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Vessel Form and Function in the Ceramic Assemblages from Bilbao and Santa Lucia Cotzumalhuapa, Guatemala

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VESSEL FORM AND FUNCTION IN THE CERAMIC ASSEMBLAGES FROM
BILBAO AND SANTA LUCIA COTZUMALHUAPA, GUATEMALA

by

Amy K. Kaczmarek

A Thesis Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Master of Science
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ABSTRACT

VESSEL FORM AND FUNCTION IN THE CERAMIC ASSEMBLAGES FROM BILBAO AND SANTA LUCIA COTZUMALHUAPA, GUATEMALA

by

Amy K. Kaczmarek

The University of Wisconsin-Milwaukee, 2013
Under the Supervision of Dr. R. Jason Sherman

My investigation of two ceramic assemblages from Santa Lucia Cotzumalhuapa in the Guatemala piedmont zone builds on previous ceramic studies; however, my research focuses on vessel form and decoration as possible indicators related to human activity and site development in the region. I compared data from the Pacific Coast Archaeological Project Relational Database (2002), which include type names, vessel forms, dimensions, and contextual information, with Parsons' findings from the Milwaukee Public Museum Bilbao Project (1967). My quantitative analysis focused on functional vessel attributes related to ceramic types, forms, and decorations from the Santa Lucia Cotzumalhuapa ceramic assemblages to examine the waxing and waning of trends over time, to infer the possible function of the ceramics, and to formulate hypotheses about the social and ritual uses of these objects. Beginning in the Formative (1150 – 250 BC), both assemblages have limited vessel forms and sherds frequencies but, later during the Middle and Late Classic (AD 200-600), pottery becomes more diverse in vessel form types and sherd frequencies increase. This shift in pottery production corresponds with a major phase of construction in the Cotzumalhuapa region, influence from regional sites along the Pacific coast, piedmont, and highlands areas, and a change from household pottery production to craft specialization.

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TABLE OF CONTENTS

	Page #
INTRODUCTION	1
Chapter I. BACKGROUND	5
Project Aims	7
Pacific Coast Geography	9
Natural and Cultivated Resources	10
Milwaukee Public Museum Bilbao Project: “An Archaeological and Ethnohistorical Investigation of the Problems Surrounding Prehistoric Mexican Cultural Infiltration in the Southern Maya Area” (1961-1963)	14
Ceramic Materials from the MPM Bilbao Expedition	15
Chapter II. LITERATURE REVIEW AND SITE BACKGROUND	17
Overview of Prehistory on the Southern Pacific Coast Prehistory	17
Bilbao and the Santa Lucia Cotzumalhuapa Culture Area	22
Geographic and Cultural Definitions	22
A Brief Overview of Archaeological Research in the Santa Lucia Cotzumalhuapa Region	26
Santa Lucia Cotzumalhuapa and Site Comparisons Site	31
Santa Lucia Cotzumalhuapa Nuclear Zone	31
Central Pacific Coastal and Piedmont Sites	38
Western Pacific Coastal and Piedmont Sites	44
Mesoamerican Sites Outside of the Pacific Coast	48
Historical Overview of Ceramic Studies from the Pacific Coast of Guatemala	55
Regional Trade Wares: Plumbate and Tiquisate	57
Pacific Coast Archaeological Project	59
Chapter III. METHODOLOGY	62
Previous Analysis of the Bilbao Materials	62
Museum Procedures and Documentation of the MPM Bilbao Collection ...	65
Present Analysis of the Bilbao Assemblage.....	68
Data Selection and Analysis.....	69
Chapter IV. ANALYSIS	74
Early Formative Period	76
Middle Formative Period	78

Late Formative Period	85
Early Classic Period	92
Middle Classic Period	96
Late Classic Period	105
Postclassic Period	110
Bilbao - Miscellaneous (All Phases)	115
Bilbao - Decorative Elements	119
Chapter V. DISCUSSION	123
Form and Function of Vessels from Both Cotzumalhuapa Assemblages ...	124
Interaction on the Southern Pacific Region	128
Future Research	129
REFERENCES CITED	131
 APPENDIX A: Glossary of Pottery Nomenclature	146
APPENDIX B: Glossary of Pottery Forms	147
APPENDIX C: MPM Accession Information	149
APPENDIX D: MPM Bilbao Collection Drawer Location Information	150
APPENDIX E: Guatemala Ceramic Surface Collections at the MPM	151
APPENDIX F: BILBAO, GUATEMALA, Milwaukee Public Museum Project, Ceramic Type Code List	152
APPENDIX G: Table of Bilbao Ceramic Type-Varieties (in ascending order by type number)	156
APPENDIX H: Table of Bilbao Vessel Measurements (in order from the Middle Formative to the Postclassic).....	169
APPENDIX I: Biographic Information on Dr. Allen Lee Parson	175

LIST OF FIGURES

- 1.1 Map of major sites mentioned in text in relation to Bilbao (Escuintla), Guatemala.
- 1.2 Map of the Pacific coast of Guatemala with general regions outlined.
- 1.3 Obsidian materials from MPM Bilbao Collection [no catalogue numbers].
- 1.4 Photo of Stephan Borhegyi, Lee Parsons, and Robert Ritzenthaler during a trip to Guatemala in 1962.
- 2.1 Map of Formative period trade routes along the Pacific coast and piedmont region.
- 2.2 Map of the Pacific coast highlighting sites mentioned in text.
- 2.3 Map of Santa Lucia Cotzumalhuapa archaeological area.
- 2.4 Drawing of Monument 21, Bilbao, Guatemala.
- 2.5 Sculpture at El Baúl with a local man engaged in worship.
- 2.6 Site map of Bilbao, Guatemala.
- 2.7 Stephen F. Borhegyi with a stone sculpture of a jaguar (AD 900-1100?), Finca El Baúl, Guatemala.
- 2.8 Topographic map of the Montana Nuclear Zone.
- 2.9 Edwin M. Shook standing next to one of the sculptures found at Monte Alto.
- 2.10 Site Plan of Takalik Abaj.
- 2.11 After a drawing of the Temple of the Feathered Serpent at Teotihuacan.
- 2.12 Teotihuacan III Style ceramics from Bilbao, Laguneta Ceramic Complex (MPM).
- 2.13 Annular Black-Brown base cups from Bilbao and Los Chatos.
- 2.14 Plumbate Jar from the Lempa River region, El Salvador. AD 900-1200. (Accession #15/271), NMAI.
- 2.15 Map of Guatemala highlighting the possible area of production for Plumbate Wares.
- 3.1 Image of staff analyzing artifacts at the Finca Las Ilusiones (Bilbao, Guatemala) in 1963.
- 3.2 Image of a local Guatemalan woman washing pottery sherds.

- 3.3 Image of thin section storage at the MPM and Parsons' notecards with context information.
- 3.4 Image of Bilbao Type collection Storage at the MPM.
- 3.5 Museum artifact documentation for the Bilbao type Collection.
- 3.6 Tecomate vessel form.
- 4.1 Composite-silhouette bowls from Bilbao.
- 4.2 Bolstered-rim jars [(55969/21468), counterclockwise from top left: Lot#410, 270, and 147]; and wide-mouthed jar. Bilbao, Guatemala. Milwaukee Public Museum.
- 4.3 Tecomate rim sherds, Cajon Coarse Ware [(55970/21348), counterclockwise from top left: Lot #168, 2093, 356, and 26]. Bilbao, Guatemala. Milwaukee Public Museum.
- 4.4 Xata Black-Brown sherds, (55989/21648). Bilbao, Guatemala. Milwaukee Public Museum.
- 4.5 Imported jar sherds. Bilbao, Guatemala. Milwaukee Public Museum.
- 4.6 Usulután red-and-white vessel from the Lempa River region, El Salvador, 400 BC – AD 250. NMAI Accession #23/6235.
- 4.7 Map of Late Formative sites that have Usulután ceramics.
- 4.8 Incensarios burner cover from the nearby archaeological area of Escuintla, Guatemala.
- 4.9 A collection of mushroom stones from Guatemala.
- 4.10 Miniature vessel from Bilbao, Guatemala [(56020/21648), Lot#72], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.11 Base sherd fragment. Baul Reddish-Brown-Paste ware/Golon ceramic group [(56027/21648), Lot #325, Type 80], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.12 Body sherd fragment, Baul Reddish-Brown-Paste ware/Golon ceramic group [(56027/21648), Lot #325, Type 80], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.13 Colander vessel form.
- 4.14 Ladle censer form.

- 4.15 Tlaloc tripod supports, solid slab foot supports, and a ceramic tablet with stamped impression (unknown date), Bilbao, Guatemala. Milwaukee Public Museum.
- 4.16 Whistle fragments/mouthpieces [(no accession/catalogue #); counterclockwise from the top left: Lot# 414, 443, 482, 208, 71 and 762], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.17 Spindle whorls [(56039/21648) from left to right: Lot# 347, 59, 59], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.18 Tiquisate ware/Pacaya ceramic group [56020/21648, Lot #51] and Patulul Orange-Brown ware/Peridido ceramic group [56021/21648, Lot #29], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.19 Tiquisate ware/San Andres ceramic group [(56031/21648), Lot #51], Bilbao, Guatemala. Milwaukee Public Museum.
- 4.20 Cylindrical vase (#EB9E-E23-03). H 27.2 cm; Dia. 10.5 cm, El Baúl, Guatemala.

LIST OF TABLES

- 1.1 Time period, type (description), and variety of cylindrical vases at Bilbao (from Parsons 1967).
- 2.1 Chronological chart of Southern Pacific Regional ceramic phases.
- 2.2 Pacific Coastal Guatemalan sites with their location, size, and proximity to Bilbao.
- 2.3 Relational Database (RDB) of ceramics from the Pacific coast.
- 3.1 Number of classified ceramic sherds from Bilbao by ceramic complex.
- 3.2 Number of sherds from the MPM Bilbao assemblage by context.
- 3.3 Vessel Form/Function Correlation.
- 4.1 Number and percentage of classified ceramic sherds from Bilbao and the Ceramic_Cotz database
- 4.2 Early Formative–COTZ RDB.
- 4.3 Middle Formative–Bilbao and COTZ RDB.
- 4.4 Late Formative–Bilbao and COTZ RDB.
- 4.5 Early Classic–Bilbao and COTZ RDB.
- 4.6 Middle Classic–Bilbao and COTZ RDB.
- 4.7 Late Classic–Bilbao and COTZRDB.
- 4.8 Postclassic–Bilbao and COTZ RDB.

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Introduction

During two field seasons, from 1961 to 1963, the Milwaukee Public Museum (MPM) Director Stephen Borhegyi, Curator Robert Ritzenthaler, and Assistant Curator Lee A. Parsons supervised archaeological excavations at and analyzed objects recovered from the site of Bilbao (Santa Lucia Cotzumalhuapa), Guatemala (Figure 1.1). Parsons produced a two-volume monograph which documented his classification system of local ceramic wares and types at Bilbao (Parsons 1967) and included a detailed review of the excavation results, an analysis of all the non-ceramic materials, and a culture history of the area (1969). Prior to this project, only one systematic excavation project had been completed in this area of the Guatemala piedmont zone (Thompson 1948). However, in the last forty years, this region has seen a revitalization of excavation and survey projects directed by Guatemalan and American archaeologists leading to new interpretations and discoveries (Arroyo, Bove, Chinchilla, Genoves, and Medrano; see Table 2.3).

This region was “discovered” by American and European archaeologists and travelers during the early to middle nineteenth century, when a concentration of several monumental sculptures were found in Santa Lucia Cotzumalhuapa archaeological area (Bastian 1882, 1887; Habel 1878; Seler 1892; Seler and Saches 1900; Strebel 1901; Termer 1930, 1931; Waterman 1924, 1929; Willey et al. 1967). Since the 1940s, several systematic surveys and excavations have been conducted in and around Santa Lucia Cotzumalhuapa (Bove 2002a and 2002b; Parsons 1967 and 1969; and Thompson 1948).

These concentrated initially on the site's architectural remains and sculptures, but more recently expanded to include bridges and causeways (Chinchilla 2001) which connected the three main settlements, as well as possible domestic areas on the site's periphery. The ceramic data collected by many of these projects have been collated into a larger database (Bove et al. 2002b) which I call the Pacific Coast Archaeological Project (PCAP). In this thesis I compare these data, which include type names, vessel forms, dimensions, and contextual information, with Parsons' findings from the MPM Bilbao Project (1961-1963). I undertook quantitative and qualitative analyses of ceramic types, forms, and decorations from Santa Lucia Cotzumalhuapa sites (Bilbao, El Baúl, and El Castillo) to: (1) examine the waxing and waning of different vessel forms over time, (2) infer the possible function of the ceramics, and (3) formulate hypotheses about the utilitarian and ritual uses of these objects.

In Chapter 1, I start out by outlining my project aims and provide background information on the geography noting natural and cultivated resources present in southern Pacific coastal region. I review the intentions of the MPM Bilbao project and state the excavation and artifact collection methods of the project. I finish the chapter by introducing the Bilbao ceramic assemblage gathered during this expedition.

In Chapter 2, I introduce the southern Pacific coast by providing a general overview of developments in the region, at Bilbao, and in the Santa Lucia Cotzumalhuapa area. In addition, I provide background information on several neighboring sites; essential information since many of the local and imported ceramic types from Santa Lucia Cotzumalhuapa were influenced by trends at these regional centers during the Formative and Classic periods. My discussion of each settlement

includes: (1) a brief history of archaeological research at the site, (2) background information regarding site formation and architecture, and (3) ceramic studies, if any have been conducted. In addition to key Pacific coast and piedmont settlements, I include the central Mexican site of Teotihuacan and the Guatemala highlands site of Kaminaljuyu because of their influence on the Pacific coast during the Formative and Classic periods. The chapter concludes with an introduction to the Pacific Coast Archaeological Project, which serves as a prelude to my analysis and comparison of materials from this project and ceramics recovered by the MPM expedition.

In Chapter 3, I outline the methods used by Parsons and the MPM staff to classify local and imported ceramics from the Bilbao Project to set background for the methods I used in my thesis research—data and artifact selection and quantitative analysis of vessel form frequencies.

In Chapter 4, I provide a detailed description of form frequencies with descriptions from the Bilbao and Pacific Coast Archaeological Projects. The chapter is divided into seven sections that are arranged chronologically from the Early Formative to the Postclassic. The remainder of the chapter focuses on miscellaneous ceramic artifacts from all phases of occupation and decorative traits in the MPM Bilbao assemblage, with a consideration of the possible utilitarian and ritual function(s) of these clay objects. I also discuss the presence of non-vessel pottery forms (spindle whorls, whistles, etc.) at Bilbao.

Chapter 5 includes an analysis of the data presented in Chapter 4 and evidence for possible interaction between sites in the Pacific Coast area as well as with more distant

regions. The thesis builds on Parsons' research by including the results of my own analyses research and recent investigations by other scholars.

Chapter I: Background

Over the last four decades a substantial increase in archaeological investigations in the Pacific coast and piedmont zones of Guatemala has greatly enhanced our understanding of pre-Hispanic interaction within the region. New survey and excavation data have fueled research on various political, economic, and other aspects of ancient lifeways. In addition, the theoretical and methodological approaches of the “New Archaeology” and technological advances in artifact analysis changed the way archaeologists approach research and the different types of questions that can be addressed. For example, scientific methods of ceramic analysis (e.g., petrography and instrumental neutron activation analysis) and chronometric techniques (e.g., radiocarbon dating) have produced objective data on the use of raw materials, ceramic production centers, and trade routes and relations. In addition, ceramic classificatory systems have developed significantly since the first studies of pottery in the Guatemalan piedmont region were conducted in the 1940s.

My thesis research incorporated quantitative and qualitative data derived from non-destructive analyses (stylistic and functional approaches) of ceramic assemblages of the MPM Bilbao Project and the ongoing Pacific Coast Archeological Project collected by Bove, Chinchilla, and Medrano. My analyses were shaped by previous ceramic studies (e.g., Bove and Medrano 2003; Chinchilla 2004; Kosakowsky 2002; Kosakowsky, et al. 2000; Lesure 1998; Love 2002; Medrano 1995; Neff et al. 1989; Parsons 1967;

Thompson 1948; Waterman 1924) that focused on the utility of vessels with contextual evidence from excavations. In addition to vessel forms present in the current data from the Santa Lucia Cotzumalhuapa region, I consider special (non-vessel) ceramic artifacts that are indicative of particular domestic or ritual behaviors.

Research on the manufacture, movement, and use of prehistoric ceramics can shed light on how people at regional centers may have interacted and whether they were members of larger polities. Ceramics may exhibit a relatively high rate of variation due to individual agency and even minor cultural shifts across space or through time, as opposed to more static archaeological remains such as major architectural complexes, civic projects (irrigation systems, causeways, bridges, etc.), and monumental stone sculptures. Variations in style, function, and other attributes—which may suggest subtle changes in domestic and ritual traditions—are the basis for modern archaeological classification approaches including the ceramic type-variety systems and other type-based methods used in Mesoamerica (Egerer 2012; Gifford 1976; Hargrave and Colton 1937; Smith et al. 1960; Wheat et al. 1958). Such methods of classification are important because, for instance, they may allow us to identify similar ceramic types at multiple sites—which may indicate diffusion of ideas or the movement of manufactured materials between two or more sites or regions (Kosakowsky et al. 1999: 379).

The basic categorical study of ceramics—which led eventually to the development of the attribute-based ceramic type-variety system and other type-based methods in the Americas—began with the type system of Winifred and Harold S. Gladwin in 1928 (Egerer 2012). Since then, Mesoamerican ceramic analyses have been shaped by general developments in archaeological field techniques (e.g., stratigraphy)

and artifact analysis models (e.g., seriation), which have provided better contextual and chronological data for these and other artifacts. Though they do have limitations, the classifications systems used in Mesoamerica (and elsewhere) allow researchers to organize massive ceramic datasets to make meaningful comparisons between sites and/or regions.

One of the first uses of a modified type-variety system for ceramics on the Pacific coast was Parsons' extensive classifications of local wares at Bilbao. He defined six ceramic complexes at the site, associated with time phases from the Middle Formative until the Postclassic (Parsons 1967). In his analysis, he classified pottery into ceramic wares, groups, and type-varieties. His study was pertinent for my thesis since type-varieties are based on form and decoration and vessel form can generally indicate possible function(s).

Project Aims

This thesis addresses several issues, including: (1) what can be stated regarding the form and function of local ceramics from Bilbao and the Santa Lucia Cotzumalhuapa region based on a diachronic study of these materials; (2) what can be inferred about imported ceramics at the site of Bilbao and the Santa Lucia Cotzumalhuapa zone, specifically, what these ceramics indicate (if anything) about trade/economic interactions with sites in the southern Pacific region and elsewhere in Mesoamerica; and (3) more broadly, whether the results of more recent research in the Santa Lucia Cotzumalhuapa

region may be used to develop or refine Parsons' interpretations about Bilbao and the area.

The primary purpose of my research was to study ceramic attributes (e.g., vessel forms and dimensions) to understand trends in local wares at Bilbao and the Santa Lucia Cotzumalhuapa zone through a quantitative analysis of vessel frequencies. The aim of these analyses was to determine the possible functions of vessels based primarily on their form and secondarily on decoration. Such attributes may allow us to determine how vessels were used (e.g., transportation, preparation, and processing of foodstuffs and liquids) and with this information make inferences about social activities engaged in by people at Bilbao and the Santa Lucia Cotzumalhuapa region. I also examined decorative elements, modes, and special objects, such as incensarios, miniatures, and whistles, to see whether these might indicate something about ritual and ideology in the Santa Lucia Cotzumalhuapa region.

A secondary objective of this thesis was to compare the vessel types and forms present at the site of Bilbao with those found at neighboring sites in the Santa Lucia Cotzumalhuapa region. Parsons' argument for external influences at Bilbao was based on the study of monumental stone sculptures and lacked the support of ceramic datasets, which are rich in stylistic, functional, and contextual information. Therefore, this study considers the importation or local imitation of ceramics at Bilbao, which may be inferred from the results of pottery sourcing studies along the coast.

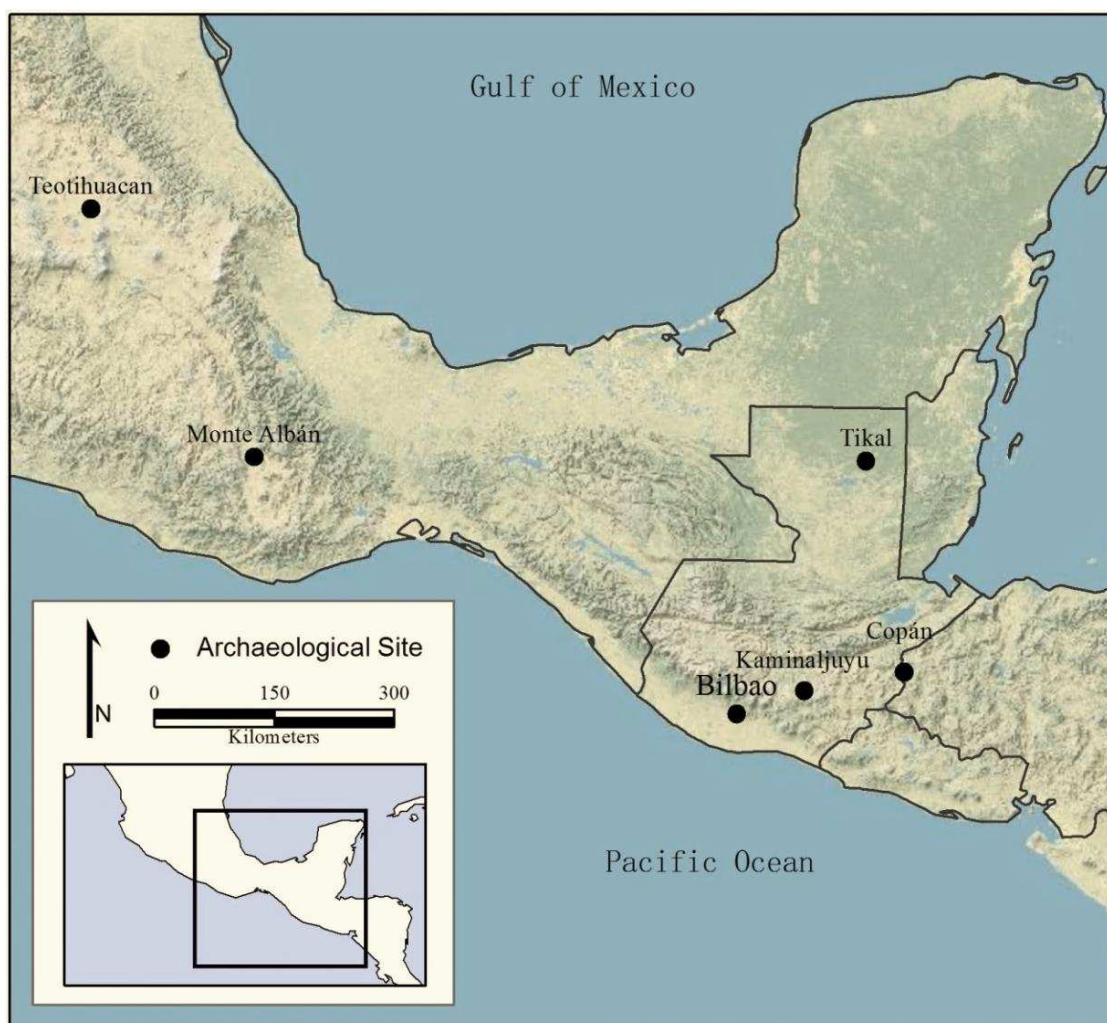


Figure 1.1 Map showing location of Bilbao (Escuintla), Guatemala, and other major sites mentioned in the text.

Pacific Coast Geography

The southern Pacific cultural region includes coastal, piedmont, and highland zones extending from Chiapas, Mexico, to western El Salvador (Figure 1.2). The coastal plain and piedmont areas in Guatemala are separated into three general geographic regions—western, central, and eastern—falling within seven modern states or departments: Jutiapa, Santa Rosa, Escuintla, Suchitepéquez, Retalhuleu, Quetzaltenango, and San Marcos. North of the piedmont area, in the highlands of Guatemala, is a belt of

seven major active volcanoes. The Volcán de Fuego, located about 18 km north of the Santa Lucia Cotzumalhuapa area, is one of the most active volcanoes in Guatemala, with over 60 eruptions recorded since the Spanish Conquest (Vallance et al. 2001:15; West 1964:75, Table 1). Most of these were minor eruptions which left layers of volcanic ash over the region including the Cotzumalhuapa archaeological area. These deposits, which have yielded fertile soil along the piedmont and highlands areas also contributed to issues of stratigraphy during fieldwork (Safi et al. 2012:410).

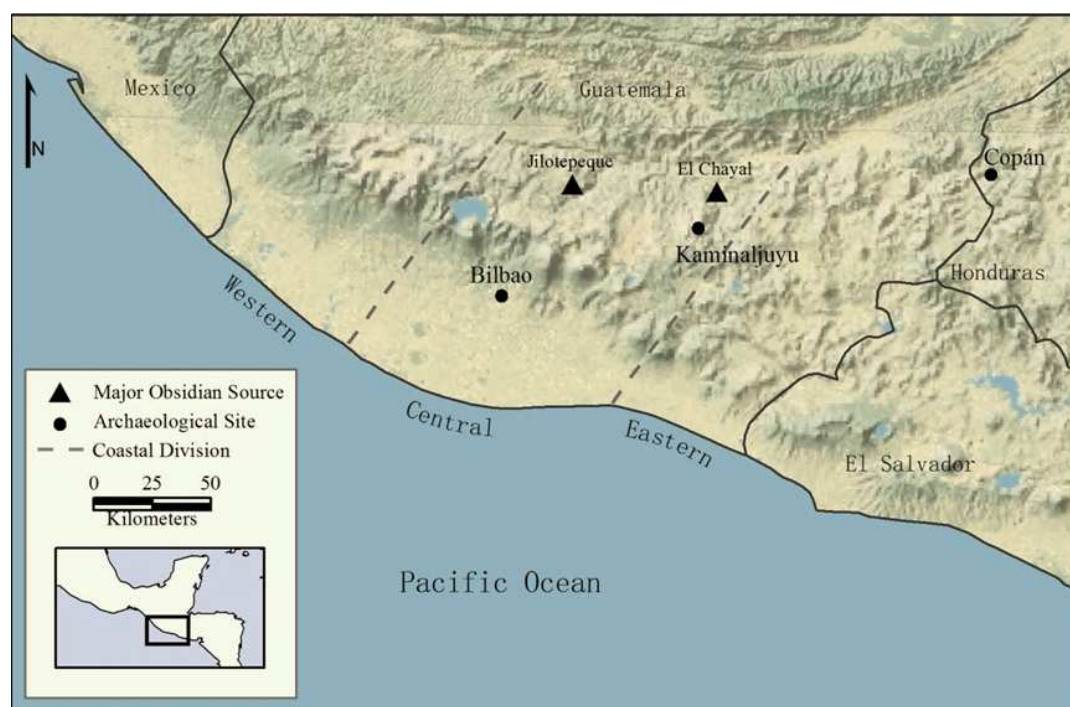


Figure 1.2 Map of the Pacific coast of Guatemala with general regions outlined.

Natural and Cultivated Resources

The southern Pacific landscape is divided into three main ecological zones: coastal, lower piedmont, and upper piedmont. The main natural and cultivated resources utilized by the ancient inhabitants in these regions included both *non-utilitarian goods*

(e.g., cacao [*Theobroma cacao*], greenstone, shells) and *utilitarian goods* (e.g., salt, bark cloth, cotton, obsidian) (Bove and Medrano 2003:73; Sharer and Traxler 2006:662).

The coastal zone in Guatemala (approximately 250 km long and 25 km wide) was a major trade route as early as the Formative period (Reina and Hill 1978:4). This area consists of beaches, mangrove swamps, and lagoons with alluvial soils formed from geological activity (lava and ash deposits). This was a key region for salt production during pre-Hispanic and modern periods.

The piedmont zone (approximately 200-900 m in altitude) is a transitional area between the coast and the highlands (Reina and Hill 1978:6). The lower piedmont, where Santa Lucia Cotzumalhuapa is located, is defined by a tropical to subtropical climate, while the upper piedmont area is characterized by a series of active volcanoes. Since the nineteenth century, land in the piedmont region has been primarily devoted to cattle farms, coffee plantations, and cotton and sugar cane production (Chinchilla 1996:288-89).

In ancient Mesoamerica, cacao cultivation occurred along both the Pacific coast (from Mexico to Costa Rica—especially the Soconusco region in Chiapas and the western border of Guatemala) and the Gulf Coast (particularly Tabasco) (Bergmann 1969:85). On a smaller scale, cacao production occurred in the lower piedmont region of Guatemala where there was an optimal environment of heavy rainfall and fertile soil (Parsons 1978:29). In general, cacao was an important commercial and ritual commodity in Mesoamerica and it appears that during the Classic period, Teotihuacan, a major state-level polity in central Mexico, was interested in the Guatemala piedmont zone specifically because of its extensive production of cacao (Parsons 1978:138-41). During

the Postclassic, cacao was commonly used in Mesoamerica as a means of exchange with intrinsic market value; it was also used as tribute both before and after the Spanish Conquest (Bergmann 1969; Smith 2000:602).

In the Maya region, ground cacao was mixed with water, ground corn, and chiles to create a beverage for elite ritual ceremonies and consumption (Bergmann 1969:85). Tall, cylindrical ceramic vessels with polychrome decoration or highly elaborate incised designs functioned as cacao beverage containers in this region. At Bilbao, several tall, thin-walled cylindrical vase types date to the Mejor-es-Algo ceramic complex (Early Classic, ca. AD 1-400) and the Santa Lucia ceramic complex (Middle Classic, ca. AD 400-700). A majority of cylindrical vase sherds are Tiquisate or Plumbate—two widely traded wares in Mesoamerica and along the Pacific coast. Table 1.1 shows the number and type of cylindrical vase sherds found during Parsons' excavations at Bilbao.

Table 1.1	
Time period, type (description), and variety of cylindrical vases from Bilbao (according to data from Parsons 1967)	# of sherds from Bilbao
Middle Formative/Mejor-es-Algo Ceramic Complex – Total	75
Coyolate Black-Brown (cylindrical vase of relatively squat proportions)	75
Babilonia	75
Late Classic/Santa Lucia Ceramic Complex – Total	486
Plumbate (cylindrical vase with straight or somewhat convex walls)	58
San Juan	58
Tiquisate (tall, thin-walled, cylindrical vase)	422
Marias	10
San Andres	412
Trade or special (tall, thin-walled, cylindrical vase)	6
Alta Vera Paz (Late Classic)	6
Total	561

The importance of cacao at Bilbao is indicated by its presence in Cotzumalhuapan art. For example, the cacao pod was depicted on a relief sculpture (Monument 21, ca. AD 400-700) near Group B, Pyramid 2 and two anthropomorphic stone artifacts recovered from a ceremonial dump near the stairway to the Monuments Plaza (Figure 2.6) (Parsons 1969:52, 225, pl.17e). These cultural materials undoubtedly reflect the importance of this crop in the region's economy, while the cylindrical vases found at the site may be evidence of ritual practices involving the consumption of a cacao beverage by elites.

The upper piedmont zone borders the highlands of Guatemala—one of the two main regional sources of obsidian in Mesoamerica (the other was in central Mexico near the ancient site of Teotihuacan). As one of the most important ancient commodities, obsidian was distributed over long distances within the southern Pacific region and beyond. Exchange between the southeastern coast and the Guatemala highlands is evidenced by the presence of southeastern pottery types at highlands sites, and obsidian at coastal settlements (Kosakowsky et al. 1999:388). Evidence of an obsidian workshop at the major Classic period regional center of El Baúl suggests that there was economic interaction between the Santa Lucia Cotzumalhuapa area and the Guatemalan highlands where raw material was obtained from the El Chayal and San Martín Jilotepeque sources (see Figure 1.2) (Chinchilla 2004:12-20). After they were manufactured at the workshop, worked obsidian artifacts would have been traded as finished products throughout the region (Chinchilla 2004:12). At Bilbao, nearly every excavation context yielded local obsidian; a majority of these finds were prismatic blades, but possible sacrificial knives, pointed and notched blades, and projectile points were also uncovered (Parsons 1969:80-

82) (Figure 1.3). None of the obsidian artifacts collected during the MPM Bilbao Expedition have been dated (e.g., obsidian hydration) or analyzed using XRF.



Figure 1.3 Obsidian materials from MPM Bilbao Collection [no catalogue numbers].

Milwaukee Public Museum Bilbao Project: “An Archaeological and Ethnohistorical Investigation of the Problems Surrounding Prehistoric Mexican Cultural Infiltration in the Southern Maya Area” (1961-1963)

Researchers from the MPM, in conjunction with the Science Museum of Minnesota (formerly the St. Paul Science Center), conducted fieldwork funded by the National Science Foundation at the site of Bilbao over two field seasons (1961-1962 and 1962-1963) (Borhegyi 1963). The excavations and survey were directed by Stephen F. Borhegyi with field supervision by Robert Ritzenthaler and Lee A. Parsons (Figure 1.4). The primary aim of their research was to construct a basic site chronology based on ceramic typologies. This was important because at that time, little archaeological data on sites from the Guatemalan piedmont zone had been published.

Prior to the work at Bilbao, Borhegyi directed surveys and excavations in 1958, 1960, and 1962 at several underwater and lakeshore settlements at Lake Amititlan, near Guatemala City (Borhegyi 1963). By analyzing ceramics and other remains, Borhegyi sought to better understand the potential influence from central Mexico, and specifically Teotihuacan, during the Classic period (Borhegyi 1957, 1958, 1959, 1960, 1967, 1969a).

Although several incensarios with Teotihuacano elements were recovered at these sites in the Guatemala highlands, interaction between the two regions was still unclear. Therefore, after survey work and excavations were complete, Borhegyi sought another archaeological site within the southern Pacific piedmont where he could investigate further possible connections between Teotihuacan and this part of the Maya region (Borhegyi 1963).

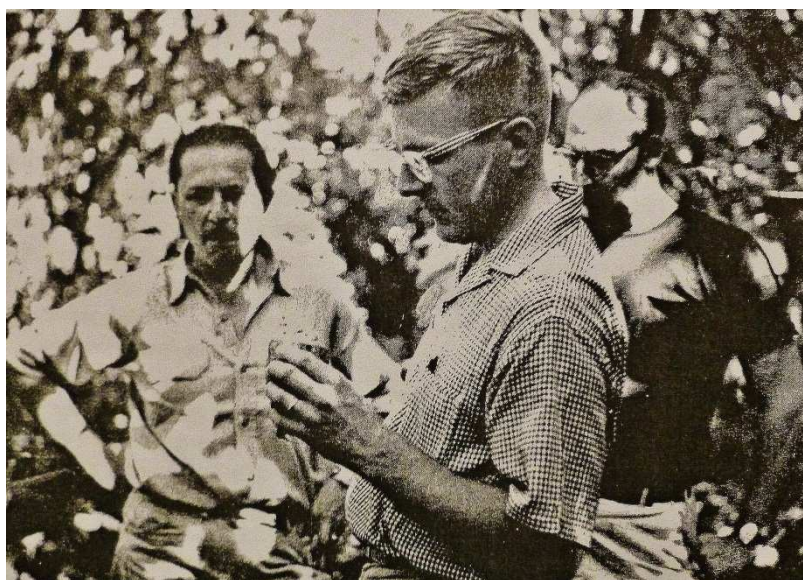


Figure 1.4 (Left to right) Stephan Borhegyi, Lee Parsons, and Robert Ritzenthaler during a trip to Guatemala in 1962 (Lurie 1983:104).

Ceramic Materials from the MPM Bilbao Expedition

Beginning in 1961, Borhegyi, Ritzenthaler, Parsons, and their field team excavated at Bilbao, focusing on the center of the site and plaza platforms (Parsons 1967). During the course of the project, they recovered several stone monuments, hundreds of obsidian artifacts, and over 57,000 ceramic sherds (Parsons 1967:52). After fieldwork was completed, approximately half of the ceramic artifacts were moved to the

National Museum in Guatemala City (Parsons 1967). Recently, they were relocated to the *Ceramoteca*, a research center in the Instituto de Antropología e Historia de Guatemala (IDEAH) (Bove 2002:4). Another portion of the Bilbao ceramic collection was stored by the site's landowner, José Ricardo Muñoz Gálvez, who in 1966 founded a museum near the modern city of Santa Lucia Cotzumalhuapa (Museo de Cultura Cotzumalhuapa) dedicated to exhibiting stone monuments and ceramic materials from the Cotzumalhuapa architectural complexes (Borhegyi 1967).

A third, relatively small type collection was brought back to Milwaukee so that Parsons and the MPM staff could conduct detailed analyses. The results of these analyses were later published by Parsons in a two-volume monograph: *Bilbao, Guatemala: An Archaeological Study of the Pacific Coast Cotzumalhuapa Region*. In the first volume, Parsons (1967) discusses stratigraphy at the site and the ceramic and cultural sequences inferred from excavation trenches, while in the second volume (Parsons 1969), he describes excavation data, artifact documentation, monumental stone sculpture research, and the culture history of the site. Since the 1960s, little research has been conducted at Bilbao. Instead, investigations have focused on the two other main settlements in the area, El Castillo and El Baúl, as well as smaller peripheral settlements like Golón and Palo Verde (Chinchilla 1996, 2001; Popenoe de Hatch 1989; Popenoe de Hatch and Rubio 1986). The results of these more recent projects may be used to reevaluate and build upon Parsons' original research, to further enhance our understanding of Bilbao vis-à-vis the greater Santa Lucia Cotzumalhuapa site.

Chapter II. Literature Review

The following section will discuss literature and background information relevant to my research on ceramics from the site of Bilbao and the Santa Lucia Cotzumalhuapa zone. This chapter includes (1) a summary overview of prehistory on the Pacific coast from the Archaic to the Postclassic period; (2) a review of archaeological research in the Cotzumalhuapa region; (3) a detailed description of archaeological settlements, focusing on the interrelationship between sites and regions; and (4) key information from ceramic studies relevant to the types present in the Bilbao ceramic collection.

Overview of Prehistory on the Southern Pacific Coast Prehistory

The southern Pacific coast region has a long settlement history spanning from the Archaic period to the Spanish Conquest (Table 2.1). The Archaic period (ca. 8000-2000 BC) in Mesoamerica was marked by the transition from hunting and gathering to foraging near abundant food resources. On the Pacific coast, archaeological evidence of foraging has been found at several shell mound sites in the Soconusco region that date to 4000-1600 BC (Lesure 2011:51). Sometime between 1600-1400 BC, at the start of the Formative period, a shift from seminomadic lifeways to sedentary hamlets and villages occurred along the coast (Silverstein and Webster 2000:280).

Table 2.1 Chronological Chart of Southern Pacific Regional Ceramic Phases [Adapted from Kosakowsky et al. 2000]								
Time Period	Bilbao (Parsons)	El Baúl (Thompson)	Pacific Coast (Bove et al.)	Central Highlands Kaminaljuyú (Shook & Hatch)	Chiapas Coast, Mexico (Blake & Clark)			
AD 1500	Peor-es-Nada		Ixtacapa	Chinautla				
AD 1200								
Postclassic				Ayampuc				
	(Hiatus)							
AD 900	Santa Lucia	San Juan	Pantaleon	Pamplona				
Late Classic		San Francisco		Amatle				
AD 600	Laguneta			San Jeronimo		Esperanza		
Middle Classic								
AD 400	Mejor-es- Algo			Colojate		Aurora		
Early Classic			Santa Clara					
AD 200	Ilusiones		Guacalate	Arenal				
Late Formative								
Mascalate			Verbena					
400 BC	Algo-es-Algo		Guatalon	Providencia				
Middle Formative			Sis	Las Charcas	Conchas			
1150 BC Early Formative 2000 BC			Coyolate	Majadas	Jocotal			
				Arevalo	Cuadros			
						Madre Vieja	Cherla	
							Ocós	
							Lacona	
							Barra	

Throughout Mesoamerica, the beginning of the Formative period was marked by the adoption of ceramic production, and along the Pacific coast, the origins of social complexity (Love 2007:283-284). Interregional trade routes linked the Gulf Coast and the Pacific coast, and stretched from Chiapas southward into the piedmont and highland zones of Guatemala and even into western El Salvador (Figure 2.1). Via these extensive trade routes, Olmec ideology and Olmec-style ceramics and sculptural arts spread along the coast to sites like La Victoria, Salinas la Blanca, and Tak'alik Ab'aj in Guatemala, and as far east as Chalchuapa in western El Salvador (R.E.W. Adams 1972:8-10; Love 2007:288; Sharer 1974:169-70) (Figure 2.2). The Formative (or Preclassic) period lasted until approximately AD 200 along the Pacific coast (Evans and Webster 2001:280).

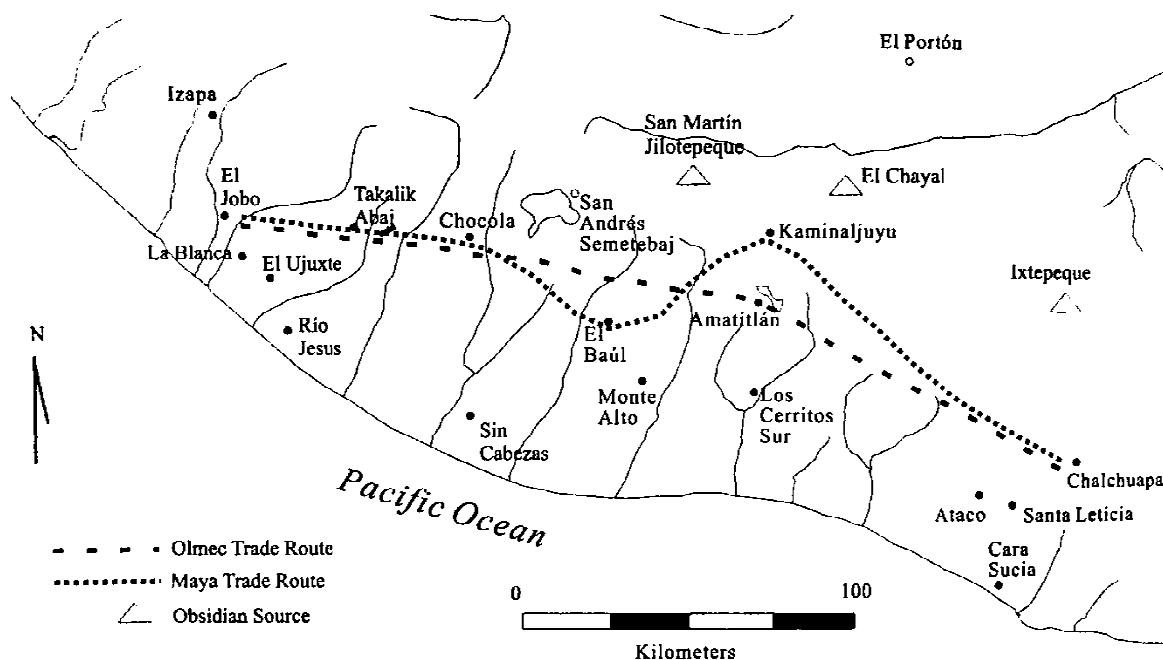


Figure 2.1 Formative period trade routes along the Pacific coast and piedmont region.
[After Hatch, Schieber de Lavarreda and Orrego Corzo 2011, Figure 8.3].

During the Middle Formative period, the coastal zone in Chiapas and western Guatemala witnessed the emergence of agriculture, ranked societies, and larger ceremonial centers (Marcus 1989:xvi; Willey et al. 1964:458). The presence of large chiefdoms has been inferred from evidence of social ranking (e.g., house size, craft specialization, burial practices) and a hierarchy of settlements ranging from large sites with mound groups to small hamlets (Blake and Clark 1999:57). Population increase also occurred at the site of Kaminaljuyú, which eventually became the largest regional center in southeastern Mesoamerica (Love 2007:291; Sharer and Traxler 2006).

From the Middle to the Terminal Formative, there were two main ceramic spheres¹ on the southeast area of the highlands, piedmont, and coast: Providencia (400 – 100 BC) and Miraflores (100 BC – AD 250) (Hatch et al. 2011:206, Figure 8.2; Neff et al. 1988:342). Santa Lucia Cotzumalhuapa, along with other sites in the Río Coyolate area and the Guatemalan Pacific region (Chalchuapa and Santa Leticia in El Salvador; Kaminaljuyú in highland Guatemala; and Monte Alto on the coast), shared some traits with these ceramic spheres, including black-brown wares and Usulután decorated pottery (Demarest and Sharer 1986; Kosakowsky et al. 1999:377-78; Neff et al. 1988:342).

The most notable sites in the region that date entirely to the Formative period include the Guatemalan coastal settlements of La Victoria and Salinas La Blanca (Early to Middle Formative) and the western Guatemalan piedmont site of Tak'alik Ab'aj² (Middle to Late Formative). Other sites which were first settled during the Formative

¹ According to Creamer (1987:49): “The ‘ceramic sphere’ concept refers to fine ware or nondomestic ceramics of the same cultural style that have spread over a large territory implying economic and political influence from a common center(s).”

² Archaeological site formerly known as Abaj Takalik.

period but peaked later, during the Classic period (ca. AD 200-900), include Aguna, El Baúl, and Bilbao in the piedmont zone, and Balberta and Los Cerritos on the coastal plain (Figure 2.1).

The Late Formative and Classic periods in Mesoamerica were defined by various large sites including Monte Albán and Teotihuacan in Mexico, Tikal and Kaminaljuyú in Guatemala, Copan in Honduras, and several regional centers along the Pacific coast (El Ujuxte, La Montana, Tak'alik Ab'aj, and Santa Lucia Cotzumalhuapa in Guatemala, and Chachuapa in El Salvador) (Love and Kaplan 2011). During the Early Classic period, there is ceramic evidence indicating that Bilbao interacted with Kaminaljuyú and the Montana Complex, both of which were influenced to varying degrees by Teotihuacan (Parsons 1967). In general, the growth of sites in the Pacific coastal region occurred later, during the Middle and Late Classic periods, when large regional centers dominated the piedmont (Santa Lucia Cotzumalhuapa) and the coast (La Montana and Balberta).

The Late-Terminal Classic marked the zenith of power for Cotzumalhuapa as a regional center, possibly a state-level society. At the same time, sites along the coast that were influential during the Early and Middle Classic (e.g., Los-Chatos-Manantial) witnessed political fragmentation during the Terminal Classic, similar to much of the Lowland Maya area (Bove 2003:23). During the Postclassic, there was a rapid decline in population in the Santa Lucia Cotzumalhuapa zone; however, there is evidence of minor occupation until the Spanish conquest.

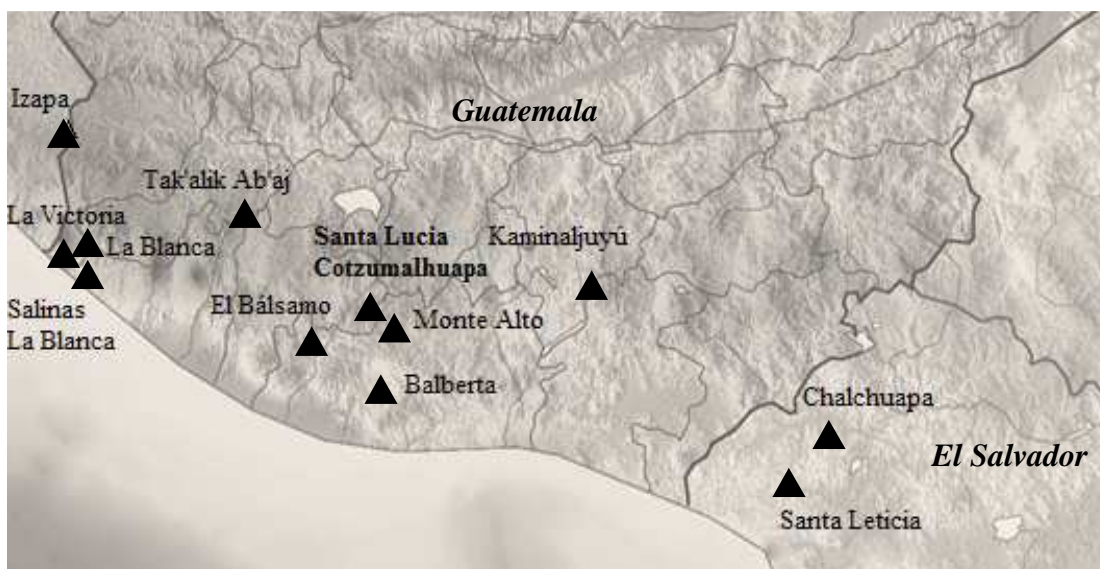


Figure 2.2 Map of the Pacific coast highlighting sites mentioned in text

Bilbao and the Santa Lucia Cotzumalhuapa Culture Area

Geographic and Cultural Definitions

Santa Lucia Cotzumalhuapa or *Cotzumalhuapa* refers to a modern Guatemalan town³ in the department of Escuintla, an ancient settlement named for its proximity to the modern town, and the larger culture area associated with the ancient settlement and defined by a specific art style.

The archaeological zone located north of the modern town covers approximately 10 km² and consists of three main architectural compounds (El Baúl, Bilbao, and El Castillo) with several smaller settlements interconnected by ancient causeways and bridges (Chinchilla, 2004; Parsons 1967:21) (Figure 2.3). The results of reconnaissance

³ The city is usually spelled with a *g* (Cotzumalguapa), while the culture and archaeological zone are spelled with an *h* (Cotzumalhuapa).

conducted in the Santa Lucia Cotzumalhuapa area by J. Eric S. Thompson (Carnegie Institution of Washington) in 1941, indicated that the major sites of El Baúl, Bilbao, and El Castillo, together with the smaller settlements of Pantaleón, Los Tarros, and Santa Rita, formed one continuous cultural zone, now commonly referred to as the Cotzumalhuapa Nuclear Zone (CNZ) (Borhegyi 1969b:19; Chinchilla 1996; Thompson 1948). Parsons (1969:146-147) extended this list of Cotzumalhuapan sites to include the minor settlements of Aguna and Palo Verde (based on the presence of Cotzumalhuapan sculptures) as well as two other nearby sites, San Andres Osuna and Xata.

The Cotzumalhuapan culture area originates from the CNZ and extends along the Guatemalan piedmont for 150 km, from Chiapas to El Salvador (Neff and Bove 1999:1039; Parsons 1967:22, 1969:146). The most distinctive feature of the Cotzumalhuapan culture sphere is its “international-style” of art and monumental stone sculpture (Figure 2.4). These stelae integrated design features from Izapa, Teotihuacan, the Gulf Coast, and Maya art and iconography, but the style is distinct—with highly realistic figural representations set in elaborate scenes with local ideological and political importance (Hatch 1989).

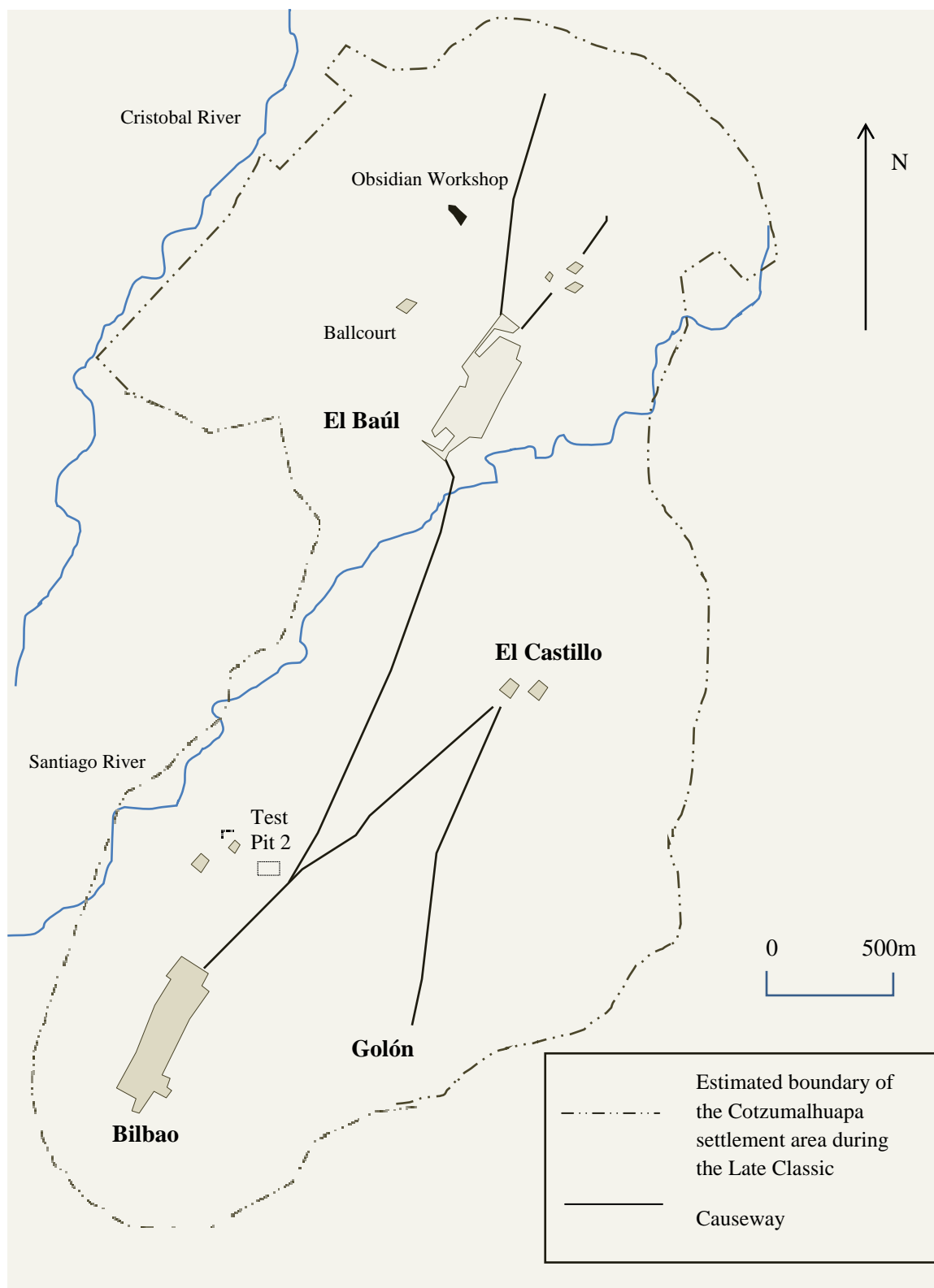


Figure 2.3 Santa Lucia Cotzumalhuapa archaeological area [Adapted from Chinchilla 2009, Figure 6.1]

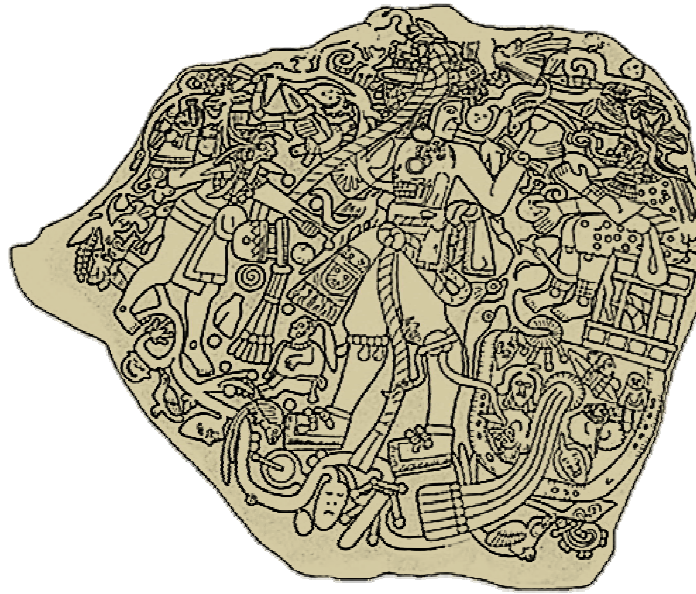


Figure 2.4 Drawing of Monument 21, Bilbao.
 Berlin, *Königliche Museum für Völkerkunde* [Adapted from Chinchilla 2008]

Cotzumalhuapan monumental sculptures are concentrated at CNZ sites (92 from Bilbao, 70 from El Baúl, and 14 from El Castillo) but are found throughout the Pacific piedmont region; they date primarily to the Middle Classic period (AD 400-700) (Belli 1999:89; Chinchilla 2008, 1996). Early researchers from the German National Museum in Berlin removed sculptures from various sites during the late nineteenth century. Some of the sculptures that remain *in situ* are still used by local worshippers as shrines. During rituals, visitors burn *copal*, or tree resin, and frequently leave offerings at the sculptures (Ritzenthaler 1963) (Figure 2.5).



Figure 2.5 Sculpture at El Baúl with offerings; a local man engaged in worship.
[Milwaukee Public Museum Photo, Borhegyi Archives]

A Brief Overview of Archaeological Research in the Santa Lucia Cotzumalhuapa Region

In general, the primary aim during the Classificatory-Descriptive period in archeological research in North America (roughly 1840-1914) was to record and describe archaeological materials, focusing on monumental architecture and sculpture (Wiley and Sabloff 1980:34). The richness and grandeur of Middle American remains attracted several European and American scholars during this period; some of the most famous explorations were the travels of Stephens and Catherwood, which were published in *Incidents of Travel in Central America, Chiapas and Yucatán* (1841) (Wiley and Sabloff 1980:57). The southern Pacific coast region was among the most areas visited by several European and American archaeologists who traveled throughout Mexico and Central America in search of ancient cities during this “Great Explorer” period of early Maya

archaeology (Bastian 1882, 1887; Habel 1878; Seler 1892; Seler and Sachs 1900; Strebel 1901; Termer 1930, 1931; Waterman 1924, 1929; Willey et al. 1967).

The initial period of discovery and exploration in the Santa Lucia Cotzumalhuapa region spanned from the 1820s to the 1870s when survey and limited excavations were conducted associated with the study of several large stone monuments found at El Baúl and Bilbao, the primary location of Cotzumalhuapan sculptural art. Shortly after Bilbao was discovered in the early 1920s by Jean Frederic Maximilian de Waldeck, a French artist and explorer who documented a stone monument at the site. It was not until 1860 that buried sculptures at Bilbao were fortuitously uncovered by a local farmer (Parsons 1967:14; Thompson 1948:17).⁴ Shortly after they were discovered, the site was visited S. Habel, an Austrian traveler in 1863 (Strebel 1899:550). By 1876, Adolf Bastian, director of the *Königliche Museum für Völkerkunde* (Royal Ethnological Museum), commissioned Carl Herman Berendt to excavate and ship several stone monuments from the Cotzumalhuapan region to the National Museum in Berlin where they are still located (Thompson 1948:17). By the late nineteenth and early twentieth century, Santa Lucia Cotzumalhuapa was one of the most well documented areas in Mesoamerica (e.g., Bastian 1882, 1887; Burkitt 1933; Eisen 1888; Habel 1878; Seler 1892; Seler and Sachs 1900; Strebel 1901; Termer 1930, 1931; Vreeland and Bransford 1885; Waterman 1924, 1929).

⁴ The two plots of land where the site of Bilbao is located used to be known as “Mejor es Algo” and “Peor es Nada” but were renamed “Bilbao” sometime between 1889 and 1892 (Parsons 1967:49; 1969:15). The original names for these two plots of land were later used by Parsons to refer to the Early Classic and Postclassic ceramic complexes at Bilbao. In his article, *Auf Alten Wegen in Mexiko und Guatemala: Reiseerinnerung und Eindrücke aus den Jahren 1895-1897*, Seler (1900:190) states that during his visit, the site of Peor-es-Nada was now called Bilbao.

In the 1940s, archaeological research on the Pacific coast began to focus more on settlements, trade, and culture history. Thompson (1948) completed survey work in the Santa Lucia Cotzumalhuapa area and excavations at El Baúl; Franz Termer, of the Museum for Völkerkunde in Hamburg, Germany, completed excavations at Palo Gordo; and Edwin Shook (1965) published a regional survey of the Pacific coast (including the Cotzumalhuapa area) in a contribution for the *Handbook of Middle American Indians* (Parsons 1967:15).

After the MPM project in the early 1960s, research around Bilbao and along the Pacific Coast intensified (e.g., Berlo 1984; Bove 1981; Bove et al. 1993; Hatch 1987; Hellmuth 1975; Shook and Hatch 1978) and focused primarily on ceremonial centers dating to the Formative and Classic periods. One important project was a salvage project in 1994-1995 by Oswaldo Chinchilla (former curator at the Museo Popol Vuh in Guatemala City) and Sonia Medrano, which expanded Thompson's earlier survey and excavations. Their research included mapping several piedmont sites around the CNZ and surface sampling north of Bilbao (Esperanza) and between El Baúl and El Castillo (Varal); these investigations were the basis for Chinchilla's (1996) dissertation *Settlement Patterns and Monumental Art at a Major Pre-Columbian Polity: Cotzumalguapa, Guatemala*. Since then, Chinchilla has continued to conduct field research—mapping the site of Palo Gordo, and undertaking additional excavations and survey at El Baúl and the site's periphery, including a system of causeways and possible domestic architecture (Chinchilla 2001, 2003, 2009; Chinchilla et al. 1997).⁵ In addition, several graduate

⁵ A summary of his work is available on the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI) website (Chinchilla 2003).

students have produced theses and dissertations of mapping and survey work in the Santa Lucia Cotzumalhuapa region (Daniels 2009; Gonzalez 2011; Lynch 2009; Safi 2008, 2012).

Santa Lucia Cotzumalhuapa and Site Comparisons

Despite sometimes being labeled the Southern Maya Area, archaeological evidence in the southern Pacific coast region suggests a high degree of cultural and linguistic diversity and intense interaction during the Formative and Classic periods (Love 2011:47-50). Since Parsons' work at Bilbao fifty years ago, several projects in the Pacific coastal region have provided additional information and new insights into social complexity and the development of major regional centers (see previous section). To understand how the Santa Lucia Cotzumalhuapa area relates to the broader context of the southern Pacific coast region. In the following section, I produced detailed, site-by-site descriptions (including results of archaeological investigations and ceramic studies) for the major sites in this region (Table 2.2).

Table 2.2 Major Pacific Coastal Guatemalan sites

	Site, Modern Department	Distance from Bilbao (km), direction	Time period (based on architecture, sculptures and or/ceramics)	Major Architecture (peak size) (ha ²)	General Geographic Area
Santa Lucia Cotzumalhuapa Nuclear Zone	Bilbao, Escuintla		Middle Preclassic to Postclassic	ca. 9.3†	SLC Nuclear Zone site; Middle Coyolate area
	El Baúl, Escuintla	ca. 5.0 (N/NE)	Middle Preclassic to Postclassic	ca. 8.45†	"
	El Castillo, Escuintla	ca. 3.0 (NE)	Middle Classic (minor) to the Late/Terminal Classic (A.D. 700-1000)	ca. 4.8†	"
	Golón, Escuintla	ca. 1.0 (E)	(?)	(minor)	"
	Pantaleón, Escuintla	ca. 3.0-4.0 (SE)	Late to Terminal Classic (?)	Unknown	3 km from the SLC; Middle Coyolate area
Central Pacific Sites	Aguná, Escuintla	ca. 8.0 (SW)	Late Formative to Early Postclassic	ca. 5.0†	piedmont site; Middle Coyolate area
	Balberta, Escuintla	ca. 35.0 (S)	Late Preclassic (minor) to Early Classic	ca. 1.765	coastal plain site
	El Bálsamo, Escuintla	ca. 15.0- 20.0 (S)	Late Preclassic and Terminal Classic	ca.40.0§	piedmont site
	La Montana, Escuintla	ca. 25.0 km (S-SW)	Early to Late Classic	ca. 100.0	coastal plain site
	Monte Alto, Escuintla	ca. 20km (S)	Early to Middle Formative	ca.27.8§	piedmont site; Río Achiguate drainage
	Palo Verde, Escuintla	ca. 10.3 (N)	Middle Classic to Postclassic	ca.2.0†	piedmont site; Middle Coyolate area
Western Pacific Sites	La Blanca, San Marcos	ca. 100.0 (W)	Early Formative (minor), Middle Formative	ca. 40.0	coastal plain; Río Naranjo
	La Victoria, Retalhuleu	ca. 100.0 (W)	Early (minor) to Middle Formative (1500 BC – AD 100)	Unknown	Pacific coastal site
	Palo Gordo, Suchitepéquez	ca. 50.0 (NW)	Early Formative (minor) - Middle Formative to Classic, Late Postclassic	ca. 3.9†	piedmont site; Nahualate Area
	Salinas La Blanca, San Marcos	ca. 100.0 (W)	Early to Middle Preclassic	Unknown	coastal site
	Tak'alik Ab'aj	ca.85.0 (NE)	Middle to Late Formative, Late Classic (minor reoccupation)	ca.650.0* (Late Formative)	Western Guatemalan piedmont site
	Kaminaljuyú, Guatemala	ca. 30.0 (NE)	Middle Preclassic to Postclassic	ca.900.0* (Late Formative)	Guatemalan Highlands site

† Chinchilla 1996; § Bove 1989; * Love 2011

Santa Lucia Cotzumalhuapa Nuclear Zone

Bilbao (Escuintla, Guatemala)

Background: The site of Bilbao, located just north of the modern town of Santa Lucia Cotzumalhuapa (14° 20' north latitude, 91° 1' west longitude), is the largest of three monumental compounds in the Cotzumalhuapa region and consists of an artificial acropolis that once supported seventeen earthen pyramids or mounds (Parsons 1967:13). The acropolis is separated into four mound groups (Groups A through D, from south to north) which were connected and accessed via several ramps throughout the site (Figure 2.6) (Parsons 1967:18). The other two main architectural compounds in the CNZ are El Castillo, a smaller settlement located 3 km north of Bilbao, and El Baúl, a defensive settlement with an artificial acropolis and several stone monuments located 5 km to the northeast of Bilbao (Figure 2.3).

Bilbao was continually occupied from the Formative (ca. 700 BC) until the Late Classic period (ca. AD 900) and witnessed a population decrease during the transition from the Terminal Classic to the Early Postclassic (Bove 2002b:14). Surface collections and excavations at Bilbao and El Baúl yielded some Postclassic ceramic materials, but there is little evidence of support a major occupation during this period (Parsons 1967:25).

At Bilbao there are two main structural phases of stone construction: a lower level corresponding to the Middle Classic (Laguneta phase, AD 400-700) and later construction dating to the Late Classic (Santa Lucia phase, AD 700-900) (Parsons 1969:22). According to Parsons (1969:32), the Santa Lucia phase of construction was

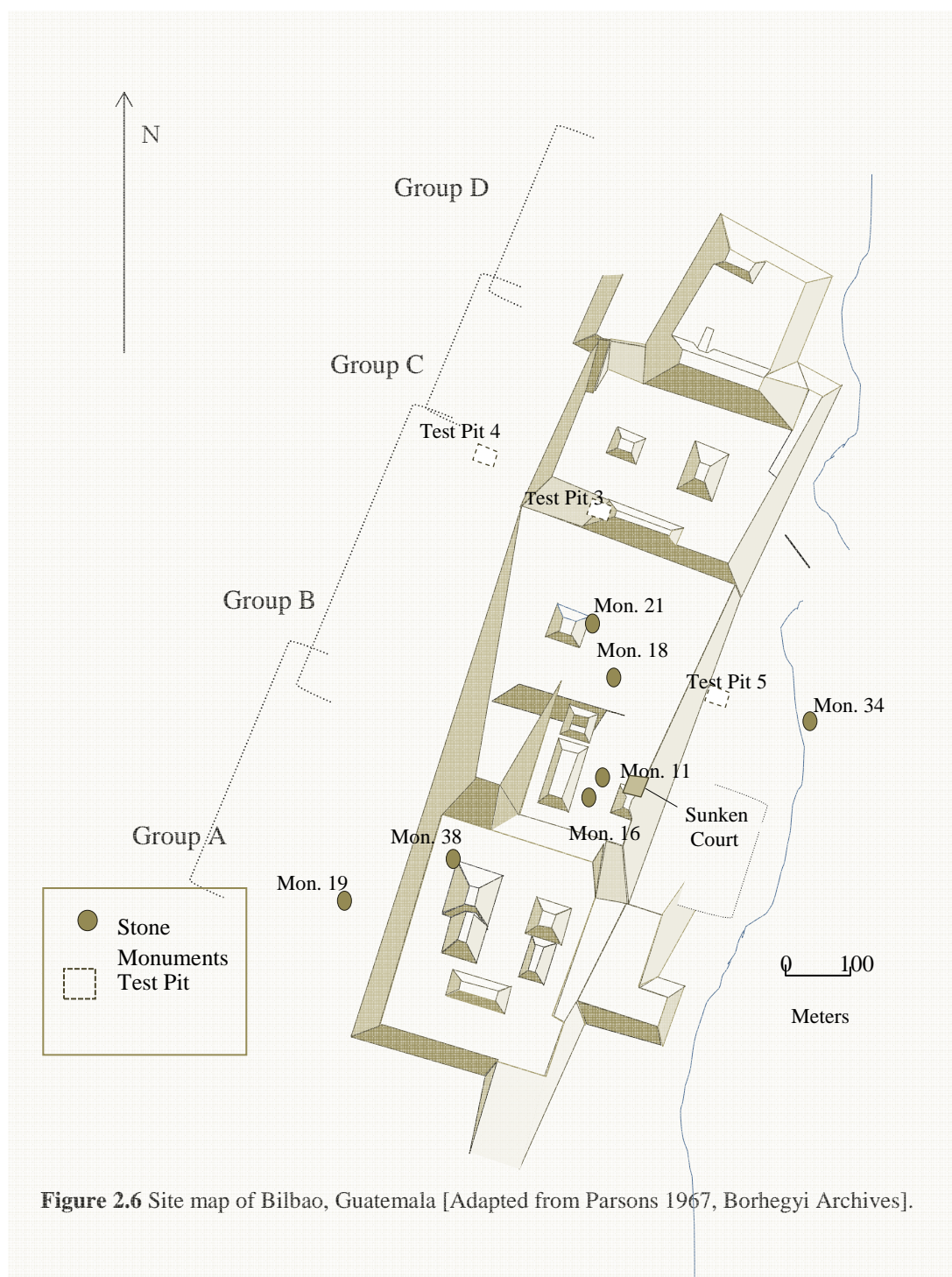


Figure 2.6 Site map of Bilbao, Guatemala [Adapted from Parsons 1967, Borhegyi Archives].

contemporaneous with the decline of Kaminaljuyú as a major regional polity. The various occupational components of the site cover a total of 40.5 ha (Bove 1989:66). Based on

the percentages of pottery assigned by Parsons to the Middle Formative (6.7% of the total assemblage) and the Late Formative (19.8%), Bove (1989:66) proposes that the site covered approximately 2.7 ha (6.7% of the total area) and 8.0 ha (19.8% of the total area) during these periods respectively. Since stone was not used as a building material at settlements on the Pacific coast until the Classic period, these site-size estimates cannot be corroborated by additional settlement data or architectural evidence (Sharer and Traxler 2006).

Archaeological Investigations: During the MPM Bilbao Project, the team sampled six of the seventeen mounds, conducted test pits throughout the site, and dug stratigraphic trenches near Monument 18 (Group B, Pyramid 4), Monument 19 (southwest of Group A), and Monument 21 (Group B, Pyramid 2) (Parsons 1967:20) (Figure 2.6). Another zone of exploration was the “Monuments Plaza,” named for its concentration of stone sculptures, located east of Group A (Parsons 1967:18-19). Borhegyi (1969:21) states that because the site of Bilbao lay beneath an active coffee plantation where excavation units were often placed between plants, some archaeological features may have been missed during survey and excavation. This issue still exists in the Santa Lucia Cotzumalhuapa region, where coffee plantations have been replaced by sugarcane fields in the last two decades (Chinchilla 1996). Nevertheless, Parsons’ research yielded a great deal of information regarding settlement history, ceramic and site chronologies, sculptures, and interaction and settlement patterns. In 1994, chinchilla completed limited investigations around the site periphery of Bilbao (Chinchilla 1996).

Ceramics: There are six ceramic complexes at Bilbao, spanning from the Middle Formative to the Postclassic (Table 2.1). Based on comparative pottery studies and radiocarbon samples, the Ilusiones phase (Late Formative) at Bilbao corresponds to the Providencia, Miraflores, and Arenal phases at Kaminaljuyú and the Crucero phase at La Victoria. The Laguneta phase (Middle Classic) coincides with the Esperanza phase and possibly the beginning of the Amatlé phase at Kaminaljuyú, and the San Francisco and San Juan pre-Plumbate phases at El Baúl (Parsons 1966). The Santa Lucia phase (Late Classic) corresponds to the Pamplona phase at Kaminaljuyú, the San Juan Plumbate phase at El Baúl, and the Marcos phase at La Victoria (Parsons 1966).

El Baúl (Escuintla, Guatemala)

Background:

The peak occupation at El Baúl occurred during the Middle to Late Classic (ca. AD 400-900) but ceramic evidence indicates that the site was settled continuously from the Middle Formative to the Postclassic (Thompson 1948). Much like Bilbao, El Baúl has large platforms and several stone monuments (Figure 2.7); but unlike Bilbao, where ramps served as access points to the platforms, the architectural layout of El Baúl is more defensive, with both natural and artificial boundaries (Chinchilla 1998:513). The sites are connected by a 2.5-km long causeway (the Gavarrete Causeway), which consists of two levels of construction, both dating to the Late Classic period (Chinchilla 2004). Surprisingly, ground penetrating radar (GPR) and excavations have not revealed any causeways connecting the site of El Baúl with the third largest settlement in the area, El

Castillo (Chinchilla 2004). The absence of a causeway between El Castillo and El Baúl may indicate that Bilbao was the central complex in the Santa Lucia Cotzumalhuapa region.

Thompson (1948) originally designated El Baúl as the type site for the Cotzumalhuapan culture area because it was the first site to be excavated in the region that had Cotzumalhuapan-style stone monuments but Parson (1967:13) subsequently argued that Bilbao should be considered the type site because it had a longer occupation, was a larger settlement, and contained more monumental sculptures than El Baúl.

Archaeological investigations: In Waterman's 1924 publication, he analyzed monuments and ceramics from El Baúl and Pantaleón in a very basic terms but the first systematic excavations at El Baúl did not occur until a project Thompson headed a project the 1940s (Thompson 1948). In 1982, archaeological investigations at the site, directed by Marion Popenoe de Hatch, yielded a photographic record of all known Santa Lucia Cotzumalhuapan area sculptures. She identified central iconographic themes and possible figural representations of individuals and rulers in the sculptural assemblage (Popenoe de Hatch 1989:167,193). Chinchilla (1996) expanded upon Popenoe de Hatch's research on sculptures for his dissertation. In addition to sculptural research at El Baúl, Popenoe de Hatch and Rubio (1986) investigated a possible domestic area 500 m in 1986 (Chinchilla 2001:3), Sonia Medrano directed recent excavations of a large quantity of obsidian debitage by the acropolis, and Chinchilla (2001) identified an obsidian workshop and a sweat house after test excavations.

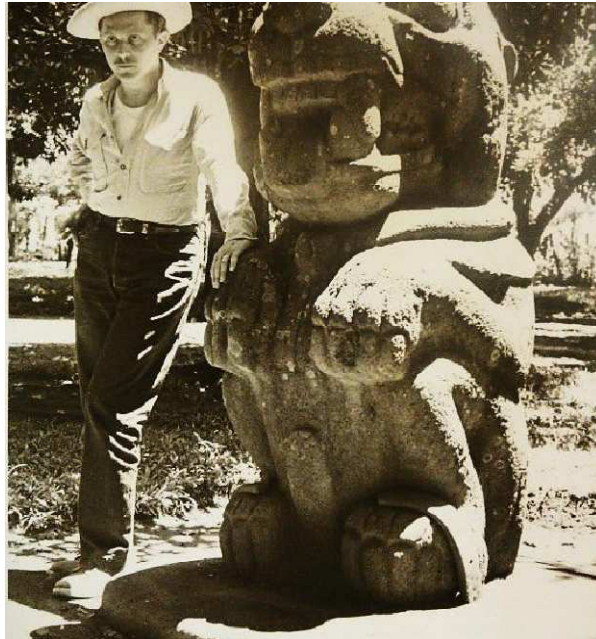


Figure 2.7 Stephen Borhegyi leaning on a stone sculpture of a jaguar (AD 900-1100?), Finca El Baúl, Guatemala. [Milwaukee Public Museum Photo from the Borhegyi Archives].

Ceramics: Early ceramic classifications were presented by Waterman and Thompson. Waterman (1924:9) identified three groups of ceramics: plain, reddish-brown burnished vessels; a light yellow coarse ware; and a glossy black ware. Thompson (1948) expanded those classifications, identifying four distinct ceramic phases at El Baúl: San Francisco (Middle Classic), San Juan (Late Classic), San Juan Plumbate (Terminal Classic), and Tohil (Early Postclassic). San Juan and Tohil were both found in Classic and Postclassic contexts in later excavations directed by Bove and Chinchilla (Bove 2002:182).

El Castillo (Escuintla, Guatemala)

Background: El Castillo, another settlement in the Santa Lucia Cotzumalhuapan zone, is located in the Middle Coyolate area between Bilbao (3 km southwest) and El Baúl (2 km

north). The site has fourteen Cotzumalhuapan-style sculptures and a concentration of monumental architecture (Chinchilla 1996:211-223). Though not as impressive as the architectural complexes at El Baúl or Bilbao, El Castillo is larger than other minor settlements in this region (e.g., Santa Rita, Golon) (Chinchilla 2008). El Castillo is connected to Bilbao by the Berendt Causeway, named after Carl Herman Berendt, who supervised the excavation and shipment of sculptures to the Ethnographic Museum of Berlin, Germany, in 1876 (Chinchilla 2001).

Archaeological investigations: Minimal archaeological investigations have been conducted at El Castillo. Chinchilla completed surface collections at El Castillo (Chinchilla 1993) and excavations at Bilbao, El Castillo, San Cristobal, and Los Cerritos-Norte (Chinchilla 1995). The ceramic data from these investigations are included in the Pacific Coast Archaeological Project's Relational Database (RDB) and were used for my analyses in Chapter 4.

Golón (Escuintla, Guatemala)

Background: According to Chinchilla (1996:269-272), Golón was most likely another important ceremonial center in the Santa Lucia Cotzumalhuapa area based on the presence of several monumental sculptures; although no major architecture has been uncovered. The site is connected to the site of El Castillo by a 2-km long causeway, named after the Austrian traveler S. Habel, who produced a report and drawings of some

of the earliest identified Cotzumalhuapan sculptures in the region (Chinchilla 2001:2; Strebel 1899:550).

Archaeological investigations: Minimal archaeological investigations have been conducted at Golón focused primarily on sculptures with no extensive excavations or test pitting.

Ceramics: No ceramic materials have been reported from this area.

Central Pacific Coastal and Piedmont Sites

Aguna (Escuintla, Guatemala)

Background: Aguna is located adjacent to the Cotzumalhuapa sites in the Coyolate drainage (Chinchilla 2006:411). It comprises three groups of architecture: a high platform that supports several mounds and a sunken court (Group A), a patio surrounded by four large mounds (Group B), and another group of mounds that have not been investigated (Group C) (Chinchilla 1996:411, 413).

Archaeological investigations: Limited investigations (e.g., by Eisen in 1888) have been completed in this area (Chinchilla 1996:413).

Ceramics: Judging from pottery recovered from surface collections Aguna had a long occupation. According to Chinchilla (1996:414), these ceramics span from the Middle Formative to the Early Postclassic. The Middle to Late Classic material present

throughout the site indicates a peak occupation during these periods similar to other Santa Lucia Cotzumalhuapan settlements.

Balberta (Escuintla, Guatemala)

Background: Balberta is located on the Guatemala Pacific coastal plain and was the first settled with a minor occupation during the Late Formative period. During the Early Classic period, the site expanded to include several platform mounds, one with a ramp-like entrance (Bove 1993:7) much like the architecture from Bilbao. Population rapidly declined by AD 400 and was superseded by the nearby site of La Montana (Beaudry-Corbett 2002:80).

Archaeological investigations: Shook first mentioned Balberta in 1943 when he reported several mounds and monuments (Bove 2003:5). In 1979, Bove conducted an extensive field survey project of the Pacific coast but he was not able to identify the site until April of 1980 (Bove 1993:7). Bove went on to direct the Balberta Project in the 1980s to investigate the Terminal Formative to Early Classic transition in the area. He, along with his students, explored the Balberta zone (a causeway, domestic and mound contexts, and the plaza) and Pilar in 1983-84 and 1986-87 (see Bove et al. 2003).

Ceramics: Both Shook and Bove collected very few sherds during their initial visits, all of which were unidentifiable due to erosion (Bove 2003:5-7). Bove later found Early Classic sherds during subsequent surveys of the area through surface collections and one small test pit (Bove 1993:7). The Relational Database (RDB) from the Pacific Coast Archaeological Project includes 27,417 sherds recovered from Balberta and Pilar. These

belong to several types also present at Bilbao: Maternidad, Río Santiago Usulután, and Verbena White (Ilusiones phase); Peridido (Laguneta phase); San Juan Plumbate (Santa Lucia ceramic complex); and Tiquisate (Laguneta and Santa Lucia phases)] (Bove et al. n.d.:RDB). Notably, many of these sherds were Usulután (n = 1578) or Tiquisate (n = 411)—both widely traded ceramic types in Mesoamerica.

El Bálsamo (Escuintla, Guatemala)

Background: The Formative period site of El Bálsamo is located between the coastal plain and lower piedmont region (between the Río Cabeza del Toro and the Río Aguero) approximately 10-15 km south of Bilbao and 9 km west of Monte Alto (Bove 1989:64; Heller and Stark 1989:43-44).

Archaeological investigations: In 1969-1970, Shook investigated El Bálsamo (surface collections and two test pits) after working at the neighboring site of Monte Alto (Shook and Popenoe de Hatch 1978). After which, he invited Clewlow to spent three field seasons mapping and testing major mounds about the plaza. In 1979, Stark initiated a project to collect data around the plaza and investigate economic and household activities (Stark et al. 1985:100). Bove completed excavations at El Bálsamo in the central zone and mound group and yielded ceramic from the Formative period. (Bove 2002).

Ceramics: The MPM Bilbao and El Bálsamo assemblages share only one ceramic type, Cajon coarse ware, which dates to the Middle Formative (850-400 BC); however, the Cotzumalhuapa RDB data has evidence of several similar types between El Bálsamo and

the CNZ including: Cajon, Costeño, Juilian White Rim Black, Lagar, Matasano Gray, and Puyado (Early Formative); Conacaste, Cuchillo, El Bálsamo Brown-Black and Zinc Orange (Middle Formative); and Monte Alto Brown Incised (Late Formative).

La Montana (formerly Los Chatos-Manantial) (Escuintla, Guatemala)

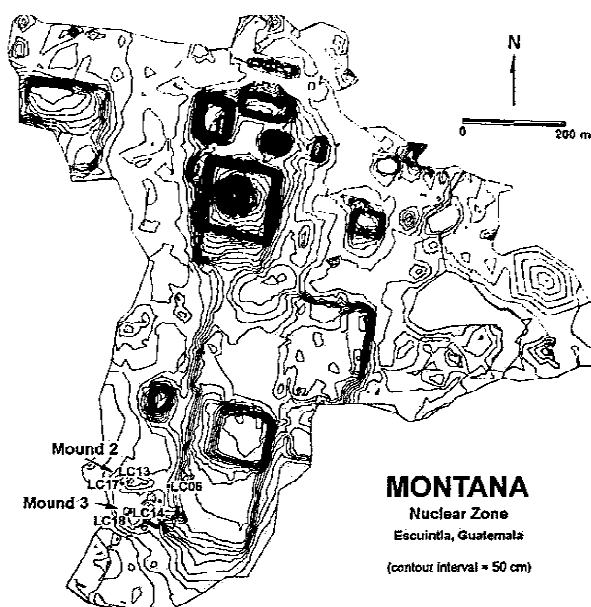


Figure 2.8 Topographic map of the Montana Nuclear Zone.
[Adapted from Bove and Medrano 2003:55, Figure 2.3]

Background: La Montana (previously known as Los Chatos-Manantial) is located along the Acome River on the Pacific coastal plain, approximately 40 km south of Bilbao and 10 km north of the Pacific Ocean (Figure 2.8). After the rapid decline of the neighboring site of Balberta around AD 400, La Montana reached its height of influence in the region from AD 500 to 700 (Bove and Neff 2002:33; Neff and Bove 1999:1050). Radiocarbon and obsidian hydration dates from samples collected south of the site indicate a minor occupation before that period, contemporaneous with Balberta (ca. AD 255-382)

(Medrano 1995:35). An exchange of pottery during the Middle to Late Classic between La Montana and the sites around the Santa Lucia Cotzumalhuapa in the piedmont area is based on ceramic compositional data completed by Neff and Bove (Neff and Bove 1999:1050; Neff and Medrano 2006:3). Also during this time, La Montana experienced periods of influence from Teotihuacan.

Archaeological investigations: La Montana was first discovered by Bove in 1982 and by the early 1990s, Sonia Medrano (1995:34) conducted a systematic survey of the area and excavated test pits to collect ceramic samples and reconstruct the occupational sequence at the site. Data from several test pits indicated occupation during the Late Classic period (Medrano 1995:34). However, the Montana Project focused primarily on the Early Classic Colojate phase—a period of increased influence from Teotihuacan—and the Middle Classic San Jerónimo phase (Bove and Medrano 2002b:7).

Ceramics: Preliminary analyses of ceramics from La Montana indicate that there are several Classic period types which overlap with types identified in both the Bilbao and the Santa Lucia Cotzumalhuapa ceramic assemblages (Diamantes, Firpo, Peridido, Recuerdo red-and-black jars, and Tiquisate) (Medrano 1995:35-37, Figs. 1-9, 11, 16-17, 19). According to the results of a principal component analysis (PCA) study conducted by Neff and Bove (1999:1049), Classic period serving vessels from La Montana and the Cotzumalhuapan settlement of El Castillo, approximately 40 km north of La Montana, were obtained from the same production source. In contrast, the same study indicates that ceramics recovered at El Paraiso and Lirios, both coastal sites within 5-10 km of La Montana, came from another, distinct production zone (Neff and Bove 1999).

Monte Alto (Escuintla, Guatemala)

Background: Monte Alto is located in the lower piedmont/upper coastal plain approximately 5 km west of the Río Achiguate and 10 km southeast of Bilbao and Santa Lucia Cotzumalhuapa. There was limited occupation at the site during the Early Formative but by the Middle Formative it grew to be a primary regional center in the region (Bove 1989:63).

Archaeological investigations: The site was investigated by Shook and Parsons in 1968-1970 and Parsons published a preliminary report on the site in 1976. Several Late Formative potbellied figures and monumental head sculptures were recovered at the site, both widespread sculptural arts along the Pacific coast, the Gulf Coast, and the connecting isthmus region (Figure 2.9) (Guernsey 2012:38).

Ceramics: During their excavations, Shook and Parsons recovered approximately 51,000 sherds, the earliest of which date to the Early Formative and are similar to Barra-phase pottery (Bove 1989:63; Guernsey 2012: 38).

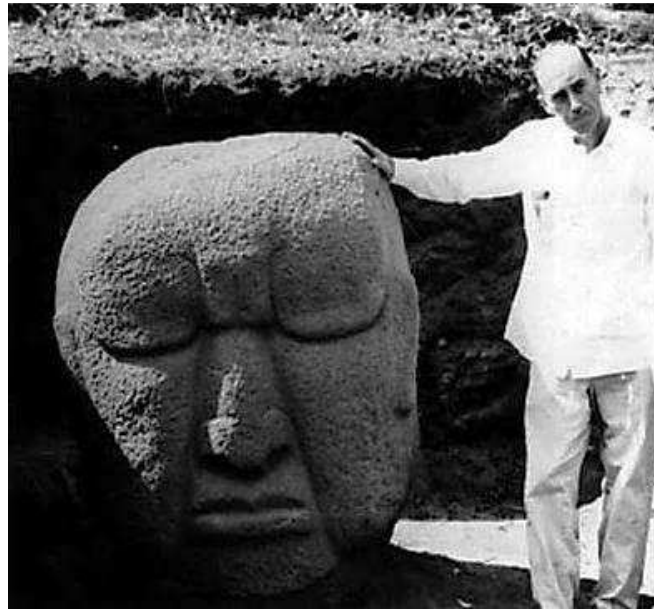


Figure 2.9 Edwin Shook next to a sculpture at Monte Alto.
[From Rosalina Mendez 1999 (Figure 3)].

Western Pacific Coastal and Piedmont Sites

La Blanca (Retalhuleu, Guatemala)

Background: La Blanca is located in the Pacific coastal plain on the Río Naranjo, near the Formative sites of La Victoria and Salinas la Blanca. The site was first occupied in the Early Formative but by the Middle Formative it was one of largest regional centers on the Pacific coast (Love 2007:289). According to Love (2007:284), the site was the center of a polity that included over 70 settlements covering approximately 300 km². The largest structure at the site, a 150-by-100 meter mound, was constructed around 1000 BC (Middle Formative).

Archaeological investigations: Shook conducted a salvage project at La Blanca in 1972-1973 but more recent archaeological investigations have focused on major architecture and domestic contexts at the site (Love 2006; Love et. al 2005).

Ceramics: Most of the ceramics recovered during Shook's limited excavations dated to the Early Formative (Conchas phase) (Monterroso 2004:392). Excavations at Mound 9, an elite residential area, yielded primarily Middle Formative ceramic forms and small quantities of Early Formative Ocós and Locona pottery (Love 2006:6-7).

La Victoria (Retalhuleu, Guatemala)

Background: The site of La Victoria, near the modern fishing village of Ocós, comprises of ten round mounds (Ford 1969:19). Located in proximity to the Middle Formative regional center of Salinas la Blanca, La Victoria was occupied from approximately 1500 BC to AD 100, with a peak occupation during the Conchas phase (Middle Formative) (Coe 1960:366).

Archaeological investigations: Early excavations at La Victoria were directed by Michael Coe, with joint support from the Peabody Museum of Harvard University and the Instituto de Antropología e Historia de Guatemala (Coe 1960).

Ceramics: Coe (1960:365) defined three Formative ceramic phases (Ocós, Conchas, and Crucero) and one Late Classic ceramic phase (Marcos). The earliest ceramics in Mesoamerica are thought to have originated in the Isthmus area and are categorized into three phases: Barra (ca. 1600-1400 BC), Lacona (ca. 1400-1250 BC), and Ocós (ca. 1250

BC) (Foster 2005:21-23). By the Ocós phase, fine ceramics were highly elaborate, indicating a certain level of craft specialization. According to Adams (1972:8-10), early Ocós-style pottery around La Victoria is closely tied to ceramic traditions to the west (specifically areas in Oaxaca, Veracruz, and Chiapas), which indicates movement of materials, people, and ideas from these regions to the coast of Guatemala and, eventually Guatemalan Highlands (e.g. Kaminaljuyú). Also common during the Early Formative were rocker-stamped and cord-marked ceramics (Coe 1960:366). Vessel forms characteristic of the Ocós phase include flat-bottom pans, tecomates, and globular tripod bowls. In the subsequent Cuadros phase, tecomates continue while composite-silhouette bowls are introduced (Ford 1969:19). By the Conchas 2 phase (Middle Formative), Usulután-decorated dishes with wide, everted, and grooved rims appear (Coe 1960:366).

Salinas La Blanca (Retalhuleu, Guatemala)

Background: Salinas La Blanca is located on the Río Naranjo near the fishing village of Ocós and the archaeological site La Victoria.

Archaeological investigations: Excavations directed by Coe and Flannery (1962) demonstrated that the site was a small village of wattle and daub houses built on low clay platforms like those found at other Guatemalan coastal sites dating to the Early and Middle Formative (Flannery 2009:23).

Ceramics: The excavations at Salinas La Blanca yielded approximately 66,220 sherds, a major portion of which (86%) were plain, unslipped, jar body fragments (Coe 1960).

Tak'alik Ab'aj (formerly known as Ab'aj Tak'alik; Retalhuleu, Guatemala)

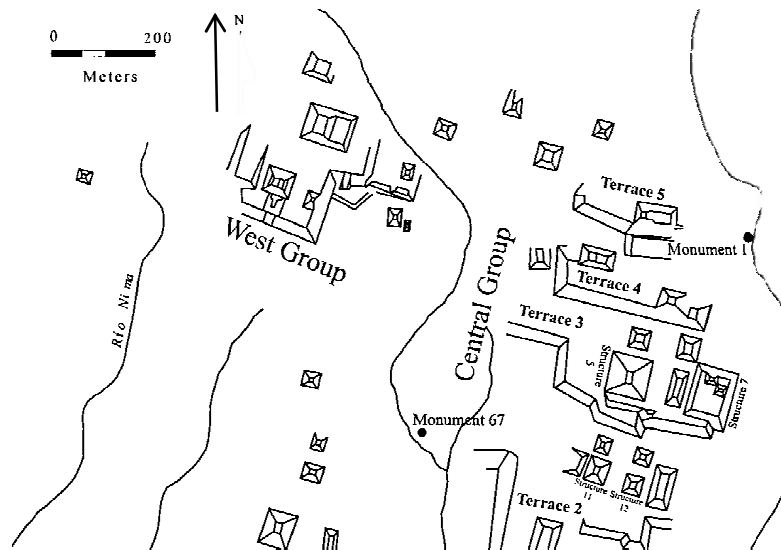


Figure 2.10 Site Plan of Tak'alik Ab'aj

[Adapted from Hatch, Schieber de Lavarreda and Orrego Corzo 2011, Figure 8.1].

Background: This western Guatemalan piedmont Formative period site became an important regional center by the Middle Formative (Figure 2.10). It boasts the largest concentration of Olmec-style sculptures (including a possible colossal head) outside of the Gulf Coast region (Love 2007:288). During the transition from the Middle to the Late Formative, Tak'alik Ab'aj witnessed major architectural construction as well as possibly ideological changes manifested in a shift from Olmec iconography to “Maya-style” sculptures and architecture similar to Izapa and Kaminaljuyú (Love 2007:293; Palka 2000:7). Occupation at the site peaked during the Late Formative, abandoned, and resettled with a minor occupation by during the Late Classic.

Archaeological investigations: Excavations conducted by the University of California and the institution of Anthropology and History of Guatemala recovered stone monuments and earthen archaeological features (Palka 2000:7).

Ceramics: Early ceramics dating to the beginning of the Formative period are connected to Pacific coast ceramic wares but by the Middle Formative, Tak'alik Ab'aj has ceramic styles closely related to the piedmont zone types at Bilbao and Monte Alto (Palka 2000:7). The Middle to Late Formative ceramics from Tak'alik Ab'aj belong to a local pottery tradition known as Ocósito (Love 2004:441; 2007:288).

Mesoamerican Sites Outside of the Pacific Coast

Iconographic and ceramic evidence indicate that two major sites outside of the Pacific coastal and piedmont zones influenced Bilbao and other settlements in the Cotzumalhuapa zone: Teotihuacan and Kaminaljuyú.

Teotihuacan (Estado de México, México)

Background: Teotihuacan is located 45 km northeast of the modern capital of Mexico in the Valley of Mexico. The population of the site began to increase during the Terminal Formative period (ca. 100 BC), and continued to grow into the Classic period, when it became the largest urban settlement in Mesoamerica with 100,000 to 150,000 inhabitants (Angulo 2007:83; Cowgill 2008:962; Evans and Webster 2001:722). The lack of archaeological evidence or iconographic representations of rulers at Teotihuacan has made it difficult to determine what type of polity could have supported and maintained this rapid growth and development. However, explanations of Teotihuacan's emergence as a preeminent political center during the first and second centuries focus on such factors

as the site's abundance of natural resources (especially obsidian) and its role as a sacred built landscape in proximity to the mountain Cerro Gordo.

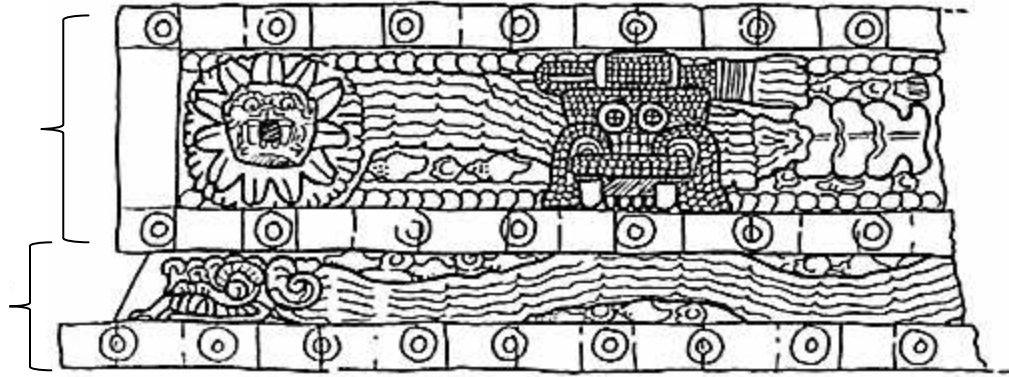


Figure 2.11 Portion of the Temple of the Feathered Serpent façade at Teotihuacán.
[Drawing by Linda Schele; Schele and Matthews 1998:285, Fig. 7.38]

Evidence of widespread Teotihuacano influence is present throughout Mesoamerica, including the sites of Monte Albán, Kaminaljuyú, and Tikal and includes the importation and local imitation of Teotihuacano ceramics (e.g., Thin Orange, tri-pod vessels, *incensarios*, symbolic depictions of Teotihuacano deities on locally produced ceramics) (Braswell 2003b:137; Headrick 2007). In addition to portable objects, “foreigners” from Teotihuacan are represented in the local art at these sites (e.g., Teotihuacano ambassadors at Monte Albán, visitors “from the west” in the Maya lowlands) and ideas and styles were borrowed from Teotihuacan (e.g., *talud-tablero architecture*⁶) (Figure 2.11). The status of Teotihuacan as an important urban center was reinforced by elites in other regions, who emulated Teotihuacano styles and emphasized their links to the Mexican metropolis in order to reinforce their high status.

⁶ Although *talud-tablero* architecture originated in Puebla, this style diffused to other regions of Mesoamerican via Teotihuacan influence.

Archaeological investigations: Small surveys and excavation projects at Teotihuacan were conducted in the first half of the twentieth century, but it was not until the 1960s and 1970s that an extensive survey of the 20-km² archaeological site—the Teotihuacan Mapping Project (TMP)—was directed by René Millon (1973). This survey produced accurate maps representing the peak occupation of the urban center, including thousands of apartment compounds and temples (Millon 1973:335). Since the TMP, there have been several major excavation projects at Teotihuacan, including further investigations of the large monumental structures (e.g., Gomez 2002; Sugiyama and Cabrera 2007) as well as apartment compound groups in the periphery, away from the civic-ceremonial center (e.g., Cowgill 2008; Croissier 2007; Gomez 2002; Manzanilla 2009).

Teotihuacan-style ceramics at Bilbao: As stated in Chapter 1, the purpose of the MPM Bilbao project was to identify the possible central Mexican influence in the southern “Maya” region based on ceramics, stone sculptures, and architecture at Bilbao and neighboring sites. Although there was little archaeological evidence for central Mexican, and specifically, Teotihuacano-style ceramics and architecture at Bilbao, various elements of central Mexican political and religious iconography appear in Middle Classic (AD 550-700) sculptural art at Bilbao and other Cotzumalhuapa sites. These include Tlaloc (the rain god), speech scrolls, butterflies, the “prowling jaguar,” and conch shells (Bove and Medrano 2003:46; Parsons 1969:139-140). Berlo (1984) and Hellmuth (1978) both argue that there was Teotihuacano influence in the vicinity of the Santa Lucia Cotzumalhuapa region based on a number of Teotihuacan-style incensarios found in Escuintla (Bove and Medrano 2003:47 (ca. AD 400-700) classified sherds found at

Bilbao during the MPM Project, only eighteen Teotihuacano-style III ceramic fragments date to this period (Parsons 1967:102, 1969:139-140). Fourteen of these sherds are from black-brown cylindrical, slab-footed tripod vases and covers, and four are black-brown annular-base cup sherds (Parsons 1967:102) (Figure 2.13). These sherds correspond to the Early Xolalpan phase (ca. AD 400-500) at Teotihuacan (Pasztory 1978:6).

Despite Parsons' classification of these sherds, it has been suggested by Popenoe de Hatch (1989:168) that there are no Teotihuacan-style ceramics at Bilbao; however, she does not offer an alternative explanation of the similarities between these sherds and other ceramic complexes on the Pacific coast. One possible interpretation is that the vessels came from the Montana complex (south of the Santa Lucia Cotzumalhuapa area on the Pacific coast) during the Middle Classic, when its inhabitants were influenced by or interacted with Teotihuacanos. For example, Bove and Medrano (2003:69, 74) argue that the annular-base cup fragments noted in Parsons' analysis of Teotihuacano-style ceramics at Bilbao are similar to Polanco Black-Brown cups (*copas*) from the Classic-period regional center of La Montana (Figures 2.12 and 2.13). Copas are goblet-shaped with a pedestal base and either rounded or flaring walls (Minc 2001:607). Nevertheless, although there is evidence for links between the Guatemalan piedmont zone and Teotihuacan (e.g., the use of central Mexican iconography in local sculptures), it appears there was little (if any) actual movement of central Mexican ceramics into the Santa Lucia Cotzumalhuapa area.



Figure 2.12 Teotihuacan III Style ceramics from Bilbao, Laguna Ceramica Complex (MPM)
 Teotihuacano-Style III (56006/21348), Type 23a
 (From left to right) Lot #707, 614, and 142 (far right, an alternative view of #142).

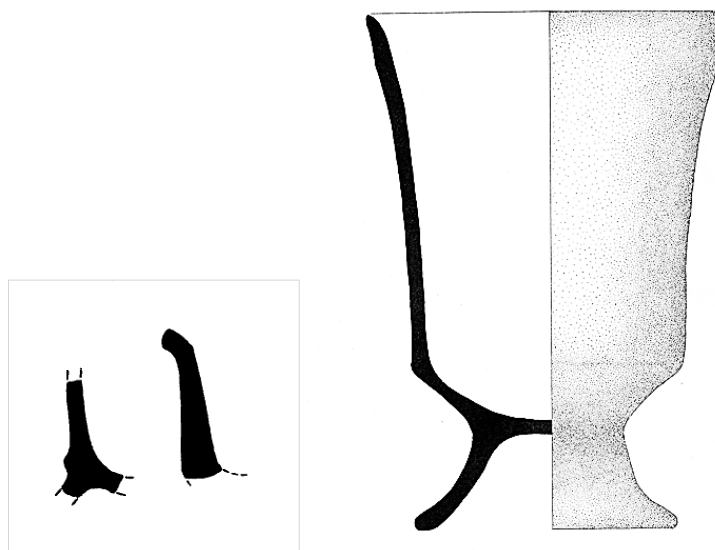


Figure 2.13 Annular Black-Brown base cups (*copas*). Left, from Bilbao [After Parsons 1967]. Right, from the Montana zone, Los Chatos (1982-83) [After Bove and Medrano 2003:68; Figure 2.8].

Kaminaljuyú (Guatemala, Guatemala)

Background: Kaminaljuyú, a large Formative to Classic period ceremonial center in the Guatemalan Highlands, was a key node on one of the most extensive trade networks in

ancient Mesoamerica. The location of Kaminaljuyú, near the modern day capital of Guatemala, was strategic in two respects. First, it was located in a valley that afforded access south to the Pacific coast and north to the Motagua Valley (West 1964:77). In addition, its proximity to two major obsidian sources (Jilotepeque and El Chayal) fueled economic exchange between it and other settlements throughout the Pacific coast region (see Figures 2.1).

The connection between Teotihuacan and Kaminaljuyú is complex. Although there is influence from Teotihuacan during the Middle Classic (e.g., architecture styles, ceramics), there is no indication that large groups of Teotihuacanos lived at the site based on domestic or burial contexts and materials (Love 2007:300).

Archaeological investigations: The Carnegie Institution of Washington excavated at Kaminaljuyú between 1935 and 1953 (Kidder et al. 1946; Shook and Kidder 1952). The first major project (headed by Alfred Kidder, Jesse Jennings, and Edwin Shook in 1936-1942) focused on excavating two small mounds that contained “pyramid-like” structures (Kidder et al. 1946). Ceramic analysis data from this project indicated that several pottery types from Kaminaljuyú were similar in style to ceramics at Teotihuacan. During the summers of 1956 and 1957, Borhegyi (then Director of the University Museum in Norman, Oklahoma) conducted excavations at Kaminaljuyú and Las Charcas, Guatemala (Borhegyi archives). From 1968 to 1971, the Pennsylvania State University Kaminaljuyú Project was directed by William Sanders and Joseph Michaels (Wetherington 1978:5). The subsequent Miraflores II project recovered substantial evidence of occupation during the Middle Formative as well (Love 2007:290; Popenoe de Hatch 1996, 2002; Valdés

1997). During this project, ceramic materials from the Middle Formative (Las Charcas phase) were found in both domestic features and mound contexts (Love 2007:290).

Ceramics: The Kaminaljuyú Project (Wetherington 1978:7) was a large-scale ceramic analysis of all of the sherds recovered by various projects that are housed at the Museum of Anthropology in Guatemala City; over 1.4 million sherds were catalogued, and 11,769 rim sherds were examined in detail. This project focused on various attributes (e.g., form, paste, decoration), which were used to create typological categories (Wetherington 1978:5).

Kaminaljuyú ceramic types at Bilbao: Ceramics found at Bilbao that were imported from Kaminaljuyú date primarily to the Middle and Late Formative periods (Parsons 1967). According to Parsons (1967), there are eight Kaminaljuyú types present at Bilbao: purple-on-fine-red (Providencia phase), red (Arevalo phase), red-on-cream (Las Charcas phase), Verbena White (Miraflores or Arenal phase), black-brown coarse (Arenal phase), graphite-on-red (Miraflores phase), and fine red (Miraflores phase) (see Table 2.1 for the phase sequence at Kaminaljuyú).

Summary

As stated at the beginning of this chapter, initial occupation on the Pacific coast occurs sometime during the Archaic period characterized by group mobility and foraging. It was not until the Formative period that settlements developed along the coast near marine resources (e.g., La Victoria, Salinas La Blanca, La Victoria, Balberta) and in the piedmont zone along trade routes from the Gulf Coast to the highlands (e.g., Tak'alik

Abaj, El Baúl, Bilbao, Monte Alto) with evidence of influence from the Olmec region and Kaminaljuyú.

The Late Formative and the Classic periods witnessed population increases along the coast and later in the piedmont zone, as well as the emergence of several regional centers including La Montana and Santa Lucia Cotzumalhuapa. During the Classic period, there is also evidence of influence from Teotihuacan. In the Early Postclassic, there is a decline in power around the Santa Lucia Cotzumalhuapa area and a decrease in population and settlements along the coast.

Historical Overview of Ceramic Studies from the Pacific Coast of Guatemala

In the early to mid-twentieth century, research in the Cotzumalhuapa zone focused primarily on the discovery and study of “international-style” monumental stone sculptures with an emphasis on possible external cultural influences from either central Mexico or the Lowland or Highland Maya regions. Ceramics were only briefly mentioned in early publications describing cultural affiliation, interregional trade, and cultural influences. One such early example was the work of T. T. Waterman, the assistant director of the National Museum in Guatemala, who identified several groups of ceramics at El Baúl and the nearby site of Pantaleón in a 1924 publication. As noted previously, Waterman (1924:9) identified three distinct groups of ceramics at these two sites: plain reddish-brown burnished vessels, a light yellow coarse ware, and a glossy black ware. Although he provided no temporal information about these wares, the “plain”

vessels are most likely Plumbate and the light yellow coarse ware is probably Tiquisate (Borhegyi Archives, personal notations by Borhegyi on Waterman's 1924 publication).

The monograph by Thompson (1948), *An Archaeological Reconnaissance in the Cotzumalhuapa Region, Escuintla*, was important to the development of ceramic typological studies and methodology in the Pacific coastal region. His systematic approach to ceramic research yielded one of the first local ceramic typologies for this area of Guatemala, which Parsons used later when classifying the Bilbao ceramic type collection at the MPM. Parsons' study will be discussed in detail in Chapter 3. In addition to comparing the Bilbao ceramics with published data from La Victoria and Salinas La Blanca (Coe 1960; Coe and Flannery 1962), Kaminaljuyú (Shook and Kidder 1952), and El Baúl (Thompson 1948), Parsons also used sherds collected from the surface at El Baúl, Kaminaljuyú, and La Victoria (now housed at the MPM) for ceramic comparisons (see Appendix B).

Thompson's and Parsons' ceramic studies were the foundation for ceramic typologies in the immediate area of Cotzumalhuapa. However, as more research in the area has been completed; ceramic chronologies have been modified based on new radiocarbon dates, the identification of additional sites with subsequent artifact analyses, and additional research on possible production centers in the southern Pacific region including Parsons' ceramic typology and sequence for the Escuintla region based on new calibrated radiocarbon dates and associated research (Chinchilla 2004).

Several studies of pottery from Pacific coastal sites have been completed in the last four decades (e.g., Beaudry 1984; Berlo 1989; Bove 1989, 1997; Chinchilla et al. 1997; Kosakowsky et al. 1999; Love 2007; Neff 1984; Neff and Bove 1999; Neff et al.

1988, 1989) which examined pottery production centers, ceramic variation, and cultural interaction on the coast by utilizing stylistic and compositional analyses. Other important monographs published since Parsons completed his study that are relevant to the Bilbao assemblage (although they focus on sites outside of the Pacific piedmont zone) describe pottery from Kaminaljuyú (Wetherington 1978), Santa Leticia (Demarest 1986), and Teotihuacan (Rattray 2001).

Regional Trade Wares: Plumbate and Tiquisate

Plumbate is a monochrome ware with subtle color variations (gray, black, and olive) that is found from central Mexico to Panama but is concentrated on the Pacific coast (Buchnell and Digby 1955:24-25) (Figure 2.14). Research indicates that Plumbate wares are separated into two different groups: Tohil and San Juan. Both groups are present in Classic and Postclassic contexts along the Pacific coast and were introduced ca. AD 700-800 (Bove 2002:182). Neff's (1988) analyses indicate that while simple Tohil and San Juan Plumbate vessels are similar in form, compositionally they are two distinct wares.

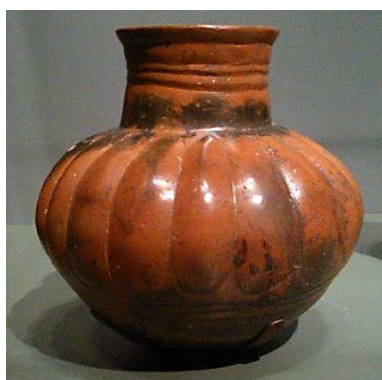


Figure 2.14 Plumbate Jar from the Lempa River region, El Salvador. AD 900 - 1200. Collected or excavated by MAI staff member Samuel K. Lothrop in 1926 [NMAI Accession #15/271].

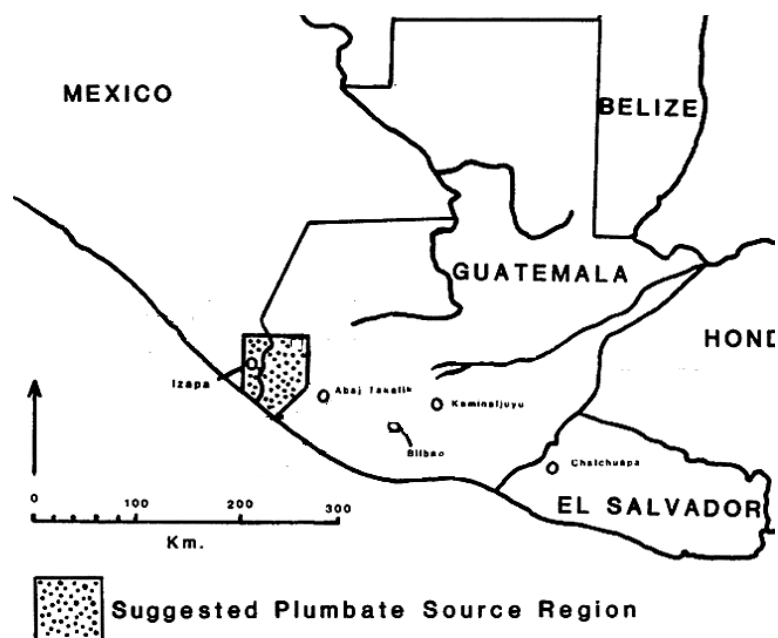


Figure 2.15 Map of Guatemala highlighting the possible area of production for Plumbate Wares.
[Adapted from Neff and Bishop 1988].

Neff et al. (1988) have proposed that Plumbate were produced near the border between western Guatemala and Chiapas where it was mass produced during the Classic period (Figure 2.15). They were one of the most important commodities by the Terminal Classic and were widely distributed from the Yucatan to Central America (Sharer and Traxler 2006:583).

Waterman's (1924) description of "plain" vessels at El Baúl could refer to either Tohil or San Juan during the Early Postclassic; however, Tohil differed from San Juan vessels later, during the Early Postclassic period, when they were elaborately incised and included effigy vessels (Bove 2002:182). Therefore, Waterman most likely was referring to either San Juan Plumbate or an early variety of Tohil.

The other widely traded pottery is Tiquisate, which dates to the Classic period and is characterized by a thick, beige slip that range in color from cream to orange (Parsons

1967:130) (see Figure 4.18, left). Tiquisate vessels have been found along the Pacific coast at sites including Anna, Bonampak, Bonanza, El Bálsamo, Giralda, La Rubia, Los-Chatos-Manantial, Palo Gordo, Santa Lucia Cotzumalhuapa, Tak'alik Ab'aj, Texas-Los Chatos, Tzuy-Lopez, and Vista Hermosa (Parsons 1967 and Bove et al. RDB). At Bilbao (Parsons 1967:130-134, 152-153), Tiquisate forms are frequently bowls and dishes and in general iconography often depicted on Tiquisate vessels includes human beings, mythical beings, and animals (e.g., jaguar, deer, monkeys, serpents, and birds) (See Magalí Gómez n.d.:6-13). Design elements were molded by applying clay to the surface of the pottery before firing.

Pacific Coast Archaeological Project

The Pacific Coast Archeological Project (Bove et al.) synthesized all of the data collected since research began in the Escuintla region in 1978-1979. This project had four main objectives (Bove 2002:1):

- (1) the preparation of publishable manuscripts (see Bove 2002; Bove and Medrano 2004);
- (2) the design, implementation, and completion of a large relational database including sites, stratigraphic data from excavations, ceramics, obsidian, and other artifacts (The Cotzumalhuapa Relational Database [RDB]);
- (3) the completion of all ceramic analysis and illustrations of key ceramic types and groups as well as other significant artifact classes such as obsidian; and
- (4) the design and implementation of a large GIS database encompassing all of the data collected.

As of 2002, the Relational Database (RDB) included information on approximately 100,000 ceramic sherds and 30,000 obsidian artifacts (Bove 2002:3). The ceramic data are separated into 11 individual databases which correspond to different projects in the Pacific coast region (Table 2.3). This massive compilation of data will eventually materialize in a volume dedicated to Escuintla ceramics. In this thesis I use a portion of this data set to discuss the distribution of types and vessel forms at sites within the Escuintla region and how they compare to the ceramic assemblage from the MPM Bilbao Project (see CERAMIC_COTZ; Table 2.3).

The Cotzumalhuapa database constitutes the largest percentage of sherds (31.4%) in the RDB (31,452 sherds). These data were derived from pottery collected from the surface and salvage excavations at Vista Linda (1991); El Baúl (1991); surface collections north of the acropolis at Bilbao (1991); surface collections at El Castillo (1993); controlled surface collections at Bilbao and other sites (1994); and excavations at Bilbao, Castillo, San Cristobal, and Los Cerritos-Norte (1995) (Bove 1996:5). A majority of the ceramic sherds from the Cotzumalhuapa database were recovered in domestic surface collections (49.7%), unknown contexts (28%), and mound fill (5.8%), and they date primarily to the San Jeronimo (Middle Classic) phase (59.1%) and Pantaleon (Late Classic) phase (18.4%). On the other hand, Early Formative to Early Classic pottery is far less abundant (Madre Vieja, Coyolate, and Tecojate phases [0.3%], Sis and Guatalon phases [0.3%], and Mascalate and Guatalon phases [2.0%]).

Table 2.3 Relational Database (RDB) of ceramics from the Pacific coast (Adapted from Bove correspondence, 1996).					
Database	Site(s)	Principal Investigator(s)	N	Rims	% of Rims
CERAMPJ1	Bonanza (1985)		590	436	73.9
CERAMPJ2	Anna, Bonampak, & Bonanza (1985, 88, 90)		7864	6844	87.0
	Giralda (1983-84)	Bove			
	Parcelamieto Los Angeles (1987)	Medrano and Arroyo			
	Tzuy-Lopez (1987)				
	Vista Hermosa(1987)	Bove			
CERAMICX	Balberta and Pilar (1983, 84, 86, 87)	Medrano and Arroyo	27564	15947	57.9
CERAMBZ5	Bonanza (1985)		1738	1276	73.5
CERAMEB	El Bálsamo (1989)	Bove	269	210	78.1
CERAMVH	Vista Hermosa (1988-89)	Bove	2372	2118	89.3
CERAMLPC	Carolina, Las Playas, Yolanda, & 670601 (1982)	Bove	1427	1157	81.1
CERAMMAL	Los Chatos-Manantial (1991-92); Texas-Los Chatos (1982-83)	Bove	21567	15328	71.1
CERAMIC_COTZ	Vista Linda (1991); El Baúl (1991); Bilbao (1991)	Bove and Medrano; Bove and Chinchilla	31452	20057	63.8
	El Castillo (1993); Bilbao (1994); Bilbao, Castillo, San Cristobal, & Los Cerritos-Norte (1995)	Chinchilla (analysis by Medrano, Genoves, and Chinchilla)			
CERAMCPN	La Rubia, Giralda, Tzuy-Lopez	Arroyo; Bove	766	646	84.3
TECOJATE	Tecoate		4585	3455	75.4
Totals			100194	67474	-

Chapter III. Methodology

Previous analysis of the Bilbao materials

Parsons and the MPM team completed the initial phases of analysis in the field (1961-1963), photographing partial vessels, classifying sherds, writing general descriptions, and tabulating sherd counts (Figure 3.1). Since none of the excavation units or trenches (except Test Pit 2) had undisturbed stratigraphy, all ceramic materials were grouped as a single lot before being separated chronologically based on established forms and type comparisons (Parsons 1967:24). Parsons accurately identified imported pottery through a visual comparison with materials from other regions, but did not type them.



Figure 3.1 (Left) Staff analyzing artifacts at the Finca Las Ilusiones (Bilbao, Guatemala) in 1963.

Figure 3.2 (Right) A local Guatemalan girl washing pottery sherds.
[Milwaukee Public Museum negatives from the Borhegyi Archives]

Materials recovered during the MPM Bilbao project that are currently housed at the Milwaukee Public Museum include lithics, charcoal samples (used for radiocarbon dating), and a type collection of 2,617 ceramic sherds. Unfortunately, during my research I was not able to find the original field notes from the Bilbao excavations or coding information from the ceramic analysis (e.g., a list of the type descriptions and their associated typing codes) in the museum's archive. However, the museum archives have a blank master copy of the ceramic data form listing attributes—like form, style, decorative elements (e.g., incised/punctated designs, paint, etc.), measurements (e.g., height, wall thickness, rim diameter) and paste—used by the field team to classify the Bilbao assemblage and define local ceramic types, groups, and wares at Bilbao (Table 3.1)

The type collection was first analyzed by staff between 1963 and 1965. They systematically categorized and dated the ceramics using the type-variety system (which was fairly new at the time in Mesoamerican archaeology), in addition to previous excavation and ceramic classification data from Kaminaljuyú (Shook and Kidder 1936-1942), El Baúl (Thompson 1948), La Victoria (Coe 1961), and Salinas la Blanca (Coe and Flannery 1962). Parsons defined six ceramic complexes at Bilbao: Algo-es-Algo (Middle Formative), Ilusiones (Late Formative), Mejor-es-Algo (Early Classic), Laguneta (Middle Classic), Santa Lucia (Late Classic), and Peor-es-Nada (Postclassic) (see Table 2.1).

Table 3.1 Number of classified ceramic sherds from Bilbao, organized by ceramic complex [After Parsons 1967, Figure 17]				
Phase(s)	Ceramic wares	Ceramic groups	Number of sherds	Percent of total classified sherds at Bilbao
Algo-es-Algo	Cajon Coarse ware	2	526	3.1
	(Unspecified black-brown ware)	1	23	0.14
	(Unspecified white ware)	1	66	0.4
Algo-es-Algo and Ilusiones (?)	Siquinala Red-on-Buff ware	3 or 4	434	2.55
Ilusiones	Osuna Coarse ware	2	986	5.8
	Xata Black-Brown ware	2	906	5.3
	(Unspecified reddish-orange ware)	1	245	1.44
Algo-es-Algo, Ilusiones, and Mejor-es-Algo	Balsamo Orange ware	4	805	4.74
	Aguna white-washed-coarse ware	3	728	4.3
Mejor-es-Algo, Laguneta, and Santa Lucia	Coyolate Black-Brown ware	2	1433	8.43
	Cocales Red ware	2	140	0.82
Laguneta and Santa Lucia	Baúl Reddish-Brown Coarse ware	4	3886	22.86
	Bilbao Coarse ware	4	2042	12
	Pantaleón Hard ware	2	1783	10.5
Santa Lucia	Plumbate ware	1	61	0.35
Peor-es-Nada	(Unspecified Micaceous ware)	1	375	2.21
	(Unspecified Cinnamon ware)	1	23	0.14
All Phases	(Trade or Special wares)	(not named)	246	1.45
Total			16,477	97%*
*3.0% in miscellaneous categories, not assigned to phases				

Museum Procedures and Documentation of the MPM Bilbao Collection

Each ceramic artifact in the type collection was labeled with three sets of numbers: the museum accession and catalog number (e.g., 56003/21648), the ceramic type number⁷ (1 through 95; most are followed by a letter to designate a type-variation [e.g. 72B]), and the lot number (1 through 3005) (Appendix A, Table 3.2). The MPM museum staff separated the Bilbao ceramic collection into three groups: “Published Examples,” which appear in the monograph *Bilbao, Guatemala: An Archaeological Study of the Pacific Coast Cotzumalhuapa Region* (1967) (n=1016)⁸; “For Exchange,” which were sherds not fully analyzed by museum staff (e.g., missing type classification information, museum catalog, or accession numbers) (n = 1158); and a third category, which were used for petrographic analysis (n = 443) (See Appendix D). The thin section slides were not recovered during my research in the MPM archives.



Figure 3.3 Thin section sherd samples stored in individual pouches on the left and Parsons’ notes for each lot, listing all pottery recovered for each context

⁷ The museum staff circled the type number on each sherd as a way to differentiate it from the lot number.

⁸ 106 sherds mentioned in Parsons’ notes about the monograph’s illustrations were missing from the MPM type collection.

In preparation for this thesis, I compiled a detailed inventory of all Bilbao materials stored at the MPM. This process yielded a database of three obsidian artifacts (a blade, a flake, and a side-notched projectile point) and 2617 sherds, 2174 of which had associated lot numbers or archaeological contexts (Figure 3.4 and Table 3.2). The type collection at the MPM is stored in drawers separated by time period (See Appendix D and Figure 3.4) and further separated into boxes by type number (Figure 3.5).



Figure 3.4 Bilbao type collection storage at the MPM.

Type numbers, while recorded with India ink on each sherd, were not written down in the museum's archives. Therefore, after completing the inventory, I was able to construct a list of types present in the type collection (See Appendix G) by comparing Parsons' draft for his 1967 publication with the typed notecards in each drawer and the accession number, lot number, and type number labeled on each sherd (Figure 3.5). His notes were the key between relating types with their associated catalog numbers. I was

able to collate the ceramic data from the type collection into one database that could be used to quantify the functional attributes of the total assemblage.

Each catalog number is associated to a type number (see Appendix G). For example, Type 1, a Red-on-Orange ware from Chukumuk (Phase II), has a catalog number of 56003; therefore, if either the type number or the catalog number were not present on the sherd, the type could still be deciphered based on patterns inferred from my inventory. Only through cataloging the MPM type collection was I able to decipher the patterns in how the types were initially classified because there was not a collection record of types.

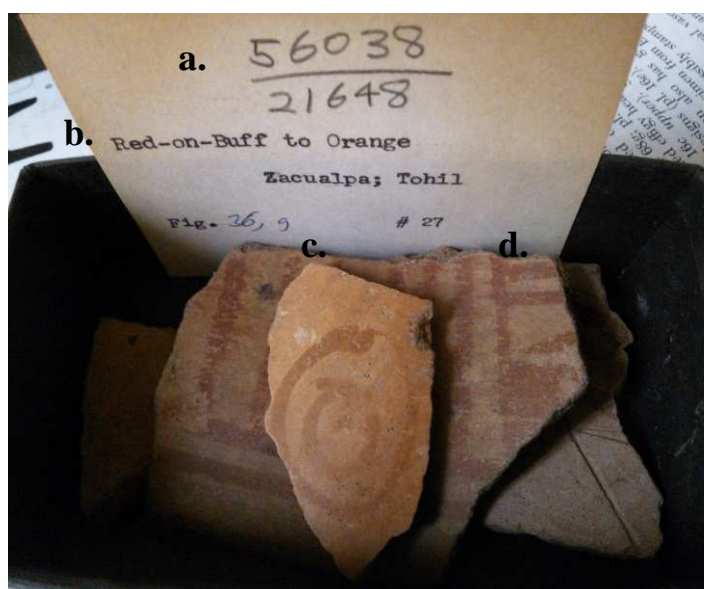


Figure 3.5 Museum documentation example: (a.) catalog and accession number; (b.) type name and location (if present); (c.) figure from Parsons' 1967 publication; and (d.) type number

In addition to making a list of types present in the MPM type collection; I recorded the lot context information from each sherd resulting in the tabulations shown in Table 3.2. According to my results, the three contexts have the highest frequency of

sherds from the type collection were Group B, Pyramid 2 – Monument 21 (587 sherds), Group D, Pyramid 1 (515), and Test Pit 2 (443).

Table 3.2

Number of sherds in the MPM Bilbao assemblage by context

Context description	# sherds
Group A, West Wall Acropolis	42
Group B, Pyramid 2 - MONUMENT 21	587
Group B, Pyramid 4 - MONUMENT 18	142
Group C, Pyramid 2	119
Group D, Pyramid 1	515
Group D, Pyramid 2	33
MONUMENT 19	19
MONUMENTS PLAZA	110
TEST PIT 2 "Esperanza"	443
TEST PIT 4 - Group C, SW Corner	25
No context information recorded	18
Unknown/illegible/no lot #	121
Total	2174*

*443 sherds not included in this total were used for the petrographic analysis.

Present Analysis of the Bilbao Assemblage

As previously stated in Chapter 1, the aim of the present research was to reevaluate the Bilbao ceramic assemblage in light of the most current research in the region as well as new ceramics data available from Santa Lucia Cotzumalhuapa and other sites in the region. I employ a functional approach in order to see how vessel forms, and their inferred function, may have changes through time and to discern what this could tell us about social, political, economic, and ideological aspects of Bilbao. These results are then compared with ceramic data from the Cotzumalhuapa region available in the RDB

(Bove et al.) in order to look at different patterns of inter-site interaction with other sites in the region and beyond.

Data Selection and Analysis

This study made use of two separate datasets. Bilbao sherds classified by Parsons and published in his 1967 monograph ($n = 16,477$) and the Cotzumalhuapa region subset of the RDB ceramic database compiled by Bove and colleagues ($n = 31,452$). Although approximately 56,000 sherds were recovered from trenches, units, and surface collections by Parsons at Bilbao, only 16,477 (29.4%) were classified and published. The data I used in my quantitative analyses of vessel form and function were taken from the raw count totals calculated by the MPM team in the field, and published by Parsons (1967) but the type collection provided a visual comparison between the Bilbao collection and types illustrated in similar ceramic studies from the region. My inferences regarding the use of different vessel forms were derived from Parsons' initial classification of these materials but my analysis focused on the functional aspects of pottery from the assemblage with the data provided for the Santa Lucia Cotzumalhuapa assemblage. To gain a more accurate representation of vessel forms from Bilbao, types (if applicable) were broken down into different forms, and the frequency of each form was calculated. In addition, I calculated sherd frequencies by vessel types, time period, and total number of sherds classified.

As stated before, different types of pottery vessels are designed to transport, store, serve, and process liquids and solid foodstuffs. Vessel function is based on form, structural components, and overall utility. Most archaeological studies of vessel function are based on ethnographic research or contextual data (Table 3.3). A single vessel may

have various technological, social, and/or ideological functions (Skibo 1992:33). The technological aspects of a vessel refers to materials (clay and temper), production (e.g., surface treatment and wall thickness), and use, while the social and ideological functions of a vessel are related more to its stylistic elements. In the absence of ethnographic data, it may still be possible to infer the functions of archaeological pottery from aspects of its form and stylistic attributes.

In Table 3.3, I outline the vessels present from both ceramic assemblages with their corresponding functions based on form design, context, ethnographic evidence, and surface treatments (if noted). For example, there are several ethnographic examples where similar vessel forms to *comales* (shallow plates) and *sartenes* (frying pan/dishes) are used today by some groups in the Guatemala highlands for food processing. In addition to ethnographic data, archaeologists have analyzed containers looked at sooting to support this evidence.

Utilitarian forms, like jars, *tecomates*, and some bowl and dish forms in the Santa Lucia region may correlate to transportation, storage, and food preparation, while more specialized forms, like censers, rim-head vessels, cylindrical vases, and miniature vessels are associated with ritual or special activities. As an over generalization, many of the local wares produced in the Cotzumalhuapa zone were utilitarian forms including unslipped jars, bowls, and dishes while containers with surface treatments like resist-patterning, incising, and highly burnished types (Plumbate wares) are non-local. Two exceptions are urns and censers, which are believed to be locally produced.

The ceramic materials from Bilbao can be divided into two main categories: sherds from containers (vessels) and miscellaneous objects (e.g., figurines, spindle

whorls, ear spools, etc.). On a general level, form categories may be used to classify different vessel types (e.g., bowl, plate, jar, etc.); on a more specific level, “form” can also refer to attributes of a vessel (e.g., rim shape, lip treatment, wall curvature, etc.). The majority of the MPM type collection is rim sherds or body sherds with decorative elements. Fortunately, such sherds provide the greatest amount of information about vessel form.

Table 3.3 Vessel Form/Function Correlation		
Function:	Form(s):	Additional Evidence:
Cooking	Flat griddles (<i>comales</i>) Sartenes	} Ethnographic evidence; evidence of burning
Food preparation	Plates Hemispherical bowl Grater bowls	
Ritual or special	Cylindrical vases Censers Effigy incense burners Pedestal censers Miniature vessels Rim-head vessels	Contextual evidence and ancient representations of vases during rituals } Evidence of burning, sooting; concentration of forms near ritual architecture Ethnographic evidence Elite ritual contexts
Storage	Jar (long and short-necked) Tecomates and collared jars	
Serving	Foodstuffs Bowls/dishes Shallow dishes (<i>cazuela</i>) Hemispherical (decorated) Flaring walled bowl/dishes Vases Liquids Annual base cups Jars (flared-necked)	Comparative examples
Transportation (liquid)	Jars (restricted-necked) Tecomates	

Following a similar study completed by Lesure (1998:22) on ceramics from the site of Paso de la Amada, Chiapas, there are five important variables that should be considered when determining vessel function: (1) vessel form; (2) rim diameter; (3) percentage of rim diameter present; (4) vessel height; and (5) wall angle at rim (used strictly for the analysis of tecomates). Such a multi-variable approach facilitates inferences about the function and volumetrics of different forms. For my analysis of sherds from both assemblages⁹, I considered (1) vessel form as the primary level of classification and analysis including rim diameter, wall thickness and vessel height; and (2) decoration as the secondary level of classification to determine the possible function of vessel forms. The quantitative analyses I undertook provide a foundation for arguments about vessel function based on ceramic data from Bilbao in concert with comparative data from sites within the piedmont region. I cite contextual evidence and ethnographic studies as support for these arguments.

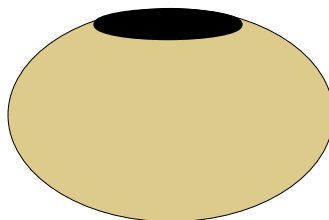


Figure 3.6 Tecomate vessel form

The purpose of the quantitative analysis of vessel form frequencies and dimensions was to understand the appearance and modification of these local ware forms. Function was based primarily on form and secondarily on decoration which draw inferences regarding the transportation, preparation, and use of foodstuffs and liquids, as

⁹ Although Parsons (1967) published this data, his primary focus was on typing ceramics and the associated architecture, while my research is looking at the broad trends using vessel form to infer function and trade interactions based on recent excavations and ceramic studies (see Chapter 2).

well as associated social activities engaged by the inhabitants in the region. For example, the presence of tecomates at Bilbao during the Middle Preclassic indicates that it shared a ceramic tradition similar with other sites along the Pacific coast like La Victoria, La Blanca and Salinas La Blanca (Figure 3.6). The globular or subglobular restricted, neckless orifice of tecomates is derived from the shape of gourd vessels used in Mesoamerica during the Archaic period (Lesure 1998:19). This vessel form (also known as a "seed jar" or the more descriptive term, neckless jar) would have been used for storage, transportation, and possibly cooking.

Count Discrepancies and Adjustments

In Parsons' monograph, his calculations were based on counts tabulated on notecards in the field. These notecards had contextual information (e.g., group and lot numbers), and later he added type-variety codes on the back of each notecard, along with general counts for that lot number. The vessel form counts I analyzed were based on the type-variety information and classification system that Parsons created. For example, ceramic groups and, more specifically, types were derived on the basis of form and decoration. Therefore, if 130 sherds from the Algo-es-Algo ceramic complex were classified as "Playas Ceramic Group - Siquinala Red-on-Buff Ware: Playas Variety," there is only one type of vessel form for this classification (bolstered-rim-jars). However, in some cases, there are several vessel forms per type-variety. Parsons calculated sherds by vessel form and type with a few exceptions creating miscalculations of some groups which were updated in my results (chapter 4; Table 4.1)

Chapter IV. ANALYSIS

In this chapter I present ceramic data from Bilbao and the Santa Lucia Cotzumalhuapa database; these data are split into seven main sections following diachronically from the Early Formative to the Postclassic. The information is separated by data set (*Bilbao assemblage* and *Cotzumalhuapa database*); then, general vessel groups (*unrestricted-* and *restricted-orifice vessels* and *special forms and non-local vessels*), and lastly, by morphological vessel form (e.g., *bowl*, *jar*, *tecomate*, *plate*). I focused on presenting information like vessel shape, wall thickness, rim diameter, and height, in addition to type-variety classifications. The chapter concludes with a section on non-vessel ceramic materials (e.g., whistle fragments, spindle whorls, ceramic tablets) and decorative elements (e.g., animal forms, symbols) from sherd fragments in the MPM Bilbao assemblage.

Table 4.1 Number and percentage of classified ceramic sherds from Bilbao (Parsons 1967, Figure 17) and the Ceramic_Cotz database (Bove et al.)				
Ceramic Complex	Number of sherds	Percentage of total classified sherds (Parsons 1967, Figure 17)	Number of sherds classified to vessel form	Percentage of sherds classified to vessel form
Bilbao	16,477	97% *	13,530	82.11%
Algo-es-Algo phase (Middle Formative)	1140	6.9%	1140	6.92%
Ilusiones phase (Late Formative)	3363	19.8%	3033	18.41%
Mejor-es-Algo phase (Early Classic)	695	4.1%	686	4.16%
Laguneta phase (Middle Classic)	9859	58%	7251	44.01%
Santa Lucia phase (Late Classic)	997	5.9%	997	6.05%
Peor-es-Nada phase (Postclassic)	423	2.5%	423	2.57%
**Form not determined	-	-	2931	17.79%
ceramic_cotz	31,452	100%	27,933	96.5%
Madre Vieja/Coyolate/Tecojate phases (Early Formative)	93	0.3%	93	0.3%
Sis/Guatalon phases (Middle Formative)	89	0.3%	89	0.3%
Mascalate/Guacalate phases (Late Formative)	623	2.0%	607	2.0%
Colojate phase (Early Classic)	1268	4.0%	1219	3.9%
San Jeronimo (Middle Classic)	19,275	61.3%	18,602	59.1%
Pantaleon (Late Classic)	5814	18.5%	5780	18.4%
Ixtacapa (Early to Late Postclassic)	1641	5.2%	1542	4.9%
**Time period not determined	2526	8.0%	-	-
**Form not determined	1096	3.5%	1096	3.5%
*3.0% in miscellaneous categories (figurines, spindle whorls, etc.), not assigned to phases (Parsons 1967)				
†Parsons' published counts in his 1967 publication differ. In Figure 29 he states that there are 3363 sherds from the Ilusiones ceramic complex, but when adding the separate counts of each ceramic group, there is only 3033 sherds. Therefore, his counts are off by 330 sherds.				
§Parsons' published counts for the Laguneta ceramic complex in Figure 45 (1967) is 9859 but the sum of his detailed counts amount to 7,193, which is a difference of 2666 sherds.				
** Form and time period not determined; Bilbao 2,931 sherds (17%) of total sherds and ceramic_cotz 7322 (23.2%) of total sherds and 8181 (26%) of sherds not classified to vessel form				

Early Formative Period

Table 4.2

Early Formative – COTZ RDB (Bove et al.)		
<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	0	0.0%
ceramic_cotz	93	100.00%
Bowl	90	96.77%
Tecomate	2	2.15%
Jar	1	1.08%

Ceramic_Cotz (RDB) – Madre Vieja, Coyolate, and Tecojate Phases

(n = 93)

Early Formative pottery on the Pacific coast includes unslipped storage, cooking, and serving vessels (e.g., simple open flat-based bowls). Common decorative elements include punctations, appliques, incising, fluting, resist lines, and painting (red-rim) (Sharer and Traxler 2006:161).

Restricted-Orifice Vessels

Tecomates (n = 2) and jar (n = 1)

There are only three restricted-orifice vessel sherds from the RDB Early Formative assemblage: two tecomate sherds (one Cajon Coarse and Costeño) and a Costeño out-curved neck jar sherd. The tecomate fragments are from globular vessels with diameters of 36 and 15 cm respectively. Both were recovered from domestic contexts. Cajon-Grooved-Course types are related to Matasano Gray, a type commonly found at El Bálsamo (Bove 1996:14). Tecomate forms were found throughout Mesoamerica and first appeared in the Pacific coast region during the Early Formative

period. It is identified as a globular, neckless jar with a restricted orifice and were used for dry and liquid storage, liquid transport and service, and cooking (Lesure 1998:22).

Unrestricted-Orifice Vessels

Bowls (n = 90)

A majority of the Early Formative bowl sherds were recovered from domestic contexts (59 sherds) and the surface collections in the central zone (17). The Cajon bowl sherds have the following diameters: Cajon Coarse 14 to 32 cm; Costeño are 9 to 32 cm; Juilin White Rim Black 12 to 28 cm; Matasano Gray 26 cm; and Puyado 20 cm.

Middle Formative Period

Table 4.3

Middle Formative – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)

<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	1140	100.00%
Jars	542	47.5%
Bowls	299	26.6%
Tecomates	207	18.2%
Dishes	29	2.5%
Miscellaneous	24	2.1%
Dishes, bowls, or tecomates	14	1.2%
Vases	13	1.1%
Dishes or bowls	4	0.4%
Cuspidors	2	0.2%
Bottles	1	0.1%
Undetermined	1	0.1%
ceramic_cotz	89	100.00%
Bowl	89	100.00%

Bilbao – Algo-es-Algo Phase

(n = 1140)

Forms: The Middle Formative vessel forms present at Bilbao include bottles, bowls (simple and composite silhouette [Figure 4.1]; incurved-rim; and outslanted-side dishes or bowls), cuspidors, dishes (flanged and thick-walled; outslanted-side; and outflaring-side), jars, tecomates (thick-walled globular and subglobular neckless; and thin-walled neckless), vases (bolstered-rim), and undetermined vessel forms (Table 4.3). Jars, bowls, and tecomates constitute a majority of the sherds in the assemblage (1048 sherds or 92%).

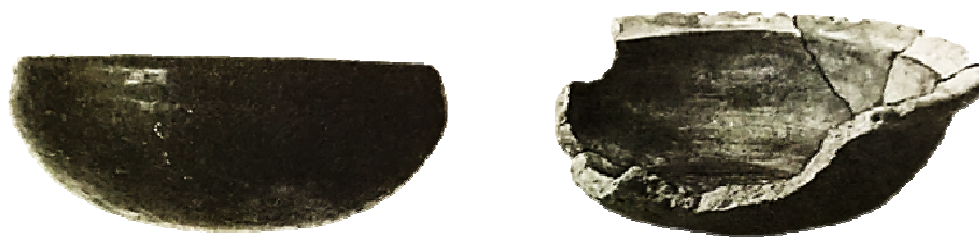


Figure 4.1 Composite-Silhouette bowls from Bilbao. From Parsons 1967:187, *plate 13a*)

Decoration: During the Formative period there were two widespread decorative techniques: rocker-stamping, which appears in ceramic assemblages throughout Mesoamerica during the Middle Formative.

Wares: coarse (85%), fine (8%), trade and special (4%), and black-brown (2%).

Restricted-Orifice Vessels

Jars (n = 542)

Jar forms at Bilbao represent 49.3% of the total ceramic assemblage from the Middle Formative period; these include bolstered-rim jars (321 sherds), low-collared jars (77), short-necked jars (73), necked jars (41), everted-rim jars (18), and wide-mouth and labial-flanged jars (both 6) (Figure 4.2). These vessels have globular or subglobular bodies. Low-collared jars are similar to tecomates with a neckless orifice and a thickened rim creating a “collar” that measures 0.2 to 0.3 cm in height (see Appendix H).

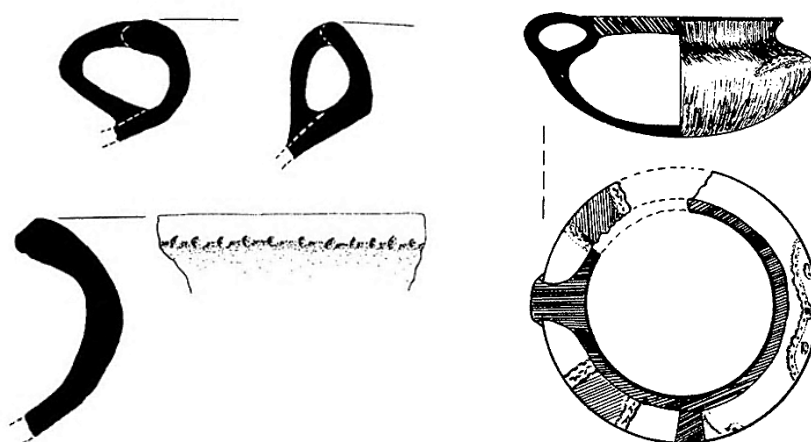


Figure 4.2 (Left) bolstered-rim jars [(55969/21468), from top left counter clockwise Lot#410, 270, and 147]; and (right) wide-mouthed jar. [After Parsons 1967].

Tecomates (n = 207)

At Bilbao, tecomates are only present during the Middle Formative period (Algo-es-Algo complex) and universally they disappear from Pacific coastal ceramic assemblages in the Late Formative (Arnold 1999:158). In the RDB, tecomate forms are absent during the Middle Formative but, interestingly, are present during the Early and Late Formative.

Tecomate sherds include two local types (Soledad Incised-slipless and Canilla Red-on-buff) and two imported types (black or red tecomates from La Victoria and Mendez Red-Rimmed from Salinas La Blanca) (Parsons 1967:180, plates 6*b* and 6*e*). Local tecomates represent 16.66% of the total Algo-es-Algo ceramic complex (n = 190 sherds) and 91.8% of the tecomate forms.

Large, thick globular neckless vessels with red specular hematite band around the rim are diagnostic of the Middle Formative period along the coast of Chiapas and

Guatemala, and in El Salvador there is an unslipped variety (Kennedy 1986:190-191). Secondary decorations including zoned rocker-stamping, fingernail impressions, and coarse gouge-incisions on the body of tecomates are also common, much like the imported examples at Bilbao (Kosakowsky et al. 2000) (Figure 4.3).



Figure 4.3 Tecomate rim sherds from Bilbao from the MPM Cajon Coarse Ware, Soledad Incised-Slipless:Soledad variety [(55970/21348), (Counter clockwise from top left) Lot #168, 2093, 356, and 26.

Cajon ware tecomates include both slipped (exterior or the exterior and interior rim) and unslipped examples (some with possible evidence of red or brown slip may simply be highly eroded). Slipped tecomates from the MPM type collection have a highly burnished exterior and pre-fired deep-gouge incised linear patterns (Figure 4.3). These tecomates have rim diameters of 12-40 cm. Canilla red-on-buff vessels have a mean diameter of 33 cm. The tecomates with larger rim diameters may have been used for cooking, as their openings were large enough to stir the vessels' contents. Both of these types have flat to rounded lip treatments. Flat lips may indicate that these vessels were not used for pouring liquid—since a rounded lip would better facilitate the transfer of

beverages—but may have also been used for cooking or storage. Flat lip vessels from Bilbao have a more globular than rounded lip vessels. The wide range of mouth diameters and forms of decoration on tecomates suggest that there were several possible functions for Cajon ware vessels in the Bilbao assemblage.

Unrestricted-Orifice Vessels

Bowls (n = 299)

Bowls are the second most common Middle Formative vessel form at Bilbao with three variations: composite-silhouette (128 sherds), simple-silhouette (119), and incurved-rim (52). Simple-silhouette bowls are hemispherical in shape with rim diameters of 24.5-33.5 cm (average 26.25 cm) and composite-silhouette bowls are thick-walled with mostly constricted mouths and diameters ranging from 15.5 to 30.0 cm. Incurved-rim bowls with a hemispherical shape and slightly restricted orifices are less common. Bowl sherds from Bilbao typically have highly burnished and slipped surfaces and a range of geometric and linear incised designs on the exterior wall, mainly below the lip. Burnishing is a method of smoothing the surface of an unfired, dry pot with a hard, smooth object like a pebble or stone. This process reorients the fine particles in the clay fabric and reduces permeability, which is an advantage for serving stews and liquids (Rice 2005:138, 231). The incising on Middle Formative bowls is rather crude in comparison to the more finely incised Late Formative types that incorporate different motifs (e.g., a sunburst) into highly stylized geometric, incised patterns (e.g., Xata Brown-Black Ware, Balsamo Orange Wares [Ilusiones ceramic complex]) (Figure 4.4).



Figure 4.4 Xata Black-Brown sherds, 55989/21648 [Milwaukee Public Museum].

Special Forms and Non-Local Vessels (n = 48)

Special forms and non-local vessels constitute 14.8% of the Middle Formative assemblage. These include tecomates (17 sherds); dishes, bowls, or tecomates (14); bowls (5); dishes or bowls (4); dishes (3); vases (3) (Figure 4.7); a bottle (1) and undetermined (1). Of these non-local pottery sherds, the bottle is the only type of vessel not represented in the local ceramic tradition. Interestingly, non-local jars are not present (and, as noted above, jars were the most common local vessel type); this may be due to the fact that Middle Formative jars were relatively large and therefore difficult to transport.



Figure 4.5 (Left) Thumb-impressed sherd (Salinas la Blanca, Cuadros phase), 55989/21648 [Milwaukee Public Museum] and (right) red-on-white vase sherd [Milwaukee Public Museum].

Ceramic_Cotz (RDB) – Sis and Guatalon Phases

(n = 89)

The Middle Formative pottery is under-represented in the Cotzumalhuapa RDB (0.3%) representing only bowl forms. A majority (83.2%) of the sherds from this complex are from domestic contexts.

Unrestricted-Orifice Vessels

Bowls (n = 89)

Bowls are the only vessels in the Middle Formative assemblage, and they are primarily Black-Brown wares (e.g., El Bálsamo Brown-Black, n = 70). Other types include Conacaste Zoned Buff (4 sherds), Cuchillo Gash Incised (14), and Zinc Orange (1). Cajon Coarse bowls have a rim diameter of 14 to 32 cm. Bowl shapes include composite-silhouette, incurved-walled, outcurved, necked, and outcurved walls.

*Late Formative Period*¹⁰**Table 4.4**
Late Formative Period – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)

<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	3033	100.00%
Bowls	1444	47.6%
Bowls or vases	574	18.9%
Vases	466	15.4%
Jars	437	14.4%
Dishes	46	1.5%
Dishes or bowls	35	1.2%
Bowls or jars	22	0.7%
Jars and vases	9	0.3%
ceramic_cotz	607	100.0%
Bowl	508	83.7%
Jar	92	15.2%
Vase	4	0.7%
Dish	3	0.5%

Bilbao – Ilusiones Phase**(n = 3033)**

Forms: Late Formative forms at Bilbao include bowls (bolstered-rim; simple, composite, and complex silhouette; everted-rim and composite silhouette S-Z angle; hooked-rim; incurved-rim; outflaring-sided; vertical sided; and wide everted-rim); effigy bowls or jars; thick-walled bowls and vases; tripod dishes; labial to lateral-flanged dishes or bowls; jars (everted-rim and necked); and vases (bolstered-rim and everted-rim) (Table 4.4). Bowls and vases are by far the most common vessel forms, constituting over 81% of the Ilusiones complex.

¹⁰ Parsons (1967) states that there are a total of 3363 sherds in the Ilusiones ceramic complex. However, the ceramic group tabulations from his monograph add up to only 3033 sherds. Therefore, all of the calculations in this thesis are based on the adjusted total of 3033 sherds.

Decoration: Usulután decorated vessels are only present at sites along the coast from Guatemala to Nicaragua (Parsons 1957:104; Willey, et al. 1964:455, 484). Usulután is a resist-dye technique in which wax is applied in a pattern on the surface of a pot before it is covered with a black slip; the wax melts during the firing process, leaving the resist pattern behind (Parsons 1957:103) (see Figure 4.6).



Figure 4.6 Usulután red-and-white vessel from the Lempa River region, El Salvador; 400 BC – AD 250 [NMAI Accession #23/6235].

This pottery technique originated in western El Salvador and was widely distributed in Guatemala (Santa Rosa and Jutiapa, Santa Rosa Usulután [Kosakowsky et al. 1999:380]; Rancho Vista Hermosa in Jutiapa [Bond 1989]; El Bálsamo and Monte Alto [Shook and Hatch 1978]; and at Kaminaljuyú, Verbena Red Orange [Wetherington 1978]) (Figure 4.7). In El Salvador, Usulután pottery (Jicalapa, Olocuitla, and Izalco Groups) is present at Chalchuapa (Sharer 1978), Santa Leticia (Demarest 1986), and Quelepa and Cara Sucia (Demarest and Sharer 1983). In the Bilbao assemblage, Usulután decorated fragments include bowls, dishes, and vases (Osuna: Ceniza type # 43, 53A,

58G, 75, 76; Osuna: Acome type # 77, 78, 78A) (Parsons 1967). Usulután decorated pottery is a marker of the Late Formative period and represents diffusion, trade, and imitation on the Pacific coast (Demarest and Sharer 1982:810; Kosakowsky et al. 1999:380).



Figure 4.7 Late Formative sites with Usulután ceramics.

[From Demarest and Sharer 1983, Figure 2].

Wares: coarse (44.4%), black-brown (26.7%), fine (25.6%), and special or non-local (3.3%).

Restricted-Orifice Vessels

Jars (n = 437)

Jars dating to the Late Formative all have outflaring necks and approximately one quarter of them are thick-walled. Jar sherds belong to Black-Brown (Xata Black-Brown), coarse (Aguna White-Washed-coarse, Osuna, and unspecified), and fine (Balsamo

Orange) wares. A majority of jar sherds are from coarse wares (407) and have an average wall thickness of 0.9 cm, with Osuna sherds exhibiting the greatest variation in wall thickness from 0.4 to 2.2 cm (see Appendix H). According to Parsons (1967:77), the abundance of Osuna Coarse types at Bilbao may indicate that this pottery was locally produced.

Unrestricted-Orifice Vessels

Bowls (n = 1444)

Bowls comprise most of the Ilusiones ceramic complex, with the ware Xata Black-Brown representing over half of the bowl vessel sherds (n = 797). Xata Black-Brown vessels are commonly described as small, glossy monochrome black, bowls and dishes with slightly everted rims, medial and labial ridges, flanges or breaks, and groove-incised decoration. They also exhibit deep-gouged geometric incised patterns and bands with cross-hatching (Kosakowsky et al. 1999). Xata Black-Brown types are also present in assemblages from other Guatemalan sites, including Bonete, Cantarrana/La Maquina, Los Cerritos, Durazno, Maneadero, Maria Linda (Kosakowsky et al. 1999: 379); and Verbena Black-Brown, most likely the same ware as the Xata Black-Brown at Bilbao, is also found at Kaminaljuyú (Wetherington 1978).

Dishes (n = 46)

Osuna Coarse ware (Ceniza Slipless: Ceniza variety) accounts for 979 sherds in the Ilusiones ceramic complex at Bilbao. Of these, 564 are bowls or vases, 301 are vases, 68 are jars, and 46 are dishes. Osuna Coarse Ware (Acome Coarse-Incised: Acome

Variety and Ceniza Slipless: Ceniza Variety) have a slipless surface, red to reddish-brown paste, and volcanic ash or pumice inclusions. This ware is also present at Kaminaljuyú (Osuna Coarse ware, Arenal Coarse-Incised: Buff Variety), some sites in western El Salvador (Kat Unslipped ware, Mizata Buff Orange, and Conchalio Coarse-Incised [Demarest and Sharer 1986]); and at El Baúl and Monte Alto in Guatemala (1963 MPM reconnaissance, Parsons 1967:75-77).

Vases (n = 466)

Vase sherds are from thin-walled (0.4–0.6 cm) vessels with bolstered (301 sherds) and everted-rims (165). The bolstered-rim vases are Osuna Coarse types and the everted-rim vases are two fine wares (Balsamo Orange [126 sherds] and unspecified reddish-orange [39]).

Special Forms and Non-Local Vessels (n = 100)

There are 100 fragments (90 bowls, 10 bowls or vases) of imported vessels in the Ilusiones ceramic complex at Bilbao. These imports came primarily from Kaminaljuyú, Chukumuk, and the Guatemalan highlands (Parsons 1967). One fourth of the bowls are S-angle composite-silhouette bowls, and fourteen of the bowl fragments were classified as Fine Red ware, which was produced and widely traded throughout the region during the Late Preclassic and Protoclassic (Kosakowsky et al. 1999:388).

According to Love (2007), there was much regional interaction between southeastern Pacific coastal sites associated with the Providencia and Miraflores ceramic spheres (700 BC—AD 100). During the Miraflores time period, Fine Red wares were

some of the most important pottery manufactured in this region (Love 2007:295). Kosakowsky et al. (1999:386-7) argue that there were three Red Fine wares: Red-H1, from Pacific coastal Guatemala (Santa Rosa); Red-H2, from the central Pacific coast of Guatemala, Kaminaljuyú, and Santa Leticia and Chalchuapa in western El Salvador; and Red-C, on the central Pacific Guatemalan coast (Monte Alto and El Bálsamo) and at Santa Leticia in El Salvador. The movement of Fine Red vessels between hierarchically organized ceremonial settlements on the Guatemalan coast constitutes strong evidence for interregional trade during the Late Preclassic (Kosakowsky et al. 1999:386-387).

Ceramic_Cotz (RDB) – Mascalate and Guacalate Phases

(n = 623)

Restricted-Orifice Vessels

Jars (n = 92)

Jar sherds were classified as primarily Colojate (64 sherds) and Escalante (16), while red-brown (3) and black-brown types (3) were less abundant. Most of the jar sherds were recovered from domestic contexts (54 sherds).

Unrestricted-Orifice Vessels

Bowls (n = 508)

Bowl forms include composite-silhouette; incurved wall and outcurved neck; incurved wall and outslanted neck; markedly incurved wall; urn; open wall with an annular base; open wall outslanting rim; and open curved, open/outslanting, outcurved,

and slightly incurved wall bowls. Rim diameters range from 6 to 48 cm (68% are between 12 and 30 cm). The diversity of bowl size (based on rim diameter) from the Cotzumalhuapa RDB may indicate that these vessels had various functions. If these were serving vessels, bowls with the large diameters may have held large quantities of food (e.g., for feasting). In addition, 258 of the 508 sherds were recovered from residential contexts, and very few were recovered from the civic-ceremonial centers.

A majority of Late Formative bowl sherds were classified as Acomé (130 sherds), Christalina Orange (154), and two black-brown types, Victory (60) and Yucales (69). Eleven fragments were classified as Monte Alto Brown, a primarily early Middle Formative type (Bove 1989).

Vases (n = 4)

All vase sherds were recovered from domestic surface collections. One sherd had a rim diameter of 17 cm; the diameters of the other three are unknown. All were Maruca Red/Brown type sherds.

Dishes (n = 3)

Like vase sherds, dish fragments are sparse during the Late Formative. Dish types include Cristalina Orange (1 sherd) and Yucales Black-Brown (2).

Early Classic Period

Table 4.5 Early Classic – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)		
<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	686	100.0%
Bowls	611	89.1%
Vases	75	10.9%
ceramic_cotz	1219	100.00%
Jar	641	52.5%
Bowl	458	37.6%
Comales	106	8.7%
Dish	8	0.6%
Vase	4	0.3%
Bowl or Dish	1	0.1%
Tecomate	1	0.1%

Bilbao – Mejor-es-Algo Phase

(n = 686)

Forms: bowls include composite-silhouette, deep bowls, incurved-rim, medial to basal-ridge, simple-silhouette, and simple-silhouette with incurved-rim and vase fragments are all from cylindrical vases.

Wares: black-brown (89.2%), fine (3.5%), red (7.2%), and non-local or special forms (0.1%).

Restricted Orifice Vessels

There were no vessels with restricted orifices in the Mejor-es-Algo ceramic complex. This is surprising given that in the Cotzumalhuapa database, restricted-orifice vessels represent over 55% of sherds from the Early Classic. This may be partly due to

the way in which sherds were sorted and classified. Parsons (1967) also acknowledges that Major-es-Algo is a “transitional” phase, which suggests that some Early Classic sherds may have been incorrectly assigned to the Late Formative or Middle Classic.

Unrestricted-Orifice Vessels

Bowls (n = 611)

Bowl sherds constitute the majority of the Early Classic assemblage at Bilbao. These fragments include 294 deep bowl sherds with a flat or rounded base—effective containers or serving dishes—had a constricted to slightly constricted mouth. As stated before, fine red wares were widely traded on the Pacific coast during the Late to Terminal Formative; however, red wares didn’t appear at Bilbao until the Early Classic (Kosakowsky et al. 1999:388; Parsons 1967:100) with only 50 sherd fragments.

Vases (n = 75)

All of the vase sherds are from thin-walled cylindrical vessels with wall thickness ranging from 0.4 to 0.6 and height ranges from 16 to 20 cm. Interestingly, the Cotzumalhuapa assemblage has very few vase sherds (0.03%) compared to Bilbao during this period (10.9%).

Special Forms and Non-Local Vessels

Bowls (n = 1)

Only one Early Classic sherd from the Bilbao assemblage is a non-local: a red-on-orange bowl fragment from Chukumuk, near Lake Atitlan in the highlands of Guatemala

(Parsons 1969:101). Parsons based this classification on information from Lathrop (1933). Little research has been conducted on pottery in that region which might confirm Parsons' classification to a specific type.

Ceramic_Cotz (RDB) – Colojate Phase

(n = 1219)

Ceramic sherds dating to the Early Classic were mainly recovered from domestic contexts (198 sherds) and ceremonial centers (121). Like the Bilbao collection, the Cotzumalhuapa RDB contains far less Early Classic pottery than Middle to Late Classic material.

Restricted-Orifice Vessels

Jars (n = 641)

Jar sherds from the Cotzumalhuapa RDB are mostly from surface collections in residential zones (280 sherds) and central zones (125). Jar forms include incurved neck, open/outslanting neck, outcurved neck, and vertical neck.

Tecomate (n = 1)

Tecomates dating to the Early Classic period are not common on the Pacific coast, as this form is generally restricted to the Formative period. The one tecomate sherd in the Cotzumalhuapa RDB was classified as Achiguate, a type that usually includes only bowls, jars, and vases. The tecomate sherd was found in a domestic context.

Unrestricted-Orifice Vessels

Bowls (n = 458)

Bowl sherds were typed as Achiguate, Achiote, Amaite, Babilonia Black-Brown, Bonanza, Chapulco, Chipilapa, Guanipa, Nahualate, Palo Blanca, Plecta, and Tiquisate. Sherds were primarily recovered in domestic contexts (198 sherds), mound fill and humus (117), and central zones (121). Bowl forms include composite-silhouette, incurved walls, outcurved neck, incurved walls and outslanting neck, markedly incurved walls, open curved walls, open walls and outslanting rim, open/outslanting walls, outcurved walls, and slightly incurved walls.

Comales (n = 106)

Introduced in the Early Classic period, comales (or griddles) would have been used to roast tortillas made from ground corn (Willey et al. 1964:448). The production of tortillas, which were travel-friendly and mass produced on a household level may indicate a change in diet. Comales dating to the Middle Classic (n = 277) and the Postclassic (164) are also present in the Cotzumalhuapa RDB.

Dishes (n = 8)

Dish forms include incurved walls and open/outslanting walls with tripod supports. Tiquisate (7 sherds) is first represented during this period; however, it is most likely a proto-Tiquisate type leading into the Middle Classic Tiquisate (Bove 2002:20).

Middle Classic Period

Table 4.6

Middle Classic – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)

<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	7251	100.00%
Jars	3436	47.4%
Bowls	1805	24.9%
Vases	631	8.7%
Sartenes	404	5.6%
Bowls or vases	297	4.1%
Dishes	253	3.5%
Incense bowls	243	3.4%
Dishes or bowls	116	1.6%
Miniatures	43	0.6%
Mushroom-shaped objects	12	0.2%
Cups	6	0.1%
Rim-head vessels	5	0.1%
ceramic_cotz	18,602	100.00%
Bowls	15,240	82.0%
Jars	2441	13.1%
Vases	471	2.5%
Dishes	163	0.9%
Comales	277	1.5%
Bowls or Jars	7	0.04%
Plates	3	0.02%

Bilbao – Laguneta Phase

(n = 7251)

Forms: Laguneta is the largest ceramic complex (in terms of number of sherds) in the Bilbao assemblage. Of the 7251 sherds assigned to this complex, jar and bowl fragments account for 72.3% (Table 4.6).

Fuego is one of the three most frequent ceramic groups in the Laguneta ceramic complex, along with Favorita “mud wares” and Esmeralda flesh wares (Parsons

1967:108). Various researchers agree that Esmeralda Flesh Ware from Balberta is most likely a local imitation of Thin Orange pottery from Teotihuacan (Bove and Medrano 2003; Love 2007:299; Neff and Medrano 2006:2-3). According to Parsons (1967:108), the abundance of Fuego ceramics at Bilbao contrasts sharply with the lack of this group in the assemblage from Thompson's excavations at El Baúl.

Favorita is the most common ceramic group in any complex from Bilbao. In addition to the 2032 sherds that Parsons classified Favorita, there was a large concentration of 2,515 Favorita sherds excavated from the Monument Plaza which were not included in Parson's sherd counts (Parsons 1967:115).¹¹ A high concentration of censer fragments is associated with ritual architecture, like the Monument Plaza, indicates that this area functioned as a public ceremonial center (Schortman 1993:183). Parsons (1967:115) believed that these sherds were from ritually destroyed vessels because of where they were found, and that the vessels were possibly used as censers based on their form and archaeological context.

Wares: coarse (76.9%), black-brown (8.2%), fine (13.5%), red (0.9%), and non-local and special forms (0.4%).

Restricted-Orifice Vessels

Jars (n = 3436)

¹¹ This count was not included in the classified sherd total because according to Parsons, even the smallest body sherds were easily identified. Moreover, they were not included in his total counts because they were concentrated in the Monuments Plaza where they were most likely ritually discarded.

Jar sherds constitute 47.4% of the Laguneta ceramic complex. Among these, Parsons identified 1,867 fragments of necked jars with strap handles.

Unrestricted-Orifice Vessels

Bowls (n = 1805)

Bowls are the most common Middle Classic unrestricted vessels in the Bilbao assemblage. Bowl forms include: basal-flanged, composite-silhouette, deep bowls (basins), everted-rim, outslanted- and outflaring-side bowls, and simple-silhouette.

Vases (n = 631)

Vase sherds from the Laguneta ceramic complex are generally from thin-walled vessels (cylindrical vases) ranging from 0.21 to 0.43 cm (average of 0.23 cm) in thickness. The large amount of vase sherds in the Bilbao assemblage may be due, in part, because these vessels were fragile. On the other hand, their abundance may indicate an increase in the production during this period.

Sartenes (n = 404)

The Fuego and Felicidad ceramic groups include three utilitarian forms: jars, bowls, and *sartenes* (similar to a frying pan based on ethnographic accounts) (Parsons 1967:108). *Sartenes* are flat-bottomed vessels with handles; they have been found at Kaminaljuyú and other highlands sites around Lake Amatitlan in Guatemala (Borhegyi 1960). In addition to their use as a flat cooking vessels, *sartenes* are thought to have been

containers for cooking or serving food for mortuary or ceremonial events (Lischka 1978:234).

Special Forms (n = 303)

The diversity and abundance of ritual and special forms dating to the Middle Classic may reflect the increase in population, power, and ritual ceremonies of the Santa Lucia Cotzumalhuapa zone. Special forms from the Laguneta phase include censers and incense bowls (243 sherds), miniature vessels (43), mushroomed-shaped ceramic objects (12), and rim-head vessels (5). In Mesoamerica, censers and *incensarios* were used primarily as receptacles for burning incense, *copal* (tree resin), and sometimes blood as offerings during rituals commemorating the dead. Incense bowls and censers first appear, and are the most common, in the Bilbao ceramic assemblage during the Middle Classic, and they continue to be present until the Postclassic period. Unlike vessel forms from the Postclassic, which have clear similarities to containers from the Guatemala Highlands (e.g., Nejab, Zaculeu), all of the Classic-period burners were classified as Baúl Reddish-Brown—a locally-produced ware (Parsons 1967). The majority of the censer fragments were classified as basal-ridge incense bowls (n = 243); far less frequent were tall pedestal censers (n = 18).

Incensarios are large, elaborate hour-glass shaped vessels with a base or pedestal and a chimney (von Winning 1976:11). Some of the more elaborate incensarios have several *adornos* or clay plaques made of various shapes affixed to them and Teotihuacan-style incensarios have been recovered from the nearby region of Escuintla (Hellmuth 1975) (Figure 4.8).



Figure 4.8 *Incensario* cover from the nearby archaeological area of Escuintla, Guatemala (height 45.5 cm). [From FAMSI website, photograph by Justin Kerr].

Rim-head vessels, another special form present in the Bilbao assemblage ($n = 5$), are restricted to the Early Terminal Formative to the Middle Classic and are characterized by three heads adhered to the edge of the main bowl that serves as the incense burner (Gonzalez and Wetherington 1978:291, Table 1). According to Pereira (2009:2):

in archaeological literature, they have been given different names: “internal holders of incense burner lids”, “bowls with three internal holders”, “vessels with vertical ears”, “handles that protrude from large pots” (Seler 1915; Linné 1934; Stone 1943; Drucker 1943a and 1943b); but the more widely known name is that of rim-head vessel that Borhegyi gave them (1951a).



Figure 4.9 A collection of mushroom stones from Guatemala [from Borhegyi 1961].

Stones and ceramic objects shaped like mushrooms have been recovered from the Santa Lucia Cotzumalhuapa zone including 12 pottery objects from Bilbao. Mushroom-shaped stone sculptures and ceramics were produced from the Formative to the Postclassic, and have been found at sites along the Pacific coast and in the highlands (Borhegyi 1961) (Figure 4.9). Borhegyi proposed a possible “mushroom-stone cult” along the highlands but there is no extensive evidence that these stones and related mushroom-shaped pottery were related to a larger ideological movement.



Figure 4.10 Miniature vessel from Bilbao, Guatemala (56020/21648, Lot#72) [Milwaukee Public Museum].

Also included in the Laguneta complex at Bilbao are 43 miniature vessels sherds. Ethnographic and archaeological evidence from the Maya area indicates that miniature vessels functioned as containers to carry small sacred offerings during pilgrimages (Figure 4.10).

Ceramic_Cotz (RDB) – San Jeronimo Phase

(n = 18,602)

Like the Bilbao assemblage, the Cotzumalhuapa RDB has more sherds dating to the Middle Classic than any other period. This supports the architectural and sculptural evidence that sites in the Santa Lucia Cotzumalhuapa region grew in population, power, and influence during the Middle Classic period. This growth may be due, at least in part, to the natural and cultivated resources available in the region, including obsidian sources to the north and cacao production along the piedmont zone. It was also during this period that there was an influence from the neighboring regional center of La Montana; pottery found there is similar to central Mexican and Teotihuacano-style ceramics in the Santa Lucia Cotzumalhuapa region. The majority of Middle Classic sherds are locally manufactured utilitarian wares, which may indicate that ceramic production intensified to meet the demands of the growing population of these sites. In addition, one type that continues to be present in several forms, Tiquisate, constitutes 13.4% of the Cotzumalhuapa RDB in the Middle Classic.

Restricted-Orifice Vessels

Jar (n = 2441)

Approximately 68% of jar sherds from the Middle Classic were classified as Firpo, a local type (Bilbao Coarse ware) restricted to the Bilbao assemblage and Cotzumalhuapa RDB with the exception of bowl sherds found in the Montana zone at Los Chatos-Manantial (1991-92) and Texas-Los Chatos (1982-83) (Bove 1996). Other locally produced types include Fuego and Favorita. Seventy-six jar sherds were classified as Tiquisate types.

Unrestricted-Orifice Vessels

Bowls (n = 15,240)

Bowl sherds constitute 82.0% of the Middle Classic assemblage. Of these, 3333 sherds were assigned to varieties of the type Barranquilla, including applique, grooved, grooved-incised, incised, incised red paint, plain red paint, and stamped-molded. The types Caulote (Medrano 1995:36, Figure 10; Neff and Medrano 2006:9), Chapulco (Medrano 1995:36, Figure 12), Corteza (Medrano 1995:37, Figure 14), Malta (Medrano 1995:37), and Pullin Black Incised (Medrano 1995:37, Figure 18) are present in the Cotzumalhuapa RDB but not in the Bilbao assemblage. Like the jar sherds from this period, Favorita (1141), Firpo (251), and Fuego (482) bowl fragments are all abundant. Recuerdo, a local coarse type, represents 10.3% of the bowl sherds and 0.6% of jar sherds from the Middle Classic. This type has only been recorded at Bilbao and in the Cotzumalhuapa RDB.

Comales (n = 277)

Comal sherds increase from the Early Classic Colojate Phase and comprise of three types: Morro (182 sherds), Luciana (93), and Amatillo (2).

Dishes (n = 163)

Dish sherds constitute a small percentage of the Middle Classic Cotzumalhuapa assemblage, but they include both local (e.g., Favorita, Fuego) and non-local types (e.g., Peridido, Tiquisate). Peridido type ceramics have several varieties, including painted with specular hematite, tri-chrome, and polychromes varieties (Parsons 1967:135).

Plates (n = 3)

Plates first appear in the Cotzumalhuapa ceramic assemblage during the Middle Classic, although they are not common. Plate sherds are also present in the Late Classic (13 sherds) and the Postclassic (104) and are similar in form with comales. Interestingly, plates are not present in any ceramic complex documented by Parsons at Bilbao.

Vases (n = 471)

The majority of vase sherds are Congo type-varieties (296 sherds). The vase fragments are from vessels with a large range of heights from 5 to 28 cm (average 6.8 cm).

Late Classic Period

Table 4.7 Late Classic – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)		
<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	997	100.00%
Vases	490	49.2%
Jars	239	24.0%
Dishes or bowls	189	19.0%
Bowls or vases	29	2.9%
Urns	28	2.8%
Incense burner/censer	19	1.9%
Bowls	3	0.3%
ceramic_cotz	5780	100.00%
Bowls	4779	82.7%
Vases	451	7.8%
Dishes	300	5.2%
Jars	202	3.5%
Bowls or Jars	35	0.6%
Plates	13	0.2%

Bilbao – Santa Lucia Phase**(n = 997)**

Forms include bowls (medial to basal-ridged and simple-silhouette bowls); bowls or vases (everted-rim, polychrome); dishes or bowls (incurved-rim, outslanted-sided); incense burners/censers (ladle censers with shallow, bowl-like containers and large, hollow effigy incense burners with elaborate applied ornamentation); jars (flared-necked, tall-necked, and vertical-necked); and vases (barrel-shaped, cylindrical, everted-rim, and tall cylindrical vases).

Wares: fine (50.2%), coarse (46.7%), and trade or special (3.1%). During this period, black-brown wares are absent from the assemblage.

Restricted-Orifice Vessels

Jars (n = 239)

Jars are the most common vessels during the Late Classic period. In the Bilbao assemblage, they are more uniform in wall thickness (0.42-0.74 cm average) compared to the Formative period but have varying rim diameters (see Appendix H). All are globular with three neck variations: flaring-necked, vertical-necked, and most commonly, tall-necked jars (n = 199). Golon Ponderous (Baúl Reddish-Brown-Paste ware) is a locally produced type with an average wall thickness of 2.5-3.0 cm, a maximum thickness of 6.5 cm, and a rim circumference of 130 cm. In size, Golon course ware jars are the largest and most substantial vessels at Bilbao (Figures 4.11 and 4.12; Appendix H).



Figure 4.11 Base sherd fragment. Baul Reddish-Brown-Paste ware/Golon ceramic group (56027/21648). Lot #325. Type 80. Bilbao, Guatemala.



Figure 4.12 Body sherd fragment. Baul Reddish-Brown-Paste ware/Golon ceramic group (56027/21648). Lot #325. Type 80. Bilbao, Guatemala.

Unrestricted-Orifice Vessels

Vases (n = 490)

Vase sherds constitute 24% of the unrestricted vessel forms from the Santa Lucia complex. Most of the sherds are from tall, thin-walled cylindrical vases (n = 422), and all of them are fine ware: Tiquisate, Plumbate, and imported varieties. These cylindrical vases have 0.2-0.5 cm (average of 0.3 cm) thick walls, rim diameters ranging from 8.2-12.9 cm (average 11.0 cm), and heights ranging from 12.7 to 27.0 cm (see Appendix H).

Special Forms and Non-Local Forms (n = 59)

There are two Late Classic vessel forms in particular that would be considered special based on their presumed functions: incense burners (19 sherds) and urns (28).

Santa Lucia incense burners and censers are large, hollow effigy vessels with elaborate appliqued ornamentation or ladle censers with a shallow, bowl-like container (Parsons 1967:156). Non-local types in this complex include Ulua polychrome (2), polychrome vases and bowls (4), and Cream-on-Brown cylindrical vases (6) (Parsons 1967:155). Ulua polychromes were most likely imported from El Salvador or Honduras, and the polychrome vases or bowls are from the Petén (Parsons 1967:155).

Ceramic_Cotz (RDB) – Pantaleon Phase

(n = 5780)

During the Late Classic, the widely traded San Juan Plumbate (523 sherds) and Tohil Plumbate (57) types appear in the assemblage. These types include bowl, dish, jar, and vase forms.

Restricted-Orifice Vessels

Jars (n = 202)

Jar sherds are primarily Diamantes types (107 sherds), while San Andres black painted (46), and San Andres Polychrome (22) are less abundant.

Unrestricted-Orifice Vessels

Bowls (n = 4779)

Bowl sherds dominate the Late Classic assemblage (82.7%) and a large majority of them are Diamantes (1761 sherds), San Andres (1214), and Tarros (1105) types. Bowl

forms include composite-silhouette, urns, and open walls with an annular base or an outslanting rim. In addition, these forms have a range of wall orientations including open/outslanted, outcurved, open curved, round or hemispherical, slightly incurved, incurved, and vertical walls. Bowl sherds have a large range of rim diameters, from 3 to 49 cm.

Dishes (n = 300)

Dish sherds dating to the Late Classic were typed as Diamantes, Montellano, San Andres (black, grooved, and plain), San Juan Plumbate, and Tarros (black, flat and parenthesis).

Vases (n = 451)

Vase forms include incurved-walls, incurved-walls with outcurved-rim, open/outslanting walls, and vertical walls. These fragments were classified as Diamantes (11 sherds), Montellano (7), Reforma Black-Brown (51), San Andres (black paint, grooved, incised, molded, plain, polychrome, and white paint) (238), San Juan Plumbate (136), Tiquisate (6), and Tohil Plumbate (2). San Andres Polychrome type-variety constitutes the largest portion of the vase sherds (119 sherds) during the Late Classic in the RDB. A majority of the sherds are from vertical-wall vases (n = 253).

Postclassic Period

Table 4.8

Postclassic – Bilbao (Parsons 1967) and COTZ RDB (Bove et al.)

<i>Vessel Form</i>	<i>Sherd Frequency</i>	<i>Percentage</i>
Bilbao	423	100.00%
Jars	367	86.76%
Bowls	49	11.58%
Ladle censers	5	1.18%
Effigy fragment	1	0.24%
Grater bowls	1	0.24%
ceramic_cotz	1542	100.00%
Bowls	1357	88.0%
Plates	104	6.7%
Jars	53	3.4%
Dishes	26	1.7%
Vases	2	0.1%

The results of Bove and Chinchilla's excavations corroborate Parsons' (1967) identification of Postclassic pottery at Bilbao and Santa Lucia Cotzumalhuapa; however, occupation during this period was minor. Few Postclassic ceramic types and vessel forms have been found at Bilbao; these include Santa Rita, Sumatan, and Tohil Plumbate, as well as two imported highland types: Chinautla and Santa Rita (Bove 2006:25; Parsons 1967:161).

Bilbao – Peor-es-Nada Phase

(n = 423)

Forms include bowls (composite-silhouette or deep bowls, deep bowls, simple-silhouette or flaring-sided, and tripod); jars (flaring-neck, globular, tall necked, and tall-necked); ladle censers; effigy fragment; and grater bowls.

Wares: coarse (88.7%), black-brown (5.4%), and trade or special (5.9%).

Restricted-Orifice Vessels

Jars (n = 367)

Jar sherds are from tall-necked and flaring-necked, globular vessels with wall thicknesses between 0.3 and 0.8 cm (see Appendix H). They constitute the largest group of fragments. Jar forms during this period include are reminiscent of burial urns used in other areas of the Pacific coast.

Unrestricted-Orifice Vessels

Bowls (n = 49)

Bowl forms include: deep bowls (5 sherds), simple-silhouette or flaring sided bowls (2), composite-silhouette or deep bowls (30), and tripod bowls (12). All of these are utilitarian forms; a majority of which were used for food preparation and cooking.

Comales and Colanders (not tabulated)

Other forms that are present during the Middle Classic but were not tabulated were comales and colanders (Parsons 1967:158) (Figure 4.13). Colanders were most likely used to strain corn soaking in a lime solution in preparation for making tortillas.



Figure 4.13 Colander form example (San Bartolo Coyotepec, Oaxaca, Mexico).

Special Forms ($n = 7$)

Special forms, which account for only 0.17% of vessel fragments dating to the Postclassic, include effigy vessels, grater bowls, and ladle censers. Grater bowls (*molcajates*) were a hallmark of the Postclassic in Guatemala, and most likely were used for grinding chiles. Ladle censers have a long handle attached to a bowl, which sometimes includes tripod supports (see Figure 4.14). These were portable censers that served the same ritual function as pedestal censers and *incensarios* but were most likely used in a domestic context.

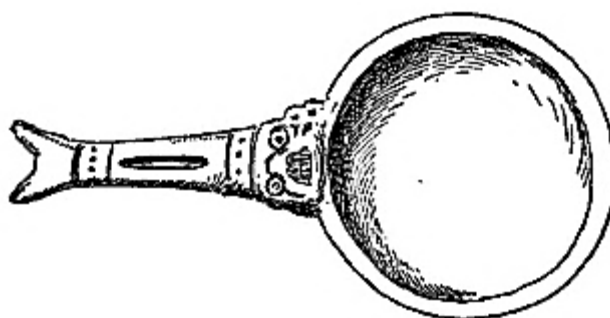


Figure 4.14 An example depicting a general ladle censer form. (Gutetaro Huacas, Costa Rica). [From Hough 1912:123, Figure 8].

Ceramic_Cotz (RDB) – Ixtacapa Phase

(n = 1542)

The quantity of Postclassic pottery in the Cotzumalhuapa database is greater than that from the Bilbao assemblage; this material is mostly utilitarian serving, storing, and food preparation vessels.

Restricted-Orifice Vessels

Jars (n = 53)

Jar forms include open/outslanted neck, outcurved neck, and vertical necked vessels.

Unrestricted-Orifice Vessels

Bowls (n = 1357)

A common pattern throughout most of the Cotzumalhuapa RDB is an overwhelming number of bowl sherds compared to other forms. This was also the case during the Postclassic period. Bowl forms include composite-silhouette, urn, open walls with annular base, open base with outslanting rim bowls. The wall orientation from bowls include incurved wall open/outslanting wall, open curved wall, outcurved wall, slightly incurved wall, and vertical wall.

The majority of the bowl sherds are Santa Rita Micaceous (885 sherds) and Santa Rita Jabonoso (235 sherds) which are most likely imported highland type-varieties (Bove 2006:25). The abundance of Santa Rita pottery in both the Bilbao and the Cotzumalhuapa

RDB assemblages suggests that interaction with the highlands increased during the Postclassic.

Dishes (n = 26)

Dish fragments are from incurved walls, open curved (comales), open/outslanted walls, and outcurved wall vessels.

Plates (n = 104)

Plate sherds constitute 6.7% of the Peor-es-Nada ceramic complex. Form include mostly open/outslanted wall (46 sherds), rounded wall (160), flat with no sides (14), outcurved wall (3), and composite-silhouette (2). Of the 104 sherds, 94 were recovered from domestic contexts, indicating that these vessels were utilitarian (non-ritual) in function.

Bilbao - Miscellaneous (All Phases)

There are several non-vessel pottery artifacts in the Bilbao assemblage that were included in Parsons' presentation of the excavation results. Information on comparative examples from other sites on the Pacific coast as well as new interpretations that I present in this thesis, suggest that several of these objects were used for ritual, utilitarian, and decorative purposes.

Ceramic Tablet

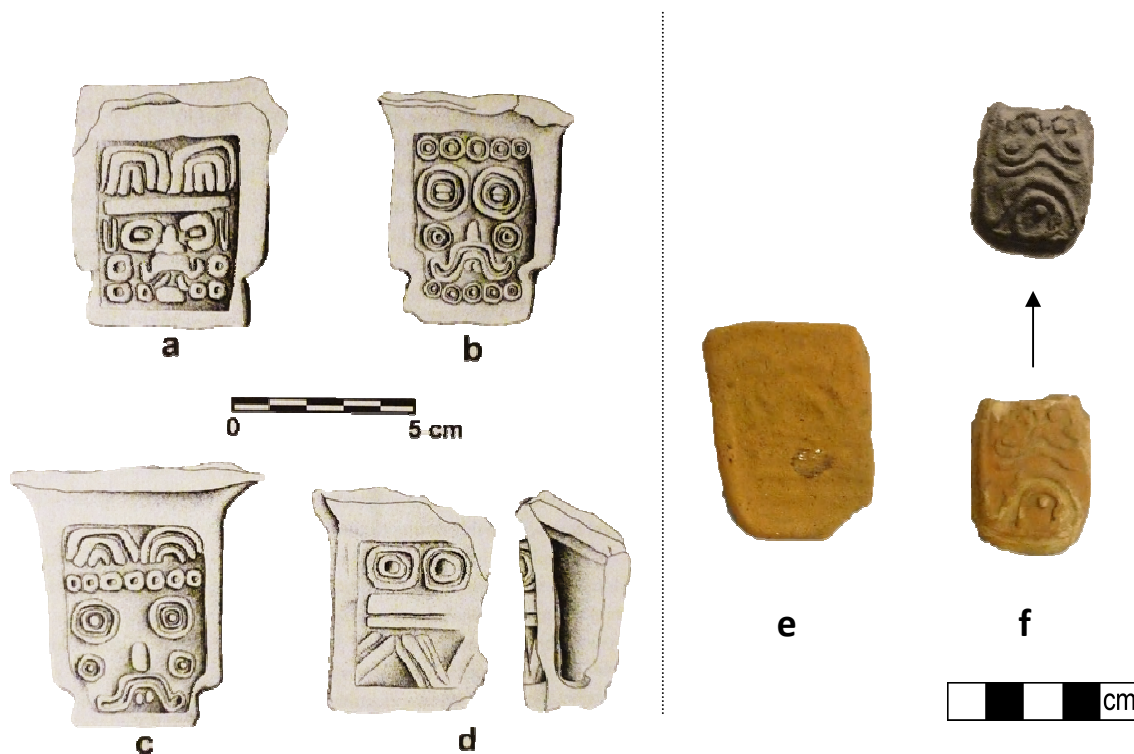


Figure 4.15 Left: Tlaloc tripod supports: (a-c) Los Chatos; (d) Ixtepeque. [After Bove and Medrano 2003:70; Figure 2.9] and Right: (e) solid slab foot [see also Parsons 1967:185; Plate 11, c (bottom left)]; and (f) ceramic tablet with stamped impression, unknown date [see also Parsons 1967:197; Plate 23, f].

Stone and ceramic tablets in Mesomamerica were commonly used to imprint images on the surface of textiles, the human body, or pottery (Ford 1969:83). One ceramic sherd tablet from Bilbao has a raised design that is very distinctive; its size, shape, and pattern are similar to Tlaloc tripod supports found at sites along the Pacific coast and in the highlands (Bove and Medrano 2003:70; Hellmuth 1975, *plate 1*; Neff and Medrano 2006:6) (Figure 4.15 [far right, *f*]). Although we cannot be certain that this was used to impress a design on the surface of a pot, it does bear a striking resemblance to Tlaloc slab supports recovered in the Montana zone of Los Chatos and Ixtepeque (both of unknown dates) and one possible example from Bilbao (Figure 4.15, a-d; e). Tlaloc was an important deity associated with rain and fertility. The image of Tlaloc on a tripod vessel support vessel most likely indicates that this vessel was used for elite ritual ceremonies.

Whistle Fragments



Figure 4.16 Whistle fragments/mouthpieces (no accession/catalogue #). (Counterclockwise from the top left: Lot# 414, 443, 482, 208, 71 and 762). Bilbao, Guatemala. [Milwaukee Public Museum]

In Mesoamerica, whistles and *ocarinas* functioned as musical instruments for rituals (e.g., mortuary and fertility rituals) and have been recovered from elite burial contexts. According to Foster and Matthews (2005:205), among the Maya, whistles were used in funerary rites and were associated with Maya beliefs about ideology of passing over to the Underworld. Whistles were a single-chambered instrument that produced a single tone, while *ocarinas* were multi-chambered, producing a range of sounds. Although there is still not consensus about their function(s) (see Bourq 2005), they can be regarded as special, non-utilitarian objects.

The MPM Bilbao collection contains whistle fragments from six different contexts: Lots# 71, 208, 414, 443, 482, and 762 (Figure 4.16). Fragments from Lot #72 were located in Test Pit 2 (called “Esperanza”); Lot #208 was from Group B, Pyramid 2 (near Monument 21); Lots #414, 443, and 482 were from Group B, Pyramid 4 (near Monument 18); and Lot #762 was from Group C, Pyramid 2. None of the whistle fragments have been dated and the number of fragments present in the assemblage is not enough to discern any chronological patterning. In addition to what we know in general about the use of whistles in Mesoamerica (noted above), the contexts in which these whistle fragments were found may indicate something about their specific functions within the site. In general, test pits and excavation units were placed in relation to known architecture and monumental sculptures at the ceremonial center at Bilbao, so these six whistle fragments were found in close proximity to these features.

Spindle Whorls

Three spindle whorls from Bilbao are stored at the MPM (Figure 4.17, 56039/21648). They have diameters of 2.5 cm, 2.5 cm, and 2.8 cm. Two of them are from Lot #59 (Test Pit 2, “Esperanza”) and the third is from Lot #347 (Group D, Pyramid 1). In Mesoamerica, spindle whorls (*malacates*) were used as weights for spinning cotton and other fibers. Although there is no archaeological remains of cotton materials in the Santa Lucia Cotzumalhuapa due to the deposition and poor-preservation of organic materials, textiles were produced for clothing and in some cases were used to create decorative techniques (cord-marked) on the surface of pottery. The left and center spindle whorls shown in Figure 4.17 are plain, while the whorl on the right has a U-shaped decoration impressed on its lower edge.



Figure 4.17 Spindle whorls (56039/21648), (from left to right: Lot# 347, 59, 59), Bilbao, Guatemala. [Milwaukee Public Museum].

As stated before, Test Pit 2 is the only pit that had undisturbed stratigraphy; therefore, it is easier to date non-vessel sherds found here than in other contexts. Lot#59 in Test Pit 2 yielded ceramics dating to the Laguneta and Santa Lucia phases. The

Laguneta (Middle Classic) ceramics include Tiquisate fine types (Peridido Painted: Peridido Variety and Pacaya Orange: Pacaya Variety); a red type (Manzana Red: Manzana Variety); a black-brown type (Barranquilla Black-Brown: Barranquilla Variety); and a coarse type (Firpo Filleted: Firpo Variety). The Santa Lucia (Late Classic) ceramics include local coarse types (Tarros Unslipped: Tarros Variety and Diamantes Unslipped: Diamantes Variety) and a Tiquisate fine type (San Andres Polychrome: San Andres Variety). Test Pit 2 was located in the site's periphery, in a possible residential zone.

Bilbao - Decorative Elements

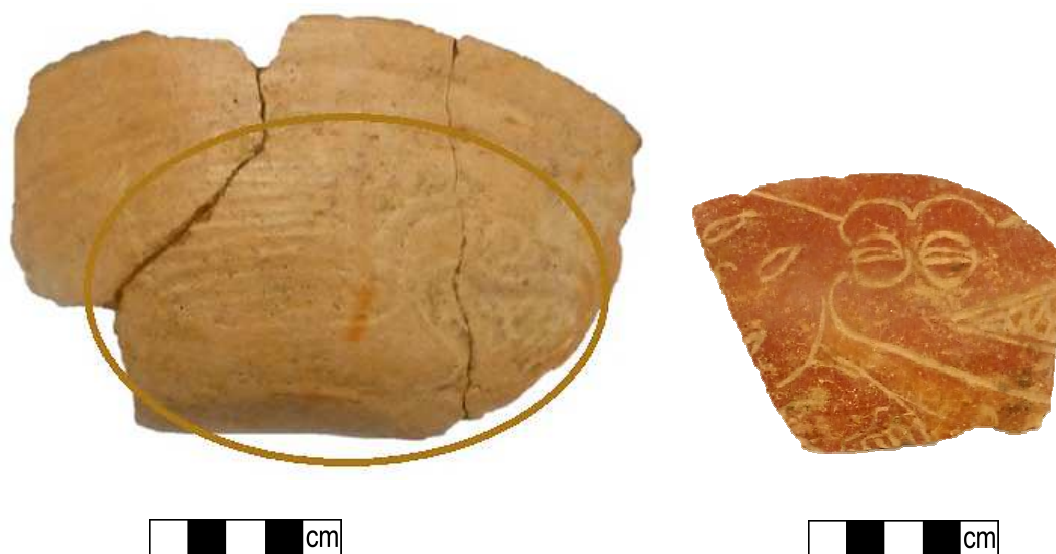


Figure 4.18 Left: Tiquisate ware/Pacaya ceramic group (56020/21648) (Lot #51). Bilbao, Guatemala. Right: Patulul Orange-Brown ware/Peridido ceramic group (56021/21648) (Lot #29). Bilbao, Guatemala. [Milwaukee Public Museum]

The Patulul Orange-Brown body fragment (which dates to the Middle Classic) shown in Figure 4.18 (right) features a carved representation of an American crocodile

(*Crocodylus acutus*) or caiman (*Caiman croodilus*). The animal is shown in partial profile with two bulging eyes, an open mouth with sharp teeth, one front leg, and partial body with raised scutes (similar to scales) or bumps. American crocodiles are present in both coastal and freshwater zones on the Pacific coast, while caimans (*cipactli* in Nahuatl, meaning “spiny one”) are present in Mexico and Central and South America, in both salt and freshwater zones (Miller and Taube 2004:48). Caimans were first represented in Mesoamerican art in the Olmec region during the Formative period; they also appear in Late Formative Izapa sculptural art as representative of the *axis mundi* (Miller and Taube 2004:48). Since this is a body sherd, it is difficult to determine with certainty the possible utility of the vessel it came from. However, as the sherd is decorated on the exterior wall and has an unslipped interior, this may indicate that it was part of an unrestricted vessel form (jar).

The partial Tiquisate bowl shown in Figure 4.18 (left) was recovered from Test Pit 2 at Bilbao and dates to the Middle Classic. Although the exact function(s) of this bowl is unknown, it was mostly likely used to hold or serve food based on its form and thick, burnished slip. The vessel fragments include a raised decorative element of a winged bird shown in profile, with a long beak and a wing outstretched above its body. This design is common on Tiquisate vessels. As stated before, Tiquisate pottery was mass produced and widely traded along the Pacific coast. Although we do not know exactly where this bowl was made, the bird motif may indicate that such iconography was important in the culture of the potter. Cormorants, pelicans, ibises, and vultures are common avian species represented in Cotzumalhuapan art, but the bird represented in the aforementioned bowl is unknown.



Figure 4.19 Tiquisate ware/San Andres ceramic group (56031/21648) (Lot #51). Bilbao, Guatemala. [Milwaukee Public Museum].



Figure 4.20 Cylindrical vase (EB9E-E23-03). H 27.2cm; Dia. 10.5cm. El Baúl. [Museum Popol Vuh, Guatemala].

The partial Tiquisate vase shown in Figure 4.19 is composed of several thin-walled body sherds. The sherd surfaces are painted with a white base and several black parallel lines (one thick band with a thinner band above it) going around the vessel's circumference. Several footprints aligned heel to toe are depicted within the black band. In Mesoamerican iconography, footprints can represent an earthly or celestial journey or pilgrimage. There is much evidence of migrations or pilgrimages in ancient Mesoamerica; people often visited ritual places that had been abandoned or were still in active use, as well as natural settings and features like caves and mountains. Ashmore (2009:185) argues that the migrations that occurred across Mesoamerican landscapes may be interpreted in terms of "ecology and land use, social history, ritual expression, and cosmologic meaning." The use of footprint elements on the thin-walled vase recovered at Bilbao may represent some form of ritual pilgrimage or a migration.

A similar decorative element is present on a cylindrical vase recovered at El Baúl (Figure 4.18). The rollout image of this vessel is quite reminiscent of the partial vase at the MPM: it has a white background and several parallel black bands with white footprints all facing the same direction. The lip of the vessel has a red band and the center of the body has a thicker black zone with a circular element.

Iconography of deities (Tlaloc), animals (avian and reptiles), and symbols (footprints) were used by artists to decorate ceramics which were recovered at Bilbao. These types of iconography connects widely known ideologies and themes from Mesoamerica and these vessels were most likely used for non-ritual uses.

Chapter V. DISCUSSION

My analysis of vessel forms (detailed in Chapter 4) revealed certain trends in possible vessel use through time. The site of Bilbao and the Santa Lucia Cotzumalhuapa zone are located on the Pacific coast in the piedmont zone with an active area of occupation and migration of peoples since the Archaic period. During the Formative on southern Pacific coast, the site of Kaminaljuyu was occupied and maintained influence in the piedmont and highlands zones. In the Classic Period there is an increase of sites and activity along the Pacific coast with several regional centers including the CNZ and La Montana. At both of these centers there is evidence of influence from the central Mexico of Teotihuacan. The Postclassic period on the Pacific coast represents a time where there is an overall decrease in sites but in sites that have Postclassic materials there is a minor presence of ceramic sherds from the Highlands of Guatemala and the Petén region.

Investigations in the Cotzumalhuapa zone have been conducted since 1820s—when several stone sculptures were discovered in the region. After which, in the latter half of the 19th century, sculptures were found at El Baul and Bilbao. These two sites in addition to El Castillo and Golon make up the Cotzumalhuapa Nuclear zone and are connected by several bridges and causeways. From 1961 to 1963, Parsons and the MPM staff supervised excavations at the site of Bilbao in order to date ceramics and the associated architectural features. I used their results, in addition to fieldwork conducted

later by Bove, Chinchilla and Medrano, to conduct a diachronic study of ceramic materials in the Santa Lucia region.

Form and Function of Vessels from Both Cotzumalhuapa Assemblages

The goals and objectives of my research was to address several issues: (1) form and function of local ceramics from Bilbao and the Santa Lucia Cotzumalhuapa region based on a diachronic study of these materials; (2) imported ceramics and what they indicate about trade/economic interactions; and (3) how applying recent studies to the Bilbao assemblage can develop and refine Parsons' analyses.

My intention in completing this type of research was to first outline the current knowledge of research along the southern Pacific coast (as presented in Chapter 3) and relate those studies to what we know about Cotzumalhuapan ceramics through Parsons' assemblage and data collected since. My research builds from Parsons' and other similar analyses completed on the coast but from a different perspective, in that my primary focus is not interested in classifying type-varieties but to approach these assemblages by looking at vessel form and decoration as possible indicators related to human activity and how they may relate to the general development of the sites in the Cotzumalhuapa zone. In understanding the local and non-local ceramic traditions through other studies conducted in Chiapas, Guatemala, and western El Salvador, I made inferences related to patterns of interaction and trade that went beyond what Parsons knew about the southern Pacific coast.

During the Formative period there was an increase in population after a shift from semi-nomadic lifeways to sedentary lifeways. Unlike the MPM Bilbao assemblage, the

Cotzumalhuapa RDB has Early Formative pottery. Many early Formative vessel forms (e.g., tecomates, hemispherical bowls) are reminiscent of gourds, which were used to create containers before the invention of pottery. Beginning in the Middle Formative, there was an emphasis on utilitarian forms (tecomates, jars, and bowls) that continued into the Late Formative, when tecomate forms were no longer used at Bilbao and jars were increasingly used for storage and cooking. Overall, Middle and Late Formative jars were large, globular, and thick-walled forms (on average approximately 0.1-0.8 cm thicker than jars from the Middle Classic period). The Late Formative also witnessed the importation of wares from the Pacific Coast and the highlands (specifically Kaminaljuyú) and pottery was part of the greater Providencia and Miraflores ceramic spheres that ranged from the piedmont and highlands of Guatemala to western El Salvador (Demarest and Sharer 1986, Love 2007). The frequency of both local and imported vessels recovered at Bilbao increased from the Middle Formative to the Late Formative, which may have been contributed to by several factors including: social (e.g., increasing population, intensified vessel production, feasting, etc.), depositional (e.g., differential breakage of thin-walled vs. thick-walled vessels, bowls vs. jars, or the ritual “killing” of vessels), and/or recovery processes (e.g., sampling techniques). Thin-walled vases and serving bowls, which are more susceptible to damage due to frequent use, may account for the increase in vase and bowl sherds during the Late Formative at Bilbao.

The main vessel forms in the Late/Terminal Formative were bowls, dishes and vases and were most likely used for food preparation and serving. During these periods, bowls with highly burnished slip and elaborate decorations replaced the crude decorative elements on local pottery of the Middle Formative. Burnishing the surface of a pot

creates a decorative luster that is also an important technological advance in pottery-making that provide a barrier to decrease permeability (Rice 2005:230-231). In general, Late Formative forms were more varied than Early Formative forms in the Bilbao assemblage.

In the Early Classic period, populations at Bilbao and other sites in the Santa Lucia Cotzumalhuapa area decreased, as reflected in the lower frequencies of pottery recovered at these settlements. At Bilbao, the only vessel forms in the Mejor-es-Algo ceramic complex are bowls and vases, with one identified imported sherd (Red-on-Orange ware, from Chukumuk in the Guatemala Highlands). The absence of jar forms at Bilbao during the Early Classic is surprising; I suspect that this pattern is due to the manner in which the sherds were sorted and classified.

Settlement and occupation and construction at Bilbao and neighboring sites peaked in the Middle and Late Classic (Parsons 1967). Bove (1996:9) hypothesizes that the hiatus which occurs at the end of the Middle Classic at Pacific coastal sites is associated with the increase in size and influence of the Cotzumalguapa area sites of Bilbao, Castillo, El Baul, Palo Gordo, and Palo Verde. The ceramic data presented in this thesis seem to support this argument. The Laguneta ceramic complex (Middle Classic) includes more sherds than any other complex at Bilbao; it is also characterized by the greatest amount diversity of vessel forms in the entire ceramic complexes in both assemblages. The Middle Classic pottery from Santa Lucia Cotzumalhuapa excavations recorded in the RDB are likewise abundant and varied.

During the Middle Classic, there was a major increase in both the quantity of pottery and the diversity of vessel forms, both local and imported. Incense bowls and

censers at Bilbao were most likely produced locally. These non-utilitarian forms were important for the ritual burning of incense in different ceremonies, a practice which was common throughout ancient Mesoamerica and continues today in Highland Maya communities (Adams 1991:415). The Middle Classic also witnessed the introduction of *sartenes*, a utilitarian form. Other special forms present in the Laguneta ceramic complex (Bilbao) include mushroom-shaped objects and miniature vessels, both of which are tied to ritual activities. While Parsons identified several special forms at Bilbao, Middle Classic pottery in the RDB included only utilitarian cooking, storing, and serving vessels.

The Santa Lucia Cotzumalhuapa zone during the Late Classic period was at the height of power according to the sculptural arts, architectural phases of construction, and pottery. During this period there was a collapse of sites along the Pacific coast, similar to what was occurring in the Maya Lowlands, where a shift of power was moved to the piedmont region. Vessel types that were more abundant during the Late Classic than in other periods include ladle censers, grater bowls, and comales. These utilitarian and ritual forms indicate that there is a change in domestic activities regarding food preparation (e.g., tortilla production, grinding chilies) and in ritual activities with portable objects (censers).

During the Postclassic, population in the Santa Lucia Cotzumalhuapa area declined—a trend reflected in the lower frequencies of pottery recovered from contexts which date to this period. Research is needed to more clearly define the Postclassic period into early and late but vessel forms included urns, bowls, plates (though not at Bilbao), and jars. Parsons (1967:143-144, 157-158) identified several examples of what he categorized as Postclassic burial urn forms at Bilbao [Recuerdo (144 sherds), Golon

(144), Diamantes (147), Santa Rita (157), Sumatan (158)]. Similar urn forms and types were used at other sites along the Pacific coast and in the highlands for cremation burial rites (Parsons 1967:143-144, 157-158). Thus, the presence of urn fragments may indicate that the occupants of sites in the Santa Lucia Cotzumalhuapa area engaged in similar mortuary rituals. Unfortunately, this hypothesis cannot be substantiated as of yet because no burials have been discovered at the site of Bilbao.

Interaction on the Southern Pacific Coast

Ceramic, architectural, and sculptural evidence from sites along the Pacific coast indicates that there were extensive trade networks linking major centers both within and outside of the region (Kosakowsky et. al 2000:199). During the Middle Formative, general contact occurred between people along the Pacific coast and in the highlands, but there is little evidence indicating movement of ceramics between these regions (Kosakowsky et al. 2000:202). Although there was only modest occupation at Bilbao during the Middle Formative, there are similarities between the Algo-es-Algo ceramic complex and pottery found at sites along the coast of Chiapas, Guatemala, western El Salvador, and the Guatemalan highlands. Connections between Bilbao and sites along the coast (namely Salinas la Blanca and La Victoria) are indicated by imported ceramics, although local ceramics traditions suggest an even a stronger link between Bilbao and Kaminaljuyú during the Middle Formative (Parsons 1967; Shook 1951).

Middle Classic non-local types recovered from Bilbao indicate a possible influence from coastal sites like La Montana, which have evidence of interaction with

Teotihuacan. During this period, highlands sites around Lake Amatitlan also have evidence of interaction with Teotihuacan (e.g., presence of Teotihuacan-style incensarios).

During the Late Classic, sites in the Santa Lucia Cotzumalhuapa zone peaked in terms of settlement and regional influence when the focus of trade shifted from the Pacific coast to the highlands of Guatemala. This shift was most likely due to the decrease in occupation of sites along the coast. During the Postclassic, there is a minor influx of imported types from the Guatemala highlands and the Petén that there may have been an increase in interaction with these two regions.

Future Research

An intensification of research at the ceremonial centers of Bilbao and El Baúl over the last four decades may eventually result in an increase of investigations between these sites, where the possible residential areas reside. If this occurs, a nice study of comparative ceramic materials may be recovered during these investigations that could be used to add to this and others' research to identify the difference of vessel and non-vessel forms between residential and ceremonial areas.

Since there has already been extensive research on the classification of Pacific coast ceramics (e.g., Bove, Chinchilla, Medrano, Parsons, Thompson, etc.), future studies of the MPM Bilbao assemblage could instead focus on issues like ceramic sourcing and production methods. XRF analyses of the Bilbao assemblage, and specifically the non-local fragments, could provide additional evidence for the importation of pottery, in addition to the production of local wares. Several studies conducted since Parsons'

analyses have focused on sourcing ceramic materials from the Pacific coast (e.g., Bove and Neff 2002; Neff, Bishop and Arnold 1988). Valuable assemblages of sherds collected by Parsons at El Baúl, La Victoria, and Kaminaljuyú are currently stored at the MPM; these materials which are in dire need of analysis and would be a valuable source of data which could be compared to the information on the Bilbao collection. To support any evidence from XRF, petrography could also be conducted on the sherds from Bilbao that have already been thin sectioned (Parsons 1965). I did not recover the thin sections in artifact storage but information from the MPM Borhegyi archives indicate that the samples were sent back to the MPM in the late 1960s. Further research in the MPM archives may produce these thin sections as well as the field reports and other notes produced during the Bilbao expedition.

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APPENDIX A: Glossary of Pottery Nomenclature

Ceramic types: A nonrandom cluster of attributes (Rice 2005:484). Types are distinguished from one another by recognizable visual and tangible differences (Gifford 1976:9). Names are ordinarily assigned by first giving a primary name corresponding to a place or geographic location within the known or assumed area of distribution of the pottery (Smith and Gifford 1966:129).

Ceramic Varieties: The type is the core unit of classification; varieties are subcategories within each type based on small but significant differences.

Ceramic group: A ceramic group is a collection of similar or strongly related ceramic types that are homogenous in terms of forms, paste color, technological traits, and other similar attributes (Smith and Gifford 1965:501).

Ware: Large ware groups are based on gross decorative and technological features (Valliant 1931).

Ceramic complex: “A ceramic complex is the sum total of modes and varieties (types) that comprised the full pottery context of an archaeological unit; usually that unit is a phase” (Smith and Gifford 1965:502).

Ceramic sphere: “The ‘ceramic sphere’ concept refers to fine ware or nondomestic ceramics of the same cultural style that have spread over a large territory implying economic and political influence from a common center(s)” (Creamer 1987:49).

APPENDIX B: Glossary of Pottery Forms and Descriptions

[Most terms adapted from Parsons 1967:167]

Bottle: *A vessel with a restricted orifice, a long or short small diameter neck, and most likely a globular body.*

Bowl: *A vessel with an unrestricted, or with a slightly restricted orifice, slipped on the interior. The height is between one-half and one-third the body diameter.*

Simple-
evenly

change in



silhouette bowl: An unrestricted vessel in which the profile is curved with no change in direction.



Composite-Silhouette bowl (above): An unrestricted vessel in which the profile shows one or more change in direction, creating a definite angle at the line of break in curvature.

Incurved-rim bowl: A vessel with a slightly restricted orifice.

Dish: *A vessel with an unrestricted orifice. The height between one-third and one-fifth the diameter.*

Jar: *A vessel with a restricted orifice, and normally an unslipped interior. Usually it has a globular body and neck.*

Bolstered-rim jars: A restricted-orifice vessel with a thickening of the rim at the lip.

Everted-rim jars: A restricted-orifice vessel with a pronounced curvature of the rim near the orifice.



Labial-flanged jars: A restricted-orifice vessel with a flange, or protrusion, located near the lip.

Low-collared jars: A restricted-orifice vessel with a globular or subglobular body similar to a tecomate with the inclusion of a thickened rim producing a collar.

Necked jars: A vessel with a restricted-orifice and a neck (as opposed to a tecomate) of unspecified height.

Lid/cover: Specifically designed for covering a vessel.

Plate: A vessel with an unrestricted orifice. The height is less than one-fifth the diameter.

Sarténe: A utilitarian vessel, usually a composite-silhouette dish (used by present day Maya as a frying pan for beans).

Tecomate: A vessel with a highly restricted orifice without a neck, mostly globular in shape.

Urn: A term used to imply function, usually for human burials. Commonly a large, heavy-walled vessel form.

Vase: A vessel whose height clearly exceeds its width. It may be cylindrical, barrel-shaped, slightly flaring, out-curving, or other variations.

APPENDIX C: MPM Accession Information

Milwaukee Public Museum Accession Card for Bilbao ceramic type collection:

ACCESSION CARD Acc. No. 21648 ✓
Received December 1968
Classification ARCHAEOLOGY
Number of Specimens 90 lots
Locality Guatemala, C.A.
Purchase No. _____
From whom Dr. Lee Parsons
Street Pearody Museum
City CAMBRIDGE, MASS
Cataloged JANUARY 5 1969
Value \$90.00
Catalog No. 55969-56040

Site sheds from Bilbao

	F.O.M. Inc.	Member	Other
Donation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Mus. budget	F.O.M. Inc.	F.O.M. Genl.
Purchase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Museum		Other
(Collected)	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Made	<input type="checkbox"/>		

JL

6/14/2000 in
complete info in vault.

APPENDIX D: MPM Bilbao Collection Drawer Location Information

Drawer #	Drawer Label Description
9	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – I. Algo-es-Algo figs. 19-28 - (Middle Preclassic) Drawer 9"
10	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – II. Ilusiones figs. 30-40 - (Late Preclassic-Protoclassic) Drawer 10"
11	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – III Mejor-es-Algo figs. 42-44 - (Early Classic) Drawer 11"
12	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – IV. Laguneta figs. 46-52 - (Middle Classic) Drawer 12"
13	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – V. Laguneta and Sta. Lucia figs.53-57- (Middle & Late Classic) Drawer 13"
14	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – VI. Laguneta and Sta. Lucia figs. 58-67 - (Middle Classic & Late Classic) Drawer 14"
15	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – VII Santa Lucia (only) figs. 70-74 - (Late Classic) Drawer 15"
16	"Sherd Type Collection (Published Examples) Bilbao, Guatemala – VIII. Peor-es-Nada Figure 76 - (Postclassic) Drawer 16"
17	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – I. Algo-es-Algo - (Middle Preclassic) Drawer 17"
18	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – II. Ilusiones - (Late Preclassic-Protoclassic) Drawer 18"
19	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – III. Mejor-es-Algo (Early Classic) Drawer 19"
20	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – IV. Laguneta (Middle Classic) Drawer 20"
21	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – V. Laguneta & Sta. Lucia (Middle to Late Classic) Drawer 21"
22	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – VI. & VII Santa Lucia (Only) (Late Classic) Drawer 22"
23	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – VII. Peor-es-Nada (Postclassic) and Miscellaneous Drawer 23"
24	"Sherd Type Collection (For Exchange) Bilbao, Guatemala – VIII. Figurines and Effigy, Vessel Fragments Drawer 24"
25	"Guatemala Type collection papers, Drawer 25"
26	" Guatemala Bilbao, Charcoal and rock samples, Drawer 26"

APPENDIX E: Guatemala Ceramic Surface Collections at the MPM

Comparative collection of Guatemalan ceramic sherds housed in the MPM Anthropology storage from surface collections and completed by Parsons and Ritzenthaler

Site (# of sherds, if known)	Type or ware	Time period	Ceramic Complex
<i>El Baúl</i>	Tiquisate	Classic Period	---
<i>Kaminaljuyú</i>	Purple-on-red ware	Middle Preclassic	Providencia
<i>Kaminaljuyú</i>	Red-rimmed Usulután	Middle Preclassic	Providencia
<i>Kaminaljuyú</i>	Red-on-White	Middle Preclassic	Providencia
<i>Kaminaljuyú</i>	Utatlan ware	Middle Preclassic	Providencia
<i>Kaminaljuyú</i>	Zinc-orange	Middle Preclassic	Providencia
<i>Kaminaljuyú</i>	Arenal	Late Preclassic	Arenal
<i>Kaminaljuyú</i>	Flesh ware	Early Classic	Esperanza
<i>La Victoria (4)</i>	Not identified	---	Conchas (I) Phase
<i>La Victoria (3)</i>	Not identified	---	Conchas (II) Phase
<i>La Victoria (1)</i>	Not identified	---	Crucero Phase
<i>La Victoria (2)</i>	Not identified	---	Ocós Phase

APPENDIX F: BILBAO, GUATEMALA, Milwaukee Public Museum Project, Ceramic Type Code List

Algo-es-Algo Ceramic Complex (Middle Formative)

1000 Coarse Wares

Aguna White-Washed-Coarse Ware

Corea Group

1001 Corea Thumb Impressed: Corea Variety

Cajon Coarse Ware

Soledad Group

1002 Soledad incised-slipless: Soledad Variety

Canilla Group

1003 Canilla Red-on-Buff: Canilla Variety

Siquinala Red-on-Buff Ware

Playas Group

1004 Playas Red-on-Buff: Playas Variety

Recreo Group

1005 Recreo Red-on-Buff: Recreo Variety

Ceylan Group

1006 Ceylan Red-on-Buff: Ceylan Variety

1100 Black Brown Ware

Unspecified black-brown ware

Buena Vista Group

1101 Buena Vista Black-Brown: Buena Vista Variety

1200 Fine Wares

Unspecified white ware

Santa Cruz Group

1201 Santa Cruz White: Santa Cruz Variety

Balsamo Orange Ware

Maruca Group

1202 Maruca Zone-Diachrome: Maruca Variety

1300 Trade or special wares

1301 Brown ware (patterned burnished)

La Victoria? (Conchas 1)

1302 Black and red Tecomate

La Victoria (Ocós)

1303 Mendez Red-Rimmed Tecomate

Salinas La Blanca (Cuadros)

1304 Red ware

Kaminaljuyú (Arevalo)

1305 Red-on-Cream

Kaminaljuyú (Las Charcas)

1306 Red-on-White (pinch boss)

Salinas La Blanca (Cuadros)

1307 Purple-on-fine-red

Kaminaljuyú (Providencia)

1308 Utatlan Ware

Highland Guatemala (Middle Preclassic)

1309 Other (note in comments)

Ilusiones Ceramic Complex (Late Formative and Protoclassic)

2000 Coarse Wares

Aguna White-Washed-Coarse Ware

California Group

2001 California tool impressed: California Variety

Osuna Coarse Ware

Ceniza Group

2002 Ceniza Slipless: Ceniza Variety

Acome Group

2003 Acome Coarse-Incised: Acome Variety

Unspecified ware (related to Siquinala Red-on-Buff)

Miramar Group

2004 Miramar Red-on-Buff: Miramar Variety

Ilusiones Ceramic Complex (Late Formative and Protoclassic) - cont.

2100 Black-Brown Wares

Xata Black-Brown Ware

Victory Group

2101 Victory Incised-Waxy: Victory Variety

Yucales Group

2102 Yucales Incised-Black-Brown: Yucales Variety

2200 Fine Wares

Unspecified reddish-orange ware

Maternidad Group

2201 Maternidad Reddish-Orange: Maternidad Variety

Balsamo Orange Ware

Rio Santiago Group

2202 Rio Santiago Usulután: Rio Santiago Variety

Socorro Group

2203 Socorro Red-on-Orange: Socorro Variety

2204 Red and white-on-orange (potential variety)

2300 Trade or Special Wares

2301 Cream-slipped coarse ware (Coarse-incised)

Chukumuk (?), Phase 1 (?)

2302 Verbena White, reddish-brown paste (incised)

Kaminaljuyú (Miraflores or Arenal)

2303 Black-Brown Ware (Coarse-Incised)

Kaminaljuyú (Arenal)

2304 Black-Brown Ware (Fine-Incised)

Kaminaljuyú (Miraflores)

2305 Graphite-on-Red Ware

Kaminaljuyú (Miraflores)

2306 Fine Red Ware

Kaminaljuyú (Miraflores)

Mejor-es-Algo Ceramic Complex (Early Classic)

3000 Black-Brown Ware

Coyolate Black-Brown Ware

Babilonia Group

3001 Babilonia Black-Brown: Babilonia Variety

3100 Red Ware

Cocales Red Ware

Maisillo Group

3101 Maisillo Red Variety

3200 Fine Ware Balsamo Orange Ware

Colmenera Group

3201 Colmenera Red-on-Orange: Colmenera Variety

3300 Trade or Special Ware

3301 Red-on-Orange Ware

Chukumuk (Phase II)

Laguneta Ceramic Complex (Middle Classic)

4000 Coarse Wares

Aguna White-Washed-Coarse Ware

Palo Verde Group

4001 Palo Verde Beveled: Palo Verde Variety

Baul Reddish-Brown-Paste Ware

Felicidad Group

4002 Felicidad White-Washed: Felicidad Variety

Fuego Group

4003 Fuego Bright-Micaceous: Fuego Variety

Favorita Group

4004 Favorita Mud: Favorita Variety

Pantaleón Hard Ware

Esmeralda Group
4005 Esmeralda Flesh-Color: Esmeralda Variety
Laguneta Ceramic Complex (Middle Classic) - cont.
 Bilbao Coarse Ware
 Firpo Group
4006 Firpo Filleted: Firpo Variety
 Luciana Group
4007 Luciana White-Washed: Luciana Variety
 Recuerdo Group
4008 Recuerdo Unslipped: Recuerdo Variety

4100 Black-Brown Ware
 Coyolate Black-Brown Ware
 Barranquilla Group
4101 Barranquilla Black-Brown: Barranquilla Variety

4200 Red Ware
 Cocalas Red Ware
 Manzana Group
4201 Manzana Red: Manzana Variety

4300 Fine Ware
 Unspecified Ware (related to San Vicente Group)
 Asuncion Group
4301 Asuncion Orange: Asuncion Variety
 Tiquisate Ware
 Pacaya Group
4302 Pacaya Orange: Pacaya Variety
4303 Pacaya Orange: Black resist-painted variety
 Patulul Orange-Brown Ware
 Peridido Group
4304 Peridido Painted: Peridido Variety

4400 Trade or Special Wares

4401 Black-Brown Cylindrical, Slab-footed Tripod Vases (Thick walled)
 Local (?), No Phase
4402 Black-Brown Cylindrical, Slab-footed Tripod Vases
 Teotihuacan Style (III)
4403 Black-Brown Annular-Base Cups
 Teotihuacan Style (III)
4404 Polychrome Basel-Flange Bowls
 Petén (Tzakol 2-3)
4405 Reddish-Brown Tall Tripod Ware
 Zacualpa (Balam)

4500 Miscellaneous
4501 Mushroom-shaped object

Santa Lucia Ceramic Complex (Late Classic)

5000 Coarse Ware
 Baul Reddish-Brown-Paste Ware
 Golon Group
5001 Golon Ponderous: Golon Variety
 Bilbao Coarse Ware
 Tarros Group
5002 Tarros Unslipped: Tarros Variety
 Pantaleón Hard Ware
 Diamantes Group
5003 Diamantes Unslipped: Diamantes Variety

5100 Fine Wares
 Unspecified Ware (related to Asuncion Group)
 San Vicente Group
5101 San Vicente Orange: San Vicente Variety
 Tiquisate Ware
 San Andres Group
5102 San Andres Polychrome: San Andres Variety
 Marias Group

5103 Marias Carved: Marias Variety

Santa Lucia Ceramic Complex (Late Classic) - cont.

Plumbate Ware

San Juan Group

5104 San Juan Plumbate: San Juan Variety

5200 Trade or Special Wares

5201 Ulua Polychrome

Honduras or El Salvador (Late Classic)

5202 Polychrome Bowls or Vases

Petén or Alta Vera Paz (Tepeu)

5203 Cream-on-Brown Cylindrical Vases (Incised)

Alta Vera Paz (Late Classic)

5204 Unslipped Coarse Ware Effigy Censers

Local (?), (No Time period)

5205 Unslipped Coarse Ware Ladle Censers

Local (?), (No Time period)

Peor-es-Nada Ceramic Complex (Late Postclassic)

6000 Coarse Ware

Unspecified Ware

Santa Rita Group

6001 Santa Rita Micaceous: San Rita Variety

6100 Black-Brown Ware

Unspecified Ware

Sumatan Group

6101 Sumatan Cinnamon: Sumatan Variety

6200 Trade or Special Wares

6201 Plumbate Ware

Tohil Group, Western Guatemala (E. Postclassic)

6202 Red-on-Orange to Buff Ware

Zacualpa (Tohil)

6203 Unslipped Coarse Ware Ladle Censers

Nebaj, Guatemala (Early Postclassic)

6204 White-on-Red Ware

Highland Guatemala (Late Postclassic)

6205 Red-on-White Vase

Highland Guatemala (Late Postclassic)

6206 Chinautla Black and Red-on-White Ware

Highland Guatemala (Late Postclassic)

6207 Streaky Red-Brown Ladle Censer (2-element handle) Zaculea (Xinabahul -?)

All Phases – Misc. clay objects

7001 Earspools

7002 Spindle whorl

7003 Miniature vessels

7004 Shallow plate

7005 Comal

7006 Spouts

7007 Incense burners

7008 “Duck pots”

7009 Sherd tablet

7010 Ceramic bell

7011 Handle

7012 Problematic object

7013 Sherd with prehistoric repair

7014 Sherd with mat impression

7015 Sherd disks

7016 Adobe fragment

7017 Contemporary glazed crockery

APPENDIX G: Table of Bilbao Ceramic Type-Varieties (in ascending order by type number)

Type (Parsons, 1963-65)	Variety (Parsons, 1963-65)	Type (Kaczmarek, 2013)	Catalog Number	Ware (Parsons 1967)	Ceramic Group (Parsons 1967)	Type-variety (Parsons 1967)	Provenience (if applicable)
1	-----	3301	56003	Trade or special	-----	Red-on-Orange ware	Chukumuk (Phase II)
2	-----	1303	55989	Trade or special	-----	Mendez Red-Rimmed Tecomate	Salinas La Blanca (Cuadros)
3	-----	1306	55979	Trade or special	-----	Red-on-white (pinch boss)	Salinas La Blanca (Cuadros)
4	-----	1302	55978	Trade or special	-----	Black or red tecomates (zone-incised)	La Victoria (Ocós)
4	-----	1309	55978	Trade or special	-----	Black bottle neck, zone-punctated'	(Ocós-style pottery)
5	-----	1305	55981	Trade or special	-----	Red-on-Cream	Kaminaljuyú (Las Charcas)
6	-----	1304	55981	Trade or special	-----	Red ware	Kaminaljuyú (Arevalo)
7	-----	1201	55976	Unspecified white	Santa Cruz	Santa Cruz White: Santa Cruz variety	-----
8	-----	1201	55976	Unspecified white	Santa Cruz	Santa Cruz White: Santa Cruz variety	-----
9	-----	1201	55976	Unspecified white	Santa Cruz	Santa Cruz White: Santa Cruz variety	-----
10	-----	1201	55976	Unspecified white	Santa Cruz	Santa Cruz White: Santa Cruz variety	-----
11	-----	1307	55980	Trade or special	-----	Purple-on-fine-red	K.J., Providencia
12	-----	1301	55983	Trade or special	-----	Brown ware (patterned burnished)	K.J., Providencia or La Victoria, Conchas 2
13	-----	2301	55994	Trade or special	-----	Cream slipped coarse ware (coarse- incised)	Chukumuk (?), Phase 1 (?)
14	-----	1005	55973	Siquinala Red-on-Buff	Recreo	Recreo red-on-buff: Recreo variety	-----
15	B	2203	55993	Balsamo Orange	Socorro	Socorro Red-on-Orange: Socorro variety	-----

15	C	1202	55977	Balsamo Orange	Maruca	Maruca zone-incised-diachrome: Maruca variety	-----
18	-----	2304	55998	Trade or special	-----	Black-Brown Ware (Fine-Incised)	Kaminaljuyú (Miraflores)
19	-----	2306	55996	Trade or special	-----	Fine red ware	Kaminaljuyú (Miraflores)
20	-----	2302	55995	Trade or special	-----	Verbena White, Reddish Brown Paste (incised)	Kaminaljuyú (Miraflores or Arenal)
21	-----	2302	55995	Trade or special	-----	Verbena White, Reddish Brown Paste (incised)	Kaminaljuyú (Miraflores or Arenal)
22	-----	4404	56005	Trade or special	-----	Polychrome Basel-Flange Bowls	Petén (Tzakol 2-3)
23	A	4403	56006	Trade or special	-----	Black-Brown Annular-Base Cups	Teotihuacan Style (III)
23	-----	4402	56007	Trade or special	-----	Black brown cylindrical, slab-footed tripod vases	Teotihuacan Style (III)
25	-----	5203	56023	Trade or special	-----	Cream-on-Brown Cylindrical Vases (Incised)	Alta Vera Paz (Late Classic)
26	A	5201	56022	Trade or special	-----	Ulna Polychrome	Honduras or El Salvador (Late Classic)
26	B	5202	56022	Trade or special	-----	Polychrome Bowls or Vases	Petén or Alta Vera Paz (Tepeu)
27	-----	6202	56038	Trade or special	-----	Red-on-Orange to Buff Ware	Zacualpa (Tohil)
28	-----	6206	56036	Trade or special	-----	Chinautla Black and Red-on-White Ware	Highland Guatemala (Late Postclassic)
29	-----	6204	56037	Trade or special	-----	White-on-Red Ware	Highland Guatemala (Late Postclassic)
31	-----	6101	56034	Unspecified Ware	Sumatan	Sumatan Cinnamon: Sumatan Variety	-----
33	B	5002	56024	Bilbao Coarse	Tarros	Tarros Unslipped: Tarros Variety	-----
34	A	5205	56025	Trade or special	-----	Unslipped coarse ware Ladle Censers	Local (?) (No time period)
34	C	6207	56035	Trade or special	-----	Streaky Red-Brown Ladle Censer (2 element handle)	Zaculea (Xinabahu?)
35	C	7012	Unknown	<i>Problematic object</i>	-----	-----	-----
35	D	7007	56039	<i>Incense Burner</i>	-----	-----	-----
35	E	7010	56039	<i>Ceramic bells</i>	-----	-----	-----

35		7012	Unknown	<i>Problematic object</i>	-----	-----	-----
36	D	7008	56039	<i>"Duck pots"</i>	-----	-----	-----
37	-----	7006	56039	<i>Spouts</i>	-----	-----	-----
38	-----	7004	no cat #	<i>Shallow plate</i>	-----	-----	-----
43	-----	2002	55986	Osuna Coarse	Ceniza	Ceniza Slipless: Ceniza Variety	-----
45	-----	2303	55994	Trade or special	-----	Brown -Black ware (course-incised)	Kaminaljuyú (Areneal)
46	-----	4405	56004	Trade or special	-----	Reddish-Brown Tall Tripod ware	Zacualpa (Balam)
47	-----	6204	56037	Trade or special	-----	White-on-Red Ware	Highland Guatemala (Late Postclassic)
48	-----	7011	56039	<i>Handle</i>	-----	-----	-----
49	-----	4101	-----	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
49	-----	4303	56020	Tiquisate	Pacaya	Pacaya Orange: Black resist-painted variety	-----
49	-----	7003	56039	<i>Miniature vessels</i>	-----	-----	-----
50	-----	2102	55990	Xata Black-Brown	Yucates	Yucates Incised-Black-Brown: Yucates Variety	-----
51	-----	2102	55990	Xata Black-Brown	Yucates	Yucates incised-black-brown: Yucates variety	-----
51	A	2102	55990	Xata Black-Brown	Yucates	Yucates incised-black-brown: Yucates variety	-----
51	B	2102	55990	Xata Black-Brown	Yucates	Yucates incised-black-brown: Yucates variety	-----
51	C'	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	A	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	B	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	C	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	C'	2102	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	C''	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----

52	F	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
52	-----	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
53	A	2002	55986	Osuna Coarse	Ceniza	Ceniza Slipless: Ceniza Variety	-----
53	A	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
53	C	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
53	D	4401	56008	Trade or special	-----	Black brown cylindrical, slab-footed tripod vases (thick walled)	Local(?), No phase
54	B	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
54	C	2101	55989	Xata Black-Brown	Victory	Victory incised-waxy: Victory variety	-----
55	A	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	B	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	C	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	C'	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	D	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	D'	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
55	E	3001	56000	Coyolate Black-Brown	Babilonia	Babilonia Black-Brown: Babilonia variety	-----
56	A	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
56	B	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
57	A	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----

57	B	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
57	C	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
57	D	4101	56017	Coyolate Black-Brown	Barranquilla	Barranquilla Black-Brown: Barranquilla Variety	-----
57	-----	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
58	A	2201	55991	Unspecified reddish- orange	Maternidad	Maternidad Reddish-Orange: Maternidad variety	-----
58	B	2201	55991	Unspecified reddish- orange	Maternidad	Maternidad Reddish-Orange: Maternidad variety	-----
58	C	2201	55991	Unspecified reddish- orange	Maternidad	Maternidad Reddish-Orange: Maternidad variety	-----
58	C	4201	56018	Cocales Red	Manzana	Manzana Red: Manzana Variety	-----
58	D	3101	56001	Cocales Red	Maisillo	Maisillo Red: Maisillo variety	-----
58	E	3101	56001	Cocales Red	Maisillo	Maisillo Red: Maisillo variety	-----
58	F	3101	56001	Cocales Red	Maisillo	Maisillo Red: Maisillo variety	-----
58	G	2002	55986	Osuna Coarse	Ceniza	Ceniza Slipless: Ceniza Variety	-----
58	H	4201	56018	Cocales Red	Manzana	Manzana Red: Manzana Variety	-----
58	I	4201	56018	Cocales Red	Manzana	Manzana Red: Manzana Variety	-----
58	J	4201	56018	Cocales Red	Manzana	Manzana Red: Manzana Variety	-----
58	K	4201	56018	Cocales Red	Manzana	Manzana Red: Manzana Variety	-----
58	-----	2201	55991	Unspecified reddish- orange	Maternidad	Maternidad Reddish-Orange: Maternidad variety	-----
59	A	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
59	B	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
60	-----	2302	55995	Trade or special	-----	Verbena White, Reddish Brown Paste (incised)	Kaminaljuyú (Miraflres or Arenal)

60	A	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
60	B	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
60	E	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
60	D	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
60	F	1101	55975	Unspecified black-brown	Buena Vista	Buena Vista Black-Brown: Buena Vista Variety	-----
60	G	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad variety	-----
61	B	1003	55971	Cajon Coarse	Canilla	Canilla red-on-buff: Canilla variety	-----
62	-----	1002	55970	Cajon Coarse	Soledad	Soledad incised-slipless: Soledad Variety	-----
63	-----	1003	55971	Cajon Coarse	Canilla	Canilla Red-on-Buff: Canilla Variety	-----
64	-----	1004	55972	Siquinala Red-on-Buff	Playas	Playas red-on-buff: Playas variety	-----
65	-----	2004	55988	Unspecified ware (related to Siquinala Red-on-Buff)	Miramar	Miramar red-on buff: Miramar variety	-----
66	-----	2302	55995	Trade or special		Verbena White, Reddish Brown Paste (incised)	Kaminaljuyú (Miraflores or Arenal)
67	A	1003	55971	Cajon Coarse	Canilla	Canilla red-on-buff: Canilla variety	-----
67	-----	2004	55988	Unspecified ware (related to Siquinala Red-on-Buff)	Miramar	Miramar red-on buff: Miramar variety	-----
68	-----	3201	56002	Balsamo Orange	Colmenera	Colmenera Red-on-Orange: Colmenera Variety	-----
68	A	2203	55993	Balsamo Orange	Socorro	Socorro Red-on-Orange: Socorro variety	-----
68	A	3201	56002	Balsamo Orange	Colmenera	Colmenera Red-on-Orange: Colmenera Variety	-----
68	B	3201	56002	Balsamo Orange	Colmenera	Colmenera Red-on-Orange: Colmenera Variety	-----

68	-----	3201	56002	Balsamo Orange	Colmenera	Colmenera Red-on-Orange: Colmenera Variety	-----
68	-----	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
69	A	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
69	B	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
69	-----	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	A	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	B	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	C	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	D	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	E	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	F	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	G	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
70	-----	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	A	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	B	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	C	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	D	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	E	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	F	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután:	-----

						Rio Santiago variety	
71	G	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	H	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
71	I	2202	55992	Balsamo Orange	Rio Santiago	Rio Santiago Usulután: Rio Santiago variety	-----
72	A	1006	55974	Siquinala Red-on-Buff	Ceylan	Ceylan red-on-buff: Ceylan variety	-----
72	B	1006	55974	Siquinala Red-on-Buff	Ceylan	Ceylan red-on-buff: Ceylan variety	-----
73	-----	1001	55969	Aguna White-Washed-Coarse	Corea	Corea thumb-impressed: Corea variety	-----
74	-----	2001	55985	Aguna White-Washed-Coarse	California	California tool-impressed: California variety	-----
75	-----	2002	55986	Osuna Coarse	Ceniza	Ceniza Slipless: Ceniza variety	-----
76	-----	2002	55986	Osuna Coarse	Ceniza	Ceniza Slipless: Ceniza variety	-----
77	-----	2003	55987	Osuna Coarse	Acome	Acome coarse-incised: Acome variety	-----
78	A	2003	55987	Osuna Coarse	Acome	Acome coarse-incised: Acome variety	-----
78	-----	2003	55987	Osuna Coarse	Acome	Acome coarse-incised: Acome variety	-----
79	A	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	C	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	E	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	F	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	G	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	H	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	I	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----

79	J	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	K	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	L	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	M	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	N	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
79	O	4004	56013	Baul Reddish-Brown Paste ware	Favorita	Favorita Mud: Favorita Variety	-----
80	-----	5001	56027	Baul Reddish-Brown- Paste	Golon	Golon Ponderous: Golon Variety	-----
81	A	4002	56010	Baul Reddish-Brown Paste ware	Felicidad	Felicidad White-Washed: Felicidad Variety	-----
81	B	4002	56010	Baul Reddish-Brown Paste ware	Felicidad	Felicidad White-Washed: Felicidad Variety	-----
81	C	4002	56010	Baul Reddish-Brown Paste ware	Felicidad	Felicidad White-Washed: Felicidad Variety	-----
81	D	4002	56010	Baul Reddish-Brown Paste ware	Felicidad	Felicidad White-Washed: Felicidad Variety	-----
82	A	4003	56011	Baul Reddish-Brown Paste ware	Fuego	Fuego Bright-Micaceous: Fuego Variety	-----
82	B	4003	56011	Baul Reddish-Brown Paste ware	Fuego	Fuego Bright-Micaceous: Fuego Variety	-----
82	C	4003	56011	Baul Reddish-Brown Paste ware	Fuego	Fuego Bright-Micaceous: Fuego Variety	-----
82	D	4003	56011	Baul Reddish-Brown Paste ware	Fuego	Fuego Bright-Micaceous: Fuego Variety	-----
82	-----	4003	56011	Baul Reddish-Brown Paste ware	Fuego	Fuego Bright-Micaceous: Fuego Variety	-----
83	A	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	B	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	C	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----

83	D	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	E	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	F	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	G	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	H	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	I	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	J	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	K	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	L	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
83	-----	4005	56012	Pantaleón Hard	Esmeralda	Esmeralda Flesh-Color: Esmeralda Variety	-----
84	A	5003	56028	Pantaleón Hard	Diamantes	Diamantes Unslipped: Diamantes Variety	-----
84	B	5003	56028	Pantaleón Hard	Diamantes	Diamantes Unslipped: Diamantes Variety	-----
84	C	5003	56028	Pantaleón Hard	Diamantes	Diamantes Unslipped: Diamantes Variety	-----
84	D	5003	56028	Pantaleón Hard	Diamantes	Diamantes Unslipped: Diamantes Variety	-----
84	-----	5003	56028	Pantaleón Hard	Diamantes	Diamantes Unslipped: Diamantes Variety	-----
85	A	4001	56009	Aguna White-Washed- Coarse	Palo Verde	Palo Verde Beveled: Palo Verde Variety	-----
85	B	4001	56009	Aguna White-Washed- Coarse	Palo Verde	Palo Verde Beveled: Palo Verde Variety	-----
85	C	4001	56009	Aguna White-Washed- Coarse	Palo Verde	Palo Verde Beveled: Palo Verde Variety	-----
85	D	4001	56009	Aguna White-Washed- Coarse	Palo Verde	Palo Verde Beveled: Palo Verde Variety	-----

85	-----	4001	56009	Aguna White-Washed-Coarse	Palo Verde	Palo Verde Beveled: Palo Verde Variety	-----
86	-----	4007	56014	Bilbao Coarse	Luciana	Luciana White-Washed: Luciana Variety	-----
87	A	4008	56015	Bilbao Coarse	Recuerdo	Recuerdo Unslipped: Recuerdo Variety	-----
87	B	4008	56015	Bilbao Coarse	Recuerdo	Recuerdo Unslipped: Recuerdo Variety	-----
87	-----	4008	56015	Bilbao Coarse	Recuerdo	Recuerdo Unslipped: Recuerdo Variety	-----
88	A	4006	56013	Bilbao Coarse	Firpo	Firpo Filleted: Firpo Variety	-----
88	B	4006	56013	Bilbao Coarse	Firpo	Firpo Filleted: Firpo Variety	-----
88	-----	4006	56013	Bilbao Coarse	Firpo	Firpo Filleted: Firpo Variety	-----
89	-----	5002	56026	Bilbao Coarse	Tarros	Tarros Unslipped: Tarros Variety	-----
90	A	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	B	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	C	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	D	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	D	6202	56038	Trade or special	-----	Red-on-Orange to Buff Ware	Zacualpa (Tohil)
90	D'	6202	56038	Trade or special	-----	Red-on-Orange to Buff Ware	Zacualpa (Tohil)
90	E	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	F	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	G	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
90	H	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
91	B	4301	56019	Unspecified ware (related to San Vicente Group)	Asuncion	Asuncion Orange: Asuncion Variety	-----

91	-----	4301	56019	Unspecified ware (related to San Vicente Group)	Asuncion	Asuncion Orange: Asuncion Variety	-----
92	A	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	B	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	C	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	D	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	E	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	F	4302	56021	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	G	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	H	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	I	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	J	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
92	-----	4302	56020	Tiquisate	Pacaya	Pacaya Orange: Pacaya Variety	-----
93	A	4303	56021	Patulul Orange-Brown Ware	Peridido	Peridido Painted: Peridido Variety	-----
93	B	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	B1	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	B2	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	B3	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	C	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	I	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	J	5102	56031	Tiquisate	San Andres	San Andres Polychrome: San Andres Variety	-----
93	-----	5103	56031	Tiquisate	Marias	Marias Carved: Marias Variety	-----
94	-----	5104	56031	Plumbate	San Juan	San Juan Plumbate: San Juan Variety	-----
95	-----	6001	56033	Unspecified Ware	Santa Rita	Santa Rita Micaceous: San Rita Variety	-----

95	-----	7005	56039	Comal	-----	-----	-----
unknown	-----	1308	unknown	Trade or special	-----	Utatlan Ware	Highland Guatemala (Middle Preclassic)
unknown	-----	2305	unknown	Trade or special	-----	Graphite-on-Red Ware	Kaminaljuyú (Miraflores)
unknown	-----	5101	unknown	Unspecified ware (related to Asuncion Group)	San Vicente	San Vicente Orange: San Vicente Variety	-----
unknown	-----	5204	unknown	Trade or special	-----	Unslipped course ware - Effigy Censers	Local (?) (No time period)
unknown	-----	6201	unknown	Trade or special	-----	Plumbate Ware - Tohil Group	Western Guatemala (Early Postclassic)
unknown	-----	6203	unknown	Trade or special	-----	Unslipped course ware - Ladle Censers	Nebaj, Guatemala (Early Postclassic)
unknown	-----	6205	unknown	Trade or special	-----	Red-on-White Vase	Highland Guatemala (Late Postclassic)
unknown	-----	7001	unknown	Earspools	-----	-----	-----
unknown	-----	7002	unknown	Spindle Whorls	-----	-----	-----
unknown	-----	7013	unknown	Sherd with prehistoric repair	-----	-----	-----
unknown	-----	7014	56039	Sherd with mat impression	-----	-----	-----
unknown	-----	7015	unknown	Sherd disks	-----	-----	-----
unknown	-----	7016	unknown	Adobe fragment	-----	-----	-----
unknown	-----	7009	56038	Sherd tablets	-----	-----	-----
unknown		7017	unknown	Contemporary glazed crockery			
*** Type numbers that are missing a sequence (either ...22, 23, 25, 26..., --missing 24— or ...34A, 34C..., --missing 34B--) were not present in the MPM collection or Parsons' monograph (1967) and therefore cannot be determined.							

APPENDIX H: Table of Bilbao Vessel Measurements (in order from the Middle Formative to the Postclassic) – Parsons 1967

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX – Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX – Average
Algo-es-Algo	1,140	0.61	1.38	1.00	17.38	28.81	22.40	5.65	7.00
bolstered-rim jars	321	0.52	1.20	-	14.00	19.49	16.00	-	-
bolstered-rim vases	10	0.60	1.00	0.50	20.00	20.00	30.80	-	-
bottles	1	-	-	-	-	-	-	-	-
composite silhouette bowls	128	0.80	1.88	1.20	20.87	29.79	-	5.80	5.80
cuspidors	2	0.30	0.70	-	13.00	14.00	-	-	-
dishes or bowls	4	-	-	0.50	-	-	-	-	-
everted-rim jars	18	0.70	1.00	-	30.00	39.00	-	-	-
flanged dishes	25	0.50	0.70	-	15.00	23.00	-	5.20	8.00
incurved-rim bowls	51	0.53	0.76	0.62	25.16	28.28	23.75	-	-
labial-flanged jars	6	-	-	0.50	-	-	10.00	-	-
low-collared jars	77	-	-	0.59	22.00	32.00	20.94	-	-
necked jars	41	0.50	1.00	-	10.00	12.00	18.50	-	-
neckless jars or tecomates	207	0.70	1.70	1.09	12.00	40.00	33.00	-	-
outflaring-sided dishes	1	-	-	0.90	-	-	30.00	6.20	6.20
outslanted-sided dishes or bowls	5	-	-	-	-	-	-	-	-
outslanted-sided dishes or bowls and neckless jars	14	-	-	-	-	-	-	-	-
short-necked jars	73	0.70	1.50	1.00	20.00	32.00	-	-	-
simple silhouette bowls	119	0.55	1.40	1.00	25.21	33.52	28.13	6.10	6.10
thick-walled, outslanted-sided dishes	3	-	-	-	-	-	-	-	-
undetermined	25	-	-	-	-	-	-	-	-

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX – Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX - Average
vases	3	-	-	-	-	-	-	-	-
wide-mouthed jars	6	0.50	0.80	-	-	-	16.50	-	-
Ilusiones	3,033	0.61	1.31	0.88	21.56	35.48	17.24	6.75	7.00
bolstered-rim bowls	17	-	-	1.50	-	-	20.00	-	-
bolstered-rim vases	301	-	-	1.00	20.00	60.00	-	-	-
bowls	14	-	-	1.00	-	-	11.00	-	-
complex silhouette bowls	1	-	-	-	-	-	-	-	-
composite silhouette bowls	74	0.50	0.70	-	18.75	26.88	-	-	-
composite silhouette bowls and jars	13	-	-	-	-	-	-	-	-
effigy bowls or jars	9	0.60	0.90	-	-	-	20.00	-	-
everted-rim jars	259	0.40	1.30	0.60	15.00	25.00	-	-	-
everted-rim vases	165	0.45	1.08	-	20.18	31.35	-	12.00	-
everted-rim, S-Z Angle bowls	138	0.50	0.90	-	19.91	29.57	-	-	-
hooked-rim bowls	44	0.50	0.90	-	20.00	30.00	-	-	-
hooked-rim jars and vases	9	0.50	1.30	-	-	-	18.00	-	-
Incurved-rim bowls	93	0.50	0.90	-	15.00	23.00	-	-	-
incurved-rim bowls, hooked-rim bowls, and possibly vases	10	-	-	-	-	-	-	-	-
labial to lateral-flanged dishes or bowls	33	0.50	0.90	-	18.00	25.00	-	-	-
labial-flanged dishes or bowls	2	0.50	0.70	-	20.00	20.00	-	-	-
necked jars	178	0.46	1.55	1.00	14.35	21.45	11.00	-	-
outflaring-sided bowls	10	-	-	0.60	-	-	30.00	-	-

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX - Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX - Average
simple silhouette and flaring-walled bowls with everted rims	41	-	-	-	-	-	-	-	-
simple silhouette bowls	69	0.60	0.80	-	17.00	28.00	-	-	-
simple silhouette bowls	5	-	-	-	-	-	-	-	-
simple silhouette to incurved-rim bowls	23	0.50	0.80	-	20.00	25.00	-	-	-
S-Z angle, composite silhouette bowls	873	0.53	1.12	0.63	22.34	29.26	-	6.56	7.00
thick-walled bowls or vases	564	1.00	2.00	1.25	30.00	50.00	-	-	-
tripod dishes	46	0.70	1.00	-	16.00	30.00	-	5.00	7.00
Unknown		-	-	-	-	-	-	-	-
vertical-sided bowls	39	-	-	0.60	18.00	23.00	-	-	-
wide everted-rim bowls	3	-	-	3.00	-	-	-	-	-
Mejor-es-Algo	686	0.40	0.79	0.53	14.29	20.64	14.61	8.41	15.35
composite silhouette bowls	28	0.40	0.60	-	22.00	22.00	18.14	-	-
cylindrical vases	75	0.40	0.80	-	16.00	20.00	-	12.00	12.00
deep bowls	294	0.40	0.78	-	8.31	19.53	14.00	8.00	20.00
incurved-rim bowls	11	-	-	0.80	-	-	20.00	-	-
medial to basal-ridged bowls	115	-	-	0.50	22.00	23.00	-	7.00	7.00
simple silhouette bowls	21	0.50	1.00	-	15.00	20.00	-	-	-
simple silhouette to incurved-rim bowls	142	0.40	0.80	-	19.37	21.43	-	-	-
Laguneta	7,251	0.47	0.96	0.64	16.76	27.22	17.19	18.88	26.58
annular-based cups	4	-	-	1.00	-	-	7.00	8.00	8.00
bail-handled sartenes	175	0.40	1.00	-	30.00	40.00	-	7.00	8.00
basal-flanged bowls	4	-	-	-	-	-	-	-	-

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX – Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX - Average
basal-ridged dishes	4	0.50	0.60	-	20.00	20.00	20.00	-	-
basal-ridged incense bowls	243	-	-	1.20	18.00	23.00	-	24.00	24.00
basal-ridged tripod dishes	249	0.44	0.86	0.60	20.04	27.04	-	10.00	10.00
beveled-rim jars	340	-	-	0.60	13.00	28.00	-	60.00	60.00
composite silhouette bowls	240	0.42	0.69	0.50	13.77	20.82	20.05	6.81	7.00
cylindrical tripod vases	31	-	-	1.00	-	24.00	-	-	-
cylindrical vases	377	0.21	0.43	0.23	6.77	9.90	1.60	10.21	13.61
deep bowls	45	0.40	0.80	0.60	11.71	22.11	-	-	-
everted-rim bowls	52	-	-	1.00	11.00	19.00	-	-	-
everted-rim bowls or vases	94	0.70	1.13	-	28.83	34.34	-	12.00	-
everted-rim jars	815	0.59	1.52	-	19.99	55.80	76.00	20.92	90.00
everted-rim vases	67	0.57	0.84	1.00	18.53	35.38	15.00	-	-
flaring-necked jars	150	0.50	1.10	-	15.00	17.00	-	21.50	21.50
low-collared jars	22	0.40	0.50	-	-	-	13.00	-	-
miniatures	43	-	-	-	7.50	9.00	8.00	8.00	8.00
mushroom-shaped objects	12	-	-	1.00	-	-	-	21.00	26.00
necked jars	1,867	0.46	0.96	0.50	18.62	23.92	-	28.43	28.43
outslanting dishes	1	0.40	0.80	-	22.00	24.00	-	3.70	7.50
outslanting to outflaring-sided bowls and vases	203	0.40	0.60	-	20.00	24.00	-	4.00	8.50
outslanting-sided dishes and bowls	37	0.40	0.80	-	22.00	24.00	-	3.70	7.50
outslanting-sided dishes or bowls	79	-	-	0.50	-	-	25.00	6.00	6.00
rim-head vessels	5	1.20	1.20	-	35.00	25.00	35.00	-	-

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX - Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX - Average
sartenes (composite-silhouette dishes)	191	0.50	0.80	-	22.00	40.00	-	7.00	8.00
sartenes (composite-silhouette dishes)	38	0.50	0.80	-	22.00	40.00	-	7.00	8.00
simple silhouette bowls	1,437	0.52	1.00	0.60	13.61	21.73	-	5.31	10.33
simple silhouette bowls with low pedestal bases	9	-	-	-	-	-	-	-	-
tall cylindrical vases	155	0.40	0.40	-	11.00	17.00	-	20.00	20.00
tall pedestal censer	18	-	-	-	-	-	-	-	-
tall tripod (cup-like vessel)	2	-	-	-	-	-	-	-	-
tall-necked jars	200	0.46	0.63	0.80	12.00	15.81	13.00	-	-
wide-mouthed and flaring-necked jars	42	0.40	0.60	-	13.00	30.00	-	-	-
Santa Lucia	997	0.33	0.98	0.31	15.32	27.57	12.19	19.33	24.32
barrel-shaped vases	3	0.40	0.47	0.40	15.67	16.67	13.00	-	-
cylindrical vases	64	0.25	0.35	0.40	12.00	14.00	-	-	-
everted-rim urns	28	-	6.50	-	-	130.00	-	60.00	60.00
everted-rim vases	1	0.20	0.30	-	12.00	12.00	12.00	-	-
everted-rim vases or bowls	25	0.30	0.70	-	20.00	30.00	-	-	-
flaring-necked jars	37	0.60	0.80	-	17.00	20.00	-	-	-
incurved-rim bowls or dishes	169	0.40	1.50	-	30.00	50.00	-	16.00	16.00
ladle censers with shallow, bowl-like container	3	-	-	-	-	-	-	-	-
large, hollow, effigy incense burners with elaborate applied ornamentation	16	-	-	-	-	-	-	-	-
medial to basal-ridged bowls	2	-	-	0.50	19.00	19.00	19.00	-	-

Time Period Form	Number of sherds at Bilbao	Wall Thickness (cm) MIN - Average	Wall thickness (cm) MAX – Average	Wall thickness (cm) Median - Average	Rim Diameter range (cm) MIN - Average	Rim diameter range (cm) MAX - Average	Rim diameter median (cm) - Average	Height (cm) MIN - Average	Height (cm) MAX - Average
outslanting-sided dishes or bowls	20	0.30	0.60	-	21.00	24.00	-	-	-
polychrome bowls or vases	4	0.50	0.70	-	-	-	-	-	-
simple silhouette bowls	1	-	-	0.60	-	-	14.00	-	-
tall cylindrical vases	422	0.20	0.50	0.30	8.18	12.88	11.00	15.73	27.00
tall-necked jars	199	0.49	0.88	-	8.25	12.03	12.60	21.00	21.00
vertical-necked jars	3	0.30	0.70	-	-	-	9.00	-	-
Peor-es-Algo	423	0.38	0.80	-	10.58	16.45	16.00	10.67	25.54
composite silhouette or deep bowls	30	0.20	0.80	-	17.00	25.00	-	-	-
deep bowls	5	0.50	0.70	-	-	-	16.00	9.50	9.50
effigy fragment	1	-	-	-	-	-	-	-	-
flaring-neck jars (rare)	18	0.30	0.80	-	11.00	30.00	-	11.00	30.00
globular, tall necked jars	4	-	-	-	-	-	-	-	-
grater bowls	1	-	-	-	-	-	-	-	-
ladle censers	5	-	-	-	-	-	-	-	-
simple silhouette or flaring-sided bowls	2	-	-	-	-	-	-	-	-
tall-necked jars	345	0.40	0.80	-	10.00	15.00	-	-	-
tripod bowls	12	-	-	-	-	-	-	-	-
Total	13,530	0.50	1.06	0.74	17.50	28.57	17.55	17.00	23.85

APPENDIX I: Biographic Information on Dr. Allen Lee Parsons



Lee Parsons during a trip to Guatemala, 1962 (Lurie 1983:104).

Dr. Allen Lee Parsons was born on June 15, 1932, in Wausau, WI. He attended Wausau High School and graduated first in his class of 430 students. He attended Beloit College in Beloit, WI, where he was a member of the academic honors society, Phi Beta Kappa, and fraternity, Sigma Pi. In 1954, he received his Bachelor of Arts in Anthropology from Beloit. While studying at Beloit, he met his future wife, Anne Moreau Jansky (Class of 1954). Parsons attended Harvard University and had a teaching fellowship from 1955 until he graduated with his Masters in Anthropology in 1958. During that time, he was also supported by the Wenner-Gren Foundation, a private firm that supports anthropological research, for a Pre-Doctoral grant from 1957-1958.

In 1958, Parsons returned to Beloit College on a teaching fellowship at the Logan Museum for a year before starting at the Milwaukee Public Museum (MPM) as the

Assistant Curator of Anthropology under the newly appointed Director of the museum, Dr. Stephan Francis de Borhegyi. While at the museum, he assisted in two seasons of research and excavations at the site of Bilbao, completed his PhD in Anthropology through Harvard University (1964), and taught undergraduate courses as an adjunct professor at the University of Wisconsin-Milwaukee. After the UW-Milwaukee-MPM Museum Studies Program was established in 1963, Parsons taught courses on museum collections and management at the museum. Parsons stayed at the MPM until 1968, when he received a position as the Curator of Collections at the Peabody Museum, Harvard University. When he left that position in 1971, he returned to the MPM for two years before moving on to the St. Louis Art Museum in 1974 as Curator of Primitive and Pre-Columbian Art. He was also a Lecturer at Washington University, St. Louis, in the Department of Art and Archaeology.

His final contribution to the museum field was helping to design the museum at the archaeological site of Copan in Honduras. After his passing on October 2, 1996, his family donated his professional library to the collections of the Universidad Autónoma de Querétaro (Mexico).

