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Indigenous Cuisine: An Archaeological and Linguistic Study of Colonial Zapotec Foodways On The Isthmus of Tehuantepec

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INDIGENOUS CUISINE: AN ARCHAEOLOGICAL AND LINGUISTIC STUDY OF COLONIAL ZAPOTEC FOODWAYS ON THE ISTHMUS OF TEHUANTEPEC

A Thesis Presented

by

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ABSTRACT

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August 2013

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Cuisine refers to the ethnically idiosyncratic food choices and the manner and methods in which these foods are prepared and served. In this investigation I will explore traditional Zapotec cuisine and its early colonial changes and continuities on Mexico's Isthmus of Tehuantepec by examining available food sources, food preparation techniques and equipment, and food serving traditions evidenced at the archaeological site of Rancho Santa Cruz. In order to achieve this I developed a two-fold analysis. The first component was the analysis of the *Vocabulario en Lengua Zapoteca* published by Fray Juan de Córdova in 1578. This historical dictionary provides an extensive view of the indigenous practices and lifestyles through the translation of concepts and ideas from the Zapotec language to Spanish. The second part consists of analysis of the Rancho Santa Cruz site ceramic assemblage, dating to the early colonial period (c. 1600-1750).

This ceramic assemblage was examined using both a type-variety analysis and a consumer-oriented analysis. Both archaeological and linguistic sources provided information on cooking and serving techniques, foodstuffs, and other related cuisine activities.

Finally, I was able to observe the different kinds of challenges and opportunities a colonial household faced, such as the introduction of new animals, plants, cuisine styles, eating habits, cooking equipment and technology. Zapotec cuisine became a dynamic one after the Spanish conquest, one in which new food sources were adapted and incorporated with traditional cooking styles and methods.

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CHAPTER I

INTRODUCTION

Archaeologists have been long interested with all aspects of food, from what people ate (S. Coe 1994, Earle 2010) and the ways humans acquired it (Rosenswig 2006), prepared it (Bauer 1990, Blomster 2004, Morrison 2012, Rodríguez-Alegría), and consumed it (Allison 1999, Barile and Branton 2004, Brumfield 2004, Fournier-García 1997), to the study of agricultural production as central to major sociopolitical changes and social complexity (Brockington 1989, Deagan 2002, Gonzalez 2001, Trigg 2005), and the relation between feasting and social identity (Rodríguez-Alegría 2012, Joyce and Henderson 2007). Cuisine refers to the ethnically idiosyncratic food choices and manners or methods in which these are prepared and served. In this investigation I will explore cuisine changes and continuities within post-conquest Zapotec culture in the Tehuantepec Isthmus by looking closely at available food sources, food preparation techniques and food serving traditions in one colonial Zapotec community.

The way food is prepared and how it is served and consumed carry a broader social significance than the actual consumption of calories to preserve life (Brumfield 2004, Coe, S. 1994). Food preparation and consumption practices are inarguably affected

by cultural traditions, food availability, food preparation technology and local and personal preferences, among other factors. All of these factors demonstrate significant broader social aspects. In this investigation I utilized the ceramic assemblage from the Rancho Santa Cruz archaeological site, an early colonial (c.1600-1750 A.D.) hamlet located on Mexico's Isthmus of Tehuantepec, to identify archaeologically continuities in household consumption practices and possible changes associated with the adoption of new food sources and technologies introduced by Spanish colonists. These patterns can be identified by interpreting the function of ceramic vessels.

This investigation departs from conventional approaches to the study of ceramics in Mesoamerica. Instead of answering questions about chronology, diffusion, or cultural interaction, the study seeks to depict the life of the indigenous household through an examination of how foods were stored, prepared, and served during the period of the site's occupation. Besides the ceramic assemblage and some recovered faunal remains from the Rancho Santa Cruz site, another source of information was relevant to my investigation of this early colonial Isthmus Zapotec community. A sixteenth-century Spanish-Zapotec dictionary prepared by a Catholic missionary provided valuable information on Zapotec foodways.

The methodology for this investigation has two components. The first component (Chapter II) is an analysis of the Spanish-Zapotec dictionary, *Vocabulario en Lengua Zapoteca*, published by Fray Juan de Córdova in 1578. This historical document provides an extensive view of the indigenous practices and lifestyles through the translation of concepts and ideas from the Zapotec language to Spanish. A linguistic study of this

dictionary will provide further information on the potential usage of the excavated ceramics by examining terms found in the dictionary that relates to cooking and serving techniques, food and ingredients, cooking utensils, and any other activity related to food consumption.

The second part is an analysis of the Rancho Santa Cruz ceramic assemblage. The Rancho Santa Cruz site was excavated in 1990 by Dr. Zeitlin. This excavation generated an extensive ceramic assemblage which was classified by Dr. Zeitlin in the field according to provenience, ware, vessel type and form. A database was created with this information through the efforts of several University of Massachusetts Boston graduate students, but most notably the work of Guido Pezzarossi. I examined this database, which contains 13,928 ceramic sherds from Rancho Santa Cruz, to study the kinds of vessels that were founded at the site. Two different ceramic analyses were employed, the traditional type-variety analysis characterized as a producer-fromiented analysis, (Chapter III), and an examination following Michael Lind's (1987) consumer-oriented model (Chapter IV), which focuses on vessel forms.

Additionally, I use my findings from the dictionary to identify changes in the local cuisine during colonial times. Recognizing how Native Isthmians acknowledged and incorporated Spanish-introduced foodstuffs and cuisine-related material culture will help me understand the Zapotec response to the introduction of these Spanish items and culture. I will also utilize my findings of both ceramic analyses to identify vessel-function changes in the Zapotec cuisine-related vessel assemblage. The introduction of new

ceramic forms will aid the understanding possible new cooking or serving traditions introduced or initiated by Spanish culture.

Finally a comparison of the linguistic terms found in the dictionary and the results of the ceramic analysis will be made in an effort to identify the vessel shapes by their names and perhaps indicate their usage. This information will provide the answers to the proposed investigative questions. This investigation will offer a picture of the colonial indigenous "kitchen", how food was prepared and consumed, and althought aspects of Isthmus Zapotec cuisine may have changed during the early colonial period most of it remained intact.

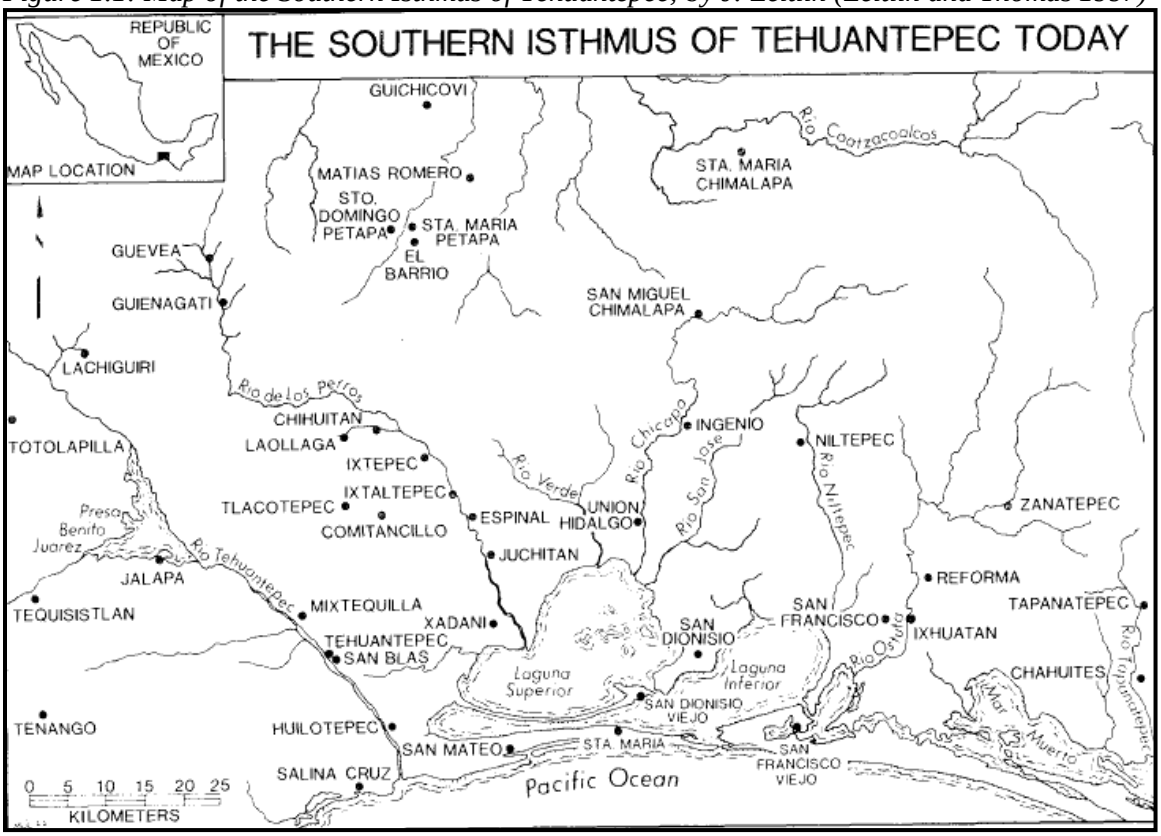
The objective of this investigation will be to discern the changes and continuities in local Zapotec cuisine. It will examine how Zapotec households responded to the introduction of Spanish food items and material culture by identifying food preparation processes, food serving traditions and foodstuffs available during the early colonial period on the southern Isthmus.

The Tehuantepec Isthmus

Located in the southern Pacific coast of Mexico, the Tehuantepec Isthmus is characterized by its humid weather, high temperatures, and rich cultural history. The Isthmus represents the shortest distance between the Gulf of Mexico and the Pacific Ocean, and prior to the opening of the Panama Canal it was the major shipping route known simply as the Tehuantepec Route.

This region's geography is characterized by its broad coastal plain and abundant rivers that drain into the network of shallow lagoons and barrier beaches that separate the mainland from the Pacific Ocean, as seen in Figure 1.1. Located 250 km (155 miles) from Oaxaca, the city of Santo Domingo Tehuantepec was the political head of the Tehuantepec province during the colonial period. Historically, this region has been an important center of Zapotec culture. However, before being conquered by Zapotec-speaking soldiers in the 14th century A.D., these lands were inhabited by small rural indigenous communities who were not organized or prepared for the colonizing attacks of the Zapotecs.

Figure 1.1: Map of the Southern Isthmus of Tehuantepec; by J. Zeitlin (Zeitlin and Thomas 1997)



Prehistory of the Zapotec Isthmus

The rich resources and commercial value of the southern Isthmus was a cause of battles and struggles among Mesoamerican groups (Zeitlin 1978). Control over this Isthmus not only assured access to the southern parts of Mesoamerica but moreover it guaranteed the jurisdiction of one of the most used trade route in the region, the route to Soconusco and its cacao. Cacao, a crop that can only be grown in certain areas of Mesoamerica, had a dual function in the Postclassic (A.D. 1300-1521) economy (Zeitlin 1978). Cacao was an indispensable element of elite cuisine; this intrinsic value within the higher strata of Mesoamerican society in combination with its transportability turned cacao into a widespread medium of exchange (Zeitlin 1978). The Zapotecs were not the only peoples who inhabited or travelled through the southern Isthmus region. Long before them, in the Early Preclassic (1800-900 B.C.) (Adams 1997 and Esparza 2000), Olmec neighbors from the northern Isthmus journeyed far and wide in search of raw materials to supply their leaders' desire for luxurious ornaments and exotic goods (Zeitlin 1978). Later on in Classic times (A.D. 250-1000) (Adams 1997; Esparza 2000) an extensively used communication route was maintained between the centers of Maya civilizations and the highland Mexican city of Teotihuacán, using the Soconusco passageway to gain access from the Central Highlands into Chiapas and Guatemala. It was not until the late Postclassic (1000-1521 A.D.) (Adams 1997; Esparza 2000) that the Tehuantepec Isthmus was conquered and colonized by Zapotecs from the Valley of Oaxaca, who allied with a small contingent of Mixtec soldieers, conquered the province and at least temporarily blocked Aztec routes to the cacao-rich province of Soconusco

(Zeitlin 2005). The region of the southern Isthmus was not only inhabited and used by multiple, high power indigenous empires, but also by smaller villages that subsisted on farming, hunting and fishing, like the Huave communities located near the Isthmian lagoons. The Zapotecs of the highland Oaxaca Valley acquired the rich agricultural lands of their new territory by forcing out the indigenous communities of the region into the coast of the Isthmus. According to Zeitlin, the Zoque and Huave communities were too small or too weakly organized to resist the Zapotec army and protect their land. (Zeitlin 2005). By the time the first Spaniards were seen in the Isthmus, Zapotec culture overshadowed the region as Oaxaca Valley settlers occupied the western coastal plain.

Spanish Conquest and Colonization

Like the majority of Mesoamerican regions, the southern Isthmus of Tehuantepec witnessed profound and sustained changes following the Spanish Conquest. The Spanish conquest of Mesoamerica was not only achieved by the military efforts of the conquistadors, but it was a combination of factors that enabled Spanish dominance. European-brought diseases played a key role in the conquering enterprise. The American native populations endured a reduction of unprecedented proportions, due to the Spanish colonization (Knight 2002). Old World diseases like chickenpox, smallpox, cholera, influenza, measles and bubonic plague triggered the devastating reduction of the native population. Toward the end of he sixteenth cenury, this demographic collapse promoted the relocation and clustering of indigenous communities into what we know as *reducciones*. Even though war and exploitation were contributing factors to this

demographic demise, disease played a key role by striking populations and regions where fighting had been less severe like in Oaxaca (Knight 2002b). Disease not only devastated entire towns but it remained active preventing the population's recovery.

The economic effects of the population loss were great. As Indian communities shrank or disappeared altogether, the supply of labor became limited. The import of African slaves only aggravated this situation by bringing more diseases into the New World, like yellow fever. In addition to the economic effects, the evangelistic mission of the friars became a much more difficult enterprise. This led to the introduction of a policy of *congregación*, where the dwellings of the Indian population were gathered in a certain new approved communities to be better controlled, taxed and proselytized (Knight 2002b). *Congregación* facilitated the political control of the indigenous population and the Spanish land expansion, by providing access to rich agricultural vacant lots to the new settlers. This movement from far-away communities into the "main" towns, close to the parish, became an everyday activity.

> The policy of congregation, undertaken in successive bursts, at the instigation of both lay and clerical authorities-equipped with fields, pasture, church and nucleated settlement- took root, thus facilitating colonial control, others failed-specially in regions, like Yucatán, where dispersed settlement was the ancient norm. For many Indian communities, already reeling from the impact of conquest and disease, *congregación* meant another gratuitous upheaval: the desertion of old fields and shrines, forcible resettlement, fresh border disputes with new neighbors (Knight 2002b:27).

Disease, the reduction of the indigenous population, and the relocation of communities proved to be successful tools in the colonizing enterprise, changing Tehuantepec's panorama forever. Tehuantepec's new landscape included small centralized communities composed of the remnants of bigger Zapotec towns and

surrounded by new vacant lands which would eventually give way to the ranching boom that characterized Tehuantepec's economy throughout the early colonial times (Zeitlin 2005).

Ranching haciendas

The decline of the Indian population and the congregation of the surviving communities proved to be an ideal colonial tool. Congregated communities became more vulnerable not only to Spanish exploitation and taxation but also to disease, providing easier ways to incorporate Spanish policies within the new colony. In addition to this political advancement, the excess of new usable lands gave way to the most striking innovation of the new colony's economy and way of life: the raising of livestock. The Spanish colonizers brought pigs, goats and cattle in the early expeditions (Knight 2002b). The raising of livestock grew at an exponential rate in New Spain; by 1530's bullfights were being held at Mexico City, and by 1540's meat had been incorporated in the indigenous diet in unprecedented proportions (Knight 2002b). The *hacienda* or great state, born in Mesoamerica during the sixteenth century, became a Mexican institution. The haciendas became the dominant sight around the warm valleys of central Mexico (Knight 2002b).

On the Isthmus, Old World animals were introduced by Hernán Cortés, who began his Isthmus ranching with a large pig-raising venture in Jalapa within a few years

of the fall of Tenochtitlan[1]. Petitions to establish *estancias de ganado menor* on which sheep and goats could be raised increased considerably in the early 1580s and did not decline again until the turn of the century, when a shortage of remaining vacant land helped bring the ranching expansion to a close (Zeitlin 2005). The vast majority of the petitions or *mercedes* were for ranches for *ganado mayor*, mainly cattle but sometimes horses, mules and asses were raised as well. Tehuantpec was well-suited to raisin livestock due to its warm weather and general topography. Cattle ranching became a popular occupation among Spaniards, who believed that ranch work was a more acceptable occupation than farming and agriculture. (Zeitlin 2005)

The ranching boom played a devastating role in Isthmian communities by displacing communities to free land for *haciendas* and *estancias*, redirecting Indian labor from traditional agricultural tasks to ranch work in Spanish own ranches, introducing new ethnic groups on the Isthmus like African slaves and the induction of the native communities into the ranching economy (Zeitlin 1989). However according to Zeitlin, Indians also wanted to be part of this endeavor, petitioning the viceroy 66 times for permission to establish ranches on community lands (Zeitlin 1989). One example is the *memoria* recorded by the *alcalde mayor*, only seventeen individuals were identified as being landowner ranchers not all of these owners were Spaniards, one of the original parties included the indigenous heirs of a *cacique*. During 1644, a Chihuitán noblewoman and her mulatto slave husband petitioned to become part of this list (Zeitlin 2005).

[1] Transcription of the testimony of Francisco Maldonado, AGN Hospital de Jesús, leg. 300, exp. 107, fs. 53-60, in Zeitlin 2005:135

According to Zeitlin, the impact of the ranching boom not only changed the ecology and economy of the region but also contributed to community displacements that facilitated territorial conflicts and ultimately realigned social relationships (Zeitlin 2005). The impacts of this ranching economy affected as well the food traditions of the area. Zapotec people were not only raising and producing *ganado menor* but they were consuming it. Newman (2007) discovered in her zooarchaeological study of the Rancho Santa Cruz faunal remains that even though inhabitants of these site preferred consuming traditional wild game, they as well consumed different kind of Spanish-introduced livestock.

Rancho Santa Cruz

The Rancho Santa Cruz site is situated on the outskirts of the town of Santo Domingo Chihuitán, located 15.5 km (9.63 miles) from Tehuantepec. Zeitlin and Thomas (1997) and Zeitlin (2013, pers.comm.) argue that Chihuitán must have been a socially important and politically well-connected town during colonial times judging from its well-built early seventeenth-century church, as seen in Figure 1.2.

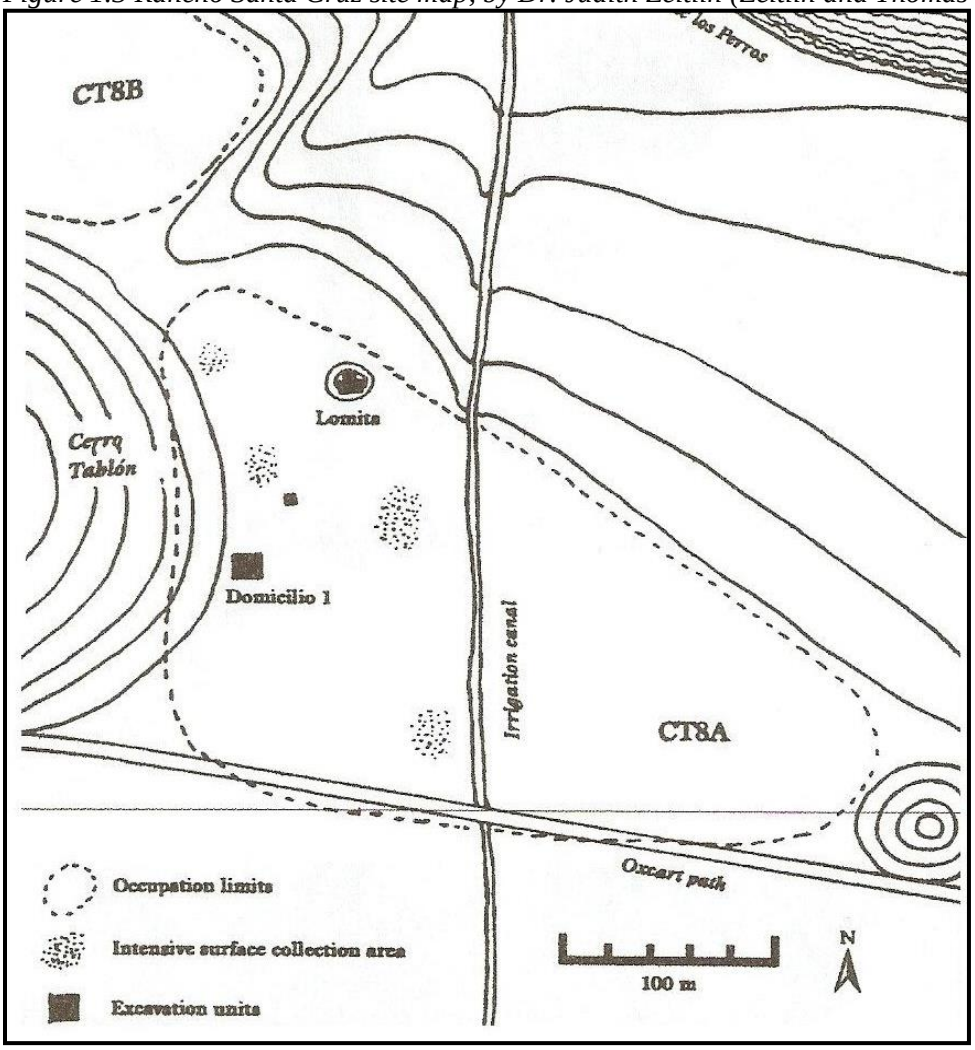
The site itself is located in the upper floodplain of the Rio de los Perros. The area surrounding this site is characterized by intermittent piedmont streams tributaries of the Rio de los Perros, which have created a productive agricultural zone sought-after late prehistoric times (Zeitlin and Thomas 1997).

Figure 1.2: Church of Chihuitán. (Photo M. Zulauf 2007)

Field work at the Rancho Santa Cruz

The excavations of this site were completed by Dr. Judith F. Zeitlin during a four month program of archaeological reconnaissance and preliminary site testing in 1990. With the purpose of addressing issues of socioeconomic changes on the Isthmus' Colonial-period Indian communities, Dr. Zeitlin excavated multiple sites, including the Rancho Santa Cruz site. The search for suitable archaeological sites for this purpose led to the hunt for abandoned hamlets. It was in this way that Dr. Zeitlin found the Rancho Santa Cruz site. A former owner of the ranch showed her an 1801 *merced* (viceregal grant) his family had found on the property, granting the construction of sugar refinery on the ranch (Zeitlin and Thomas 1997). This *merced* mentioned the existence of an indigenous town in the property that had disappeared a long time ago.

Figure 1.3 Rancho Santa Cruz site map, by Dr. Judith Zeitlin (Zeitlin and Thomas 1997:9)



The archaeological investigation of this location resulted in the discovery of two spatially distinct archaeological components separated by a steep *arroyo*. One of them was classified as a pre-Hispanic site (CT8B), and the other one, which is the focus of this thesis, was a Colonial-period occupational area. This second site (CT8A) was located south of the *arroyo*, overlooking the Río de los Perros from a high terrace skirting the southeast slope of Cerro Tablón (see Figure 1.3). It was distinguished by the presence of new pottery types, including glazed ceramics and fragments of fired brick and roof tile

(Zeitlin and Thomas1997). Based on chronological patterns for the imported majolica and regional historical context, the colonial occupation is provisionally dated to 1600-1750 A.D. (Zeitlin 2005)

The archaeological survey revealed two promising localities for archaeological testing in CT8A. The *Lomita*, on the north side, which the artifact distribution indicated was the place where a house had once stood, and *Domicilio 1*, a richer zone of domestic refuse (Zeitlin and Thomas 1997). The ceramic analysis for this thesis has been focused on the artifacts excavated from eleven 1-m² test pits at Domicilio 1.

The Domicilio 1 assemblage contains a diverse ceramic collection, consisting largely of fine gray ware, coarse wares, and the new pottery type Tablón Orange. It also included a small percentage of Spanish ceramics including majolica and glazed wares. All but the majolica and glazed wares were made locally by potters producing vessels primarily for indigenous consumers. The variety in shapes, forms, sizes, function, and decoration between and within wares provides an array of different potential analytical approaches. For purposes of this investigation, the focus of examination will be placed upon the domestic functions of food preparation and serving vessels in the collection.

A total of 13,928 ceramic fragments were recovered in and around the Rancho Santa Cruz site. Domicilio 1 yielded 8,787 ceramic sherds. Described as a richer zone of domestic refuse (Zeitlin and Thomas 1997), this zone provided the ideal attributes for this type of investigation. Stratigraphy suggested two distinct colonial subcomponents.

This investigation will focus on the ceramic refuse found in this site. The Domicilio 1 archaeological assemblage proves to be ideal for the investigation of a

typical indigenous household during the early colonial period in the Tehuantepec province. In the upcoming chapters I will explain in detail the different approaches utilized to understand and interpret this archaeological site. In Chapter II, I will examine a historical dictionary to identify terms related to cuisine and food preparation processes, with the objective of recognizing patterns of cuisine styles, preferences or changes. Chapter III discusses the type-variety analysis of the Domicilio 1 ceramic assemblage. This analysis will show frequency values of the different ceramic types that comprise the Domicilio 1 ceramic assemblage. In Chapter IV, I applied a consumer-oriented analysis to the same ceramic assemblage with the objective of identifying form-use correlations within the database. Finally in Chapter V, I bring all of the analyses together to paint a portrait of an early colonial Zapotec indigenous cuisine.

CHAPTER II

VOCABULARIO EN LENGUA ZAPOTECA: A HISTORICAL DICTIONARY

Archaeologists often utilize historical documents to learn about the peoples living in specifics sites, the social and cultural contexts surrounding the site's occupation and the significance of the artifacts unearthed (Wilkie 2006). The practice of documentary archaeology (Beaudry 1988) has been an important and useful method in the discipline of historical archeology. The study of historical documents offers perspectives and interpretations of the past that are not achievable by other methods of analysis (Wilkie 2006). Archaeologists have spent a significant amount of time studying documents with the purpose of understanding archaeological sites, their material culture and the people that once lived there.

For this investigation, an historical dictionary, the *Vocabulario en Lengua Zapoteca* by Friar Juan de Córdova published in 1578, has been used as an integral historical source. According to Burgoa (1670)[2], Juan de Córdova was born to a noble household in 1503 in Córdova, Andalucía, Spain. Before becoming a man of the cloth, Córdova served as a soldier under the orders of the Holy Roman Emperor Charles V.

[2] Friar Francisco Burgoa (1606-1681) was a Spanish chronicler, who entered the Dominican Order in 1629.

He served as an ensign in Flanders, during Charles V's rule over the Netherlands. It was not until 1540-42 that Córdova accompanied Francisco Vázquez de Coronado, who was to become conquistador of New Mexico and the Southwest region of the United States, as he made his way to the New World and finally to New Spain.

It was in the Convento de Mexico Nuestra Madre that Córdova entered the Dominican order in 1543. Five years later he was sent on mission to the Oaxaca region of Mexico. As soon as he arrived in Oaxaca, he was sent by the Prior to preach across the towns of the region. In Burgoa's accounts, Córdova was concerned that because of the language barrier between himself and the native Zapotecs, he would not be able to comply with his mission of spreading the word of God. It was during this time that Córdova learned and became an expert in the Zapotec language (Burgoa 1670).

In 1568 Córdova was named *provincial*[3]. Brought up under military discipline, he administered as provincial with such rigor and severity that there were many complaints against him. He then refused to comply with the warnings of his superiors to change his methods, and was accordingly suspended. Finally he received a notice of deposition[4] (1570) and, declining the interference of the then Viceroy Enriquez, retired to a monastery in Tlacochauaya, Oaxaca, where he died (1595) after twenty-five years spent in retirement and in the study of the Zapotec language and the customs of the natives (Burgoa 1670). It was during his years of retirement that Córdova compiled the *Vocabulario en Lengua Zapoteca*, finally publishing it in 1578.

[3] A *provincial* is the head of an ecclesiastical province. An ecclesiastical province is a large jurisdiction of religious government; it is a collection of dioceses.

[4] A deposition is an ecclesiastical penalty by which a cleric is forever deprived of his office or benefice and of the right of exercising the functions of his orders (Luzio 1908)

Dictionaries can be thought of as books of an instrumental sort, as tools for practical and useful knowledge (Fernández 2008). A dictionary will not only serve as a translating tool or a bridge between different languages and cultures, but it can provide meanings that reflect the cultural and social understandings of the people that once lived during the same time the document was produced. In this case, the *Vocabulario en Lengua Zapoteca* not only represents the cultural understandings of the Zapotec people in sixteenth-century Oaxaca but also the Spanish missionary's reflections, and his ability to capture the ideas of Zapotec words and translate them into Spanish. Wilkie argues archaeologists utilizing historical documents must acknowledge the unwritten biases that lie within the document, i.e. the author's subjectivity, the reader / archaeologist's subjectivity, the original purpose of the document, and political, economic, religious and/or social dynamics present at the place and time.

Understanding these issues helps with the interpretation of the information in the dictionary. Interpreting the information extracted from the dictionary as historical data provides a more detailed examination of the time period when Rancho Santa Cruz site was occupied since the dictionary was compiled not long before we think the site was occupied. However we must consider the fact that even though Córdova knew the Isthmus Zapotec personally, he lived most of his life in the Oaxaca Valley (Burgoa 1670). Fr. Córdova's life experiences, like belonging to the military prior to his religious vocation, and his apparent strong character, shaped the way he experienced Zapotec language and culture. As an outsider, and furthermore a Spanish missionary, his views on Zapotec culture were subject to his understanding of the world. Moreover, his purpose for

compiling this dictionary skews the importance he gave to terms in general. Most likely Fr. Córdova was more likely to collect those terms that reflected his own interests like: religious terms, Spanish cultural items, and those terms that would aid other missionaries transition into the Zapotec region's culture, language and way of life.

For this investigation, the data extracted from the dictionary were organized as an inventory of the domestic food preparation and serving assemblage. Even though this method does not provide an exact inventory of the domestic assemblage in use at Rancho Santa Cruz, we can assume that the artifacts represented in the dictionary were common in the towns, households and locations the friar visited during his years of mission work. Because of the nature of this historical dictionary, the results of this analysis shows how the Spanish missionaries viewed and understood native traditions and lifestyles and how they interpreted the new Spanish-introduced polities, traditions, flora and fauna.

The objective of this chapter is to identify regional foodstuffs, food preparation and food serving vessel and utensils terms in the *Vocabulario en Lengua Zapoteca* which I will later use to interpret and provide a better understanding of colonial Zapotec cuisine and the changes in underwent due to the Spanish expansion within the region.

The object of study and methodological approach

The *Vocabulario en Lengua Zapoteca* is composed of 860 pages filled with words and definitions; this vast compilation provides an immeasurable amount of information about sixteenth-century Zapotec culture. The dictionary is based on Friar Córdova's long experience among Zapotec populations of Oaxaca, which included at least one documented trip to the Isthmus of Tehuantepec. Like a number of Spanish missionaries in Mesoamerica, he was a fluent speaker of the Native language and he used his personal observations and experiences among the local population to create a Spanish-Zapotec dictionary useful for other Spaniards in spreading Christianity. The sole purpose of this dictionary was to teach Spanish missionaries enough Zapotec to be able to convert indigenous communities into Christianity. In this volume, Córdova not only provided the Spanish translation of Zapotec words, but he also provided observations of daily life. His observations focused not only on individual words, but also on concepts, ideas, beliefs, traditions, lifestyles, conduct, religion, and daily activities, among others. This historical document provides an extensive view of indigenous practices, by the translation of concepts and ideas from the Zapotec language to Spanish.

Isthmus Zapotec is part of the Zapotec language family spoken in the Oaxaca region of Mexico. Seven different dialects have been identified in the Zapotec language; these are so unique that they are often considered mutually unintelligible (Pickett 1960). Unlike the Spanish language, Zapotec is a tonal language. Tonal languages use contrasting tones to designate semantic and grammatical differences. Córdova's attempt to record tones had its limitations. As quoted by Smith Stark (1999:90), "la ortografía que

empleaba Córdova para escribir el zapoteco era ambigua en varios puntos*"* (Córdova's orthography when transcribing Zapotec was ambiguous in several ways). This ambiguity can be noticed in several of terms collected in the dictionary, which are spelled differently but when spoken in Spanish sound similar.

Even though I am a native Spanish speaker, I am not versed in sixteenth-century Spanish, nor am I a Zapotec speaker. Furthermore, I am not trained as linguist or a linguistic anthropologist. In addition, although I have been exposed to modern Mexican culture, I am not an expert on modern or traditional Tehuantepec culture or customs. Therefore the analysis of the dictionary is permeated by my own linguistic, personal and methodological restrictions. To counteract these limitations, I utilized Smith Starks's linguistic study on the *Vocabulario en Lengua Zapoteca,* which focuses on religion during Colonial times, as a guide for this investigation. Furthermore, I compared my observations utilizing different previously completed analyses of the Zapotec language and a modern Isthmus Zapotec dictionary compiled by Velma Pickett (2007), a linguist with the Summer Institute of Linguistics in Mexico. In addition I utilized Brown and Chase's (1981) study of animal classification in Zapotec language, Stephen Marlett's (1993) work on Zapotec pronoun identification, Black, Black and Marlett's Zapotec grammar studies, and Marlett and Pickett's (2008) pluralization study.

An anthropological approach to this dictionary was essential for its study and understanding. My approach is based on the understanding that language is a cultural resource that represents cultural practices. It assumes that the ability of language provides the cognitive and social tools to understand the world (Duranti 1997). Generating a

method of study for the *Vocabulario en Lengua Zapoteca* required some creativity. As an instrumental source of cultural information, the dictionary was treated as a transcribed ethnography; as such, its contents were assumed to be representations of cultural practices. Even though the dictionary can be treated as a tool of cultural representation, some constraints have to be recognized. Like any other document, this dictionary represents the ideas and ideals of the person who created it; in this case it represents the perspective of a Catholic Spanish missionary. As is the case in all such dictionaries, terms and concepts were collected and defined in the *Vocabulario* in accordance with the mission or purpose of the document. Fr. Córdova created his dictionary with the goal of aiding future missionaries in the expansion of the Catholic faith throughout Zapotec-speaking Oaxaca.

With these limitations in mind, terms and concepts representing cuisine techniques and styles, including ingredients, and utensils, were collected from the dictionary. Because relevant terms are scattered throughout the *Vocabulario*, which organizes Spanish words alphabetically, I read the entire contents of the dictionary to identify and collect these terms. Different categories were established to accommodate the nomenclature of the terms and concepts. The foodstuff category includes every term that may represent any type of food source in Oaxaca, like plants and plant products, animal protein and prepared meals or dishes. It is assumed that the existence of a Zapotec term evidences the availability of this food source; for example, if there is a Zapotec word for wheat, a European-introduced plant, it is assumed that the plant or products made from it are available for local consumption, whether these were being grown locally

or imported from other regions or from Spain. Other categories include household items like bowls, kitchen utensils and introduced objects like candlesticks, which were found at Rancho Santa Cruz. Finally, the categories were analyzed, emphasizing the special attributes they represent and including singular cases that are particular to each category. To avoid skewing the sample with the investigator's perspectives and biases, all terms that could be related to food preparation and/or consumption activities were documented. These words were then sorted into different categories, e.g. foodstuffs, cooking utensils, etc., and analyzed within the new corresponding categories. Some provisional terms were discarded when further studies revealed that they were not referring to cooking or eating activities.

With this in mind, my investigation proceeded with the objective of interpreting Córdova's view of the indigenous cuisine during colonial times. Like many household activities, cuisine practices have been often ignored by governing class, in this case Spanish colonizers, or not included in the historical record. The *Vocabulario en Lengua Zapoteca* offers a view of the everyday life in the sixteenth century Oaxaca region.

Foodstuffs

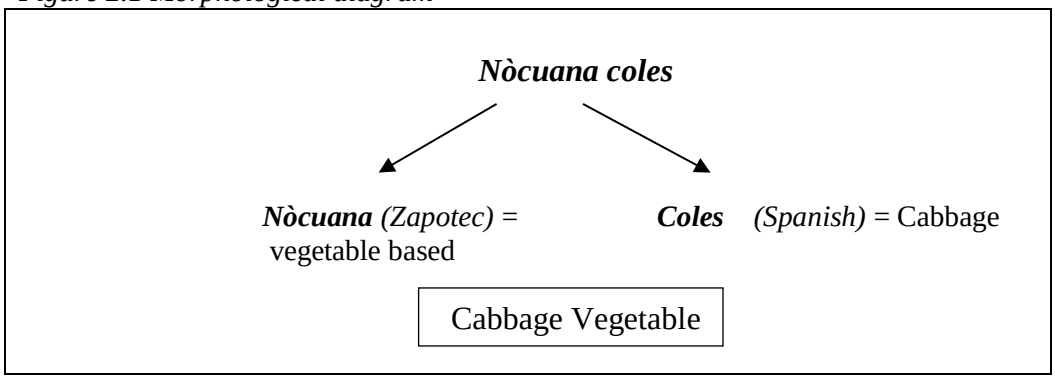
This category consists of all the different concepts concerning food sources: plants and animals, plants and plants products; animals and animal products; prepared foods: baked goods and stews, and drinks. All of these sub-categories have been artificially created for the purpose of this discussion, keeping in mind that they represent today's views of food products.

Food sources: plants and animals

Plants and plant products

The plant and plant products subcategory has been defined not only by general modern ideas about edible flora, but also by the morphological structure of the Zapotec terms. In Cordova's dictionary it can be observed how certain Zapotec words are in fact compound-words or hybrid-terms comprised of a Zapotec and a Spanish word. In all cases these terms[5] represent Spanish-introduced plants and plant products, like fruits, vegetables and grains. These Zapotec-Spanish hybrid-terms are illustrative, considering that they are composed of two different morphemes: one that defines the object by its function or role within society in Zapotec and another that acts similarly in Spanish. I isolated two particular examples of these terms and separated them in order to illustrate this linguistic peculiarity, as observed in Figures 2.1 and 2.3. This same method was utilized by the late linguist, Thomas Smith Starks (1999), who extensively studied this dictionary in order to understand Zapotec religious ideals.

Figure 2.1 Morphological diagram



[5] For the purpose of this investigation a term has been defined as a word or expression that has a precise meaning.

In example number one (Figure 2.1), the morpheme *nòcuana,* placed at both the beginning and ending of multiple words and compound-terms, has been identified as a signifier of edible plants in Zapotec. As seen in Table 2.1, the majority of the terms with the morpheme *nòcuana* represent edible plant or plant parts and in instances it has also been associated with herbs. The placement of this morpheme in the different terms is not uniform; fruits, vegetables and herbs contain the unit in different places.

As seen in Figure 2.1, the morpheme *nòcuana* was combined with the Spanish word *coles* to generate the hybrid-term *nòcuana coles,* which in English means "cabbage". I believe these hybrid terms were generated by Zapotec speakers to name newly Spanish introduced items, in this case edible flora. By identifying them by their function in this case utilizing the morpheme *nòcuana,* and adding to it their introduced Spanish name, Native speakers were able to incorporate this new item into their vocabulary. These terms not only represent the presence of these new food sources in Mesoamerica, but also the adoption of them into the native language which could correspond to the adoption and use of the item within the Native population. The dictionary would not be able to provide a specific answer to this inquiry, and so it will not tell us if the Native population instantly or rapidly accepted and embraced Old World introduced food sources into their own cuisine and diet. The archaeological record might be able to elucidate this paradox.

A different kind of hybrid-term was identified within the plant and plant products category. These compound-terms are defined by the place of origin or import of the plant or plant product. There are two different kinds of hybrid-terms defined by origin. On

one hand, there are Zapotec compound terms in which the word *Castilla* has been added to a Zapotec word illustrating Spanish-introduced flora. Even though not all the plants identified by this morpheme *Castilla* are Spanish in origin, they are referred in their Zapotec term by it, e.g. watermelon (*quèto castilla*) is originally from Africa. I believe that this usage reflects another way in which Zapotec speakers adapted their language to accommodate these newly introduced plants.

Table 2.1: Hybrid-terms Nòcuana

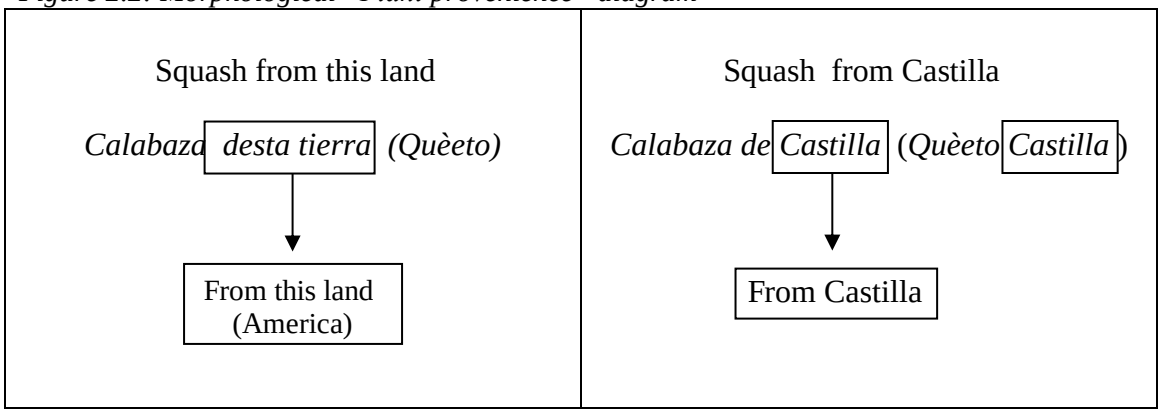
Spanish	***Zapotec***	***English***
Ajo, un diente	Tobìlòcha ajo	Garlic clove
Berza o col	Nòcuana coles	Cabbage
Cabeza de ajo, cebolla, cardo, lechuga o así	Còo, pìchijgo, xanacòonocuana ajos	Garlic head
Cidra fruta	Nocuàna cidras, queto, castilla.l. cìcanàcaqueto nayy castilla	Citron
Durazno de la fruta	Nocuàna nàaxe duraznos	Peach

In the 1580 Relacion Geográfic recorded by Tehuantepec's alcade mayor, Juan de Torres in response to King Philip's questionnaire sent to all his dominions, it was reported that "Que por ser esta tierra calida, como d[ic]ho está, no se dan las plantas de Castilla en ella, y por ser tierra salitral y arenisc[a]"[6](Acuña 1984:119). However, Burgoa (1674:389) does mention in his *Descripción Geográfica* the existence of orchards and plantations of Spanish introduced fruits like melons, as seen here: "...donde tienen muy deleitosas huertas de varios y frondosos árboles frutales, tienen muchos melonares, sandías, papayas, cañas dulces y otras notables golocinas"[7]. The dry and hot weather in

[6] Translation by M. Zulauf: Due to the warm weather, sandy and salty soils of these lands (Tehuantepec Isthmus) many Spanish plants will not grow.
[7] Translation by M. Zulauf: …they have many delicious varied and abundant fruit trees, they have melons and papayas, and sugar cane and other types of fruits.

the Isthmus was probably problematic for cultivating certain crops, but there were others that flourished in the area and became basic staples in Zapotec cuisine. As early as 1580, Juan de Torres noted how the Natives of these lands [Tehuantepec], ate the introduced plants of bananas, Spansh squash and melons, oranges, limes, and lenons, as well as pineapple (native to Peru), in addition to the native cultigens of avocado, sweet potatoes, squash, and *chicozapote* (Acuúa 1984: 109).

Figure 2.2: Morphological "Plant provenience" diagram



On the other hand, Córdova, when translating Zapotec terms into Spanish, actively identifies the provenience of certain plants by adding either *de Castilla* or *desta (de esta) tierra* at the end of the translated Spanish terms. This identification technique was used for two different purposes; first, to identify edible flora found in the New World during that time period, e.g. *Maguey árbol desta tierra* = Tòba, *yàga tòba* = Maguey bush from this land; and second to differentiate the provenience of similar plants that were classified by the same Spanish term; for example, *Calabaza desta tierra, generalmente que se comen= Quèeto*= Squash from this land and *Calabaza de Castilla= Quèetocastilla*= Squash from Castilla. As seen on Figure 2.2, Córdova creates hybrid-

terms to explain the origin of these plants whether they are Spanish-introduced or native plants. It is unknown how many of these terms both in Spanish and in Zapotec Fr. Córdova created or altered when recording them. I believe that some of the terms in Spanish could have been altered or further defined to aid the other missionaries when learning Zapotec.

Finally, when studying the list of plants and plant products, one can notice how there is an omission of countless terms for native plants, vegetables and grains. Fr. Córdova's views, purposes, and interests limit the amount of cuisine-related data provided by the dictionary. This dictionary was created for Spanish users, specifically missionaries. It is not surprising that many of the cuisine-related terms are Spanish in tradition, since it was the missionaries who would need to explain or request these items in Zapotec. It seems that Córdova had some innate curiosity or interest in nature; in his dictionary he mentions many trees, plants, animals and other features of the environment surrounding him. However, this was not the main purpose of this dictionary; therefore, the number of entries that can be related associated to cuisine is limited. On the other hand, Zapotec foodstuffs that had no counterpart in the Spanish language would seldom appear in the dictionary, for the missionaries would learn to identify these items by their Zapotec name. Other terms may have been purposely omitted by Córdova because they were not useful or necessary during conversion or because they represented matters that contradicted Cordova's belief and missionary agenda.

Table 2.2: Food sources: plants and plant products

Spanish	Zapotec	English
Ajís especia de las indias	Quiña nòcuana, quiña	Peppers grown in the Indies
Agra fruta	Nòcuananayy	Unknown meaning
Ajos verdes	Xito ajos, xito nàxina	Green garlic
Ajo, un diente	Tobìlòcha ajo	Garlic clove
Albahaca	Quìenocuana, quìepelaga	Basil
Alcarchofa	Quechipàlao que chi pitipi	Artichoke
Alfalfa	Quìxinocuana tago pichina	Alfalfa
Almendra fruta de almendro	Pizoya castilla.l.ydem	Almond
Anona Fruta de esta tierra de indias	Quelapicho (porque tiene pepitascomo algodón)	Sugar apple grown in the Indies land
Arroz	xòopanagàticastilla	Rice
Arueja legumbre o arveja	Pizàa castilla làa arveja	Pea
Azahar	Queyaga naranjo	Orange blossom (tea)
Aceituna	Piachecastilla, nìtitiezaa nica	Olive
Berza o col	Nòcuana coles	Cabbage
Berenjena	Nòcuana castilla cicayaxo	Eggplant
Berro yerba	Nòcuanaqueza pijchi, laapijchi laapeche	Garden cress herb
Cabeza de ajo, cebolla, cardo, lechuga o así	Còo, pìchijgo, xanacòonocuana ajos	Garlic head
Calabaza de esta tierra, generalmente que se comen	Quèeto	Pumpkin from this land (America)
Calabaza de Castilla	Quèetocastilla	Squash from Castilla
Caña de trigo o cebada o así	Cobaxoopa castilla	Wheat reed or barley cane
Caña verde de maíz	Nitetoça, nitezehea	Green cornstalk
Cana seca de maíz	Quìa, quianiza	Dry cornstalk
Cana de maíz que mascan y chupan verde	Quela, tobilochaquela, es metáfora	Green cornstalk that they (natives) chew and suck on
Cana dulce	Nite	Sweet “sugar” cane
Cana dulce mondada para comerla	Nocuana quechipelao, xanaquechipalao	Sweet cane peeled for eating
Cardón	Quechipelao	Nopal cactus
Cilantro	Nocuana quizetoti castilla	Cilantro
Cilantro seco	Xaa quezetoti castilla	Dried cilantro
Zanahoria	Coo naziñaa castilla	Carrot
Cebolla	Xijto, latijto, nocuana xijto	Onion
Cebollino	Xaa peche laaxijto	Green onion
Cebolla albarrana	Xiçobi yaqui	Squill or sea onion
Cerezo árbol	Yagapiziaa	Cherry tree
Cebada	Xòopayati castilla tago mani	Barley
Cidra fruta	Nocuàna cidras, queto, castilla.l.cìcanàcaqueto nayy castilla	Citron
Ciruela de Castilla	Piache castilla	Plum from Castilla
Ciruela de esta tierra	Piaache	Plum from this land
Ciruelo árbol	Yagapiache	Plum tree

Dátiles	Nocuananàticaayagaciña ipij goyagaçina	Dates
Durazno de la fruta	Nocuàna nàaxe duraznos	Peach
Frijoles limpios	Pizaapàa	Clean beans
Frijoles grandes de entre el maíz	Pizàaela	Big beans in between the corn
Frijoles pequeños que se siembran por ahí	Pizàalàce	Small beans that are grown around
Frijolitos de que se sacan aceite	Pizàaqùezèaho, nocùanahuìgo	Small beans from hich oil is taken
Fruta de maguey	Pigo vel piijo	Maguey fruit
Fruta de Pana	Nocuana castilla	Breadfruit
Gajo de uvas	Tòopichòli, pizòono pichòli	Sprig of grapes
Higo fruta	Quìchipèe castilla	Fig
Yerba buena	Nocùana peti, pìti, pete	Yerba buena, herb
Lentejas	Pizàa huini, pizàa;ace castilla	Lentils
Lima limón	Pehuij nayycastilla	Lime
Mazorca de maíz	Yagatop cacheni tocàoni	Corn in the cob
Maguey árbol de esta tierra	Tòba, yàga tòba	Maguey tree from this land
Maíz grano-trigo de las indias	Xòoba, xòopa jòoba	Corn grain- wheat of the indies
Maíz grueso o escogido	Xòopayàati, napèe, huèpèe	Big corn
Maíz blanco	Xòopayàti, pinijyàti	White corn
Maíz pintado	Pizàahui, xòopapizàahui zàahui	Painted corn
Maíz colorado	Pinij quicotòo	Red corn
Maíz que se hace y cría en 50 días	Pinij quij cotòo	Corn that grows in 50 days
Manzana fruta	Yàga pelòhuij	Apple
Manzanilla yerba no la hay so o flor como ella	Guije manzanilla	Camomille flower
Melocotón	Nocuànaaxi castilla	Peach or nectarine
Melón fruta de Castilla	Quèto castilla	Watermelon from Castilla
Naranja	Nocuana naranja	Orange
Oliva o aceituno	Yàgapiàchetitijazàa castilla	Olive
Oliva fruta	Piàche castilla	Olive fruit
Orégano no lo había fino otro monte como ello y llamarse	Guijehuà ce.l.quije	Oregano
Perejil yerba conocida	Nocuana cìca quèza tòticastilla	Parsley
Pimienta	Quijña castilla	Pepper (spice)
Piña de esta tierra fruta dulce	Xijcho, tòbaquèla	Pineapple, fruit from this land
Pita o cáñamo como hebra de maguey- y blanda-	Quèechechuij	Hemp from the Maguey plant
Pitahaya fruta de cardón como higos	Pichij	Pitahaya, fruit from nopal cactus
Plátano fruta	Pitòhua castilla	Plantain

Animal and animal products

The second group within the dictionary analysis is the animal and animal products category. This one was more problematic to develop than the edible plants group. It was in this group that a distinction between animal names as food sources and animals merely mentioned as fauna was difficult to make. As seen in Table 2.3, Córdova only provided additional clarifications for some of the terms in this category. It was difficult in some of the cases to discern if Cordova was referring to the animal as a living being, or to the animal as a food source.

As with plants and plant products, Córdova also actively identified the area of origin of certain animals or animal products, such as the case of chicken eggs as seen in Table 2.3. Córdova's recorded Zapotec terms for European-introduced animals are hybrid terms that include a Zapotec name and the Spanish word *Castilla*, as we observed in the terms for introduced plants.

In addition, multiple animal products, like meat cuts and eggs are mentioned in the dictionary. Venison, chicken eggs, fish eggs, and honey are some of these concepts. All such terms are definite food sources.

Chase and Brown (1981) argue that Zapotec language does not associate animals the same way as Spanish language. They argue that animals in Juchitán[8] Zapotec can be divided into 4 different types: fish, snake, wug (small animal) and mammals. Chase and Brown identified the morpheme *mani* as a Zapotec label for small mammals as well as

[8] Juchitán is a large Isthmus town of Zapotec-speakers. It is located 27Km from Tehuantepec and 17Km from Chihuitan where Rancho Santa Cruz is located.

Marlett and Pickett who identified this same morpheme as a label for animal (2008). As seen in Table 2.3, a wide different variety of animals contain this morpheme, e.g. goat= *manìcolóxo* and turkey= *manìçòbachijtaxìlla*. According to Brown and Chase, since the Zapotec language does not have a class for birds it is not common to include birds within the wug animal category (Chase and Brown 1981). Other semantic groups include those which are specific to the type of animal or animal product they refer to, like *–pète* for poultry, and *–chijta* for eggs.

Table 2.3: Food sources: animals and animal products

Spanish	Zapotec	English
Almeja, concha	Ninayòolani, xigaapela	Clam
Ave ponedora	Màne tibàquichita velozàana	Laying bird
Barbo pescado	Péla	Catfish
Cabra o cabrón; chivo	Manìcolóxo	Goat
Camarón pescado los chicos	Pèlapihue.l.pihui	Small shrimp
Camarón mayorcito medianillo	Piteça	Medium size shrimp
Camarón grande	Mani coxòno	Big shrimp
Cangrejo de tierra	Pèetope	Land crab
Cangrejo de agua	Manipee.l.mane	Water crab
Carne de venado	Pelachina.l. pela pichina tani	Venison
Carnero animal	Mani pecoxilla	Sheep
Concha de pescado	Chita a çooxipela	Shell fish
Conejo	Peela, peelalace, nacequicha	Rabbit
Cordero; borrego	Xinipecochilla; pecoxillahuini	Sheep/ lamb
Costilla de espinazo	Chitateximi xicheni	Ridge rib
Costilla	Chitateximi	Rib
Chivo o cabrito	Manicoloxihuini, xinimauicoloxo	Goat
Faisán	Pètexijca	Pheasant
Faisán negro de esta tierra con cresta de plumas	Pète coquì, pètepòo	Black pheasant from this land, with crest of feathers
Gallina de Castilla	Pèrecastilla; pètecastilla ("por la cresta")	Chicken from Castilla
Gallina de esta tierra	Pètehuelàche, pèzezaia	Chicken from this land[9]
Gallina ponedora	Màni tiba quichiquita	Laying chicken
Gallina esta bermeja	Pète yòo	Red hen

[9] I believe that Córdova in this term is not referring to a chicken but to a mid-size fowl, like a turkey, since chicken were introduced to the new world by the Europeans.

Ganado mayor	Màniròba	Cattle
Hígado de animal	Làchiquèta làchitàoèta	Animal liver
Lagarto grandezillo que comen	Cotàche; oyeguàna	Iguana
Lechón	Xìnipèco pène	Pork
Pavo	Màniçòbachijtaxìlla	Turkey
Perro	Pèco	Dog
Pescado	Pèlla	Fish
Pollo hijo de aves	Xini mani, mani	Bird
Pollo hijo de gallina de castilla	Petequìti, xinipète castilla	Chick from Castillian hen
Pollo hijo de gallina de esta tierra	Xinipètehualàache	Chick from hen of this land (i.e. turkey)
Puerco	Pècopèhueniguijo	Pig
Puerco montes/ javelín	Péhuetáni; péhuequijxi	Peccary
Rana de comer	Pèchecolijo	Eating frog
Ratón	Pizijña	Mouse
Ratón grande	Coyè	Agouti
Res	Tóbiquíquemáni	Cow (maybe horse) beef
Robalo pescado	Pèlapèhue	Bass fish
Sábalo pescado	Pèlaquegòo	Sabalo fish
Serpiente / Culebra	Pèlatòxo; pèla	Snake
Tortuga	Pègo; pègochij	Turtle
Venado	Pichìnaquijxi,pichìnatàni	Deer
Huevo fresco	Chijta còbi	Fresh egg
Huevas de pescado	Xìnini, con lo que es	Fish roe
Huevo de cue	Chijta, chijta tibaquí, mani.l.chijta piguini	Unknown
Huevo de gallina de castilla	Chijta péte quiti. Chijta quìti	Egg from Castillian chicken
Huevo de gallina de esta tierra	Chijta pète hualàache	Egg from chicken from this land

In 2007 Elizabeth T. Newman completed a faunal analysis of the bones excavated at the Rancho Santa Cruz. In her findings Newman (2007) was able to identify 15 different mammals, 2 different types of birds, 2 species of fish and 6 different types of reptiles. Most of the species found in Newman's faunal analysis are mentioned in the dictionary except for raccoons and armadillos, both native to the New World. The bone assemblage for Rancho Santa Cruz predominately encompasses wild game. As discussed in Chapter I, the ranching economy on the Isthmus boomed during early 17th century, the same time period Rancho Santa Cruz was occupied. People at Rancho Santa Cruz

participated in this colonial economy using domestic, European-introduced animals (Zeitlin 2005).

Utilizing a minimal number of individuals (MNIs) analysis, Newman was able to identify 20 mammals in the Rancho Santa Cruz bone assemblage: (1) even-toed ungulate, (1) cow, (1) dog, (1) goat or sheep, (1) deer, (3) armadillos, (1) mouse, (1) human[10], (2) white tailed deer, (1) raccoon, (1) rodent, (1) pig, (1) rabbit, and (1) unspecified carnivore. MNIs for birds at Rancho Santa Cruz show: (1) turkey and (2) wild turkeys. MNIs for fish show: (3) Atlantic Croakers, (1) bony fish, (1) Catfish; and for retiles: (1) Central American River Turtle, (1) Box and Pond Turtle, (3) Green Iguana, (1) snake and (1) tortoise and/or turtle. If we look carefully at these numbers, we can observe how the highest MNIs belong to native wild game (iguanas, armadillos, and white tailed deer); evidencing the preference among Rancho Santa Cruz inhabitants of wild animals over domesticated livestock.

These bones have butcher marks and burn patterns consistent with traditional food preparation techniques. According to Newman (2007), only 7% of the bones show burning due to open fire, arguing that these animals were cooked in stews or soups rather than grilled. The inhabitants at Rancho Santa Cruz continued to hunt and consume familiar wild game in abundance, but they also consumed both large (cow) and medium-sized domesticated animals (sheep or goat). The numbers of such animals represented in the assemblage is small, but they would have contributed a disproportionately large

[10] The human bone in the collection was identified by Newman as a human tooth. According to Newman (2007) it is possible that this tooth was pulled from a skull.

amount of meat. Given how few individual bones were found in Domicilio 1, it seems likely that these larger animals were reserved for special situations, perhaps after the death of an animal or for some festive occasion, for which the meat would be widely shared among many households in the Rancho Santa Cruz community.

Prepared food or meals

This category encompasses processed foods or meals mentioned in the dictionary. Prepared foods or meals have been defined as those foods that are composed of two or more ingredients and/or have been altered or created using a heat source. This category includes dishes like stews, soups, breads, desserts and other delicacies or *manjares.*

For the purpose of this investigation, four sub-categories of prepared foods have been defined. These categories were created using the generalized ideas of cuisine and foodstuffs within modern Latin-American Spanish.

Grain-based goods

The category of grain-based goods encompasses mostly breads of different kinds of ground grains, like corn, wheat or barley; as well as desserts, like crullers (*buñuelos*); and of course maize *tortillas*. As seen in Table 2.4, most of the terms in Zapotec in this category contain the morpheme *Quèt-*; all the concepts containing this morpheme have two things in common: 1) their main ingredient is some kind of grain dough, and 2) they are cooked by baking the dough. Most of the items in this group are common components of a Spanish diet. Wheat and barley were brought over by the Spaniards to

the Americas as part of the colonizers' diet. Spanish-style bread using a leavening agent was not part of the pre-Hispanic food culture in Mesoamerica[11]. On the other hand, breads are a staple in a Spanish meal and a very important pillar of the Catholic faith, i.e. the breaking of bread and the Holy bread. Córdova's dictionary was created with the purpose of helping Spanish missionaries convert the indigenous population into Catholicism. For Catholics the sacrament of Holy Eucharist[12] and communion is one of the most important aspects of religious life. It is understandable that Córdova would provide his fellow missionaries with the essential terms that they would need to convey these beliefs among the indigenous population. On the other hand, only a few of these items are related to religious activities, the majority of them are associated with general food consumption. Córdova provides his fellow missionaries with the terms needed for them to order, describe, explain, or understand the foods that they have available or even desire to consume.

[11] According to Bauer (1990), the native diet was relentlessly compressed into what came to be known as the holy trinity of maize, beans and squash. By the early twentieth century, the maize tortilla had come to contribute some 70-75 % of the total caloric intake of ordinary people, a much larger share than it represented centuries earlier (Bauer 1990:9).

[12] Catholic Holy Eucharist is a sacrament and rite performed during mass in which the priest. It is reenacted in accordance to Jesus' instructions at the Last Supper. It is believe that it converts the bread and wine in the flesh and blood of Christ.

Table: 2.4: Prepared foods: grain-based goods

Spanish	Zapotec	English
Breads		
Bollos que se hacían antiguamente para comer en las fiestas del demonio	Quètalace, làace.l.quètapitola	Rolls that they (natives) used to do to eat in the gatherings for the devil[13]
Bollos de pan o pan en bollos	Quètapitola, quètanatola	Bread rolls
Pan de trigo	Quètaxòopa castilla	Wheat bread
Pan de cebada	Quètaxòopagàte castilla	Barley bread
Pan de acémate	Quètaquijxixòopa castilla	Bran bread
Pan de maíz que comen los indios	Quètaxòopahnalàchi	Corn bread that the Indians ate
Rosca de pan	Quètapixoni	Wreath shaped bread
Masa generalmente	Còoba	Dough
Masa de harina de trigo	Còoba castilla	Wheat dough
Tortilla de maíz o pan tendido así	Quèta maxàta, quètaxòba, xòba.f. tendida	Corn tortilla
Pastries and desserts		
Pastel para comer	Quètacòohuì pela	Cake/ pie
Buñuelo o almojábana	Quèthiña	Donut or cruller
Hojaldre	Quètazàa quetanòchazàa	Pastry
Rosca media de pan o bollo	Quècara pitìguini	Wreath shaped bread
Melcocha	Tòoñupichiña.l. hupicina	Sugar made candy/desert

[13] These rolls were traditionally made out of amaranth paste. Catholic missionaries banned the planting of amaranth and it is most likely because of this religious association with the devil that Córdova did not include the word amaranth in the dictionary.

Stews

The other main component of this category consists of stews or mostly stew-like meals. Most of them need to be boiled, stewed, steamed or baked. The most outstanding ones are the *manjares*; the word *manjar* suggests exceptional meals, if not luxurious in nature. The selection of this word reflects the esteem that Fr. Córdova had for these delicacies. Writing a hundred years later, Fr. Francisco Burgoa, was also very fascinated by these Zapotec special dishes. In his Descripción Geográfica Burgoa described in detail a few of his favorites::

> "…pavos grandes de la tierra y de éstos aderezaban con pimientos secos molidos, que llaman los mexicanos chilhuaque y pepitas de calabaza y hojas de yerba santa, o aguacate, con agua lo concían para el guisado que en mexicano llaman totolmole, tambien de las pavas hacían con el chile molido, envueltos en masa de maíz y sobre ésta una cubierta de las hojasde aguacate y los entran a cocer en ollas o hornillos de tierra y en cazolones o jícaras…" (Burgoa 1674:398).

This could be the description for the *manjar de ave con pepitas y caldo*, found in the dictionary. Other similar *manjares* include: *manjar de carne cualquiera* (meat delicacy or dish), *manjar de aji y tomate* (peppers and tomatoes meal),and *manjar de pescado así con su caldo* (fish in its broth dish).

In addition a very interesting phrase was identified referring to stew of some kind, which explains how it was prepared. The phrase *Gallina guisada en petate*, when translated directly refers to a chicken stewed in a *petate*. A *petate* is a mat that traditionally is laid on the floor and utilized as a working or consumption surface or it can be used a sleeping surface. However, in this case (*gallina guisada en petate*) it seems that this connotation denotes the way the dish or meal is prepared and not how it is

served. A local folklore story told by journalist Miguel Palma (2009), says that Cortes' favorite cut of meat was *tasajo*, "One day the natives added certain condiments and then wrapped it in a *petate* to cure it and conserve its consistency. When the meat was cooked, they noticed that its flavor had changed and that was when *carne cecina*[14] was created" (Palma 2009). This could have been the case with the *Gallina guisada en petate* meal. This example suggests the indigenous origin of these types of meals.

In addition to these special meals, there are meat products, like stocks, lards, boiled and cooked eggs, fried meat, among others; and plant-based meals, like toasted corn that pops, and different types of flours in the prepared foods category.

Table 2.5: Prepared foods: stews and meals

Spanish	Zapotec	English
Stews and Dishes		
Gallina guisada en petate	Pèteyè, tàa pèeteyèe	Chicken or turkey stew
Maíz esto sancochado de esta manera	Tozàle, nillaya, toçòba nillaya	Corn stew
Manjar de ají y tomate	Quiña, niçaquiña petòxe	Meal of peppers and tomatoes
Manjar de ave con pepitas y caldo	Quiña tào pète	Meal of chicken and pumpkin seeds and stock
Manjar de pescado así con su caldo	Xòope èlla	Meal of fish with its stock
Manjar de carne cualquiera	Xòope- con lo que es	Meal of any meat
Manjares del demonio- comida que comían por sacrificios y fiestas antiguamente los indios	Làce, pitòbi, tigàlòo, qçoàça, còbayàa	Meals of the devil that they (natives) used to eat at sacrifices and gatherings
Tierno guisado de carne o así	Nacòoche, hueàa huayàa	Meat stew
Pastel de gallina en petate	Pèteyèe	Chicken in *petate* (see above)
Caldo de cualquier cosa guisada	Niça, niçaxope	Stock, from any stew
Caldo de carne	Niçapela, niçazaa velnixazopepela	Meat stock
Caldo de gallina	Niçapete, niçaxopepete	Chicken stock
Sopa de pan vide bocado	Quètatiche tiche	Bread soup
Sopa mojada	Quèta càna xòpe	Liquid soup

[14] Meat that has been salted and dried by means of air, sun or smoke.

Tamal de carne que hacen los indios	Quètacòhupèla, vel quèla, còo	Meat *tamal* that the Indians prepare
Tamal de los otros sin carne	Quèta bàche, quètacòo	Meatless *tamal*
Tamal de gallina en petate	Pèteyèe, tàhapèteyèe	Chicken *tamal*
Empanada de carne	Quetacòopèla, quetagòhuiipèla	Meat *empanada*
Empanada de pescado	Quetacquetacòo, quetagoohuipèlla	Fish *empanada*
Empanada como gallina en petate	Pète yèe, l.vt fupra	Chicken *empanada*
Torta	Quèta maxàta, quètaxòba, xòba.f. tendida	Sandwich
Cooked and prepared animal products		
Carne frita mucho	Pela pixquixo	Fried meat
Carne picada o de pastel	Pelayohui	Cut meat
Carne mallugada	Pelayane	Tenderized meat
Chicharrón	Pelapiquixo, con lo que es	*Chicharrón* (deep fried animal skin)
Molleja de aves	Xìllaquè çomàni	Gizzards
Morcilla	Xicij pecopehuequichàatini, nachaa tìni	Blood sausage
Lardo de puerco	Zàapèco pèhue	Pork lard
Manteca o sebo	Zàa, zàa pèla	Lard
Manteca derretida	Zàa niça, zàapeàa	Melted lard
Manteca de vaca	Zàa pichijnacòna	Cattle (cow) lard
Manteca de puerco	Zàa pèco	Pork lard
Blando huevo asado	Nacoche, Nachochi, chìtana cochi	Soft roasted egg
Yema de huevo	Xicòele, chitapète, vide huvo xicoa	Egg yolk
Clara de huevo cocido	Ninagati chita pete	Boiled egg white
Huevo asado cocido uno	Chijtapète, naquijchi	Roasted egg
Huevo este blando	Chijta pète nagàa	Soft egg
Huevo con pollo	Chijta nòo màni	Egg with chicken
Cooked plant products		
Maíz tostado	Titòba xòopa	Toasted corn
Maíz tostado que revienta	Xòopa pèche.l.quíe xòepa	Corn than when toasted pops
Maíz cocerlo	Tozàalèa	To cook corn
Maíz cocido ser así	Tiàlea, tiçòba xòopayàle	Cooked corn
Maíz sancochado para hacer pan	Nilla, xòopanilla	Corned prepared to make bread
Tostar maíz como lo tuestan los indios	Toquìchia xòopa, toròba xòopaya	Toasted corn, like the Indians do it
Tostar pan o así, secarlo mucho cuando hace vide frito		Toasted or fried bread
Meollo de fruta seca	Làchi, làchini	Mix of dry fruits
Meollo de tuétano	Yòbachìtia	Mix of marrow
Meollo de grano de maíz	Làchi, xipènepàa, xipènipàa	Mix of corn kernals

Drinks

Finally, the last category was constituted of beverages or liquid items of consumption. Some of these liquids are not necessarily drinks, since they are mostly used in the food preparation process. Others are specified stages of food processing, like *agua cocida*= boiled water. However, most of the liquids are beverages, in some cases alcoholic drinks and in instances they could be medicinal.

Shortly after Cortes' arrival in Tenochtitlan, he and other *conquistadores* were invited to an audience with Moctecuhzoma at his breakfast table. When they arrived they noticed the Aztec ruler sipping an exotic drink called *xocóatl,* in Nahuatl, meaning chocolate. Chocolate was prepared in many different ways, numerous flavors could be added like *chile* pepper, vanilla and other spices (M. Coe 1994), but the addition of sugar or other sweeteners was a post-Conquest innovation.

Cacao was a highly valued commodity in pre-Hispanic Mexico. Its consumption was usually associated with royalty, the nobles and the high power spectrum of society. Priest had access to it during religious rituals. In addition it was used as a medical remedy, exchange medium and eventually the Spaniards came to enjoy it as well. In today's Oaxaca cuisine, it is an integral ingredient of many different dishes and meals including *mole*[15].

[15] Mole is a sauce prepared out of chili peppers, several spices and in some cases chocolate. It can be found in multiple varieties of flavors; most of the times their names are derived from the colors of the different moles. While it is unknown if Mole sauce was prepared during pre-Columbian times it has become one of the signature ingredients of Oaxaca cuisine during modern times.

Figure 2.3: Chocolate offering in a marriage ceremony, Codex Zouche-Nattall[16].

Pulque, although not mentioned in the dictionary, was the pre-Hispanic drink made from the fermentation of the maguey or agave[17] sap. Its exact origins are unknown; however, this drink was considered at some point a sacred one. It became a popular drink during the colonial period, when strict sanctions surrounding its consumption were loosened and the Spanish government profited from its taxability. However, during the 20th century with the introduction of beer, this beer-like drink's consumption declined. *Pulque* became associated with lower-classes in certain parts of Mexico.

On the other hand, the post-conquest drink of *mezcal* has become one of the people's drinks. This alcoholic beverage was made from the fermented sap of the

[16] Codex Zouche-Nattall is a pre Columbian book of Mixtec writing. It records genealogies, alliances and conquests of several 11th and 12th century rulers of a small Mixtec city-state in highland Oaxaca. Original codex located at the British Museum, London.

[17] Agave it is not grown locally in the Isthmus. Today it can be found in the Oaxaca Valley and Highlands.

maguey or agave plant. Because of the availability of the ingredients and the low-technological requirements for its production, *mezcal* is an accessible drink. However the alcohol distilling technology was not found in Mesoamerica until the arrival of the Spanish *conquistadores*; it was during colonial times that Spanish settlers started experimenting with the maguey plant extract.

Córdova's collection of drinks is smaller than that for other types of consumable items. This does not mean that the people living in Oaxaca only consumed those beverages, but that the Friar may not have valued other beverages as much as his other interest or that they did not played an important key role for converting Indians into Catholicism.

Table 2.6: Prepared foods: drinks

Spanish	Zapotec	English
Agua	Niça	Water
Agua caliente	Niçachàa	Hot water
Agua congelada de hielo	Niçapìniji	Ice
Agua envinada, vino aguado, Vino	Niça yaa, niça nochalaci vino	Water with some wine, or watered down wine
Agua de ají	Niçaquiña	Pepper water
Balsam licor	Quienite, nocuana quienite	Balsam liquor
Bebida de cacao	Niça pizòya	Chocolate drink
Brebaje- todo lo que emborracha	Nizoo	Drink, anything that intoxicates
Cacao fruta como piñones que beben en brebaje	Pizoya	Cacao, the ones used for the drink
Cacao asi hecho con miel	Niçapzohchiña	Cacao with honey
Brebaje- cualquiera hecho con agua	Niça + con lo que es	Drink, anything made with water
Mexcal maguey	Quìetòbayee, quiquietòbayèe	Mezcal
Zumo generalmente o jugo	Niça, tini	Juice
Zumo dulce cualquiera o licor	Nupi, niçanupi, nùpinaxi, tini	Sweet juice or liquor
Leche cruda	Nichiàa	Raw milk
Leche buena	Nijchinàanal nàana	Good milk

Vessels and Utensils

This category encompasses food preparation and food serving vessels, utensils, and other domestic artifacts. The purpose of collecting these terms was to find evidence of both technological changes in food preparation traditions and changes in food serving customs, in addition to searching for terms, descriptions or uses of the vessels found in the Rancho Santa Cruz site. The majority of these terms encompass cooking, storing and serving vessels but the category also includes utensils and other household items.

One of the most interesting finds of this analysis was the words *queçopichàcha* and *tihìpichachà.* Both words refer to a jar with holes used for washing corn, also known as *pichancha* (Córdova 1578), as seen in table 2.7. This description matches one of the ceramic forms found in the Rancho Santa Cruz collection, the *pichancha*. A commonly used word today among Isthmian residents, the word *pichancha* is a derivative of the Zapotec word *queçopichàcha.*

In addition to this concept, *queço* (*olla*), and *peziña, peziñaqueço, thih.l.piziña, pezijñayòo* (bowls), can be associated with the Rancho Santa Cruz archaeological assemblage. Even though it is impossible to specifically classify the exact type or size of *olla* Fr. Córdova was referring to when he collected these terms, they reflect the general ideas of the vessel types already evidenced in the archaeological record.

As with previous categories, some morphological links could be established within this group. For example the morpheme *lani-* can be associated with fragments or

parts of vessels, in specific body parts. In addition, one term was identified as a hybrid-term. The term for "table in which we eat" = *Yaga quètatàgoni lo una, yaga mesa tagoni*, is composed of a Zapotec term and a Spanish term. According to Marlett and Pickett (1988) in modern Zapotec the morpheme *yaga* can be translated as tree, wood, firewood or stick.

The concept of table is one that raises several inquiries and interesting issues about the colonial indigenous household on the Isthmus. Archaeological evidence has indicated that what we know as a table did not exist in pre-colonial Mesoamerica. Traditionally and most extensively in the Postclassic period, bowls with tripod supports, like some of the ones found in the Rancho Santa Cruz, were placed on the *petate* and used as communal serving vessels. This was a common practice all throughout prehistoric times in broader Mesoamerica. As it will be explained in Chapter V, the decrease of these vessel supports in the later levels of Rancho Santa Cruz's archaeological assemblage may be a clue that this particular way of consuming meals has changed.

Finding the term of *mesa en donde comemos* supports the idea that this furnishing was brought by Spanish colonist or missionaries who settle in the area. Even though it does not prove that tables were actually used in indigenous households at this period in time, since Córdova references to it in a plural first person, i.e., table in which we eat, table in which we (Spanish) eat. However, archaeologists like Lind (1987), have argued that the introduction of tables or elevated eating surfaces by the Spaniards did in fact change the way indigenous people consumed their meals. In Lind's case the author

examined the absence of vessel supports in colonial pottery. Lind suggests, therefore, that the absence of vessels supports indicates that these vessels are being placed somewhere off the ground (i.e., table) and consequentially supports are no longer required or needed. The appearance of this term in the dictionary supports the idea that Spaniards did in fact introduce this furnishing to the Isthmus but it does not provide enough evidence to say that it was adopted by the indigenous households.

Table 2.7: Vessels, utensils and other household items

Spanish	Zapotec	English
Vessels and utensiles		
Asador en que se asa	Quiba.l.yagatàaquipela.l. tizàapella	Grill
Barriga de olla o cántaro	Lànitao, lani tihi, laniqueço, nacequijlani	Body of jar
Caldera	Nichaatao quibanaxiñaa	Caldron
Coladero con lo que se cuela	Latitibibani. Tichibani	Colander
Costado o barriga de olla o cántaro por dentro	Lani, lathootihi	Body of pot
Cernidor	Cobbi, huezacha	Sieve
Mazo para majar	Yagatocaceni tocàoni	Masher
Majador o majadero el instrumento	Nitoc nitocào, nitocàche	Masher
Moler como harina en Molino o piedra	Tòotòa, pèe	To grind like flour in a stone mortar
Moledera india que hace pan de maíz	Huèeto	Indian mortar in which corn bread is prepared
Moledor piedra con que muelen las indias- vide metapitl	Quiche	Stone mortar that the Indians use
Mortero	Quìe qìche.l. yaga, quie tocàio, ticào	Pestle
Olla	Queço	Cooking jar
Olla agujerada en que lavan el maíz	Queçopichàcha, tihìpichachà	Jar with holes in which they (natives) wash the corn
Panera para pan cocido	Ninèpa quèta, y yè, lìchiqueta	Bread container
Parrilla de hierro para asar	Quibalòona, quibapilijtiquijopèlla	Iron grill
Platel ó plato	Quènazàa	Plate or soup bowl
Cacharro de olla cántaro o así	Peziña, peziñaqueço,	Bowl

	thih.l.piziña, pezijñayòo	
Cuchara	Manixahuaco, huabilla	Spoon
Cuchara de barro	Xijcapee	Ceramic spoon
Cuchara de hierro	Xijcapee, copeequiba	Iron spoon
Cuchillo	Queça, quiba	Knife
Household items		
Mesa en donde comemos	Yaga quètatàgoni lo una, yaga mesa tagoni	Table in which we eat
Mecha de cadil o lámpara	Tòotàaqui, tàquini	Candle stick
Mechero de candil o lámpara	Quibatizàatòotaquini	Candle stick holder
Red para peces	Tòopèla, tòoquixepèla.l.pèlla	Fishing net
Red para venados	Toòpuchina, tòochina, còoquixechina	Deer net
Red para conejo o liebres	Tòoquixepillàana, pèllapillana	Rabbit net
Red para unos pájaros chiquitico que llaman pèyo	Tòoquèza	Net for really small birds call pèyo
Vela de cebo para alumbrar	Quètizaa	Wax candle

Discussion

The main objective of the linguistic analysis of *Vocabulario en Lengua Zapoteca* was to identify terms associated with cuisine within Zapotec early colonial communities. As a result not only were cuisine-related terms identified, but a number of them can be associated with the archaeological assemblage of the Rancho Santa Cruz site. The methodology used to analyze this document consisted of a semantic interpretation of the concepts and terms encompassing the dictionary. The results of this analysis provided a broader understanding of the Oaxaca cuisine styles during the late sixteenth century, either by confirming the function of ceramic vessels or by representing food sources and food stuffs, i.e. *manjar de aji y tomate*; and the availability of them within the indigenous community of the time.

Through this analysis I was able to illustrate the diverse cuisine found in the Oaxaca region. By examining the terms in the linguistic study I was able to: identify a wide variety of Spanish-introduced foodstuffs most likely available to the Native population in the area, the way Zapotec people related to this newly introduced foodstuffs and the way in which Spanish colonizers related to local cuisine.

It is commonly known that Spanish colonists introduced a wide variety of plants and animals to the colonies in America. The way these new food sources were identified and called by the Native population tells us how this new foods permeated through culture. Hybrid terms identified in the chapter shows how these products were taken in by the native population or at least recognize enough to be name in Zapotec. It could be

argued that these hybrid terms containing both Zapotec and Spanish names for foodstuffs represent not only the presence of these foodstuffs in the area but their obtain ability within the Native population and furthermore their adoption and consumption by Native people. These hybrid terms evidence change in the local cuisine as people adopted these new foodsources.

On the other hand, we know for a fact that there was a need for Spanish colonizers, in specific missionaries, to learn Zapotec, hence the existence of this dictionary, however it is very interesting to observe the detail in which Córdova recorded and described certain foodstuffs. In Table 2.5, in page 38, we can see how Córdova recorded specifically the *manjares*, he not only gave them names, as best as he could, but also included ingredients and in one instance he commented in the tenderness of the meat in the stew (*Tierno guisado de carne o así* = tender meat stew).

In addition to identifying food sources this analysis provided a list of cooking vessels and utensils found in the region. Furthermore, some ceramic vessel shapes could be directly correlated to vessel sherds found within the Rancho Santa Cruz archaeological collection[18]. Vessel names not only describe the shape of vessels in some cases, but also the purpose or the use of them. In addition it provided us with a list of utensils and vessels that even though were not found in the archaeological record of Rancho Santa Cruz could have been utilized there i.e. mashers, pestle. There are multiple explanations for the absence of these artifacts in the archaeological record; for example, objects were removed when the site was abandoned, objects were not disposed, or people living at the

[18] See Chapter IV for more information.

Rancho Santa Cruz did not own this type of cooking utensils. The presence of the terms in the dictionary does not prove the presence of the artifacts at the site at any point in time; however, the terms prove that this type of cooking utensils were in fact available at a broader scale within the region or neighboring territories.

When integrating the information extracted from the prepared foods and the vessel and utensils categories, one can deduct how these meals were being prepared. As described before, the manjares and stews were soup-like meals, prepare in *ollas* or *Queço,* as identified in the dictionary. They were served in a *Quènazàa* or *plato.* As I will explain in further detail in Chapter III and V, *olla* frequencies at Rancho Santa Cruz, support the idea that Zapotec remain constant during colonial times. Zapotec Indians adopted Spanish introduced foodstuffs into their own cuisine. This adoption was not by imposition from the Spanish colonizers but rather by choice. Zapotec Indians liked newly introduced Spanish foods and adapted their recipes and cooking techniques to incorporate these new ingredients.

Finally, this examination of historical terms has provided a new approach to historical documents. Unlike other types of historical documents, i.e. land deeds, wills, or baptism certificates, the *Vocabulario en Lengua Zapoteca* was produced with a different purpose. As Zeitlin argues, all written documents were produced for specific purposes, and maintaining accurate data was not the prevailing purpose (Zeitlin 2013, pers. comm.). This dictionary was produced with the purpose of providing new missionaries with all the information that they would need to converse, interact and most importantly convert Zapotec communities to Catholicism. Furthermore, Fr. Córdova as a

white Spaniard missionary was biased by his own culture, religious beliefs and overall life experiences. It is for this reason that the dictionary itself only offers a crystalized view of Fr. Córdova's observations during the years he traveled and lived within Oaxaca and its different regions.

CHAPTER III

A PRODUCER ORIENTED CERAMIC ANALYSIS

Ceramics are often the most abundant artifact found at archaeological sites and Rancho Santa Cruz is no exception. Many archaeologists have developed, modified and adapted different ceramic analysis techniques for their own collections. It has been from these investigations that different perspectives, ideas, methods, discussions and conclusions have been brought to the debate of ceramic analysis.

Rice (1987) points out that the most elaborate and widely used system for archaeological ceramic classification is the type-variety system, established in North America in the late 1950's. This system is mostly utilized for creating, describing and naming comparable historical-index classificatory units. Gifford (1960) claims that this analytical system provides typological concepts that, once recognized and described, will inevitably repay the analyst by providing him with certain information otherwise unavailable or only available in part.

This classificatory system requires establishing pottery variables and types from a ceramic assemblage. Variables are the different attributes that can scientifically be examined from a pottery sherd or vessel, like paste and surface finishes. Meanwhile, a

type is a specific kind of ceramic exemplifying a unique combination of distinct attributes; which in addition identifies it as being the product of a certain cultural configuration with a known area of distribution and temporal significance (Gifford 1960).

In this investigation I draw on the modified type-variety system that was utilized by Zeitlin in 1990 in the initial cataloguing of the Rancho Santa Cruz ceramic assemblage. Ceramics were first classified by ware, a term which describes the particular clay and tempering material chosen by the potter and the conditions under which the pot was fired. Further attributes of surface finish and decoration were grouped into types within wares, as appropriate. These characteristics, along with vessel form, when identifiable, were noted for each potsherd as it was catalogued according to provenience (excavation unit and level).

A type-variety system can be called a producer-oriented analysis because of the way it categorizes ceramic attributes that were selected by the potter when she formed the vessel. When archaeologists utilize a type-variety system to analyze ceramics, they are not only observing elements of ceramic vessels and sherds but creating types which represent the potter's choices when producing vessels. A Tablón Orange type, as seen in this investigation, represents the choices on clay source, temper, forms, surface treatments, etc., that the potter decided upon to create the vessel. This analysis is based on a producer's perspective; in other words, ceramics are viewed and consequentially analyzed as the potter experienced them.

Rancho Santa Cruz archaeological assemblage

Before I discuss the results of the type-variety analysis of the Rancho Santa Cruz archaeological assemblage, I detail an overview of how the information utilized for the analysis was recovered and collected. The laboratory work for the artifacts collected from the sites was completed by Dr. Judith Zeitlin during two different seasons (Spring 1990 and Summer 1991). The majority of the descriptive information about the assemblage reviewed here was obtained from the field notes (Zeitlin 1990) and site publications (Zeitlin 2005 and Zeitlin and Thomas 1997). Handwritten notes and tallies for all sherds compiled in Oaxaca were subsequently transcribed into a database with the assistance of several graduate students in the UMass Boston Historical Archaeology Program. During the spring of 2008, Dr. Zeitlin gave me a copy of this electronic database, and utilizing MS Access's query tool, I was able to create tables that showed the different correlations between the ceramic wares, forms and surface finishes.

The Rancho Santa Cruz site consists of two different artifact concentration areas, the Lomita, where the artifact distribution indicated it was the place where a house had once stood, and Domicilio 1, a richer zone of domestic refuse. Eleven 1-m^2 test pits were dug at the Domicilio 1 zone. For the purpose of this investigation, the ceramic analysis has been focused on this second zone, Domicilio 1. The excavated units contained 8,787 ceramic sherds, corresponding to 63.09% of the entire Rancho Santa Cruz ceramic assemblage of 13,928 sherds.

Ware types are diverse within this collection including: Tablón Orange ware (Zeitlin 1990), Reu Silty ware (Wal1rath 1967), Barbacana White (Zeitlin 1978), Orozco

Coarse (Zeitlin 1978), and non-local glazed and majolica wares (see Table 3.1). Orozco Coarse is the most commonly found ware within the site; however Tablón Orange is the most diversely decorated. Although I am utilizing wares as type names, there is a difference between these concepts within the type-variety system. A ware consists in the physical materials from which pottery is made i.e. clay type, temper. On the other hand, a type is as specific kind of pottery that has distinct attributes, including ware.

Table 3.1: Domicilio 1 archaeological ware assemblage

Ceramic Ware	Frequency	Percentage in collection
Tablón Orange	1,724	19.62%
Reu Silty	1,949	22.18%
Barbacana White	468	5.32%
Orozco Coarse	4,587	52.21%
Glaze	3	0.03%
Majolica	37	0.42%
other	19	0.22%
Total	8,787	100.00%

Tablón Orange

Tablón Orange is the only ware, besides Spanish majolica and glazed ceramics that is entirely new to the Isthmus ceramic sequence (Zeitlin 2011, pers. comm.). This ware is only encountered after the Spanish arrival in the Isthmus region. This ware encompasses 19.62% of the Domicilio 1 assemblage; it is the most diverse ware found within the collection. Multiple surface finishing combinations can be observed within this ware type. A statistical analysis of the assemblage showed that 28.09% of the sherds within this ware show signs of either a slip and/or the application of an exterior and/or interior paint (see Table 3.2).

Slipped surfaces were made by applying a thin suspension of the same clay to the formed vessel before firing. This treatment was very susceptible to erosion (Zeitlin 1990). Slips were detected in three different colors, orange, white and red, which seem to be popular within the more densely decorated vessels. Orange-slipped vessels may in fact be "self-slipped." Self-slipping occurs when a thin layer of clay is left on the surface of the vessel after it gets wet or wiped. The white slip, observed in only 3.07% of the slipped sherds was applied in both the interior and the exterior surface of the vessels (Zeitlin 1990). While slip-treated vessels are mostly burnished, unslipped vessels show no sign of burnishing; moreover, some painted vessels may have been burnished post-paint (Zeitlin 1990).

Table 3.2: Tablón Orange surface treatment frequencies

	Frequency	**Percentage within Tablón Orange ware**	**Percentage within Domicilio 1**
Untreated	1,239	71.87%	14.10%
Slipped	120	6.96%	1.37%
Slipped and painted	142	8.24%	1.62%
Unslipped and painted	223	12.94%	2.54%
Total	1,724	100.00%	19.62%

Some vessels also showed painted decoration on one or both surfaces. Two main painted designs were identified. The thick-band design consists of 4.5mm to 6mm thick painted lines in white, light orange and/or black painted on the surface of a vessel (Zeitlin 1990). Most sherds are bichrome-painted with a design that combines horizontal bands of straight zigzag lines with diagonal stepped lines, circles and solid zones (Zeitlin 1990). Trichrome sherds are also present, combining white, orange and black lines; while

bichrome sherds combine only white and orange bands. Some all-white or all-orange painted sherds have been found too.

Table 3.3: Tablón Orange Thick-banded design

	White bands	Orange bands	Black bands	Bichrome (orange and white)	Trichrome (orange, white and black)	Total
Unslipped	23	4	1	151	0	179
White slip	0	1	0	0	0	1
Red slip	34	0	0	74	7	115
Total	34	5	1	225	7	295

The second painted design is referred to as "cursive white", as seen in Figure 3.1. It consists of 2-3mm thin bands of white paint applied to either the interior or the exterior of vessels; motif designs entail circles, waves, zigzag lines and/or curvilinear lines (Zeitlin 1990). Like the thick-banded design, cursive white can be found over orange-slipped and unslipped vessels, corresponding to 7.66% of the decorated Tablón Orange sherds.

The Tablón Orange assemblage encompasses multiple and diverse sherd types; bases, body sherds, rims, handles and supports. Rim sherds were mostly used to identify forms within the assemblage; however, bases and body sherds were also utilized. The majority of the vessel forms identified consisted of bowl-like containers, but *ollas*, *comales, pichanchas, copitas*, and *palmatorias* were also documented; see Table 3.4.

Figure 3.1: "Cursive white" decorated Tablón Orange sherds. Domicilio 1 site. (Photo by J. Zeitlin, 1991)

Vessel forms included in the ware are: *ollas*, characterized by their flat bases, globular bodies and restricted necks; *jarras*, distinguished by the amphora-like bodies and spouted openings; *comales*, which are smooth flat clay griddles; *pichanchas*, which are perforated clay *ollas*, out-slanting wall bowls, which are shallow almost flat serving bowls; hemispherical bowls, characterize by being fairly shallow serving bowls; vertical wall bowls, which are deep cylindrical drinking bowls; *copitas*, which are small drinking clay goblets and *palmatorias* a small round plate used for holding candles. Specific functions of these vessel types will be clarified in Chapter IV.

Table 3.4: Tablón Orange form frequencies

Form	Frequency	Percentage within ware	Percentage within collection
Out-slanting wall bowl	299	17.34%	3.40%
Hemispherical bowl	127	7.37%	1.45%
Ollas	20	1.16%	0.23%
Comales	5	0.29%	0.06%
Pichanchas	22	1.28%	0.25%
Jarra	5	0.29%	0.06%
Vertical wall bowl	5	0.29%	0.06%
Copitas	4	0.23%	0.05%
Palmatorias	9	0.52%	0.10%
Unidentifiable	1228	71.23%	13.97%
Total	1724	100.00%	19.62%

Reu Silty

Reu Silty was first identified by Matthew Wallrath in Late Postclassic (1300-1521 A.D.) excavations near Tehuantepec (Wallrath 1967). Originating in the Oaxaca highlands, this fine gray ware was introduced by Zapotecs to the Isthmus. Its usage extended beyond the Spanish conquest as the Rancho Santa Cruz site evidences. A significant portion of the Rancho Santa Cruz collection is composed of this gray ware.

Unlike the Tablón Orange ware type, Reu Silty ware is undecorated. No samples showing any type of surface treatment beyond the burnishing of the vessels before firing were recovered. This fine paste ware got its distinctive dark gray color by being fired in a reducing atmosphere. Fire requires oxygen to burn, but when oxygen is cut from the fire, the fuel does not burn completely creating a reducing kiln atmosphere. This kind of atmosphere produces high levels of carbon monoxide, which in turn can change the color and texture of clays and glazes. This fine ware was produced traditionally, like all pre-

Hispanic pottery, by hand; however, a small number (4%) of sherds in this assemblage show marks of a potter's wheel. As we saw with Tablón Orange, this newly introduced technology was applied to an existing indigenous ceramic tradition.

Table 3.5: Reu Silty wheel-made vessels frequencies

	Frequency	**Percentage within ware**	**Percentage within collection**
Wheel-made	91	4.67%	1.04%
Hand thrown	1858	95.33%	21.14%
Total	1949	100.00%	22.18%

Vessel shapes within Reu Silty are diverse in form and function. Strainer vessels seem to have a higher frequency within this ware, followed by bowl-shaped vessels such as hemispherical mouth bowls, and out-slanting wall bowls. Table 3.6 details frequency variations between vessel forms in this ware.

Table 3.6: Reu Silty vessel forms frequencies

	Frequency	**Percentage within ware**	**Percentage within collection**
Hemispherical bowl	76	3.91%	0.86%
Out-Slanting wall bowl	36	1.85%	0.41%
Vertical wall bowl	5	0.26%	0.06%
Pichancha	172	8.83%	1.96%
Copitas	2	0.10%	0.02%
Comales	1	0.05%	0.01%
Jarra	63	3.23%	0.72%
Ollas	49	2.51%	0.56%
Unidentifiable	1542	79.12%	17.55%
Total	1949	100.00%	22.18%

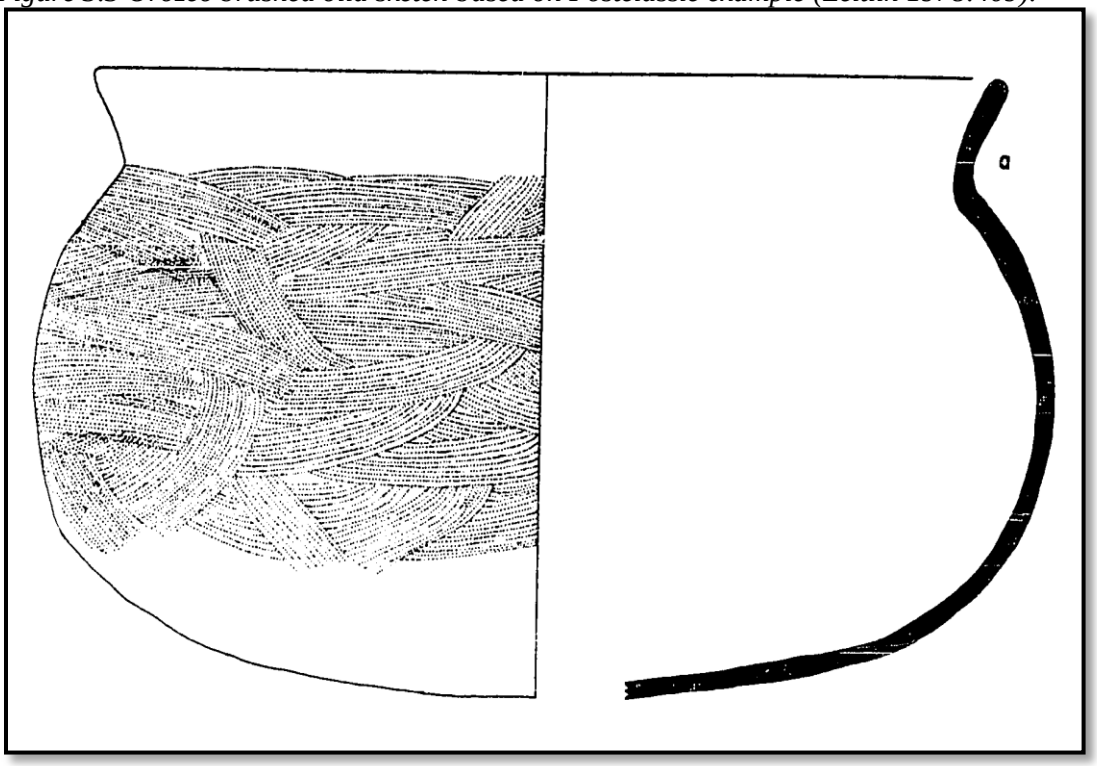
Figure 3.2: Reu Silty strap handles, possibly from olla vessels. Domicilio 1 Site (photo by J. Zeitlin, 1991)

Orozco Coarse

First classified by Dr. Judith Zeitlin in her doctoral dissertation (1978), Orozco Coarse can be identified by the coarseness of its paste. The temper of this ware consists on a moderate to dense concentration of white siliceous inclusions (Zeitlin 1990). These vessels were fired in an oxidizing atmosphere but usually incompletely, showing a distinct gray core (Zeitlin 1990). Surface colors range between a yellowish brown to a reddish brown shade. The Rancho Santa Cruz samples of this ware are indistinguishable from those found at Isthmus Late Postclassic sites. Le Reu Silty, this locally produced pottery shows great continuity well into the colonial period (Zeitlin 2013, pers. comm.).

Two different types of surface finished were identified: Orozco Undecorated and Orozco Brushed (Zeitlin 1978). The majority of the sherds in the Rancho Santa Cruz assemblage were identified by Dr. Zeitlin as Orozco Undecorated (99.06%). A self-slip was applied to the vessels by scraping on the interior and wiping the exterior (Zeitlin 1978). The majority of vessel shapes with this finish are *ollas* (7.56%), mainly because of their size. In addition, *pichanchas* and *comales* were also identified within this finish at lesser frequencies. Please refer to Table 3.7.

Figure 3.3 Orozco brushed olla sketch based on Postclassic example (Zeitlin 1978:409).



Orozco brushed

The Orozco Brushed vessel types share the same paste description as those cataloged as Orozco Undecorated. However, these vessels have self-slip surfaces that were wiped on both sides, after which the exterior body was brushed (Zeitlin 1978). This decorative motif consists of a random pattern produced by brush marks on the exterior below the *olla* rim (refer to Figure 3.3). The Orozco Brushed finish is limited to *olla* vessels forms. The brushed finish was only identified in body sherds at Rancho Santa Cruz. It is likely that many undecorated *olla* rims had brushed bodies.

Miscellaneous decorative finishes within Orozco

In addition to those previously detailed finishes, nine sherds presented a pink over white paint surface finish. These sherds seem to be part of a same vessel which has been classified as a large *olla*.

Table 3.7: Orozco undecorated vessel forms

	Frequency	**Percentage within ware**	**Percentage within Domicilio 1**
Unidentifiable	4021	87.66%	45.76%
Pichanchas	2	0.04%	0.02%
Large ollas	10	0.22%	0.11%
Ollas	388	8.46%	4.42%
Small ollas	56	1.22%	0.64%
Comales	110	2.40%	1.25%
Total	4587	100%	52.20%

Barbacana White

The Barbacana White represents a long-standing kaolin traditional ceramic on the Isthmus, with roots in pre-Hispanic Formative period (400B.C.-250A.D.) (Zeitlin 1978, 2013, pers. comm.). This specific ware began in the Early Postclassic period (1000-1300A.D.), pre-dating the Zapotec conquest. At Rancho Santa Cruz, these sherds might reflect earlier occupation of the site or heirloom pieces (Zeitlin 2011, pers. comm.). At Domicilio 1, this ware constitutes 5.32% of the Rancho Santa Cruz collection, with only 468 classified sherds. Decoration in the samples of this collection is minimal and erratic; only 3.48% of the Barbacana White sherds show signs of a red painted surface. As noted by Zeitlin in her 1978 study of this ware from Early Postclassic sites, most painted vessels were decorated with a red band on the exterior rim (Zeitlin 1978). In addition to the red-band decorated sherds, a yellow and orange slip was identified in two different undecorated sherds. Meanwhile the majority of sherds did not show any other signs of decoration. This ware consists of a kaolin paste ceramic with ocherous particle inclusions that tended to smear across the surface when the vessel was burnished. Because most of the sherds are badly eroded, it is difficult to say much about the surface finish. Oxidation appears to have been fairly complete in most cases, but some have a darker core (Zeitlin 1990). The erosion of vessel surfaces limited the observation and classification of surface finishes.

Vessel shapes consist mostly of out-slanting wall bowls encompassing 74.19% of the identifiable sherds, followed by *jarras* (9.68%), *pichanchas* (6.45%), hemispherical

mouth bowls (6.45%) and *ollas* (3.23%). However, the majority of the Barbacana sherds could not be identified as to vessel form.

Figure 3.4: Barbacana White ceramic sherds, Domicilio 1 Site. (Photo by J. Zeitlin 1991)

Table 3.8: Barbacana White vessel form frequencies

	Frequency	**Percentage within wear**	**Percentage within Collection**
Unidentifiable	437	93.38%	4.97%
Pichancha	2	0.43%	0.02%
Jarras	3	0.64%	0.03%
Olla	1	0.21%	0.01%
Hemispherical bowl	2	0.43%	0.02%
Out-slanting wall bowl	23	4.91%	0.26%
Total	468	100.00%	5.32%

Majolica and Lead-Glazed Ceramics

Different and varied types of majolica ceramics were discovered at Rancho Santa Cruz. Most of these ceramic sherds were observed at surface level. Eight different majolica types were identified by Lillian Thomas, Dr. Zeitlin's assistant, who compared them to established colonial majolica wares from major production centers in New Spain and Guatemala. Her findings are presented in Table 3.9. In addition, two different types of colonial glazed wares were also identified. Most majolica or glazed ceramic fragments are of minute size. Bowls and flat plates are the primary identifiable vessel forms.

Table 3.9: Domicilio 1 Spanish ware types

Majolica ware	
White glazed majolica	
Sub-types	*Production date / place*
White I	Colonial Period/ Mexico City
White II	Unknown
Cream majolica	
Sub-types	*Production date / place*
Blue on cream	1613 – 1650 / Mexico City
Green on cream	Late 16th century- late 18th century / Mexico City
Iridescent white	
Sub-types	*Production date / place*
Blue / green	Unknown
Polychromes	
Sub-type	*Production date / place*
Puebla polychrome	1650-1750 / Puebla, Mexico
San Luis Polychrome	1650-1750 / Mexico City
Lead-glazed ware	
Green glazed	
Sub-type	*Production date / place*
Plain green	Unknown

Discussion

This producer-oriented analysis provided a detail description of all the ceramic types frequencies in the Domicilio 1 assemblage. Ceramic types were compared within themselves and other across the collection. In addition, surface finishes frequencies were described and discussed.

Ninety-nine percentage of the Rancho Santa Cruz ceramic assemblage was identified as Zapotec in tradition and origin. Traditional Postclassic ceramic types like Reu Silty, Orozco Coarse and Barbacana Fine White ware comprise the majority of the Domicilio 1 ceramic assemblage. These results suggest that the Rancho Santa Cruz hamlet was occupied by indigenous households, since such a small percentage of Spanish-introduced wares was found. Even though this analysis did not established clear patterns of use in correlation to vessel forms, most sherds could be associated with food consumption. The lack of focus on vessel form in this type of analysis makes the task of identifying specific vessel usage a very difficult one. A different ceramic analysis has been completed in this investigation to further study the correlation between form and use within this collection.

Orozco Coarse is the most frequently found ware within the assemblage. As will be seen in further detail in Chapter IV, this specific ware is associated with food consumption vessels, mostly unrestricted forms used for food preparation and storage. Reu Silty ware, associated with pre-Colonial indigenous ceramic traditions, was the second most frequent pottery type found at the Rancho Santa Cruz. Interestingly,

evidence of the use of a potter's wheel in the production of some Reu Silty sherds was discovered. It is known that traditionally made Reu Silty forms continued post-conquest and the use of a potters' wheel shows how new technology was incorporated into this indigenous ceramic tradition. On the other hand, Tablón Orange proved to be the most diverse ceramic ware. Multiple and varied surface finishes were incorporated into this new ceramic form, including brightly painted decorations. It could be argued that this new ceramic type, not seen before colonial times might have been a response to the introduction of colorful Spanish Majolica into the indigenous markets. Using traditional design motifs widely found in Mesoamerican architecture, murals, and ceramics, but not represented in any of the Isthmus Postclassic ceramics, the Tablón Orange potters developed a new fashion in serving vessels that proved to be popular with Isthmus Zapotec households. Produced locally, it would have been more affordable than the Spanish imported and Mexican-made Majolica.

Barbacana White ceramics were seen more infrequently than the other local wares. The low frequency of this ceramic type could be explained by either a low market production of this ware or by the cost of the vessels, if indeed the examples in this collection are not heirloom pieces. Finally, Majolica and Glazed wares found within the collection were associated with the most recent occupational periods of the site. Found at surface level, these ceramic sherds represented less than one percent of the Rancho Santa Cruz assemblage. The presence of majolica ceramics in this site proves not only the colonial nature of the site, but also the accessibility of Spanish ceramics to indigenous populations.

The use of the type-variety system provides a great deal of information about chronology and the popularity of different kinds of pottery produced locally on the Isthmus. This view helps us understand the components of a colonial "kitchen" on the Isthmus. However, in order to understand the distribution by function of the vessels, a different analysis will have to be completed.

CHAPTER IV

A CONSUMER ORIENTED CERAMIC ANALYSIS

Traditionally, ceramic analyses in Mesoamerica have been concerned with questions of chronology, culture contact and/or diffusion. In the previous chapter, ware categories and types assign to the Rancho Santa Cruz collection using a type-variety ceramic analysis were discussed. However, in this chapter a different type of ceramic analysis will be applied to the same assemblage: a consumer-oriented analysis. This method, developed by Michael Lind in 1987, proposes a different view of ceramics. It proposes to analyze ceramics in the same way the person who acquired them did. According to Lind,

> As students we are thought to analyze ceramic artifacts in accordance with traditional models. Certain attributes such as paste, are assigned high priority in the hierarchy of ceramic attributes. Consequently, we often undertake analysis in accordance with traditional producer-oriented models without considering why we are doing what we are doing. My point is not that the type variety or any other producer-oriented model of ceramic analysis is the "wrong" model, but rather that models of ceramic analysis are designed to solve particular interpretive problems and that, therefore, there is no one "correct" model of ceramic analysis designed to solve all possible interpretative models (Lind 1987:3).

Ceramic artifacts that can be linked to a structure can function as a foundation to interpret the consumption practices in said structure (Lind 1987). The Rancho Santa Cruz Domicilio I collection is a perfect example of archaeological remains that can be used to reconstruct household consumption practices. One of the objectives of my research is to identify the correlation between vessel form and vessel usage; the consumer-oriented analysis provides the right tools for me to accomplish this.

According to Lind (1987), vessel shape, size and surface finishes are more important than paste and grain size in a consumer oriented approach. These particular attributes are importance due to the idea that unlike pottery producers, consumers are more interested in vessel function, size and looks rather than paste consistency and temper. In accordance with this type of analysis, my goal in applying the consumer-oriented approach is to understand how the ceramic artifacts from Rancho Santa Cruz functioned within the cultural system.

The first step in this functional analysis was to determine the forms identified in the Domicilio 1 assemblage. Utilizing a type-variety approach, like the one discussed in the previous chapter, Dr. Zeitlin was able to identify nine different vessel forms. These vessel forms were defined by using rim sherd fragments. Three different kinds of *ollas*, *jarras*, *comales*, *pichanchas*, out-slanting wall bowls, hemispherical bowls, vertical wall bowls, *copitas* and *palmatorias* were identified in the 1990 ceramic analysis. Then using Microsoft Access to query the database, I was able to identify the different form-finish combinations found within the assemblage. Finally, the last step was to correlate vessel form with function. This was achieved using the results from the data analysis,

interpreting types of information and data drawn by other archaeological studies and comparing vessel forms with words found in the *Vocabulario en Lengua Zapoteca* and ethnographical and ethnoarchaeological investigations in the area.

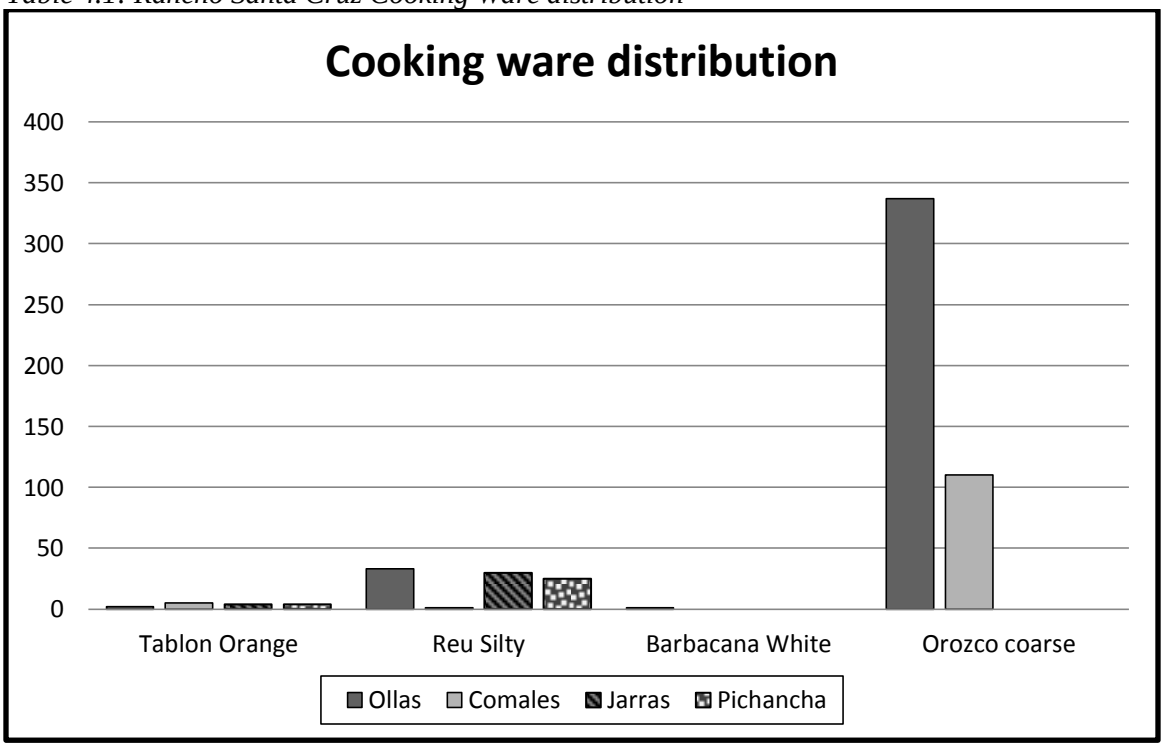
Each vessel form was associated with a specific range of functions. Groups of vessel forms were seen to embody distinct "activity sets". An activity set consists of a group of vessels that served a specific activity, which were associated with a definite activity area, and were stored together near their area of use (Deal 1998). Utilizing form as an indicator of function, I was able to correlate objects to specific household activities, and with this tie them together in different activity sets. Three major activity sets could be found at the Rancho Santa Cruz site, including vessels for food preparation and storage (cooking ware), vessels for serving food (serving ware) and other house ware objects.

Cooking Ware

Ceramic artifacts used in the preparation, storage or dispensing of food and/or drink make up the cooking ware category and represent the most numerous category of ceramic artifacts in the Rancho Santa Cruz collection. Different size *ollas*, *comales*, *jarras* and *pichanchas* encompass this activity set. Each vessel form in this category has been directly associated with different cooking processes. The majority of the forms are still in used today in certain regions of Mexico. *Comales*, similar to the ones found at Rancho Santa Cruz and used to make or warm up tortillas, sear meats or toast seeds, are part of the common kitchen assemblage of the majority of Mexican households, and

similar *ollas* for storing and serving liquids are still produced for local ceramic markets in the Oaxaca region. As seen in Table 4.1, the majority of these cooking vessels have been manufactured in Orozco Coarse. The use of this type of ware is logical in the sense that these Orozco Coarse Ware vessels are most likely more durable and would withstand temperature changes better than finer wares. It can be assumed that these vessels were used in a private setting, in which decorative characteristics were not important. The acquisition of these vessels was more likely determined by their durability and function rather than surface finishes and decorative motifs. The organization of this activity set was then arranged by vessel form, ware selection and surface finish.

Table 4.1: Rancho Santa Cruz Cooking Ware distribution



Ollas

These flat-based vessels with globular bodies and restricted necks, as seen in Figure 4.1, were used in most of occasions for food preparation purposes. The form and shape of these vessels make them ideal for cooking and storing food products. This specific form was found in three different sizes as seen in Table 4.2. Size likely was an important factor in the selection of these *ollas* for specific purposes.

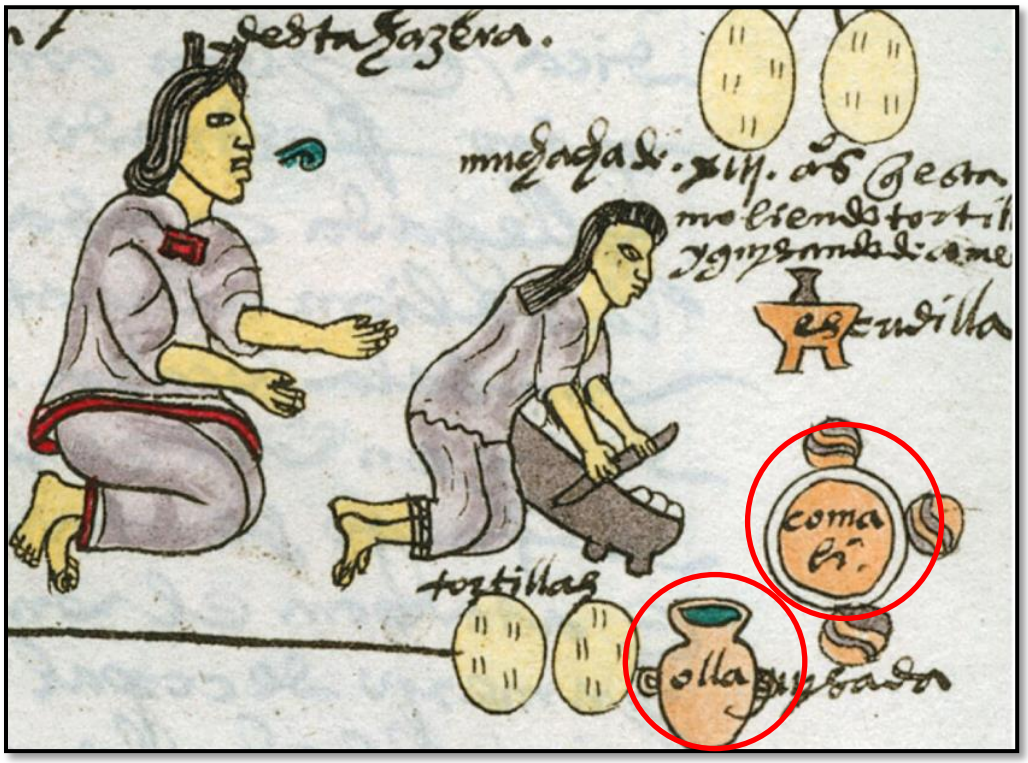
Table 4.2: Rancho Santa Cruz ollas form distribution by ware.

Ware	Ollas	Large Ollas	Small Ollas	Total
Tablón Orange	2	0	13	15
Reu Silty	33	0	0	33
Orozco Coarse	281	3	56	340
Barbacana White	1	0	0	1
Total	317	3	69	389

Small and regular *ollas*, ranging between 18-28 cm rim diameters, were most likely used for the storing liquids. Regular sized *ollas* could be also used to prepare any type of food that needed to be boiled, stewed, poached, or simmered, among other techniques and cooking processes. Meanwhile, larger size *ollas*, with a rim diameter of 36 cm, might have been used as storage containers for water, grains like corn and beans, and other food products. Moreover, some of these vessels showed a lime-crust residue in their interior walls. These can be directly associated with the *tortilla* making process. These vessels were likely used to soak the corn kernels in a lime solution to soften them before they were ground to make the *masa* for tortillas. The *Vocabulario en Lengua Zapoteca*, as seen in Chapter II, mentions meals and stews that most likely were prepared in these vessels. *Manjares*, most likely stew-like dishes, would have been prepared using

a large *olla*, were ingredients would have been combined and cooked. Córdova also mentions *guisados* (stews) *caldos* (broths) and *tamales*. All of these dishes are made utilizing a big deep pot like an *olla.*

Figure 4.1: An Aztec mother teaching her daughter to use the metate and comal to make tortillas, Codex Mendoza[19] *(Cooper and Clark 1937).* Notice the *olla* and *comal.*



Besides size differences, ware variations are noticed through this form. The majority of the *ollas* are made in a coarse ware. This is comparable with other vessel forms within this activity set; most of the cooking vessels are found in a coarse ware paste, identified in the previous chapter as Orozco Coarse ware. *Olla* rims have the highest percentage within Domicilio 1, claiming 40.99% of the assemblage.

[19] Codex Mendoza is an Aztec codex created soon after the Spanish conquest of Mexico. It was created for the Holy Roman Emperor and King of Spain, Charles V. It contains the history of Aztec rulers, a list of tribute paid by the conquered, and a description of daily Aztec life with Spanish explanations and commentary. Original located at the Bodleian Library, Oxford.

Table 4.3: Rancho Santa Cruz ollas frequencies

Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	15	3.86%	2.64%
Reu Silty	33	8.48%	5.81%
Orozco Coarse	340	87.40%	59.86%
Barbacana White	1	0.26%	0.18%
Total	389	100.00%	68.49%

Jarras

Jarras are amphora-like vessels, as seen in Figures 4.2 and 4.3, with a narrow spouted opening (9-14cm diameter) connected through a straight neck to a globular body. Most likely they served as liquid containers and dispensers. The majority of these vessels are found in a Reu Silty ware, which (see Table 4.3) could support the idea that these vessels were possibly used for the transportation of liquids from the food-preparation area to other more public areas of the house. Unlike coarse-ware vessels, which are strictly cooking vessels, *jarras* were manufactured in a more ornate ware. Moreover, this vessel type only encompasses a 3.58% of the entire Rancho Santa Cruz collection, which in comparison to other restricted vessels shows that within this household's food-related ceramic assemblage there were only a few *jarras*.

Table 4.4: Rancho Santa Cruz jarra frequencies

Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	4	11.76%	0.70%
Reu Silty	30	88.24%	5.28%
Orozco Coarse	0	0.00%	0.00%
Barbacana White	0	0.00%	0.00%
Total	34	100.00%	5.99%

Figure 4.2: Jug of Pulque at a wedding, Codex Mendoza (Cooper and Clark 1937). Notice the jarra.

Figure 4.3: Reu Silty jarra rim ceramic sherds. (Photo J. Zeitlin 1991)

Comales

Comales are flat clay griddles with a rim diameter between 38-40cm and walls with a 9mm thickness, as seen in Figure 4.1 in page 74. This type of griddle was generally used to cook, toast, or sear foods. Still in use today, it has been the main instrument to cook *tortillas* in Mexico for hundreds of years. It is also used to toast seeds and spices, sometimes coffee, and to sear meats. The origins of *tortilla* making are unknown, but the occurrence of vessels and tools utilized to prepare tortillas like, grinders and griddles, in the earliest archaeological strata suggest that this practice developed with the domestication of maize itself (Bauer 1990). However, on the Isthmus *comales* do not appear until the Postclassic and are strongly associated with the Zapotec colonization (Zeitlin 2011, pers.comm.).

This is the second most common cooking ware form type. Like other vessels within this activity set the majority of the sherds are in coarse ware. As seen in Table 4.5, it is not uncommon to find that the most utilitarian vessels are made in a crude coarse ware also known as Orozco Coarse. The *comal* was often, or always, set over a few rocks, three or more, over fire to warm and cook mainly *tortillas*.

Table 4.5: Rancho Santa Cruz comal frequencies

Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	5	4.31%	0.88%
Reu Silty	1	0.86%	0.18%
Orozco Coarse	110	94.83%	19.37%
Barbacana White	0	0.00%	0.00%
Total	116	100.00%	20.42%

Pichanchas

This vessel is known by many different names; in today's Isthmus it is called *pichancha*, clearly a modernization of the seventeenth-century Zapotec term *queçopichàcha* or *tihípichachà* found in Córdova's dictionary. According to Zeitlin's ceramic identification notes, this perforated clay olla has a rim diameter of 12-14cms. The rims are sharply out-flaring, with a constricted neck and it immediately flares again to round shoulders (Zeitlin 1990). The perforations range from 5mm to 7mm and are space from 2cm to 2.5cm in the larger samples and were made from the outside in, with a regular, perfectly round and smooth tool (Zeitlin 1990), as seen in Figure 4.4.

Figure 4.4: Reu Silty pichancha ceramic sherds. (Photo:J. Zeitlin 1991)

Pichanchas were mainly used during the arduous tortilla making process. The maize kernels were washed and drained in a *pichancha*, soaked in a more or less one

percent lime solution and then heated, but not boiled. The soaked and softened maize, now called by the *Nahuatl* name, *nixtamal* or *xòoba* in Zapotec, was washed again to remove the pericarp and then laboriously ground and reground on the *metate* (Bauer 1990). This arduous task required at least five hours of female labor every day of the year, in order to feed an ordinary household (Bauer 1990).

Unlike other utilitarian cooking vessels, *pichanchas* were typically made out of Reu Silty. *Pichanchas* are the vessel form with the lowest percentage of this activity set. Considering that this vessel type has a narrow opening, the low rim frequency shows that the vessel count for this container was low in the collection. Because of the specific use of this vessel households may have only one or two of these vessels at a time. It seems that the Domicilio 1 household may have had only a few of these vessels available.

Table 4.6: Rancho Santa Cruz pichancha frequencies

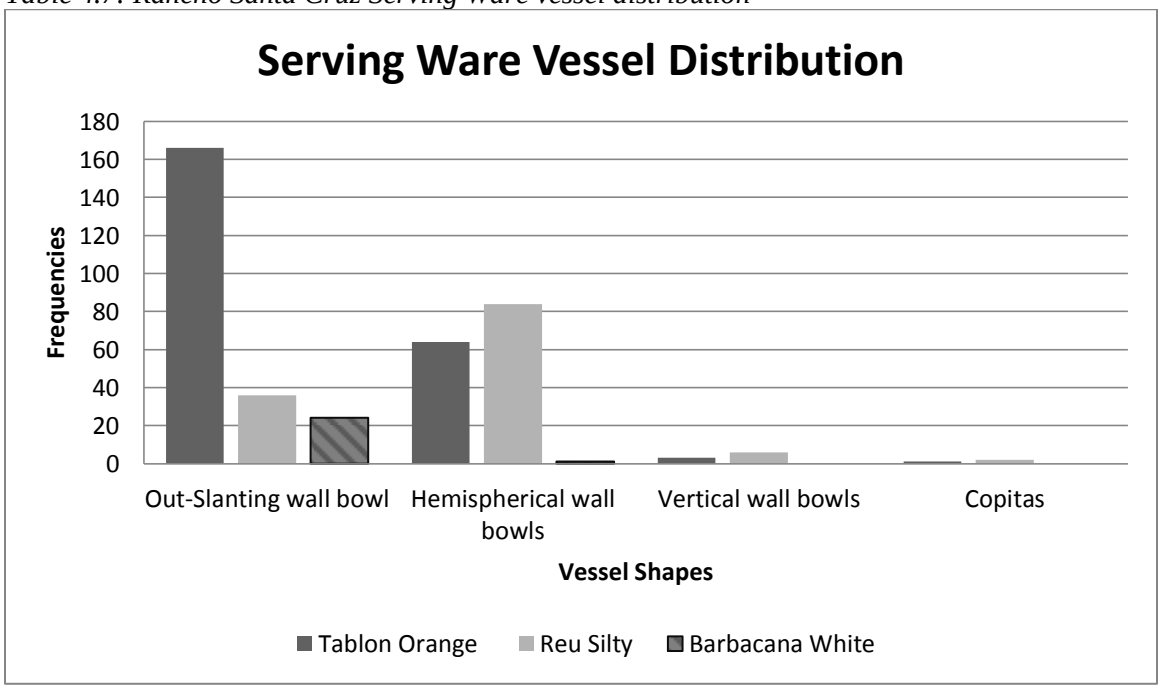
Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	4	12.90%	0.70%
Reu Silty	25	80.65%	4.40%
Orozco Coarse	2	6.45%	0.35%
Barbacana White	0	0.00%	0.00%
Total	31	100.00%	5.46%

Serving Ware

Vessels used specifically for serving and consuming food compose this category. Most of the vessel forms found within this activity set are bowls used for food consumption and/or serving drinks. Different bowl styles and sizes are present in the activity set. Diverse styles of serving vessels may suggest an assorted food selection and presentation. This can be further argued when we take in consideration the numerous dishes or prepared foods found in the *Vocabulario en Lengua Zapoteca.*

Form and decoration have been taken in consideration for this category. Forms that are mostly used for food serving are considered serving ware. In addition, all decorated vessels are considered to have been used for food serving, since food processing and preparation may damage the decoration.

Table 4.7: Rancho Santa Cruz Serving Ware vessel distribution



Out-slanting wall bowls

This type of vessel is characterized by its out-leaning walls and a flat base. Rim diameters are as small as 18-20 cm and as large as 24-28 cm. This soup-plate form is the most diverse type of vessel. This form not only is found in three different types of wares, Tablón Orange, Reu Silty and Barbacana White; but also is the most diversely decorated. The different interior decorative finishes in addition to the shallowness of its composition serve as evidence of its use as a serving vessel. These vessels resemble what in Spanish would be referred to as "*platos*".

Table 4.8: Rancho Santa Cruz out-slanting wall bowl frequencies

Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	165	73.33%	29.05%
Reu Silty	36	16.00%	6.34%
Barbacana White	24	10.67%	4.23%
Orozco Coarse	0	0.00%	0.00%
Total	225	100.00%	39.61%

Hemispherical bowls

This vessel form is found in two different sizes those with diameters as small as 18cm and as big as 38cms, however most specimens range between 22 to 26cms range (Zeitlin 1990). These were fairly shallow bowls and typically have a rounded, slightly thinned, slightly incurving rim and thickened beneath the rim (Zeitlin 1990). These vessels were most likely used for food consumption and in some cases in the preparation of it. The smaller sized hemispherical bowls could have possibly used to store small foodstuffs like herbs. On the other hand, larger size hemispherical bowls were mostly

used for the consumption of foods or perhaps its preparation. This type of bowl may have been used to prepare sauces, mixing spices and other mixing activities during the cooking process.

As seen in Table 4.9, the most common wares within this form are Tablón Orange and Reu Silty gray ware. Minimal to no decoration is found within the vessels. The use of both fine wares as seen in Figure 4.5 indicates that these were not primarily cooking vessels even if they were use in certain cooking activities. Some of the Reu Silty hemispherical bowls showed signs of tripod supports on their base which further evidences the use of these in consumption activities.

Figure 4.5: Reu Silty Hemispherical bowls ceramic sherds. (Photo: J. Zeitlin 1990)

Table 4.9: Rancho Santa Cruz hemispherical bowls frequencies

Ware	Frequency	Percentage within vessel form	Percentage within activity set
Tablón Orange	62	43.97%	10.92%
Reu Silty	78	55.32%	13.73%
Orozco Coarse	0	0.00%	0.00%
Barbacana White	1	0.71%	0.18%
Total	141	100.00%	24.82%

Vertical wall bowls

This cylindrical shape vessel with a rim diameter of 9 cm, a direct rim, and a smooth interior finish likely was used as a drinking cup. Only eight sherds were identified as vertical wall bowls, two of them were Tablón Orange sherds. while the others were manufactured in a Reu Silty ware. We can assume that a minimum of 2 vertical wall bowls were part of the assemblage, promoting the idea that this vessel may have only been used by either selected members of the household or during selected activities or times. Vertical wall bowls may have been used to consume chocolate or other more exclusive drinks, or used during ritual activities rather than in daily in consumption endeavors, where hemispherical bowls or small gourds may have been used.

Copitas

These Spanish-like vessels seem to be miniature copies of the traditional Spanish cordial drinking cups. Three *copita* rim sherds were identified by Dr. Zeitlin, two in Tablón Orange and one in Reu Silty. These *copitas* had a rim diameter ranging from 7 to

10cm. At the Rancho Santa Cruz hamlet, these vessels may have a different purpose. The crude manufacture of this vessel suggests that it was not made by experienced ceramic craftsmen, but perhaps Tablón Orange potters were just experimenting with this new vessel form. If the vertical wall bowls were used for drinking chocolate in a traditional pattern, *copas* may have been used to consume mezcal. Mentioned in Córdova's dictionary, mezcal became a popular beverage on the Isthmus sometime after the Spanish conquest. Because of the small size of these cups, it is unlikely they were used to drink traditional beverages like pulque or chocolate. Pulque is a fermented drink that was served in bigger containers most likely because of the carbonation. Likewise, chocolate was serve in bigger more traditional vessels possibly because of the cultural significance of the drink. Chocolate drinks were generally reserved for the elite and the wealthy since cacao beans were very expensive.

House ware

Palmatorias

This type of household item can be identified as a colonial marker. The use of candles arrived in Mesoamerica with the Spanish conquistadors. There seems to be no evidence that pre-conquest Mesoamerican people had or used candlesticks. Candlesticks can be found in Córdova's dictionary referred as a *mechero*. In addition, references to candles were found in the dictionary as *mecha de cadil* (wick candle) or *lámpara* (lamp). Unlike candlesticks, a *palmatorias*, looked more like a small plate with a thin walled base where a candle would be set, possibly utilizing warm wax, and carried in the palm of the hand.

Only two candle holder rim sherds were found at Rancho Santa Cruz. Both of these rims are made of Tablón Orange. One of them was decorated with bichrome paint, while the other one showed no signs of additional surface finish.

Discussion

A consumer-oriented analysis is based on just those characteristics which attract buyers to acquire certain ceramic vessels or styles. Following this idea, ceramic function and decoration have been identified as the main attributes examined when acquiring a ceramic vessel. Rice (1987) argues that rim sherds are the most useful ceramic resource when identifying vessel function. Following Rice, only rim sherds from this collection were utilized during this analysis. Two main categories were constructed during this analysis: cooking ware and serving ware. An additional category encompassed by other non-food related household items was created.

The results of this analysis illustrated an indigenous colonial "kitchen". Specific food-related activity areas could not be identified during the excavations of the Rancho Santa Cruz because of the limited spatial extent of the excavations and extensive disturbance from plowing. However, activity sets associated with this presumed food-related activity areas were identified by this analysis. Cooking ware vessels defined the first activity area. It can be argued that an area where raw items were brought into the household and prepared to be consumed existed at the Rancho. Cooking ware consisted mainly of cooking *ollas, comales* and *pichanchas*. Most of these vessel shapes could be associated with specific cooking processes, i.e. *pichanchas* used to strain maize kernels after being soaked in a lime-water solution before being ground for *masa*. Cooking ware is the most frequent vessel category in the Rancho Santa Cruz collection. In addition to

food preparation vessels, storage vessels encompassed the remainder of this category. Most likely *jarras* were utilized for the storage of water and other liquids.

In addition to vessel shape, ware was an important factor when identifying vessel function. Lind (1987) argued that ware does not take precedence when selecting a vessel although it does when producing one. If a person is selecting a vessel for a specific use, then his/her selections are limited by form and ware. On the other hand, a producer will create vessels that consumers prefer, in turn affecting the consumer choices. The results of this analysis suggest that specific functions and uses are correlated to specific ware selections for the production of these vessels. In other terms, certain vessels are only produced in a limited selection of wares providing the consumer with limited choices. Most of the vessels encompassed in this category were produced using a coarse ware, as seen on Table 4.10. Other wares were utilized to produce vessels found within the category but with significantly less frequency than Orozco Coarse. It is most likely that producers and consumers preferred to use coarse-ware utilitarian vessels for their heat conductivity capabilities and durability.

Table 4.10: Cooking Ware ceramic type frequencies

Vessel form	Tablón Orange	Reu Silty	Barbacana White	Orozco Coarse	Total
Ollas	2	33	1	281	317
Large ollas	0	0	0	3	3
Small ollas	13	0	0	56	69
Comales	5	1	0	110	116
Jarras	4	30	0	0	34
Pichanchas	4	25	0	0	29
Total	28	89	1	450	568

On the other hand, two specific vessel forms were not found in Orozco Coarse; *jarras* and *pichanchas* were produced utilizing Reu Silty ware. The production of these vessels in these shapes could be a functional one because both vessel forms are associated with both water storage and food-processing.

Serving ware encompasses all vessels utilized for food consumption. This category consisted mostly of different size/shape bowls and plates utilized when serving and consuming food. Not discussed previously, a small number of vessel supports were identified in the collection. Most of these sherds were identified within the lower excavation levels, suggesting that older vessels associated with an initial occupational component of the site still possessed supports. Utilized to elevate bowls and other food serving vessels from the ground where these vessels were set up during consumption activities. On the other hand, vessels forms that formerly possessed supports are now flat-bottomed and support-less, including both out-slanting wall and hemispherical bowls, vessels which could be associated with use of tables during consumption activities instead of *petates*.

Table 4.11: Serving Ware ceramic type frequencies

Vessel Form	Tablón Orange	Reu Silty	Barbacana White	Orozco Coarse	Total
Out-slanting wall bowl	165	31	24	0	220
Large out-slanting wall bowl	1	5	0	0	6
Hemispherical bowl	62	78	1	0	141
Vertical wall bowls	3	6	0	0	9
Copitas	1	2	0	0	3
Total	232	122	25	0	379

As with the previous activity set, ceramic ware was a significant factor in the production of serving vessels; with Tablón Orange the most frequently used ware. In addition, it is the most diversely decorated indigenous ware within the Rancho Santa Cruz collection. Surface finish and decoration are more important factors for consumers when acquiring serving vessels than ware or paste. More diversely decorated ceramics have been associated with serving vessels, which are most likely to be seen by others outside the immediate household and therefore represent the household itself.

Finally, other household items were included in a separate category. Only one additional household item was identified, a *palmatoria*. Although this item is not associated with the general discussion of this chapter, it was taken in account for diagnostic reasons. Besides *copitas*, this is the only other non-indigenous ceramic form found within the collection. Other ceramic shapes found within the collection are traditional to the area and have changed little since prehistoric times (see Wallrath 1967 and Zeitlin 1978).

CHAPTER V

CONCLUSIONS

This investigation was set up to investigate colonial Zapotec cuisine, by focusing on food preparation and consumption activities within an early colonial indigenous household. With this objective, two different sources of information and a variety of methodological approaches were applied. An early colonial indigenous archaeological ceramic assemblage from a Zapotec site known as Rancho Santa Cruz and a colonial Spanish-Zapotec dictionary, composed by Fr. Juan de Córdova, were examined with the intention of detailing the nature of Zapotec cuisine and any changes in underwent during Spanish colonization.

A Historical Dictionary

As seen in Chapter II, the *Vocabulario en Lengua Zapoteca* by Fr. Juan de Córdova was analyzed in search of Zapotec terms that would explain and further help understand Zapotec cuisine. This dictionary was written by Córdova with the purpose of educating fellow missionaries in the Zapotec language. A large number of cuisine-related terms were identified. As seen in Chapter II, a wide variety of foodstuffs and

cooking tools available in early colonial Tehuantepec were recorded by Fr. Córdova. This dictionary provided to be a great source of information about Zapotec cuisine during early colonial times. It not only listed native foodstuffs like, squash, corn and deer, but also several Spanish-introduced foodstuffs, like goat and barley. Córdova did not, however, provide a comprehensive list of all Native plants and animals, omitting many species of game used as food and many significant Native domesticated plants. While the dictionary inckudes dishes or prepared foods which are part of the Spanish cuisine tradition, like *morcillas* (blood sausage), wheat bread, and the use of pork lard, we cannot assume that such foods were familiar to most indigenous people. Rather it seems likely that the Spanish-born missionaries attempted to replicate familiar foods for their own consumption, and thus they needed to identify these foods in Zapotec, the language spoken by the women who cooked for them.

Spanish colonizers believed that the change in environment, most specifically the water and climate of the New World, was the cause their diseases and ailments and that the best way to counteract this environmental change was to consume European foods (Earle 2010). Many Spanish colonizers recorded the ailments caused by consuming Indian foods and advise many of not consuming it [20]. This necessity for European foods was the main reason to import seeds, plants and animals from Europe to the New World. Spanish went to great length to bring and grow their foods in the New World. Old World crops flourished in the New World, in some cases taking over the lands used to cultivate

[20] See Earle *If You Eat Their Food…Diets and Bodies in Early Colonial Spanish America.* Christopher Columbus, Diego Andrés Rocha, Fernández de Oviedo, and Bartolomé de las Casas among others.

Native crops (Earle 2010). It is understandable that Córdova would pay close attention to Spanish traditional foods. Because Native women were employed as cooks within Spanish homes and within the monasteries, it is then reasonable to argue that some Zapotec women must have learned how to prepare Spanish foods and use Spanish-introduced foodstuff. Whether or not this experience was widely transmitted among Native communities is much more uncertain, but to the extent that introduced foods and preparation techniques were adopted in Native households, women were the active agents of this change. Zapotec people were making mole, growing corn, *chiles,* squash, beans and hunting turkeys long before the Spanish conquest. Then the Spanish brought chickens, spices like cinnamon, and pigs to the New World. Basically Native cooking techniques like steaming and dry-roasting on clay griddles or *comales* were altered to accommodate the newly Spanish introduced foodstuffs. As was reported in the 1580 Relación Geográfica for Tehuantepec

> "Y dicen que los manteni[ent]os que antiguam[ent]e los naturales desta p[r]ov[nci]a usaban, eran que comían maíz, ajíi, frijoles, calabazas de la tierra, batatas,y carnes de venado y puercos monteses, liebres, Conejos, armados e iguanas (que son de manera lagartos), y muchos géneros de pájaros y sapos, y gallinas de la tierra y pescado, y muchos géneros de frutas de la tierra, y miel; y que al p[re]sente, los d[ic]hos naturales usan estos proprios mantenimientos t cimen ahora vacas y carnero." (Acuña 1984: 116)

During the first years of colonization Spaniards believed that indigenous foods were bad for their health, nonetheless they developed a taste for it, even favoring Native foods like pineapples, *chile* peppers and chocolate (Earle 2010). The word *manjar* in

English means delicacy. When translating these types of dishes Córdova choose the word *manjar* indicating his admiration for these types of dishes.

On the other hand, the Spanish looked with disdain on many of the foods Natives consumed like hedgehogs, bats, locusts, spiders, worms, caterpillars, bees and ticks (Earle 2010). This could be one of the reasons Córdova neglected to include a significant number of terms traditionally associated with Zapotec cuisine. As quoted by Earle (2010:151), Francisco López de Gómara, said in 1552 "Nothing living escapes their gullet, and what is all the more amazing is that they eat such bugs and dirty animals when they have good bread and wine, fruit, fish and meat". Animals like raccoons, armadillos, and hedgehogs were not mentioned in the dictionary. These types of animals might have been considered by Córdova as pest and not worthy of mentioning, even when zooarchaeology has confirmed the consumption of raccoons and armadillos on the Isthmus (Newman 2007). Furthermore, Córdova failed to mention plants like amaranth, traditionally used as staple grain, salvia or chia seed, guava, avocado, canistel, cherimoya, jicama, zapote or sapodilla, and vanilla, used to sweeten and flavor chocolate drinks.

A concern of mine was the fact that this dictionary is so limited in terms of native cuisine data. Why were these terms overlooked? Or even ignored? This omission can be explained in a few different, non-conflicting, scenarios. First, as we know very rarely would Spanish missionaries living in convents be in charge of preparing their own foods. Most likely local women were employed to be in charge of the domestic tasks around the convent, including cooking. Fr. Córdova was probably not familiar with Zapotec cooking

techniques and tools or he may have overlooked them and therefore only focused on those foods that he was interested in, that is, Spanish traditional foods and crops, and whatever he had fancied or liked from Native foods. Another explanation for this conundrum is the idea that these Native foodstuffs were recognized by all, Spaniards and Zapotec alike, based on their terms in Zapotec. Snce Spanish pieople recognized these items by their Zapotec names, there was no need for Córdova to translate them into Spanish, for simply their indigenous name became their Spanish name.

Finally, the same scenarios could be applied with the vessels and utensils. Only a few indigenous vessels were identified in the dictionary like, *pichanchas* and *ollas*. However, traditional cooking vessels like the *comal* and *cajetes* (a type of bowl) were not mentioned in the dictionary. This does not mean that these types of vessels could not be found in local markets or in residences but that they were not seen as important to Fr. Córdova. As mentioned before, Córdova edited this dictionary with the intention of facilitating religious conversion. This dictionary was designed for fellow Spanish missionaries. Due to the purpose of the *Vocabulario*, many terms that as an archaeologist I would be interested in, were not included because they simply were not relevant in the Catholic conversion endeavors.

Nevertheless, a significant number of cuisine-related vessels, utensils and other household items were identified. This was particularly important since these terms helped provide a better understanding of food preparation technologies. Most of these artifacts seem to be indigenous in origin, except for the previously examined table, *palmatorias*, candles, and iron spoons.

Different Approaches, Different Results

Ceramic artifacts that can be linked to a structure can function as a foundation to interpret the consumption practices in said structure (Lind 1987). With this statement in mind, this investigation was heavily focused on the ceramic artifacts found at Rancho Santa Cruz. Chapters III and IV were devoted to analysis of the ceramic assemblage. Ceramics are one of the most important aspects of many archaeological sites; not only are they among the most common artifacts encountered but they also reflect many aspects of a site and its inhabitants. Two different methodologies were utilized to understand and interpret the site's ceramic assembly.

A type-variety analysis was utilized in order to identify ceramic styles preferred in the household. However, a type-variety analysis will not explain clearly the correlation between form-function and the consumer's choice. So I implemented a consumer oriented analysis, which focused on the styles that the residents seemed to prefer. As seen in Chapter IV, the consumer-oriented analysis not only helped identify individual vessel functions, but also enabled me to create activity sets, which in turn helped us understand the importance of these vessels in the daily life of the Rancho Santa Cruz residents. By combining both analyses I was able to observe not only patterns of choice within the household residents, but also outside forces that affected these choices, like the introduction of Spanish-inspired ceramics.

As seen in Chapter III, by means of a type-variety analysis it was observed that 99% of the Rancho Santa Cruz ceramic assemblage fit within traditional Mesoamerican pottery traditions and were likely acquired from local indigenous markets. On the other

hand, some Spanish-tradition ceramics and some Spanish inspired ceramic forms, like Tablón Orange copitas and *palmatorias*, were encountered in the site, demonstrating how Spanish material culture and technology infiltrated some of the most private spheres of Mesoamerican life. These material findings remind us that, while some of Spanish influences entered Mesoamerican life more forcefully, like religion, but others slipped in in a less aggressive way to changing aspects of daily life.

Tablón Orange is the perfect example of this colonial phenomenon. Even though Tablón Orange design, manufacture and forms are traditional, its innovation is an early colonial phenomenon. Zeitlin (2005) argues that Tablón Orange may have been a response to the aesthetic challenges of the colorful Spanish majolica. Nonetheless it is a response entirely within the Pre-Columbian canon of design and manufacture (Zeitlin 2013, pers. comm.). As a result of both ceramic analyses it was discovered that Tablón Orange was utilized as serving ware, partly replacing the traditional greywares like Reu Silty. Ceramic results showed how diverse this ceramic type is in both decoration motifs and vessel forms, in particular those associated with serving and consuming food..

Not only did Tablón Orange partly replace the popularity of Postclassic gray ware pottery, but the associate vessel forms also suggest a change in the way these vessels were utilized by the household residents. As mention in Chapter III, few Tablón Orange vessel supports were excavated. This change in the morphology of the vessels itself likely reflects the way these vessels are being used. Even within the Reu Silty ceramic ware, where traditionally elaborated supports would be found at the bottom of most Late Postclassic vessels, only a few supports were encountered at Rancho Santa Cruz.

Traditionally, vessel supports were laboriously elaborated with different types of motifs representing Zapotec religious beliefs, e.g. serpent heads. Dominicans banned the use of these type of vessel supports believing that they represented evil. Rendering with these believes the few vessel supports found at Rancho Santa Cruz were simple and plain. On the other hand, the limited use of vessel suggests that a table-like surface for eating had been adopted by the indigenous residents of the ranch.

The consumer-oriented analysis showed that most vessels in this collection have typical traditional indigenous forms. Some of them, like the *ollas*, changed minimally after colonization if at all. On the other hand, new forms were found in this collection as well. The *copitas* are completely new vessels not seen before colonial times. Most likely used to drink *mezcal* , which was produced after the Spanish introduced distilling techniques, these cups look like small glasses use to drink liqueurs like cognac or even wine. It is assumed that these new forms are Spanish inspired and most likely have been introduced by new Spanish settlers, like missionaries and ranchers, but it is attraction of distilled alcohol that inspired the indigenous production and acquisition of this new form of drinking vessel. As was reported in the 1580 Relación Geográfica, Isthmus people in prehispanic times did not drink the beverages they consumed in the late sixteenth century:

> "y que entoncces, no usaban [de] los brebajes que ahora usan, que es el cacao y vino de Castilla, y que no comían tanto como ahora comen. Y que tan solamente usaban, por bebida, un poco de maíz tostado molido, que llaman Pinol, y la miel del maguey , de que hacían vino; y que antiguamente, no usaban de otras bebidas." (Acuña 1984:116).

Other ceramic wares found in the hamlet show little to no change. No new ceramic forms were identified within the traditional indigenous ware types: Reu Silty, Barbacana White, and Orozco Coarse. In addition, no new decorative style could be identified. This lack of change in these wares argues a consumer preference for long-standing traditional styles within them; meaning that colonial changes had not affected the production and preference of these familiar ceramic types.

Food preparation can show us a lot about change. As seen in Brumfield (1991, 2001) colonial market system and tributes forced more people to participate in these regional markets. These new activities lead people to work farther away from their homes. Women had to change the food they cooked from stews to more portable tortillas. This required more work because now they had to grind more corn to make individual tortillas rather than preparing a large stew in a single pot. This can be seen in ceramic assemblages by a reduction of *ollas* and an increase of *comales*. This was not the case at Rancho Santa Cruz where *ollas* are still more prevalent than any other vessel type, suggestin that the residents at this hamlet still favored stew-like meals. At Rancho Santa Cruz site, looking after the livestock and/or tending their agricultural fields kept people close to home.

An Indigenous Kitchen and Cuisine

This analysis, based on a large sample of linguistic and archaeological data provided a view of the private sphere of Tehuantepec indigenous society. Food consumption may happen both in the public sphere, i.e. festivals; and in the private sphere, i.e. daily family meal(s), however most of the time these private daily events are not recorded. A view of these practices does not only evidences the nature of daily life in colonial times, and permits us to see how individuals adapted to or resisted aspects of colonial socio/political change.

In general, the Rancho Santa Cruz kitchen is mostly composed of traditional ceramic vessels. The form and function of these vessels have changed minimally since pre-colonial times. Minimal change in vessel forms evidences minimal change in technological aspects of food preparation. However, some of these changes like the disappearance of vessel supports evidence a change in how food was served and consumed in the household. Rather than eating meals on a traditional mat or *petate*, it seems that the people at Rancho Santa Cruz ate from some kind of table or elevated surface.

On the other hand, Tablón Orange proved to be a new ceramic ware for this site. This ceramic ware likely illustrates the indigenous response to the newly introduce Spanish ceramics. Rancho Santa Cruz had a wide variety of Tablón Orange ceramics, including different decorative slips and paints, proving the stylishness of the ware. It would be very interesting to compare to other sites in the area and the see if these have similar ceramic assemblages in order to capture the popularity of this defiant ware.

My other source of data, the historic dictionary, turned to be a great source of information about the presence of Spanish-introduce foodstuffs within at least some Zapotec-speaking communities in the late sixteenth century. Not only was I able to identify a vast number of Spanish-introduced animals and plants, but also I was able to hypothesize how these items were acknowledged by the native population.

In conclusion, the indigenous kitchen is not only a place where foods are prepared but it is a place where broader social/political/ economic changes percolate in the private sphere of a household. Changes in the markets, in the availability of products from which to choose and new options for agricultural production widened the consumer's choices. On the other hand consumers' predilections or likings swayed the ceramic producer's decisions about what kinds of vessels to make. The indigenous kitchen is a great place for us as archaeologist to observe these changes.

Zapotec cuisine underwent minimal changes during colonial times. For the most part cooking vessels remained the same and therefore cooking technologies and traditions did not change. What did change during colonial times was the adaptation of new Spanish-introduced food sources into Zapotec cooking. Not only did Spaniards bring many different kinds of plants and animals but also took over native agricultural lands, customarily utilized for traditional crops, they planted them with Old World staples like wheat (Earle 2010). Such crops would not have survived in the Tehuantepec heat, but other more tropical introductions did. By far the more transformative agricutural impact was the establishment of Spanish ranches to raise livestock, which was accomplished through the transfer of "unoccupied" lands from the Native communities (Brockington

1989, Earle 2010, Knight 2002, Zeitlin 2002). Zapotec Indians adopted Spanish introduced plants and animals into their own cuisine. This adoption was not by imposition from the Spanish colonizers but rather by choice. Zapotec Indians liked newly introduced Spanish foods and adapted their recipes and cooking techniques to incorporate these new ingredients. However, the results of this study show how Zapotec cuisine remained mostly unchanged, preserving traditional cooking techniques and styles.

At the end, the people who lived at the Rancho Santa Cruz adapted to new influences while maintaining their ancient traditions. I was able to observe the different kinds of challenges a colonial household responded to, from like the introduction of new animals, plants, cuisine styles, eating habits, cooking equipment and technology. Most importantly, I was able to illustrate that while all these cultural and environmental changes were happening, traditional cuisine and eating habits persisted among Rancho Santa Cruz households.

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