

Joyce, A. A., M. Oland and P. Kroefges

Joyce, A. A., M. Oland and P. Kroefges
2009b Recorrido Regional de Superficie. En El Proyecto Rio Verde: Informe Final Entregado al
Joyce, A. A. and E. T. Weller.

Joyce, Arthur A., Marcus Winter, and Raymond Mueller

Joyce, R. A.


King, S.


Kowalewski, Stephen A., Charles Spencer, and Elsa Redmond

Lesure, R. G.


Levine, Marc 2002  Ceramic Change and Continuity in the Lower Rio Verde Region of Oaxaca, Mexico: The Late Formative to Early Terminal Formative Transition. Master’s Thesis. Department of Anthropology, University of Colorado, Boulder.


Marcus, J. 1998  *Women's Ritual in Formative Oaxaca: Figurine Making, Divination, Death and the*


Marx, Karl and Friedrich Engels

Millon, Rene and Bruce Drewitt

Mueller, Raymond G, Arthur A. Joyce, Aleksander Borejsza
1961  Alluvial archives of the Nochixtlan valley, Oaxaca, Mexico: Age and Significane for Reconstructions of Environmental Change.

Redmond, Elsa M. and Charles S. Spencer.

Sellen, Adam

Stark, B. L. and B. Voorhies (editors)

Swandesh, Mauricio
1967  Evolucion y expansion de dos lenguas. In Culturas de Oaxaca, 2, INAH, Meixco.

Stevenson, Marc G.

Tavarez, David
2010  Los Cantos Zapotecos de Villa Alta: Dos Generos Rituales Indigenas y sus Correspondencias con los Cantares Mexicanos.

Urcid, Javier
2005 Zaoptec Writing: Knowledge, Power, and Memory in Ancient Oaxaca.  
<http://www.famsi.org/reports/03068/>  

Urcid, Javier and Arthur A. Joyce  

Voorhies, B.  

Voorhies, B.  
2004 Coastal Collectors in the Holocene: The Chantuto People of Southwest Mexico.  
University Press of Florida, Gainesville, FL.  

Winter, Marcus C.  

Winter, Marcus  
Papers of the New World Archaeological Foundation, no. 68. New World Archaeological Foundation, Provo.  

Workinger, A.  

Zeitlin, J. F.  

Zeitlin, R. N.  

1979 Prehistoric Long-Distance Exchange on the Southern Isthmus of Tehuantepec, Mexico.  
Master’s Thesis, ineditado. Department of Anthropology, Yale University, New Haven.