SIGNS AND SYMBOLS: EXPLORING CHANGES IN
ICONOGRAPHY IN THE CONTACT ERA RIO GRANDE PUEBLO WORLD

by

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The final copy of this thesis has been examined by the signators, and we find that both the content and the form meet acceptable presentation standards of scholarly work in Anthropology.
This thesis examines Puebloan iconography on pottery from the Northern and Middle Rio Grande Valleys from the pre-Contact through the Post-Revolt period to assess the impact of the Spanish on the Pueblo people. The Spanish conquistadors and missionaries created upheaval in the Pueblo people world upon their arrival in the Rio Grande area during the 16th century. The social tensions that resulted forced a blending of ideas and culture between the two groups, demonstrated in the ethnographic records of Pueblo communities. The 1680 Pueblo Revolt and cultural revitalization movement by Puebloan groups sought to return indigenous peoples to their heritage through an emphasis on traditional religious practices and lifeways. There was variability among the Pueblos at this time with their response to the Spanish, as well as during the Pueblo Revolt. Results indicate that Spanish colonization mainly impacted vessel form and caused a decrease in the use overtly religious motifs on pottery, such as anthropomorphic religious figures, including, kachinas and awanyus. These differences are particularly noted in the Contact and Revolt period Middle Rio Grande, as opposed to the Tewa communities in the Northern Rio Grande. No evidence for the adoption of European motifs in my sample was identified. This research is significant because it is some of the only regionally-based exploration of the impacts of Spanish contact and the Pueblo Revolt on ceramic forms and iconography.
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Chapter 1: Introduction

This research explores how the Pueblo people interacted with an outside force, the Spanish, in the 16th and 17th centuries through a study of Puebloan pottery. The Spanish arrived in the Rio Grande in the 1540s and impacted the Pueblo world and their way of life through contact and forced colonization. When the Spanish arrived in present day New Mexico, Pueblo religious belief centered on the kachina religion. The kachina religion emerged in the American Southwest during the late 13th century prior to the arrival of the Spanish (Adams 1991). The kachina religion was associated with rain rituals, harvests and elaborate masks worn in specific ceremonies. Pueblo people held on to their religion in the wake of Spanish domination and it is still practiced today. A recent trend in archaeological investigations is an interest in the reaction and response within Pueblos, and other indigenous communities, to Spanish colonization (Douglas and Graves 2017; Gruner 2014; Liebmann 2012; Lightfoot 1995; Lightfoot et al. 1998; Preucel 2002; Spielmann et al. 2006; Voss 2005; Wilcox 2009). Most of investigations represent a shift from previous efforts to understand the Contact period and lasting impacts of Spanish colonization that emphasized historical accounts primarily from Spanish perspectives (Reff 1995; Spicer 1962).

In this thesis, I present an analysis of motifs on Pueblo pottery from a large geographic area under Spanish colonization, the Northern and Middle Rio Grande Valleys of New Mexico. I examined various types of pottery to see how the pottery changed from pre-Contact through the Revolt/Post-Revolt period. As a minor part of my thesis, I compared these regions to the Hopi Mesa region of northeastern Arizona and the Salinas region of south-central New Mexico. These areas experienced different intensities of Spanish colonization by the onset of the Pueblo Revolt. The main focus of my thesis is the change in motifs on pottery in the Northern and Middle Rio...
Grande Valleys in order to understand how the Pueblo people may have maintained or transformed their social identity during Spanish conquest. During the period of Spanish contact, the Pueblo people had various ideas surrounding the Spanish and Christianity. This thesis addresses three primary research questions: How did the Spanish impact the form and decoration of Puebloan pottery? Did Spanish presence cause changes to the use of motifs related to indigenous iconography? Can we see evidence of resistance to Spanish colonization through decoration on pottery?

In the 16th century the Spanish arrived in the Rio Grande and dramatically transformed the lives of the Pueblo people and their culture (Kessell 1979). These transformations took many forms. Spanish missionaries forced the Pueblo people to convert to Christianity and adopt European practices. The missionaries required the Pueblo people to be baptized and attend mass (Kessell 1979). Additionally, the Pueblo people had to assist in building the necessary mission and church buildings. The Spanish tried to suppress the Native religion by Christianizing them and destroying ties to past cultural practices (Liebmann 2012; Wilcox 2009). Pueblo people adopted Spanish practices which changed Pueblo society.

The Pueblo Revolt of 1680 is often cited as the largest, most successful indigenous response to colonization in North America (Reff 1995; Wilcox 2009). During the period from 1680 to 1692, the Pueblo people forcibly removed the Spanish colonists and reasserted Puebloan traditional practices (Liebmann and Preucel 2007). After the Spanish left, Pueblo leaders regained control of their Pueblos. Scholars like Liebmann (2012) suggest that the Pueblo Revolt of 1680 and the removal of the Spanish played a crucial role in the rise of supposed nativism and revitalization in the period right after the Spanish left, among the Pueblo people. This revitalization period occurred after the revolt, but Pueblo people expressed various reactions to
the Spanish and held onto newly adopted practices, often times mixing Pueblo and Spanish ones. It is also important to understand that not all Pueblo people supported the Pueblo Revolt of 1680. Gruner (2014:314) argues that the role of nativism is complicated by the evidence of Revolt era communities that were reusing ecclesiastical paraphernalia. Pueblo people redefined some symbols and ecclesiastical relics during the Pueblo Revolt and continued to use the items during the twelve years that the Spanish were gone. Even with the recent interest in understanding the Pueblo Revolt and how it took place and impacted local Pueblo communities, the Pueblo Revolt period remains poorly understood (Wilcox 2009). The destruction of Spanish records and the location of many relevant sites under modern Pueblos are two reasons for why the Pueblo Revolt period remains poorly understood. The historic accounts scholars have used to document the Pueblo Revolt are either written by people who were not there, i.e. Spanish documents from Mexico, or from the time after the Revolt (Espinosa 1988). Some of these Spanish records are generally biased, however there are some like the documents recorded by don Antonio de Otermín, who was the Spanish governor during the Pueblo Revolt, that present statements by Pueblo combatants who had been captured by the Spaniards and Pueblo accounts during the Pueblo Revolt (Kessell 2002; Liebmann 2012). Early studies of the Pueblo Revolt focused on these biased historical accounts and did not account for how the colonized reacted, but rather focused on the colonizers.

Most recent studies have been primarily driven or influenced by three researchers, Robert Preucel, Michael Wilcox, and Matthew Liebmann. Recent studies include limited architectural analysis (Liebmann et al. 2005), iconography analysis (Mills 2002; Mobley-Tanaka 2002), the use of Christian and Pueblo objects (Gruner 2014), and rock art studies (Dongonske and Dongonske 2002; Liebmann 2012, 2013). Nearly all of these studies examined a single
community or small geographic area, making them difficult to connect successfully to one another. Furthermore, several of the studies of colonial era ceramics, the focus of my study, have very limited or unstated sample sizes, dissuading comparability (Liebmann 2013; Mills 2002; Mobley-Tanaka 2002). My study uses a robust sample from a vast region to go beyond these limitations.

The importance, however, of understanding the Pueblo Revolt period and changes that occurred in Pueblo communities are significant to my thesis. As stated previously, native communities have an interest in their history and how they resisted and maintained their traditional practices through colonization (Wilcox 2009). This information is not politically neutral and has often been employed in land and treaty disputes with federal, state, and local government entities (Wilcox 2009). Archaeologists, who heavily rely on ethnographic accounts of Puebloan practices compiled in the late nineteenth and early twentieth centuries to construct analogies to explain prehistoric activities and traditions (e.g. Duwe 2011; Fowles 2013; Ware 2014), also have a need to understand how colonization and cultural revitalization movements may have impacted those traditions and practices (Liebmann and Preucel 2007). It is important for my thesis to examine how the Pueblo people constructed their identity during the Spanish domination and to be careful not to assume that they just adopted Spanish practices fully or that after the Spanish left that they revitalized all Pueblo traditions. This thesis explores what occurred in Pueblo society during and after the Spanish arrival and explores how the Pueblo people maintained or changed their identity during Spanish contact. Previous studies have often tried to explain the change that occurred after Revolt in terms of a revitalization movement among the Pueblos. This thesis expands on this concept by examining changes that do not necessarily assume that a revitalization movement occurred, instead focusing on how the Spanish
impacted Pueblo pottery. Studies have suggested that directly after the Pueblo Revolt the Pueblo people engaged in a revitalization movement to bring back traditional Pueblo practices (Liebmann 2012:17). Specific actions scholars point to include the reopening and use of kivas, destruction of existing religious icons and material culture, and the use of conflict to force communities to assist in the revolt (Liebmann 2012; Ortman 2012).

During the Contact period, the Pueblo people persisted practicing their Native religion, often secretly, and continued producing pottery, but the designs varied and changed (Frank and Harlow 1974; Gruner 2014; Habicht-Mauche 2006). Scholars have suggested that Pueblo people exhibited signs of resistance to the Spanish missionaries by incorporating secret designs into the pottery and murals of the time. During this time “suppression of native religion by the Franciscans was common and potters may have intentionally disguised kachina representation on their vessels” (Mills 2002:91). In 1680, Pueblos throughout the Rio Grande Valley participated in a coordinated rebellion against Spanish governance. Directly after the Spanish were removed, some Pueblos began a cultural revitalization and returned to certain pre-Contact practices (Liebmann 2008, 2012; Preucel 2002). They also adopted certain Spanish practices such as stylized dress of leaders, and individual Pueblos began to become more culturally differentiated from one another (Gruner 2014; Liebmann 2012). When the Spanish returned in 1692, Puebloan communities and practices were different in many aspects from when the Spanish had previously occupied the valley. For instance, certain ceramic types such as glaze wares disappeared from areas where they had been present before. Today, for most Pueblos, the Catholic trinity and saints coexist with prehispanic deities and kachinas. In face of opposition, Pueblo people held onto their kachina beliefs and Pueblo religion seen in the caching of religious idols, depictions in
kivas, and pottery iconography (Gruner 2014:332). The effects of colonialism are still seen today in changes in culture and religious expression that occurred for the Pueblo people.

**Importance of the Study**

This research contributes to the scholarship of the Pueblo Revolt era by expanding our understanding about the Pueblo peoples’ response to the Spanish. It does so by exploring the concept of social identity through ceramic iconography. Previous studies have often simplified the role of Pueblo people in resisting the Spanish and have looked at what occurred through the lens of revitalization (Mills 2002). The Pueblo people clearly reacted in different ways to the Spanish in that some destroyed the church altars and missions, while others left mission structures and ecclesiastical paraphernalia intact. There was diversity among the Pueblo people in response to the Spanish and when the Spanish returned some Pueblo people supported the Spanish particularly in the Middle Rio Grande. Pueblo people encountered the Spanish and people expressed different ethnic identities. Perhaps the Pueblo people created a new identity during the time of the Pueblo Revolt in an effort to resist the change brought on by the Spanish. Christian imagery continued to be used after the Spanish left as evidenced in the motifs and material culture discovered by archaeologists (Liebmann 2002:132). This thesis expands the study of the effects of colonialism on Pueblo iconography. I investigate such questions as what role iconography played in religious resistance among the Pueblo people. To what extent did Pueblo people revert back to their traditional designs and how did the designs change due to Spanish contact? This research enables an exploration of whether social identity in Pueblo communities along the Rio Grande changed during initial and prolonged Spanish contact and if it changed during the Pueblo Revolt period as part of a widespread cultural revitalization movement or was there a hybridization of the two cultures. Future research on this topic is advanced by the critical assessment of previous work on the topic and the results of this study,
enabling a more holistic understanding of changes in ceramic iconography during the Pueblo Revolt.

**Methods**

This study examines 376 vessels found in museum collections that date to the Pueblo IV, Contact, and Revolt Periods from the Northern and Middle Rio Grande. An additional 31 vessels from the Hopi and 31 from the Salinas regions were also examined. Museum collections examined include the Peabody Museum of Anthropology and Ethnology, the Denver Museum of Nature and Science, the Western Archeological Conservation Center, and the Museum of Indian Arts and Culture. Within individual collections, vessels with decoration dating to the targeted time periods were examined and photographed. Documentation associated with vessels and their attributes such as form, ceramic type, and presence or absence of motifs were recorded. When necessary, information provided by museums on individual vessels was modified to fit current ceramic typologies. All motifs present on vessels were identified and incorporated into this study, and a discussion of the importance of some motifs in Puebloan society is provided. Basic quantitative comparisons between and within assemblages from the Northern Rio Grande and Middle Rio Grande were undertaken. Comparisons were made based on the temporal association of vessels into the Pre-Contact, Contact, and Revolt/Post-Revolt periods. This thesis looks at several different regions, which is important in order to demonstrate the variability of Pueblos in response to the Spanish.

**Summary of Results**

My results illustrate that there were several changes over time in the nature of pottery decoration in the Northern and Middle Rio Grande regions. These changes were not the same for both the Northern and Middle Rio Grande. For instance, there are differences in the presence of clear religious motifs such as kachinas and awanyus on pottery between the regions over time.
Additionally, vessels from the Northern Rio Grande tend to have more motifs on them than those from the Middle Rio Grande. Changes noted to be similar between the Northern and Middle Rio Grande are the introduction of new vessel forms, such as soup plates, cups, and candle holders, by the Spanish. European-associated vessel forms are more common in the Middle Rio Grande and comprise approximately 15 percent of a robust the Revolt/Post-Revolt period assemblage; they were only 8 percent in the small Northern Rio Grande sample. The differences that are present between the two regions are not indicative of any strong adoption of Spanish motifs in either area. My results do not concur with previous work by Mills (2002) who argues that there was a purposeful increase of cross imagery on Revolt/Post-Revolt pottery. My results indicate that motifs, particularly avian motifs, which represent aspects of Pueblo ritual practices and were not obvious to the Spanish were maintained throughout the Contact and Revolt/Post-Revolt period in the Middle Rio Grande. Based on my analysis, it is clear that there is variability in expression during this time, but that there is no evidence of Spanish motifs replacing Puebloan motifs. In the Middle Rio Grande, the motif density decreases over time which might suggest their response to the Spanish. My results present an interesting overall trend about the subtler changes of pottery designs and types over time.

**Thesis Outline**

My thesis is divided into several chapters. In Chapter 2, I will provide background information on the Northern and Middle Rio Grande, beginning with an overview of the geographical setting and the environment, followed by a brief cultural history of the prehistory of the area. Next, I will outline the Spanish contact period in the Rio Grande, starting with the early expeditions prior to the first successful colonization effort by Don Juan de Onate in 1598. This historical background will set the stage for the Pueblo response to colonization. Next, I discuss
the Pueblo Revolt of 1680 and the Pueblo people’s reaction to the forced colonization and missionization.

Chapter 3 provides an overview discussion on Rio Grande pottery from pre-Contact to post-Revolt period. I also provide an overview of the ceramics types present, with an emphasis on glaze wares due to their hypothesized link to the kachina religion (Eckert 2008), during the period of AD 1300-1750 and due to their abundance in my sample. First, I provide a brief overview on the development of black-on-white pottery in the Rio Grande, followed by a discussion of the glaze wares production and different types that are used throughout this thesis. Next, I provide a discussion of the previous ceramic research conducted on the Pueblo Revolt period and on the different methodological and theoretical approaches taken by archaeologists (Capone and Preucel 2002; Liebmann 2002, 2012; Mobley-Tanaka 2002; Mills 2002; Spielmann et al. 2006). Lastly, I provide an overview of the important motifs for my study and I explain how these motifs have been interpreted by other scholars.

Chapter 4 discusses the research methods used in this thesis. The chapter begins with an overview of the data sources, followed by a discussion of the methodology of data collection. Next, I explain the attributes and attribute states that I investigated. I explain how these attributes were documented and analyzed and discuss how they will help me address my research questions. I provide a discussion on the problems that I encountered while doing this analysis. Lastly, I explain the theoretical approaches this thesis follows and focus on theories surrounding culture contact and social identity. My thesis explores the relationship between iconography and identity and how this changed due to Spanish contact. Culture contact studies are useful to understand the contact between the Pueblo people and the Spanish. I examine other culture contact and acculturation studies to answer my research questions (Cusick 1998; Deagan 1998;
Lightfoot 1995; Silliman 2001; Voss 2005). Next, I outline how I define social identity and look at other studies to understand how the Pueblo people constructed and transformed their social identities (Janusek 2004; Liebmann 2013).

Chapter 5 provides the results of my analysis and a discussion on the larger framework of Pueblo social identity in order to answer my research questions. Results are provided and described for the entire assemblage examined and then for both the Northern and Middle Rio Grande individually. The differences in motifs present over time are further elaborated on with regards to whether their presence on jars or bowls resulted in differences. I explore whether differences in avian related motifs and overtly religious icons occurred from the Pre-Contact through Revolt/Post-Revolt period. Lastly, I provide a comparative dataset from the Salinas and Hopi regions.

Chapter 6, the final chapter, synthesizes the information discussed in the previous chapters to address my research questions and to provide information on the Pueblo Revolt period and Pueblo identity. I additionally provide further research suggestions and conclude by discussing the significance of this thesis.
Chapter 2: Background

This chapter is meant to provide a geographic and cultural background on the Middle and Northern Rio Grande prior to and then during Spanish contact. The pre-Hispanic Pueblo world offers a starting point to understand how the Spanish impacted Pueblo peoples’ lives and how changes transformed their identity. The background chapter will set the stage for the pottery analysis conducted and further discussed in later chapters. I begin with a brief overview of the geographic and environmental setting, prehistoric time periods, and major cultural developments that occurred in the Rio Grande. This overview will provide a broader cultural context for relevant changes in ceramic types present, as well as the importance of certain motifs such as kachinas and awanyus in Rio Grande communities. It will additionally enable an understanding of the context within which Pueblo people interacted with and reacted to foreign Spanish populations, regulations, and practices. Both the prehistoric era and contact period overview tie into the examination of social identity and cultural change in Pueblo Revolt and Post-Revolt period Pueblo communities that are the central focus of my thesis.

Geography and Environmental Setting

The Northern and Middle Rio Grande region’s diverse and varied geography and environment shaped the lives of the Pueblo people. The Northern Rio Grande is bounded by the San Luis Valley on the north, the Galisteo Basin on the southeast, the southern extreme of the Pajarito Plateau on the southwest, the western reaches of the Jemez River on the west, and the Sangre de Cristo Mountains on the east (Crown et al. 1996) (Figure 1). The Northern Rio Grande region contains a mixture of mountains, river basins, rolling plateaus, and high plains. The area includes basin and range topography, and varying resources and plant communities across the different elevations which range from about 1,590-3,050 meters (Vierra and Ford 2007:118).
Historically, most of the Eastern Pueblo people lived in the valley of the Rio Grande or on its tributaries. Villages were clustered along the Pecos, Taos, Santa Fe, Galisteo, Chama, Jemez and Puerco rivers. Water was abundant from these sources and from snow melt from the mountains (Cordell 2006a). The Middle Rio Grande is located south of the Northern Rio Grande and extends to the Lower Rio Puerco Valley (Eckert 2008). It is also characterized by similar geographical and environmental variability found in the Northern Rio Grande and is often combined with the Northern Rio Grande by archaeologists (see Cordell 2006; Crown et al. 1996). Resource available areas were abundant, yet patchy. Throughout the Rio Grande Valley, obsidian, turquoise, and chert were all available locally, and maize was relatively easy to grow at lower elevations (Cordell 2006).
The Rio Grande had an abundance of resources that the Pueblo people used prior to Spanish Contact. The Pueblo people in the Rio Grande lived in a diverse environment. Foraging groups traversed the Rio Grande during the Paleoindian and Archaic periods. These earlier groups in the area are not pertinent to my thesis, but show that the area was inhabited over a long span of time. Vegetation in these areas consist of juniper grasslands in the lowlands, piñon-juniper woodlands, ponderosa pine, mixed conifer on the upland mesa tops and spruce-fir forests in the mountains (Vierra and Ford 2007). Today, the Lower Rio Puerco valley in the Middle Rio
Grande is mainly desert grassland, with some shrubs and sparse juniper woodlands on the valley slopes and a riparian environment characterizes the main water channel (Eidenbach and Gossett 1982:14-17; Eckert 2008:17). Eckert (2008:17) states that soil studies of the Lower Rio Puerco valley suggest that the potential for agriculture in the valley was extremely limited. Wild resources were abundant in the Lower Rio Puerco valley. Faunal resources available were mule deer, antelope, rabbit and other small game. Moreover, ducks and other migratory waterfowl were seasonally available. Access to the highly diverse, resource rich environments within the Rio Grande Valley significantly impacted cultural development in the region.

The Northern and Middle Rio Grande before Contact
The Northern and Middle Rio Grande had a long culture history prior to the Spanish arrival. This chapter explores how the Pueblo people reacted to the Spanish occupation and serves as the basis for my thesis and allows the discussion of Pueblo social and religious transformation during and after the Spanish arrival. First, I provide a chronological account of the periods prior to Spanish contact in the Rio Grande. Next, I discuss the Spanish contact period and the effect of colonization, followed by an account of the Pueblo Revolt of 1680 and how this affected the Pueblos. Lastly, I explain what occurred after the Pueblo Revolt and prior to the Spanish reconquest in which Pueblo people redefined their religion and culture due to the impact of the Spanish missionaries.

The chronological sequence used in the northern Rio Grande was devised by Wendorf (1954) and altered by Wendorf and Reed (1955) in response to the Pecos Classification. The Pecos Classification while useful in other areas in the Southwest is not used in the Rio Grande since there is a dispute over the relationship between the Ancestral Pueblo people and the contemporary Pueblo people. Wendorf and Reed’s system which is still used today, divides the post-Archaic era from AD 900-1600 into three categories: Developmental (AD 600-1200),
Coalition (AD 1200-1325), Classic (AD 1325-1600) and then the last category is the Historic Period (AD 1600-present) (Crown et al. 1996; Wendorf and Reed 1955). For consistency with other areas in Southwest, the Pecos Classification scheme will be used in this thesis as well since there is some overlap in time periods and archaeologists in the region use both classifications (Table 1). The following brief survey of the more important chronological trends and developments in Rio Grande prehistory provides the context for my Pueblo Revolt case study and frames my research questions.

Table 1. Pecos and Rio Grande Classification (adapted from Riley 1999:Figure 3:67).

<table>
<thead>
<tr>
<th>General Time Associated</th>
<th>Pecos Classification</th>
<th>Rio Grande Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 1600 – 2000</td>
<td>Pueblo V</td>
<td>Historic</td>
</tr>
<tr>
<td>AD 1300 – 1600</td>
<td>Pueblo IV</td>
<td>Classic</td>
</tr>
<tr>
<td>AD 1100 – 1300</td>
<td>Pueblo III</td>
<td>Coalition</td>
</tr>
<tr>
<td>AD 900 – 1100</td>
<td>Pueblo II</td>
<td>Developmental</td>
</tr>
<tr>
<td>AD 700 – 900</td>
<td>Pueblo I</td>
<td></td>
</tr>
<tr>
<td>AD 500 - 700</td>
<td>Basketmaker III</td>
<td>Archaic and Paleoindian</td>
</tr>
<tr>
<td>AD 100 – 500</td>
<td>Basketmaker II</td>
<td></td>
</tr>
<tr>
<td>Pre-AD 100</td>
<td>Archaic and Paleoindian</td>
<td></td>
</tr>
</tbody>
</table>

**Developmental Period**

The Developmental period begins earlier in the Middle Rio Grande than in the Northern Rio Grande. This period in the Rio Grande region was a time of major behavioral shifts and transformation from primarily mobile hunter-gatherers to sedentary, agrarian communities (Scheick 2007). Prior to this period, people in the area lived by foraging and in small groups, with Archaic sites located throughout the area and more frequent in upland zones (Vierra and
Ford 2007). The AD 600 to 900 Early Developmental period is associated with increased effective moisture and higher return rates for initial lowland farming (Vierra and Ford 2007). This allowed for people to begin staying in one place for an extended time period since there was more environmental stability. Habitation sites dating to the Early Developmental period in the Northern Rio Grande, AD 900, have been identified in the southern portion of the Tewa Basin in the areas adjacent to Santa Fe and Pojoaque, with smaller and less frequent sites on the Pajarito Plateau and Santa Cruz drainages in the western and eastern portions of the Basin (Duwe 2011:211). By AD 900, early pithouse villages appear throughout the Rio Grande Valley, indicating more sedentary, agrarian populations were present (Vierra and Ford 2007). Moreover, there was a more stable environment and some groups moved into the Rio Grande Valley from the northern San Juan, apparently bringing hachure style mineral painted pottery, a type called Kwahe’e black-on-white which replaced Red Mesa Black-on-White as the dominant ceramic type (Washburn 2014). The transition is indicative of increasing interaction with groups living outside of the Rio Grande Valley.

The Late Developmental period partly overlaps with the Pueblo II period of the Pecos system, which dates from AD 900 – 1150. The major development of the Pueblo II period is the Chaco Regional System, which incorporated and impacted settlements across much of the northern Southwest during this time. The Chacoan Regional System is characterized by great houses, multi-story community structures that were usually surrounded by smaller habitation sites, great kivas, and prehistoric roads linking sites. The center of this system was Chaco Canyon which contained the largest and most impressive great houses, such as Pueblo Bonito and Pueblo Alto, concentrated in small area. Prehistoric roads radiated out of Chaco Canyon suggesting that it was a major center for the Pueblo peoples from AD 900 to 1150. Current
archaeological data suggests that the Chaco Regional System did not directly incorporate northern Rio Grande settlements, however it did impact the broader trends in cultural development throughout Puebloan society (Ware 2014). In comparison to the large Chacoan system of elaborate great houses and great kivas and widespread exchange of materials, the end of the Developmental period is characterized by dispersed populations living throughout the Rio Grande valley in small sedentary hamlets and villages comprised of pithouses and few instances of communal or ceremonial facilities.

**Coalition Period**

The Coalition period lasted from AD 1200-1325 and there was a drastic increase in the number of sites in the Northern Rio Grande valley during this time, suggesting an increase in the population. The Coalition period is marked by a transformation of Rio Grande society from small scattered hamlets and villages to the creation of large villages with communal and ceremonial facilities such as kivas and plazas (Cordell 1979). The beginning of the period is marked by the emergence of carbon-painted Santa Fe Black-on-white pottery as a regional northern Rio Grande tradition (Habicht-Mauche 1993; Wendorf and Reed 1955). Wendorf and Reed (1955) believed that Santa Fe black-on-white developed locally and spread throughout the upper Rio Grande. Others, however, argue that the influx of in-migration contributed to this change in paint type (Kohler and Root 2004, Ortman 2012; Washburn 2014). The production and distribution of Santa Fe black-on-white with its carbon paint marked a transition from earlier mineral painted wares such as Kwahe’e black-on-white mentioned above which has its origins in the northern San Juan. There is evidence of this switch in pottery at Burnt Mesa Pueblo where two different construction phases date the pottery transformation (Washburn 2014). Moreover, there is another ceramic shift to Galisteo Black-on-White pottery which is seen at Pindi Pueblo. The first building period at Pindi Pueblo (AD 1250-1300) was dominated by Santa Fe black-on-
white and the second (beginning around AD 1270 and intensifying in the 1320s) was dominated by Galisteo black-on-white. The changes in ceramic types within a short time during the Late Coalition period suggest that societal changes and interaction with various groups was increasing.

One major change is that beginning in the late 13th century, the northern Rio Grande region’s population grew exponentially, as evidenced by the doubling of room counts at Pueblo sites (Ortman 2012). The reasons for the late 13th century population influx have been discussed at length by archaeologists and alternative models proposed: either the increase is due to intraregional population growth and limited resettlement from surrounding regions (Boyer et al. 2010; Mera 1934) or population increase is the result of the large-scale migration of foreign people, who likely originated from the northern San Juan (Habicht-Mauche 1993; Kidder 1924; Ortman 2012). Most archaeologists currently favor the migration of groups from the northern San Juan into the Rio Grande Valley at this time, likely beginning as early as 1225 (Ortman 2012; Kohler and Root 2004). The influx of populations dramatically increased the number of people living in the Rio Grande Valley and strained the previous system of small, relatively dispersed settlements on a landscape.

**Classic Period**

During the Classic Period, AD 1325-1600 very large pueblos were built in the Chama, Pajarito, Taos, Santa Fe, Galisteo, Pecos and Albuquerque areas. Whereas the previous Coalition period populations lived in dispersed sites over a large area, the Classic period is defined by populations coalescing into larger sites in specific regions. This shift has been attributed to degrading environmental conditions, an influx of people from the Mesa Verde area, and increased competition and conflict within the region (Eckert and Cordell 2004; Ortman 2012). It has also been suggested that conflict was the cause of residential reorganization. However, there
is limited evidence that adequately explains the relationships that existed between contemporaneous villages and more data are needed to understand why villages were reorganizing. Most of these sites, with a few exceptions, were briefly surveyed or excavated and not fully reported and often the artifacts recovered have little provenience beyond site affiliation. Although the sites varied, the site size increased in the Rio Grande during the Classic period with villages of over 1,000 ground-floor rooms. Moreover, sites in the Tewa Basin saw a decrease and reorganization of population since people were moving both within and leaving the Basin (Ortman 2012).

During the Pueblo IV period in the Rio Grande valley there were migrations and reorganization of local communities and regional social networks that cross-cut preexisting ethnic and social boundaries (Habicht-Mauche 2006). A new set of ceremonies emerged during Pueblo IV revolving around the kachina religion, which seem to have been introduced with glaze ware decorative traditions to the Rio Grande Valley by Western Pueblo migrants (Eckert 2008). Kachinas are ancestral gods who bring rain, harmony, and well-being to Puebloan peoples (Schaafsma 2009). Kachinas are represented by costumed or masked human dancers who are the manifestation of the gods. The kachina religion is still found in all modern Rio Grande Pueblos, although only traces remain in the Tiwa region.

When the Spanish arrived in the Rio Grande in the mid-1500s, the sociopolitical life of Rio Grande peoples was closely intertwined with religion and ceremony. In 1492, there was a major center of Rio Grande pottery making in the Galisteo Basin. Large Tano towns produced red and orange slipped wares known as San Lazaro Polychrome or Glaze D. Prior to Spanish Contact, there was an increase in the production of polychrome pottery; this trend changed during and after contact (Spielmann et al. 2006:631). Pueblo people in most of the Rio Grande
produced glaze ware during the Spanish occupation; however, many other changes due to Spanish contact are present archaeologically. A further discussion of Classic period pottery can be found in Chapter 3.

**Contact Period/Historic Period**

The arrival of the Spanish in the 16th century changed the Pueblo world drastically and this section serves to provide the necessary background on Spanish colonization. It is important to understand the tremendous changes that took place in the Pueblo world with the arrival of the Spanish because in my thesis I will examine how the impact of these changes were reflected on the designs on the pottery that the Pueblo people continued to make during and after the Spanish occupation. This section explains the Spanish domination that occurred in the Pueblo world and Pueblo people’s growing resentment of the Spanish control in their daily lives.

Spanish conquistadors traveled to New Mexico the mid-1500s in search of gold and the ‘Azatlan’ of the Aztecs. Francisco Vázquez de Coronado and his expedition of soldiers and Indian servants encountered the Pueblo people in New Mexico and set up their camp near a Tiwa village, outside of modern day Albuquerque. The Spanish soldiers demanded supplies from the Tiwas including both food and clothing. The Tiwas resisted the Spanish and Coronado’s men captured two hundred Tiwas and executed them. Fighting broke out between the Tiwas and the Spanish and word spread throughout the country about their ruthlessness (Spicer 1962:155).

Coronado and his expedition started out for Pecos Pueblo in the early 1540s. When the Spanish appeared at Pecos there was a population of 2,000 or more people living there (Kessell 1979). Pecos Pueblo was described as the gateway to the Plains by the Spanish. In 1542, Coronado made initial contact with Pecos Pueblo and Fray Luis de Úbeda set up a small church and mission (Kessell 1979: 26). Fray Luis de Úbeda stated his purpose at the pueblo was “that he would erect crosses in those pueblos and would baptize the children he found on the verge of
death and send them to heaven” (Kessell 1979:26). But none of the Pueblo people at Pecos wanted to learn about Christianity from Úbeda. It was not until 1598 that Fray Francisco de San Miguel began a successful conversion of people at Pecos Pueblo after Juan de Oñate had colonized the Pueblo.

In addition to Coronado, four other Spanish expeditions traveled through the Rio Grande region throughout the 16th century. These expeditions were led by Chamuscado-Rodríguez, Espejo, Castaño de Sosa and Leyba de Bonilla. Two of these were military expeditions intent on conquest and the other two were missionary efforts. After the failed military expeditions, the Spanish sent in peaceful expeditions. Fray Agustín Rodríguez and Fray Francisco Sánchez Chamuscado set out for New Mexico in 1581 along with a small group of soldiers, Indian servants and two other friars (Espinosa 1988:5). Antonio Espejo in 1582 had a friendly greeting from the Keres and Tano people and he was given food and other supplies (Spicer 1962:156). Gaspar Castaño de Sosa entered New Mexico through Pecos and never reached the Salinas regions since he was arrested outside of the region. Franciscan Leyba de Bonilla illegally led a party of freebooters into New Mexico in search of gold and was murdered in the central Great Plains by one of his soldiers, Antonio Gutiérrez de Humaña who then assumed control (Hayes et al. 1981:4). Franciscan missionaries on early Spanish expeditions encountered the Pueblo people. Conquistadors loyal to the monarchy demanded obedience from natives and promoted the Bible to ensure domination and subjugation. According to Coronado’s and other conquistadors’ reports the Indians were meant to be treated with respect and he stressed that they would not be harmed. Don Antonio de Mendoza instructed Fray Marcas de Niza in 1538, “You shall make clear to the Indians that I am sending you, in the name of his Majesty, to tell them that the Spaniards shall treat them well […] and regrets the abuses and harm they have suffered” (Hammond 1977:59).
Even though benevolence was stressed, at the same time Coronado stated “[…] Indians who are in revolt. I shall try to win them over with good deeds and kindness, but if I should fail I shall try to do it by whatever means should be more suitable to the service of God and your Majesty” (Hammond 1977:48). Moreover, the motivation of conquistadors as suggested in these accounts pertains to a need for oppression and domination. However, there needs to be a distinction between the early conquistadors and the later Spanish governors who remained in the New Mexico. Because they had different motives, the conquistadors were more interested in resources and the Spanish governors were more interested in controlling the native peoples and advancing their own wealth (Wilcox 2009:134).

The initial colonization of New Mexico took place in 1598 with an expedition led by Don Juan de Oñate and this began Spanish programs of taxation, forced labor and evangelization. Oñate and his party arrived in Pecos Pueblo in 1598 and the Pueblo did not fight and became under Spanish control (Kessell 1979:80). Tension arose between the governors and the clergy which resulted in a decrease in attempting to convert natives in the early 1600s. Both civil and ecclesiastical officials were accused of forcing the Pueblos to labor without pay, though the Pueblos appear to have made concessions to the governors and encomenderos in exchange for increased religious freedom (Wilcox 2009:140). Often the governors were corrupt and enslaved the natives and forced conversion at the pueblos. By the mid-1600s missionary efforts among the Pueblo people increased (Wilcox 2009:140). Conversions consisted of participation in highly routinized, ritual practices, and baptism. There was no initial attempt made to indoctrinate the Pueblos in the intricate theological principles that characterized European Catholicism since the Franciscan missionaries were initially incapable of communicating the complex theological principals to the Pueblos in any detail (Wilcox 2009:140). Due to this and the use of Native
interpreters it is unlikely that in the early years the Pueblo people understood Catholicism in the same way as the Spanish. There was an extended drought between 1666 and 1670 which increased the strain on the agricultural production and the encomenderos and civil and ecclesiastical officials continued to take Pueblo people’s food (Wilcox 2009:143). The Spanish suppressed Pueblo religion by banning kachina dances and filling in kivas and confiscating and burning religious objects. At each mission the Pueblo people were taught reading and writing in Spanish, religious music and the ways of Christian life. Along with religious lessons the missions taught the Pueblo people western European trades (Espinosa 1988:21). The methods of conversion were similar in that they stressed Catholic elements such as the veneration of the Cross and the Blessed Virgin, respect for the missionaries, the teaching of basic Catholic prayers and regular attendance at mass and other religious services conducted by the friars (Espinosa 1988).

Each mission had an established church, convent or missionary headquarters and workshops. The exteriors of the adobe mission churches were plastered with mud and the interior of the mission walls were decorated with ornate designs. The main altars, side altars, and walls of the churches were adorned with religious paintings. Some religious paintings and religious ornaments and vestments came from New Spain through trade routes.

After initial conversion at the pueblo in 1619 Father Zambrano, the friar at Pecos Pueblo, heard that the governor’s assistant had announced that the Pueblo people did not have to give up their religious idols. This declaration was made in an effort to reduce Pueblo people’s resistance to Christianization. However, Zambrano called the Pueblo ceremonial leaders “idolaters and witches” suggesting that conversion to Christianity was a necessity (Kessell 1979:106). Fray Pedro de Ortega took over Zambrano’s position at Pecos in the 1620s and instigated a plan to
purge pagan idolatry by gathering and smashing idols, wooden figurines, and effigies. Kessell (1979) argues that many of the inhabitants at Pecos “passively suffered” by watching their idols being destroyed. Archaeologists found ceremonial caches which contained broken clay and stone effigies and figurines, including a greenish stone squatting human being. Pueblo people hid idols behind altars or in the ground in the plaza (Kessell 1979:111). The evidence of the smashed idols supports that the historic documentation of Ortega’s order that all idols be damaged (Kessell 1979:111).

In the new territory, Fray Juan de Padilla set up large crosses in the pueblos along the Río de Nuestra Señora (Rio Grande) in 1625. The Spanish assumed that the Pueblo people were venerating the crosses in the manner they taught them since they spread sacred corn meal and tied prayer plumes to the crosses (Kessell 1979:13). The Spanish had the requerimiento read to the Pueblo people. The requerimiento was a sort of manifesto that explained how God had delegated authority to the Pope and that if the people refused obedience than the Spanish would enter their land and enslave their children. Upon first contact the Spanish invaders overlooked the religious function of kivas and referred to them as “sweat baths” (Kessell 1979:14). The Spanish thought these estufas or sweat baths served as quarters for the unmarried men of the pueblo and as councils for the men and as baths in the Roman sense. The Spanish did not believe that the Pueblo people had a legitimate religion and saw what they were practicing as akin to a pagan religion.

Historical documents suggest unrest among the Pueblo people at this time in response to the presence and practices of the Spanish colonizers. This is important to note that the Pueblo people over time grew more and more resentful of the Spanish domination. A Pueblo man, Francisco Mosoyo, spread word that the Indians should not go to church and should display their
religious objects (Kessell 1979:111). Mosoyo was punished by Ortega who tried to rehabilitate him by placing him in a house of a Christian Spaniard. The Governor Eulate ordered Friar Ortega to return Mosoyo to Pecos and not to harm him (Kessell 1979). Although there was some resistance to the Spanish, the Pueblo people were forced to accept Christianity. The Spanish missionaries felt it was their goal to Christianize and educate the Pueblo people despite the resistance they received from the individuals. Friars stressed the teaching of basic Catholic prayers, instruction regarding sacraments and regular attendance at mass. Benavides wrote, “Before mass, they pray together as a group, with all devotion, the entire Christian doctrine in their own tongue. They attend mass and hear the sermon with great reverence” (Espinosa 1988:22).

An early, but historically profound confrontation between Pueblo people and Spanish colonists and conquistadors occurred at Acoma Pueblo. Conquistador Don Juan de Oñate and his party, including 129 soldiers and 10 Franciscan friars, arrived on the territory near the Chama River and Ohkay Owingeh Pueblo on August 18, 1598 and set up a settlement in New Mexico. The settlers moved into part of the roomblocks of the Tewa Pueblo of Ohkay Owingeh (San Juan Pueblo) and began to construct a church, San Juan Bautista. Oñate visited a Towa pueblo prior to his arrival at Ohkay Owingeh and there had found a leader in possession of a silver paten, a shallow plate used to hold the Eucharist during mass, around his neck. Oñate traded for it and used the paten for the new altar at the newly constructed Church (Riley 1999). These initial positive engagements, however, failed to continue. Oñate’s expedition party explored the Middle Rio Grande Valley to present day Northern and Central New Mexico where the party encountered Pueblo groups, resulting in significant interactions.
As part of his colonization process, Juan de Oñate ordered the Pueblo people to accept the Christian doctrine, that there was only one God, and to submit to the Spanish King, Phillip II, or else be subjected to physical punishment and eternal torment (Kessell 1979:81). In October 1598 there was an important skirmish when Oñate’s men demanded supplies from Acoma Pueblo. Oñate forced the people of Acoma to pay taxes on crops and cotton and to work for the Spanish government. However, the Acomas refused to give in to the Spanish demands. Consequently, Oñate sent troops to the mesa and a battle ensued in which Acoma warriors killed twelve Spanish soldiers, including Oñate’s nephew and aide, Juan de Zaldívar (Kessell 1979:81). In retaliation in 1599, the Spanish sent seventy soldiers to punish the Acomas and quell the chance of an uprising among the Pueblo people. The Acoma men, sensing defeat, killed themselves and their families instead of surrendering. The Spanish took as many captives as they could and took control of the pueblo. Oñate ordered the Spanish soldiers to cut off the left foot of every Acoma male twenty-five or older, as a punishment for their disobedience and many, including women and children, were ordered to serve twenty years of hard labor (Kessell 1979:86; Spicer 1962:157). The Spanish soldiers amputated one hand from each of the two Hopi captives who were caught by the Spanish at Acoma. They were meant to serve as an example and warning about compliance when they returned to their village. The presence of Oñate left a mark on the history of the people which still reverberates in modern Acoma and Hispanic relations and created a resentment of the Spanish that resulted in the Pueblo Revolt (Kessell 1979:86).

Oñate’s primary reason for settlement in New Mexico was the economic desire for silver which the Spanish thought could be found in New Mexico. Precious metal had been previously found in Nueva Vizcaya. The other reasons included setting up encomiendas, taking advantage
of the arable or grazing lands, trade of hides, slaves, minerals and semiprecious stones and lastly for conversion of large populations by the Franciscans (Riley 1999:37-38). An encomienda was an institution introduced at the beginning of the Spanish period in the New World through which individual Spaniards were given grants of the labor and tribute of specific Indian groups (Riley 1999). Coronado’s expeditions exaggerated the fertility of New Mexico. Cattle were imported, and estancias and ranches were set up in the riverine areas. The imported economic system had profound impact on the Puebloan people.

Individual pueblos were required to pay tribute to the governor of the colony in the form of clothing and maize (Liebmann 2012:33). The jurisdiction of the encomienda system weakened the economic foundation of Pueblo society. The repartimiento system enacted by the Spanish forced Pueblo workers to provide labor for Spanish farms and estancias. The period from 1540 to 1750 was stressful for the Pueblo people. They suffered epidemic diseases, drought famines, forced labor, and raiding by neighboring tribes. The increased demands for tribute quickly depleted their resources forcing Pueblo people to petition the Church for food. These issues between the Puebloan and Spanish people were exacerbated by internal strife within the Spanish governance and variable environmental conditions.

The 17th century was an unstable atmosphere in colonial New Mexico because of tensions between the Church and the State. Friars and governors fought over control of the Pueblo labor pool (Liebmann 2012). Mayors of towns would mistreat the natives and allow whippings. Franciscans were determined to eradicate aspects of Native religion to minimal success. The Spanish seized Pueblo altars, prayer sticks and masks, dances were forbidden, gathering of assemblies in kivas was outlawed and sacred chambers were destroyed (Liebmann 2012:38). By the mid-1630s missionaries slowed down their efforts of missionizing due to levels of unrest and
fear of rebellions. The unstable tensions resulted in the Taos people killing their friar and destroying their church in the 1640s. Moreover, at Jemez pueblo from 1644 to 1653 there was evidence of the Jemez people becoming restless and their leaders were implicated in plots of rebellion (Espinosa 1988:24). Pueblo peoples returned to their kachina religion between 1666 and 1675 (Liebmann 2012). The Spanish tried to maintain authority over the Pueblo people by punishing them for insubordination and tried to put an end to their native religion. In the 1660s, there were unstable environmental conditions in the Rio Grande, straining the Pueblo’s reliance on irrigation agriculture and leading to famine. There was a cycle of famine, raiding and disease and frequent Apache attacks which further weakened resources. This period of instability and colonial interference in Puebloan lifeways promoted internal strife within communities, leading to rebellions against the Spanish governance.

**Pueblo Revolt of 1680**

During the Spanish domination in the Rio Grande, the Pueblo people began to resent the Spanish. Several revolts took place throughout the Southwest and Northwest Mexico, including the Tepehuan and Tarahumara revolts in the mid-1600s due to forced labor and religious conversion. The Tepehuan Revolt took place from 1616-1620 in the Sierra Madre Occidental in New Spain or present day northwestern Mexico (Reff 1995). The rebellion resulted in the loss of ten religious people, eight of who were Jesuits, and several hundred Spanish civilians and African slaves (Reff 1995). The Jesuit Andrés Peréz de Ribas recorded the Tepehuan revolt and its aftermath (Reff 1995). His account reflects how the Spanish perceived the experience. The Tarahumara revolt also took place in what is now Mexico. In the American Southwest, prior to the 1680 revolt, there were 8 other native revolts (Liebmann 2012). One Pueblo leader, Esteban Clemente of the Salinas District organized a pan-Pueblo alliance in the 1660s that predated the Pueblo Revolt of 1680. Unfortunately, Esteban Clemente was not successful in planning a revolt.
because he was killed by the Spanish before he could instigate it (Spielmann et al. 2006). After this unsuccessful revolt, a Pueblo leader emerged, Po’pay, who would formulate a large revolt in the Rio Grande. Written records reveal only Po’pay’s Tewa name, that he was the primary organizer of the rebellion, and that he was from Ohkay Owingeh (Liebmann 2012; Liebmann and Preucel 2007).

Prior to the 1680 Pueblo Revolt, Po’pay, advocated for a revolt against the Spanish. Po’pay was described as a charismatic prophet or leader who led the revolt to remove the Spanish domain (Reff 1995). Po’pay declared he had a revelation in a kiva, in Taos Pueblo. A Jemez oral tradition suggested the Pueblo Revolt started with an apparition of a traditional Pueblo spirit that met Po’pay (Liebmann 2012:4). Po’pay was described as communicating with supernatural beings. The Spanish thought he was a sorcerer and he was arrested in 1675 and Spanish authorities beat him for “witchcraft” and communicating with what they assumed was the devil. When he was released from Spanish custody, he took refuge in Taos Pueblo, and started planning his vengeance on the Spanish. He stated that a supernatural entity visited him while he was in seclusion, and told him the “Spaniards must die” (Liebmann 2012:3). Accounts suggest that a spirit visited Po’pay in a kiva in Taos Pueblo. Some of these accounts detail that he met with Po’se yemu, the powerful rain-giver, a figure prominent in Pueblo mythology (Hackett and Shelby 1942). Although the accounts of Po’pay’s motivations differ, they all suggest that he saw the benefit in the removal of the Spanish. The revolt was planned by 22 war captains of different pueblos. Interestingly although Po’pay was advocating for a nativism movement with all Spanish influences removed, some of the war captains that planned the revolt were not fully Pueblo. Many of the planners of the revolt were of ethnically mixed ancestry: mestizos (persons of Indian and European descent), coyotes (those born of a Native American
and African union), and others were *indios ladinos*, Spanish speaking Natives who had been educated in the missions by the friars. Racial and ethnic mixture was the norm during the 17th century. The Pueblo Revolt was planned, and knotted ropes were passed out among the pueblos that foretold when the revolt was to occur. When all the knots were untied that day was the day of the revolt. There are accounts that suggest that the Pueblo people tried to keep the revolt a secret and in the process Po’pay allegedly killed his son-in-law to keep the plot from spreading. Preucel (2002) states that the revolt was probably led by multiple leaders and that Po’pay was just one of the influential leaders among the Pueblo people. It is also important to point out that not all the Pueblos agreed with the planned revolt, especially the secular leaders who had the Spanish had appointed felt that the revolt was mutinous.

On August 10, 1680, the Pueblo Revolt simultaneously took place among multiple pueblos, but not all throughout the Southwest. In a planned rebellion, Pueblo warriors killed their Franciscan missionaries or drove the Spanish out and destroyed the mission churches (Preucel 2002:3). According to a Hopi oral tradition, warriors of Orayvi stormed the house of Fray Jose de Espeleta. In the 1680 revolt, two-thirds of the ecclesiastical personnel were killed and 21 of the 53 Franciscans were martyred (Liebmann 2012). The Spanish people that were not killed were forced to flee the area. The Pueblo people succeeded in removing the Spanish for 12 years. Preucel (2002:3) states soon after the Spanish left, Pueblo people “revived their traditional ceremonies, rebuilt kivas;” however, what emerged after the revolt shows traces of the impacts of the Spanish in Pueblo society. Preucel (2002) refers to Po’pay as messianic figure, in line with the adoption and influence of Catholicism on Pueblo people. This correlation is important because it shows how different cultures take aspects of outside cultures. Furthermore, if the Pueblo people viewed Po’pay like a messiah then perhaps the Catholic influence and the ideas of
Jesus seeped into their worldview. Even after the Spanish returned from exile in El Paso del Norte in 1692 there was a second, smaller revolt in 1696 (Espinosa 1988). The reasons for the second revolt were similar to the first revolt, which were included religious persecution, economic exploitation, Spanish government subjection, and fewer resources.

The Franciscan missionaries attributed the Pueblo Revolt of 1680 to satanic forces and believed Po’pay had communicated with the devil in the kiva (Reff 1995:70). Missionaries recognized that the native religion relied on the idea of different invisible and natural worlds and interactive deities. Pueblo mythology recounted a “black messenger,” which the missionaries believed resembled Christian ideas about Satan (Reff 1995:77). Liebmann (2012) explains how the Pueblo people, in particular the people of Jemez, communicated both nativist ideas while also holding onto Catholic ideas. This suggests that Pueblo people at the time held various religious beliefs and incorporated Catholic ideas into their worldview. Furthermore, Reff (1995) explores the role of Christianity in the Tepehuan and Pueblo Revolts and the motivation of missionaries in needing to combat the devil in everyday life. The Tepehuan revolt serves as an example of an indigenous movement against the Spanish that has similarities with the Pueblo Revolt of 1680. Reff (1995) stresses the importance of recognizing the problems of misinterpretation by overlooking the actions of the people involved (Reff 1995). Jesuit Friar Pérez de Ribas linked the leader of the Tepehuan revolt who was identified as Quautlatas with the Antichrist. By understanding how the Spanish and Pueblo people saw the Pueblo Revolt, it is possible to learn more about the worldview of the Pueblo people (Reff 1995:64). Pueblo people shared a worldview prior to the Spanish arrival and it is important to understand how the Pueblo perceived their world and religion since it provides the context and societal importance for pottery decorations that this thesis is exploring.
The Bible was used as a tool for conversion by the Franciscan missionaries throughout the Spanish colonies, including both the Pueblos and the Tepehuan. Franciscans used specific passages from the Bible to justify their actions in the colonies. Andrés Peréz de Ribas used the Bible as a guide and as a “literary tool chest” to suggest how to missionize in the New World (Reff 1999:17). Ribas attributed the Jesuits mission to a fulfillment of prophecy and similar to the apostle’s work. Ribas viewed himself as Paul and used Paul’s Letter to the Ephesians and Corinthians to understand his purpose in life as God’s messenger. Indians were viewed as “wild beasts” that were then tamed due to Christian order (Reff 1999:40). Similarly, Franciscan Friar, Fray Alonso de Benovidas, stressed the importance of becoming a good Christian citizen and focused on imposing Christian ideals in Acoma Pueblo (Espinosa 1988:21).

Paul’s Letter to the Ephesians explains how to welcome the new colonized Christians to the community. Missionaries like Ribas drew parallels with this text and saw the Pueblo people as the converts in the Bible. Ribas linked the people he encountered in Mexico, “demons” to the people mentioned by Paul (Reff 1995:75). The passage talks about taking arms up against the forces of evil, but does not specify who or what exactly is the devil. Missionaries could have used this passage to mean combating the devil in the new world as fighting the heathens. This explicit need for conversion stems from the altruistic vision of missionaries bettering the world as messengers of God. Missionaries used the idea of the indwelling spirit to connect with the Pueblo people. There is a strict attempt to make Pueblo people particularly aware of certain Christian tenements including Christ’s crucifixion. By using this passage missionaries could attribute what they were doing as the work of God mediated through them. Missionaries saw themselves as messianic prophets sent to save the lost souls of the “heathens.” As saviors, missionaries tried to relate to the natives through their ontologies regarding the soul and
supernatural deities and the concept of the indwelling spirit of Christianity. By recognizing Native religious ideas and stressing the importance of the indwelling spirit, missionaries sought to gradually supplant Native beliefs. This thesis assesses whether the supplementation of Native beliefs is evident in designs on ceramics.

*Between the Revolt and the Reconquista*

After the Spanish were driven out of Pueblo territory, the Pueblo people sought to reorder their society. Po’pay and his followers preached ideas of nativism and revitalization in the form of returning to the traditional ways of life before the Spanish arrived, including the use of traditional imagery. Some pueblos began nativist cleansing by destroying missions, such as the one at Sandia Pueblo. There was variability among the Pueblos regarding what Spanish items were kept or destroyed. Archaeological investigations at Pecos Pueblo reveal that the church was filled with kindling and set ablaze in the aftermath of the revolt (Liebmann 2012:75). One of the most iconic items destroyed during the revolt were the mission bells since to the Pueblos they signified the Spanish domination over their lives. Some pueblos destroyed the church altars and missions. However, other villages left mission structures and ecclesiastical paraphernalia intact. The Tewa mission of Santo Domingo was left unharmed. There were different degrees of nativist and revivalist thought and action among the pueblos. Po’pay suggested they cease using their baptismal names (Liebmann 2012:72). Interestingly, while Po’pay was preaching destruction to Christian ideas and items, he dressed in the fashion of a Christian leader. There is also disagreement over whether, after the revolt Pueblo, people purposefully enacted a nativism movement to rid Spanish influences, or they adapted Spanish ways into Pueblo practices. Preucel (2002) suggests that there was a nativistic aspect since there was an anti-Catholic message spread throughout the Pueblo world. However, although this was the prominent message, not all Pueblo people followed the revitalization movement which caused issues and tensions among them.
Since Po’pay and the Northern Rio Grande Pueblos were strictly advocating for a revitalization movement it can be inferred that not everyone at this time agreed with their ideas. Po’pay argued that the Pueblo people should live by the “laws of the ancestors” (Preucel 2002:7). Moreover, Po’pay demanded that the baptism water be washed away in the Rio Grande River and that people scrub themselves with yucca (Liebmann 2012:72). Po’pay’s strict orders to remove the Spanish influences in Pueblo daily life suggests that not everyone agreed to this nativist idea and that there was variability among the Pueblos regarding the impact of the Spanish. Although he was preaching the removal of Catholic paraphernalia, leaders of the rebellion, including Po’pay himself, started wearing the vestments of the priests as a sign of individual power. The Pueblo people held onto some items and found new uses for them which suggested that they were creating a new shared identity. At times, Po’pay and other leaders dressed in Catholic garb and mocked the Spanish through a ritual parody. However, even Po’pay crossed the line of mocking and took on the role of the Spanish leaders in that he started trying to collect taxes like the Spanish leaders did (Liebmann 2012:73). Ultimately, Po’pay was forced out of control by the Pueblo people since he became too much like the Spanish overlords and was replaced with another leader. The Pueblo people instigated a coup d’état and Luis Tupatu took over the Pan-Pueblo resistance movement (Liebmann 2012:75).

In the aftermath of the Pueblo Revolt and with the Pueblo peoples’ desire to regain control of their lives, a pan-Pueblo identity emerged. Prior to the Spanish arrival in the Northern Rio Grande, communities defined themselves based on long-standing ethnolinguistic boundaries. After a century of Spanish influence, Pueblo people appropriated the Spaniard’s ethnic classifications, including all Pueblo people into one pan-Pueblo identity. Although, the Pueblo people formed a pan-Pueblo identity they still recognized their own ethnic and linguistic
diversity. The Pueblo people adopted Spanish introduced food, Spanish building styles and mission facilities.

After 12 years of exile, the Spanish regained their territories in New Mexico. In July 1692, Diego de Vargas led Spanish forces to the territory near present day Santa Fe, were he demanded that the Pueblo people surrender, and he promised clemency if they would return to their Christian faith and swear allegiance to the King of Spain. At this time the Pueblo society was in political upheaval since there were tensions over who would control the territory. This political tension combined with raids by outside tribes and a seven-year drought weakened Pueblo strength. The Pueblo leaders met with De Vargas and agreed to his terms.

The period from initial contact through the Pueblo Revolt is best characterized as one of significant cultural changes in Native groups. These changes, particularly in ceramics, are also visible archaeologically and mentioned to provide examples for how archaeologists identify changes in material culture during the Contact through Revolt period. For example, the Jemez potters stopped producing Jemez black-on-white in the 1680s (Liebmann 2012:128). Zuni potters no longer produced the Rio Grande glaze ware that was introduced to them via the Spanish (Mills 2002). The Spanish had encouraged the Zuni people to produce the glaze ware that the other Rio Grande groups were creating at this time. Scholars have argued that the Pueblo people wanted to remove the Spanish impact on their lives and stopped producing the pottery that held ties to the Spanish domination. Glaze ware was found being used in the mission church at Hawikuh and the baptismal font had a glaze decorated vessel recovered from contexts associated with the pre-Revolt period (Liebmann 2012:132). This suggests that the Zuni people held on to specific Catholic ways. Post 1680 a new type of pottery emerged, a plain red style described as “glaze ware without the glaze” (Liebmann 2012:133). Multiple pueblos throughout the Northern
Rio Grande began producing this new style of pottery and it is thought of to represent a pan-Pueblo consciousness. Moreover, four dominant design elements, some present in the pre-Contact period, developed and spread across the Pueblo world in the 1680s which united pottery made by women from Jemez, Zia, Santa Ana, San Felipe, Cochiti, Kewa, Pecos, Acoma and Zuni and some parts of Tewa area (Liebmann 2012:128-130). The four design icons (Figure 2) included feather motifs, hooked triangle/ F figure design, the double-headed key theme, and the cap steep/sacred mountain motif (Liebmann 2012).

Figure 2. Common Design Motifs of the Pueblo Revolt Period (from Liebmann 2012:Figure 7.4).

**Conclusion**

The Northern and Middle Rio Grande encompass significant geographical and environmental variability that resulted in a diverse archaeological record. Different ecological zones provided access to a variety of plant, animal, and mineral resources. Occupation in these valleys began during the Paleoindian period and continues through the present. The abundance of water and ease of growing maize at lower elevations in most areas supported larger populations, particularly in the Classic period. Major transitions described in the cultural summary include the
development and spread of intensive agriculture, the migration of people into the area and expansion of sites in the thirteenth and fourteenth centuries, the production of glaze ware ceramics, the arrival and impact of the Spanish in the sixteenth century, and the Pueblo Revolt of 1680. The next chapter, Chapter 3, will explore the Rio Grande Pottery.
Chapter 3: Rio Grande Pottery

This chapter outlines the various pottery types of the Rio Grande and provides an assessment of recent research on the Pueblo Revolt. For my thesis, I am primarily interested in the ceramic types from the Contact era because most of the vessels in my sample date from this time period. First, I provide a background on development and production of Classic period pottery in the Rio Grande Valley. I then provide an overview of black-on-white pottery followed by a longer discussion on glaze ware production and types, since these are the most important and abundant in my study. Next, I describe previous research conducted on pottery from the Rio Grande Valley during the Spanish Contact period, with an emphasis on the most recent work (Liebmann 2002, 2012; Capone and Preucel 2002; Mobley-Tanaka 2002; Mills 2002; Spielmann et al. 2006). These studies provide the framework for my thesis since they examine Pueblo motifs as compared to Spanish motifs on vessels and other media. I discuss the relevance of these studies as they pertain to my thesis. Lastly, I provide a discussion on relevant motif interpretations based on ethnographic and archaeological accounts of their use and meaning.

Classic Period Pottery

During the Classic period, moving populations coalesced into larger settlements resulting in the formation of unique social boundaries evident in the differences in pottery types. I am interested in the ceramic differences in the Classic period because pots produced during this period are part of my study. Ceramic types in the Rio Grande Valley were produced within sub-regions, with stylistic differences and localized versions of types in other sub-regions noted in the central and southern regions (Eckert 2008; Eckert and Cordell 2004; Graves 2004). Around AD 1300 new techniques for decorating pottery spread eastward from the White Mountains of Arizona and the area around Acoma and Zuni. Rio Grande glaze wares derive in part from St.
Johns polychrome and in part from the early Zuni pottery type called Heshotauthla polychrome (Riley 1995; Eckert 2008). The techniques for producing glaze wares were transported through migrant communities from Western Pueblo groups that moved into the area, evidenced by changes in ceramic types and decoration style present at Pottery Mound, Tijeras Pueblo, and Hummingbird Pueblo (Eckert 2008). Another example of the change during the formation of large, integrative villages in the Rio Grande region is the production of glaze wares south of the Tewa Basin, whereas the majority of the Tewa Basin villages continued to produce a black-on-white transition (biscuit wares). Most of the pottery in my sample is glaze wares, but I provide a general overview of the pottery types produced in the Rio Grande Valley during the time period of AD 1300-1750. Then I provide a more comprehensive overview of the glaze wares.

Black-on-White Pottery
The production of black-on-white pottery, recovered at sites like Pa’ako and others in the Galisteo Basin. Galisteo black-on-white became the dominant pottery type south of the Santa Fe drainage during the terminal Coalition period into the Classic period. Another, black-on-white type was Wiyo black-on-white. Both Galisteo black-on-white and Wiyo black-on-white were produced at the same time and, were the precursors to the biscuit wares. Two sequential biscuit wares were produced, in the Chama Valley and Pajarito Plateau; Biscuit A (Abiquiu black-on-grey) between AD 1325 and 1450 and Biscuit B (Bandelier black-on-grey) between AD 1450 and 1600 (Graves and Eckert 1998). Biscuit wares are characterized by the use of carbon based pigments that fired to a matte finish on cream, gray or off-white background. The division of the biscuit ware and glaze ware traditions appears to correlate geographically with the distribution of historic Eastern Pueblo ethnic and linguistic boundaries in that glaze wares are associated with the Keres and Tano whereas biscuit wares are associated with the Tewa (Duwe 2011; Futrell 1998; Kidder 1936; Mera 1932; Shepard 1936). Furthermore, whereas the older black-on-white
tradition remained in the northern part of the region, with overlap among the Keresan and southern Tewa communities, glaze paint pottery flourished in the Rio Grande Valley from AD 1300 until slightly after AD 1700.

Glaze Wares

This section serves as a general overview of the different glaze ware types that are the most important to this study since they began to be produced before the Spanish arrived and they continued to be produced after colonization until around AD 1750. The production of glaze wares began around AD 1275 in eastern Arizona, spreading to Acoma and Zuni, and eventually to the Rio Grande Valley by slightly after 1300 (Habicht-Mauche 2006:5). The technique of producing glaze wares was probably introduced by migrant groups from Western Pueblo communities, primarily from the Zuni area (Eckert 2008).

A glaze is a thin glassy substance, often high in a metallic flux such as lead or copper, melted and fused to the surface of a ceramic body (Rice 1987). As the lead or copper is a flux, it melts at a lower temperature than that used to fire the pot (Rice 1987). In the late precontract Southwest, glazes were applied to vessels as a paint to add texture and color to the vessel surface and as a bold outline to matte-painted and slipped designs (Habicht-Mauche 2006:5). A slip on a vessel was made with clay and water. Paints on glaze ware vessels ranged from black and red. On most pots, background colors ranged from red to yellow which was achieved through the use of clay slips containing iron. Glazes added a starkly contrasting background against which to paint designs, as well as adding a different color and texture to the vessel (Habicht-Mauche 2006:5). Glaze wares were likely produced by women, based on ethnographic and archaeological data, and were part of a suite of ceramic types that were produced for use beyond a single household or even a village (Chamberlin 2002; Cordell and Habicht-Mauche 2012; Mills 2000). Certain villages, such as San Marcos Pueblo, have been identified as specialized centers for local
and regional production of glaze wares during the Pueblo IV period (Schleher et al. 2012). These production locales acted as distribution centers, exchanging completed vessels, glaze recipes, and pottery production techniques with other villages (Cordell 2006b; Schleher et al. 2012; Franklin and Schleher 2012). During Spanish contact, however, production of glaze wares drastically changed. After the initial contact with the Spanish there was an interesting increase in the production of Glaze F within villages, even though Puebloan populations decreased (Snow 2012). However, by the post-Revolt era the production of glaze wares along the Rio Grande had significantly decreased. This is hypothesized to be the result of a decrease in access to lead rich deposits, the breakdown of potter apprenticeships, and increasing turmoil within Puebloan communities (Snow 2012:123-125).

Table 2. Glaze Ware Types in the Rio Grande Valley.

<table>
<thead>
<tr>
<th>Glaze Type (AD)</th>
<th>Subtypes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glaze A (1313-1425)</td>
<td>Glaze Ware A, Agua Fria glaze on red</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware A, Cineguilla glaze on yellow</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware A, Sanchez glaze on red</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware A, Sanchez glaze on yellow</td>
</tr>
<tr>
<td>Glaze B (1350-1400)</td>
<td>Glaze Ware B, Largo glaze on polychrome</td>
</tr>
<tr>
<td>Glaze C (1425-1500)</td>
<td>Glaze Ware C, Espinosa glaze on polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware C, Kuaua glaze on polychrome</td>
</tr>
<tr>
<td>Glaze D (1470-1515)</td>
<td>Glaze Ware D, San Lazaro glaze on polychrome</td>
</tr>
<tr>
<td>Glaze E (1500-1600)</td>
<td>Glaze Ware E, Escondido glaze on polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware E, Puaray glaze on polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware E, Pecos glaze on polychrome</td>
</tr>
<tr>
<td>Glaze F (1520-1700)</td>
<td>Glaze Ware F, Cicuye glaze on polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware F, Cicuye glaze on red</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware F, Kotyiti glaze on red</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware F, San Diego polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware F, Yunque glaze on polychrome</td>
</tr>
<tr>
<td></td>
<td>Glaze Ware E, Pajarito glaze on red</td>
</tr>
</tbody>
</table>
Glaze wares produced along Middle Rio Grande, and the sole glaze ware in the sample from the Northern Rio Grande, described below are presented in Table 2. Glaze wares began being produced with Glaze A around AD 1313 in a multitude of subtypes, with Glaze A Red extending into the 1500s (Eckert 2006). Glaze B pottery was a less common form and was produced between AD 1350 and 1400 (Eckert 2006). Glaze C pottery was produced between AD 1425 and 1500 (Eckert 2006). Glaze D was produced at the same time period and ranged from AD 1470 and 1515. Snow (1997) argues that Glaze D lasted into the late 1500s and may have lasted as late as the 1600s. Glaze C and D vessels appear frequently in the Middle Rio Grande and Southern Rio Grande regions as well as the Southern Plains. Snow (1997) argued that this suggested that the vessels were used for specialized purposes and reflective of social networks.

Following Glaze D, potters constructed Glaze E pottery from the 1500s to the 1600s. Glaze E was primarily produced in the Galisteo Basin and at Tonque Pueblo (Eckert 2006). It was also produced at Pecos Pueblo, Zia, Cochiti, Picuris and in the Albuquerque area. Lastly, Glaze F was produced in a similar geographic area as Glaze E, with smaller amounts being produced in the Jemez area (Eckert 2006). Glaze F was produced AD 1520 until 1700 (Eckert 2006). Some Glaze F vessels have European forms.

During the 1700s, there was a dramatic shift in pottery production in the Rio Grande valley away from the production of glaze wares and a move to the production of black-on-white vessels in some areas like Jemez (Liebmann 2012:130-133). Other pueblos after the Revolt, began to produce Tewa polychrome pottery. The changes the occurred late in the glaze ware sequence, and their use in European forms, have been discussed in relation to the Pueblo Revolt period (Liebmann 2012; Mills 2002). The end of glaze paint technology in some pueblos in the late 17th century has been widely researched (Mills 2002; Snow 1981; Frank and Harlow 1974).
It may have been a result of lead sources being restricted by the Spanish for their bullets and later by Spanish mining claims (Mills 2002). Another interpretation of the end of glaze painted technology is that it was an intentional act to make a break with earlier ceramic production (Mills 2002). Mills (2002) suggests that the more homogenous use of matte paints and feather motifs were intentional acts of resistance that reinforced a more homogeneous Zuni identity.

**Previous Research on Rio Grande Pottery**

Many scholars have studied change in Puebloan ceramics that resulted from Spanish contact and the Pueblo Revolt (Liebmann 2012; Liebmann et al. 2005; Mills 2002; Preucel 2002; Spielmann et al. 2006, 2009). Scholars differ in their interpretations of the impact of indigenous resistance and revitalization movements. The majority of this archaeological research has involved re-examining past collections and survey, with minimal excavation of sites since many of the Contact Era pueblos are still occupied. Scholars have examined pottery from the pre-Revolt era to the post-Revolt era to investigate the effects of the Spanish control on the Pueblo people (Capone and Preucel 2002; Liebmann 2012; Mobley-Tanaka 2002). Of course, more research is needed to understand the experiences of different Puebloan communities. One major topic of interest by archaeologists is to understand why a dramatic shift in pottery production occurred after contact with the Spanish. Scholars have studied this period by examining pottery from before and after the Pueblo Revolt to see evidence of resistance or change in material culture brought on by the presence of the Spanish (Capone and Preucel 2002; Dongonske and Dongonske 2002; Liebmann 2002, 2012; Mills 2002; Mobley-Tanaka 2002).

This section will focus on the work conducted by scholars exploring change in pottery designs, and designs on other material culture (i.e. rock art), during contact with the Spanish and how Spanish encounters influenced Pueblo iconography. Although the studies discussed below do not always fall within the same geographical context nor rely upon the same methods, they all
examine the role of revival and reorganization that occurred in the eastern Pueblo region leading up to, during, and after the Pueblo Revolt of 1680 (Capone and Preucel 2002; Liebmann 2002; 2012; Mills 2002; Spielmann et al. 2006). The goals of some of these studies are similar to my goals, but many of them rely on a small sample size. Furthermore, these samples are often from a limited geographical location or are unequal in terms of sample from the pre-Revolt and post-Revolt periods. Some studies do not even incorporate data known to be from the Pueblo Revolt period. These issues, along with those from other research efforts, attest to the necessity for robust, explicit examination of iconographic changes during the Protohistoric period. Therefore, my project is significant because it will include a larger, more robust sample and examines pottery from pre-Revolt to post-Revolt.

The results of these studies are discussed with reference to their conclusions, a critical evaluation, and implications for my study (Liebmann 2002; 2012; Mills 2002; Capone and Preucel 2002; Spielmann et al. 2006). The studies, from various locations and using pottery as well as other material culture, provide a strong case for an initial consistent inter-Pueblo response to the Pueblo Revolt, followed by fragmentation and intraregional variation in the years following the revolt.

Matthew Liebmann (2012) examined the Pueblo Revolt and habitation sites near Jemez Pueblo dating both before and after Spanish Contact in a collaborative project with Jemez Pueblo. This study is important to my thesis since it provides a model for analyzing Pueblo peoples’ response to the Spanish. His analysis focused on surface collections and architectural information. The focus of his study is the villages of Patokwa and Boletswaka, both of which were rebuilt after the Pueblo Revolt when the Jemez people burned their current pueblo of Walatowa. This was because the Jemez had been required by the Spanish to build and live in
their new villages near the remains of the ancestral villages on the mesa top. The project created a high resolution topographic map of two villages using a total station and ground penetrating radar. Both villages have a plaza oriented layout reminiscent of settlement layouts before Spanish domination. He also found evidence that countered the idea of a resistance and traditionalist revitalization movement. The people of Jemez drastically changed the way they decorated their pottery after the Spanish were pushed out in 1680. They no longer produced black-on-white pottery and began producing only black-on-red pottery (Liebmann 2012:129-131). This dramatic shift away from black-on-white pottery could have been a result of the black-on-white pottery being “contaminated” since the Spanish missionaries forced Pueblo potters to make black on white pottery in European forms. During an excavation at Giusewa, in New Mexico, Jemez black-on-white artifacts made in Spanish-introduced forms were found which included soup plates, cups, candlestick holders, a chalice and a Jemez black-on-white cross. European derived designs and “Greek cross” motifs were also found on the vessels.

Liebmann (2012) suggests that the Pueblo Revolt of 1680 and the removal of the Spanish played a crucial role in the rise of supposed nativism among the Pueblo people. He defines nativism as promoting or returning to native ways and practices and rejecting foreign cultural practices and attitudes. A significant problem with Liebmann’s study is that it relies only on mapping Revolt-era villages and collecting a small surface sample. The small size of the sample on which he bases his analysis potentially skews the results. The people of Jemez, prior to the battle of 1695 moved to a new village on the mesa called, Astialakwa, which they abandoned after the battle and returned to Patokwa and Boletswwaka. Archaeologists explain that the motifs on vessels and ecclesiastical objects that Pueblo people continued to use after the revolt suggest
that not all individuals returned to native ways and perhaps blended the two religions (Liebmann 2012; Gruner 2014; Liebmann and Preucel 2007; Wilcox 2009).

Liebmann (2012) argues that the Jemez people created a religious hybrid by combining Catholic elements and Pueblo ideology to create a new religious ideology (Liebmann 2012). During the reconquest of New Mexico of 1692, Governor Diego de Vargas and Spanish soldiers stormed the Jemez villages and the Jemez warriors refused to surrender. In the account, the Jemez warriors who jumped off a mesa to avoid capture, were brought to salvation by the saints and did not die. Accounts by Jemez attribute the salvation of the Jemez people to the Virgin of Guadalupe or San Diego (Liebmann 2012:2-3). The effect of the Catholic religion on the Jemez people is seen in the account where they believed that the Virgin of Guadalupe helped the jumpers “float like butterflies” to safety (Liebmann 2012:3). Other accounts of this story recount that San Diego or Santiago were present and helped the Pueblo people to safety (Liebmann 2012). Furthermore, the Spanish attributed their victory over the Jemez people to the help of saints including La Conquistadora, Our Lady of Conquest, and Santiago, St. James the Greater. The Saint Day of Santiago was the next day and it is possible that they believed they saw his apparition on the cliff face at Astialakwa (Liebmann 2012:2). This oral account demonstrates how the Jemez people borrowed or adopted religious ideology from the Spanish, and even as they revolted and fled the Spanish, they held onto the newly incorporated beliefs of Catholicism. This account shows how the Jemez people believed that the Catholic saints helped them during this battle. Unfortunately, the instances and material culture that Liebmann (2012) relies on for his discussion of cultural revitalization and hybridity are extremely rare and other methods of detecting changes in identity and response to colonization are needed.
The study by Barbara Mills (2002) of traditional Zuni pottery examines the relationship between iconography and resistance during the same period discussed in this study. Mills (2002) study provides a useful examination of the change in pottery style during the contact period, but it is also limited due to its ambiguous sample, so the changes are difficult to directly compare. Similar to my study, Mills (2002) analyzed the change in pottery during the Spanish occupation and noted similar icons on pots to my study, with two main differences between the two studies, the presence of a Christian cross were not found in my study and her study focused on Zuni pottery. Regardless, Mills’ study is important for my thesis since it examines pottery from the same time period to assess the impact of the Spanish and serves as a good comparison to my study.

Mills (2002) conducted a study of the iconography of mainly Zuni pots from Hawikuh, and looked for changes due to the impact of the Spanish. Mills (2002) divided the Zuni ceramics into three time periods: the protohistoric (AD 1450-1630), the pre-Revolt period (AD 1629-1680), and the post-Revolt period (AD 1692-1750). The study did not include any ceramic samples during the 12 years of the Pueblo Revolt as evidenced in the time periods defined. Painted designs of the 15th and 16th century Zuni ceramics are diverse. The biochromes are decorated with bold geometric designs. Similar to my study, there are several types of birds depicted, especially parrots, on many vessels and in particular the early glaze wares. There are masked figures or kachinas present on some vessels made during the protohistoric period. These representations are similar to 14th century kachinas found on vessels throughout the Mogollon Rim and Hopi areas (Mills 2002). Kachina depictions occur more frequently on bowl interiors, although one rare handled jar form has a kachina face. Mills (2002:90) argues kachinas were painted on bowls since bowl interiors offered a better surface that was more private or hidden to
the viewer than the exterior surface of jars. In contrast, Mills suggests that water jars which were more public and were almost always decorated with geometric designs. Kachinas on bowls and the need for secrecy predates European contact as evidenced by examples in the Zuni and nearby areas. These interpretations will be compared to my study.

Mills’ study has two important conclusions. The first is that pottery in the pre-Revolt period at Zuni changed with the reintroduction of glaze painted ceramics, a type that is called Hawikuh glaze ware (Mills 2002). Kachina iconography becomes less recognizable and is still depicted on the inside of bowls. Mills (2002) suggests that suppression of native religion by the Franciscans may have led potters to intentionally disguise kachina representation on their vessels. The second conclusion was the argument by Mills (2002) that some women at Zuni actively expressed their support for the Revolt in the designs they painted on pots. This argument is similar to other scholars, Capone and Preucel (2002) who suggest that the women were responsible for resisting the Spanish through pottery designs. During contact at Zuni Pueblo, asymmetrical designs are still found on pottery vessels and include motifs of stars and feathers (Mills 2002). The presence of feathers and stars are seen in my study as well.

Roman crosses or the mixing of the Venus star motif with crosses increased on pottery that dates from 1630-1680, which could be a result of Spanish impact (Mills 2002). Similar star motifs are found in my analysis of later dating vessels. There was also an increase in kachina imagery leading up to the Pueblo Revolt which then disappears after the Revolt period, a trend represented in my analysis. In the post-Revolt period, there is shift in pottery production; neither Hawikuh glaze ware, nor Matsaki buff ware vessels are made after this time. All other Pueblos (except Hopi where potters never used glaze-paint) made non-glaze painted polychromes after the 17th century (Mills 2002:92). Replacing glaze wares were matte-painted polychromes,
associated with the movement of Rio Grande groups (Liebmann 2012). No kachina imagery is present on any vessel of the period, nor are the Roman crosses or fringed elements that were the focus of her study (Table 3). These same motif types will be assessed for their presence in my analysis.

Mills (2002) does not state exactly how many vessels she analyzed, but it can be inferred from her table of design occurrences by period (Table 3) that there are at least 53 vessels represented, although she mentions she examined a total of 1,151 ceramic objects from the prehistoric and pre-Revolt periods. Additionally, the precise number of vessels she examined per period is not reported in this study. The exact contexts of the vessels and their types are not given. Additionally, outside of the three designs reported, it is unclear what motifs were present and their change over time. The time periods Mills uses (1450-1630, 1630-1680, and 1692-1750) are intervals of uneven duration and it is unclear how these periods were selected, particularly the case for the first-time period (180 years, 50 years, and 58 years). It is inferred the latter two-time periods were selected to include the Pueblo Revolt and end at 1750, a temporal constraint utilized as a terminus for the Protohistoric Period in the Southwest. It is also unclear whether these time periods are impacted by sample size, context of vessels, or types of vessels present.

Table 3. Motifs over time (adapted from Mills 2002:Table 6.2).

<table>
<thead>
<tr>
<th>Design</th>
<th>Prehistoric (1450-1630)</th>
<th>Pre-Revolt (1630-1680)</th>
<th>Post-Revolt (1692-1750)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kachinas</td>
<td>5</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Roman Crosses</td>
<td>1</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Fringed Elements</td>
<td>3</td>
<td>14</td>
<td>0</td>
</tr>
</tbody>
</table>

In contrast to Mills’ study, Patricia Capone and Robert Preucel (2002) focused on the actions of Pueblo women during the period between 1680 to 1692 by using Kotyiti Pueblo, south
of Santa Fe, New Mexico, as a case study. The study uses ethnohistorical data, takes a semiotic
approach and presents the results of their petrographic and stylistic analyses which is useful to
my study since it shows the use of designs through time and the effects of the Spanish on Pueblo
pottery. Capone and Preucel (2002:108) relied on a very small sample size of pottery. They
(Capone and Preucel 2002) argued that some Revolt-era designs had been resurrected from the
period of AD 1400-1450 (Glaze B times), as evidenced in the reemergence of designs such as the
double headed key motif. Whether this motif was present in the Zuni sample examined by Mills
is unknown since other than the motifs in listed in Table 3, Mills did not provide a list of motifs
for this study. Tewa women also used archaic design elements on their matte-paint wares. One of
these motifs was the hooked triangle that was found on Sankawi and biscuit wares (Capone and
Preucel 2002:109). There was evidence of experimentation on Kotyiti glaze wares involving
combinations of old motifs with new expressions. The “sacred mountain” motif consists of
“repetitive decorative elements applied to both sides of a triangle” (Capone and Preucel
2002:110). This motif is found on Kotyiti glaze ware (AD 1640-1720) and Puname polychrome
vessels (AD 1700-1750) which are both produced by people in the Middle Rio Grande area. The
presence of the sacred mountain motif provides evidence for the reworking and reuse of ‘archaic’
symbols in the Revolt and Post-Revolt period. These motifs will also be examined for their
presence in my study.

In a separate study to his earlier analysis of cultural hybridity on a Jemez black-on-white
vessel, Matthew Liebmann (2002, 2012) looked at rock art imagery that incorporated both
western elements and kachina elements. This study is important to my thesis since it looks at
Pueblo and Spanish identity through iconography. Rock art imagery is often associated with
religious practices and beliefs. The cave walls found in Frijoles Canyon in Bandelier National
Monument, in New Mexico, contained rock art imagery. Based on the pottery associated with the rock art and the presence of depictions of horses, the rock art dates to between 1680-1700 (Liebmann 2012:140). Pueblo designs included masked kachina figures, stepped clouds and mountains, geometric feather designs, serpents, and striped koshare (sacred clown) (Liebmann 2012:141). The west wall shows Spanish influence and appears similar to the Santa Maria or the Virgin Mary. This image has a saintly crown akin to western depictions of saints and a rectangular mouth found on depictions of kachinas. The imagery on this panel demonstrates the European influence since it is different than Pueblo motifs and resembles Spanish depictions of Saints. The Halo or crown is seen in Christian iconography of saints; it also represents in Pueblo iconography a feathered or horned headdress worn by masked Pueblo dancers and some kachinas, including the Sun Kachina. Interestingly, this figure, “Virgin Kachina” is surrounded by a traditional Pueblo drawing of kachinas and was created during the Revolt era (Liebmann 2002:137; 2012:139). The drawing reflects both Spanish and Pueblo motifs in that similar crown points are seen on kachina masks. The eyes and nose of the figure represent European traits, but the rectangular mouth is seen in kachina masks. Liebmann (2012) argued that the depiction of both Pueblo and Spanish iconography is symbolic of a hybridism or a blending, between the two religions. There are no depictions of crucifixes, Christian fish or rosary beads. Both sets of imagery were created by the same Pueblo person since the drawings are the same style and done with the same tools. The Pueblo artists appropriated and manipulated the imagery of the Spaniards when creating this figure. Liebmann (2012:142) argues that this image is a “resistance via appropriation. It hard to discern what the Pueblo artists meant when these images were drawn, and it could be the result of a hybridization movement among the Pueblos (Liebmann 2012). The Pueblo people may have incorporated Christianity into their Pueblo religion and
blended the two religious ideas. The cave had multiple occupations and the ceramics associated with the final substantial occupation included Kapo black-on-white, Tewa polychrome and Glaze F pottery. Liebmann’s study is relevant to my study as it describes how Pueblo artists purposefully altered and adopted aspects of Spanish imagery, a concept explored in my analysis chapter.

Jeannette Mobley-Tanaka (2002:77) looked at the use of ritual imagery in Pueblo resistance to religious persecution in the early historic period (prior to the Pueblo Revolt of 1680). Her study is useful for my thesis since it explores Pueblo people’s use of specific images during the Spanish occupation and these images are similar to what I found on my vessels. Her study is also complimentary to the aforementioned case studies as Mobley-Tanaka explored ritual imagery with an emphasis on Pueblo motifs, contrasting with Mills’ (2002) study which focused on Spanish motifs. Mobley-Tanaka analyzed 88 whole bowls, Glaze B through Glaze F in collections of the Museum of New Mexico, the Western Archaeological and Conservation Center and the Maxwell Museum of Anthropology, for the presence of cross imagery. The study revealed crosses and X’s on 10 percent of prehistoric vessels and 20 percent of historic vessels (Mobley-Tanaka 2002:80). Similar to Mills (2002) the use of crosses on pottery was noted, however Mobley-Tanaka looked at how the Pueblo people redefined images, such as x marks in a new way. Moreover, Mobley-Tanaka (2002) looked at style and certain symbols such as, birds, dragonflies, stars or the Christian cross on pottery, jewelry and other art and how the imagery was manipulated by the people in the form of resistance since they represented Pueblo ideology in opposition to Christianity. Mobley-Tanaka (2002:79) argued that “as a multi-referential symbol that carried meaning in both cultures, the cross could have been a motif that was well suited the style of resistance masking traditional images and misrepresenting religious beliefs to
the Spanish.” Perhaps the Pueblo people created a new identity during the time of the Pueblo Revolt to resist the change brought on by the Spanish. Mobley-Tanaka (2002) argued that crosses were similar to the depictions of dragonflies. One particular Tabira black-on-white vessel contained a masked Native ritual figure wearing a cross (Mobley-Tanaka 2002:83). Pueblo Indians presented Fray Alonso de Benavides a painted hide with a sun and moon and crosses above them. To Benavides the “the symbolism was apparent…fruit of the divine word” (Mobley-Tanaka 2002:83). However, according to Mobley-Tanaka (2002), Benavides failed to recognize that to the Pueblo people the cross had a secondary meaning linked to resistance and represented Pueblo ideology versus Spanish. The Pueblo people reused Christian motifs in their own context. Mobley-Tanaka (2002) focuses on a small sample and it would be interesting to see if her ideas are present in my larger sample size. It would be interesting to see if her ideas occur in pottery throughout the Rio Grande.

Spielmann et al. (2006:621) examined glaze ware and white ware pottery from the Middle Rio Grande sites of Abo and Quarai in order to look at native resistance to Spanish missionary efforts to eradicate Pueblo religious practices. This study is important to my analysis since it is trying to understand the resistance movements of the Pueblo people which is what my thesis is trying to address. This study is useful for my regional comparison of the Rio Grande to the Salinas region since it looks at similar times and types. Similar to the other studies in this section, Spielmann et al. (2006) looks at pottery designs in order to see the response of the colonized group in face of the colonizer. Pre-colonial white ware included Chupadero black-on-white which contained geometric and repetitive designs. This pottery type had serrated motifs, interlocking scrolls and hatching. The production of Chupadero black-on-white began in AD 1100s and is associated with more mobile groups living throughout southern New Mexico. The
vessel form most associated with this style is the globular jar and increases after the AD 1400s. As part of this study, Spielmann et al. (2006) looked at four different glaze time periods including glazes C through F. Glaze C dates to 15th century, glaze D dates to the 16th century, glaze E dates to 16th and early 17th century and glaze F dates to the 17th century and early 18th century. The pottery of the Salinas community contained simplified designs that were often a continuation of some elements of previous designs in abbreviated form.

Spielmann et al. (2006) draws on James Scott’s (1990) work surrounding the idea of public and hidden transcripts of subjugated peoples. The subordinate groups will mask ideas in “hidden transcripts” such as discourses that are not noticed in the public transcript (Scott 1990). Spielmann et al. (2006) looked at the actions of Salinas Pueblo men and women in the face of Spanish domination and how they responded to the forced eradication of their religion in their creation of material culture. Potters may have intentionally hidden their designs on pots. Spielmann et al. (2006) argues that runniness or unclear designs on glaze ware pottery may have been a technique to disguise indigenous designs during the Spanish occupation (Spielmann et al. 2006:631).

During the Contact period, there are two types of white ware including Tabira black-on-white and Tabira polychrome pottery produced in the Salinas region. Both used the same paste and temper and were manufactured using the same technique. The pottery vessels contained 3 or 4 panels decorated on the face depicting different motifs and scenes. The form most associated with this design is the canteen. After A.D. 1300 the designs become more iconic and less geometric. Tabira panels contained icons, kachinas, gods, birds, feathers, textiles or flowers. One canteen was described as having a masked kachina on it (Spielmann et al. 2006). This image may be a kachina or represents the Jumanos people, a mobile Plains group identified in the
protohistoric period along the Southern Rio Grande (Kelley 1986; Spielmann et al. 2006). The feathers on the vessels were mostly hawks and owls. Masked figures become a common motif on this time periods pottery vessels (Spielmann et al. 2006). Spielmann et al. (2006) argues that in missionized pueblos potters disguised ritual knowledge on vessels and in non-missionized pueblos, potters were able to display ritual information in elaborate detail. Spielmann et al. (2006) uses multiple lines of evidence and pottery changes in order to see the Pueblo people’s actions in the face of Spanish domination. One unaddressed issue of the paper, in my opinion, is that the change in style might not necessarily be an expression of resistance, but could be explained in other ways, such as the development of a new hybrid ideology that combined Pueblo with Spanish ideology. This hybrid ideology will be explored more in Chapter 4. Moreover, it is hard to see explicit designs in the runny pots so some of the motifs Spielmann identifies might be interpreted differently.

These studies provide a good starting point for examining the transformations in Puebloan cultural practices that occurred during and after the Pueblo Revolt period, but most lack the robust data to support the authors’ assertions. The studies reviewed suggest a variety of responses within local Pueblo communities to the Spanish and to the Pueblo Revolt. My study is designed to fully report on a far larger sample size with a greater temporal range with more motifs represented. Additionally, differences in diachronic changes in symbols on vessels between multiple areas along the Rio Grande will be assessed for significance. As a result, a more robust understanding of cultural revitalization within Puebloan communities during the Revolt period will be assessed through the media of pottery designs.

Important Motif Interpretations

This section provides an overview of various scholars’ interpretations of certain motifs that are important to my analysis of Pueblo social identity. The previous studies reviewed above
illustrate the different motifs that are important to Pueblo people and similar motifs are discussed below. This is important to my thesis since it provides the necessary groundwork on what has been learned about each specific motif and I will use these interpretations to help guide my analysis and answer my research questions pertaining to social identity and resistance. First, I will provide a brief background on Puebloan cosmology followed by a discussion of the specific motifs and their interpretations. It is important to understand the interpretations of motifs since it is used in my analysis chapter to address Pueblo religious transformation during the Spanish contact period. Broadly, Pueblo cosmology includes multiple worlds that are aligned on a spatial axis. The metaphysical assumptions underlying the Pueblo myths, stories, songs and prayers define a cosmos that can be described as a contained spherical unit (Sventzell 1990:25). Pueblo cosmology links the underworld with the physical and the spirit world with the sky. The Pueblo worldview is illustrated by Sventzell (1990:94), “the sky and earth are held together by the vertical axis, which goes from above to the below.” The kiva, a subterranean chamber connects the physical world with the underworld through the sipapu, a hole in the center of the kiva, and the sky through the entryway opening or “doorway into the sky.” Pueblo worldview revolves around a notion of directions and an axis mundi. In some myths, there is a kiva at the place of emergence and there are kivas at the cardinal points or mountains as well. Moreover, Pueblo cosmology relies on natural elements which are represented in designs. For the Pueblo people, the building, landscape, and the region make up the world within which the people live.

*The Importance of Birds and their use among Pueblo Groups*

Pueblo people depict numerous birds on their pottery and other media, an indication of the important role birds have in Pueblo religious ceremonies. Feather icons have been used on pottery as far back as the 1300s (Harlow et al. 2005:63). Birds have a unique position in Puebloan cosmology since they link both the three realms, water, earth and sky (Sventzell
Birds are also associated with the six directions that make up the Pueblo world and the different colors that characterize these directions, although this varies depending on the Pueblo group (Tyler 1979). Moreover, feathers are used on kachina masks, clothing, fetishes and prayer sticks. Prayer-sticks are related to gods and spirits and therefore the attached feathers are thought of as “breath-feathers” (Tyler 1979:6). Birds are like breath in that they travel through the air. Bunzel (1972:106) recorded one woman in the early twentieth century as saying that “women do not prepare prayer sticks, and that is why we always put feathers on jars.” Bird imagery was painted on pottery and carved into stone. Bird characters such as, Hawk, Eagle, Hummingbird, Mockingbird, and Crow appear in Pueblo myth and song (Tyler 1979). Eckert and Clark (2009) argue that the modern ritual significance placed on birds by Pueblo groups in central New Mexico can be traced back to the 14th century based on kiva murals, ceramics and faunal data from Hummingbird Pueblo (LA 478) and Pottery Mound (LA 416). During the Pueblo IV period (AD 1300-1450) there is a lot of social, political and settlement reorganization and the development of new ritual systems, including the kachina religion (Adams 1991; Schaafsma and Schaafsma 1974; Spielmann 1998). Birds played a major role as religious icons in the kachina religion.

Based on ethnographic accounts, many Pueblo groups procured birds not for subsistence purposes but for their feathers (Bunzel 1972; Parsons 1977). These accounts discuss that various bird feathers were incorporated into Pueblo ceremonial clothes, ritual paraphernalia, and offerings. Feathers of multiple species could be found on one prayer stick. Bird species that Pueblo people interacted with included four different categories, including domestic turkeys, wild game birds, wild nongame birds, and exotic birds (Eckert and Clark 2009). Most of the bird species that were used for feathers were not eaten by Pueblo people with the exception of the
domestic turkey. Historic Spanish accounts and archaeological studies indicate that turkey husbandry was widely practiced in the Rio Grande region (Hammond 1977; Hammond and Rey 1929). Domesticated turkeys were used for both food and feathers for religious ceremonies. Two Rio Grande pueblos, Taos and Pecos, appeared to not have practiced turkey husbandry (Hammond 1977). However, these pueblos also procured wild turkeys for food and feathers (Parsons 1970:23). Turkey feathers were used in kachina masks and prayer sticks, on altars and oftentimes interred as burial offerings (Parsons 1970). Turkey feathers were also used for domestic purposes, such as in blankets and for robes. Ethnographic evidence suggests that the feathers of other ground-dwelling avian species, such as grouse, quail, and dove that were traditionally hunted by Pueblo groups had no clear ritual value unlike the turkey. However, a wide variety of wild nongame birds, including raptors, perching birds, and waterfowl, are associated with historic and modern Pueblo rituals. In Pueblo cosmology and mythology, raptors are considered to be among the most important birds (Parsons 1970; Tyler 1979). Raptor feathers are used in ceremonial clothing and paraphernalia used in rituals. Perching birds, such as sparrows and finches, and waterfowl were hunted for their colorful feathers for both prayer sticks and fetishes (Bunzel 1972). Exotic birds that were important to Pueblo people include parrots and macaws. These birds are not native to the southwest and but were procured from far to the south in tropical Mesoamerica. Pueblo groups used parrot feathers in healing ceremonies and incorporated them into prayer sticks and fetishes (Parsons 1939). There is an account of stuffed parrot on a kiva altar during Zia rain making ceremonies (Parsons 1939). Birds like macaws and hummingbirds were associated with rain and rainbows because of their tails. Turkeys have iridescent feathers and may have represented rain as well. Ethnographic data
demonstrates that historic and modern Pueblo groups obtain various types of birds, wild and domestic, and indigenous and exotic, primarily for their feathers.

*Bird Images on Kiva Murals*

Kiva images are useful since they can show similar images that appear on pots and help one understand these images. Bird imagery is found on both Rio Grande pottery and kiva murals and these images are associated with different motifs helping archaeologists interpret what they mean on pottery. Kiva murals found at Pottery Mound kiva murals contain various images including masked and unmasked figures, bears, mountain lions, coyotes, various game animals, birds, reptile, insects, horned serpents, baskets, pottery, stars, clouds, rainbows, and lightning bolts (Schaafsma 2000). Common images on the Pottery Mound kiva murals include variety of forms of anthropomorphized bird figures, whole birds and individual feathers. Eckert and Clark (2009:14) state that whole birds are always shown in ritual context, either sitting on or around masked dancers and interestingly, birds are never portrayed dead, being hunted, or being eaten. Bird images are found on multiple kiva murals including those at Pottery Mound and Kuaua (Schaafsma 2007). Birds tend to be associated with water vessels and rain. Feathers were noted in ritual regalia on several media. Birds were found on Pottery Mound kiva mural regalia kilts worn by figures on the murals (Webster 2007). Moreover, in the Pottery Mound murals, feathers appear in headdresses, on clothing, in hair, attached to wands held by dancers and as abstract elements in medallions and other designs (Eckert and Clark 2009). Bird iconography have been observed in the kiva murals at other 14th and 15th century sites including the Hopi villages of Awatovi and Kawaika-a and in the Salinas area at Gran Quivira suggesting that the ritual context of birds is widespread throughout the Western and Eastern Pueblos.
Stepped and Terraced Elements

Stepped elements are found on multiple contexts including pottery and rock art. Stepped and terraced elements have traditionally been interpreted as representing rain or clouds. Multiple icons are thought to be weather related symbols including, clouds, rain, snow, wind, lightning and flowers (since they come out after the rain) (Bunzel 1972:70). Terraced elements are common on Rio Grande pottery. Terraced elements are representative of rain and fertility (Kenagey 1989:229). Kachina masked dancers are frequently associated with rain since they are part of the rain bringing ceremonies. These images are integral to Pueblo cosmology and their worldview. Kachinas are associated with clouds since they are said to be clouds according to Pueblo oral tradition. For example, at Hopi, the kachinas are said to travel as clouds, from the San Francisco peaks down to the mesas on which the contemporary villages are located, before continuing their descent into the Grand Canyon where they pass through sipapuni into the underworld (Fowles 2013:204). In the historic period, stepped elements have been often interpreted as representation of clouds that are associated with rain and fertility (Bunzel 1929:94). Prior to about AD 1300, the use of the stepped element or terraced element motif in ritual context is unknown, but terraced and T-shaped doorways were constructed from about AD 1000 in the Chaco Canyon and Mesa Verde regions. Moreover, at around AD 1300 terraced motifs occur in rock art throughout the Southwest. Terraced motifs were also found on prehistoric ceramics and were carved on stone pipes and associated with cloud blower ceremonies (Fowles 2013). Some fire deflectors in kivas had terraced tops and were believed to have sometimes served as altars during the late prehistoric period. By the early 14th century the stepped motif was also carved on the rims ritually associated vessels, particularly small prayer meal bowls (Kenagy 1989:330). Terraces were also found in traditional Pueblo structures and were said to represent clouds (Naranjo and Swentzell 1989).
**Triangles**

There are several variations of triangle motifs found on pottery, rock art, and kiva murals. Triangles have been associated with rain and clouds (Bunzel 1972). Triangles have also been associated with birds (Bunzel 1972).

**Awanyus**

Awanyus or horned-serpent iconography have been around since AD 1000. There is no exact interpretation of an awanyu, but horned serpents are thought to be water serpents and gods found primarily at springs. Awanyus are most common on Biscuit Ware pottery in the Northern Rio Grande (Graves and Eckert 1998:271). Awanyus have been interpreted as being associated with water and can withhold water, cause floods or cause earthquakes or landscapes if angry (Phillips et al. 2006:17). Springs are viewed as connections between the physical world and the underworld. Horned serpents live in the watery underworld.

**Motif Summary**

These motifs described are important to my thesis and will be explained more in Chapter 4 and then used in my analysis in Chapter 5. Motifs are found on both pottery and rock art and both media and ethnographic work help archaeologists interpret what images meant to the Pueblo people. Important motifs include birds, terraced elements, triangles, kachinas and awanyus. Birds and feathers are integral to the Pueblo worldview and are used in various ceremonies. Motifs associated with rain and water are interpreted as representative of the kachina religion and necessary for Pueblo rituals. Prior to the Spanish, Pueblo people used various motifs to decorate their vessels including both figurative and geometric designs. Some of the important motifs were described and interpreted in this section in order to frame the rest of my thesis.

**Conclusion**

This chapter provided an overview of the Rio Grande pottery types that are important to the analysis in this thesis. An overview was provided of the development and cultural role and
meaning of pottery types in the Rio Grande Valley from AD 1300-1750. An emphasis was placed on the initial development and production, use, change over time, and subsequent termination after the Pueblo Revolt of glaze wares. The information provided in this chapter serves as contextual knowledge for my analysis and discussion of the results. Important ceramic studies on the Rio Grande were explained in the previous research section and discussed how these are important to my analysis. These include the results of Mills’ (2002) study that demonstrated the incorporation of Spanish motifs in the pre-Revolt period in Zuni ceramics, the masking of Pueblo motifs through the use of runny paint in the Salinas region or re-use and modification of the Christian cross depicted as dragonflies, and the development of hybridized material culture identified in rock art and a Jemez black-on-white chalice. Lastly, this chapter discussed the importance of specific motifs and their interpretations within Pueblo society. The next chapter will detail the methods of my thesis and the rest of the thesis will expand on my research questions.
Chapter 4: Methods

This section of my thesis will describe the museum collections examined as part of this thesis, the methods used to examine the collection, the type and form of data collected, and the analyses conducted on the data. I will begin with an overview of the data sources used in the study and how and why certain collections were selected. I will then describe how vessels in the study were dated, classified by type, and categorized by form. This has implications for my ability to compare the data I have collected with that found in other studies of the influence of colonialism and the Pueblo Revolt on ceramic designs and forms. Additionally, possible biases inherent in the data and subsequent limitations on interpretations they create will be explored. The overview of the processes undertaken to collect, process, and analyze data presented here enable replicability and comparability against past and future studies. Lastly, I discuss the theoretical framework of culture contact and social identity that this thesis relies on and the implications of them for my study.

Overview of Data Sources

The effects of Spanish colonialism and the Pueblo Revolt on pottery designs is the focus of my thesis. As discussed in Chapter 3, previous research has relied on small samples. As my goal was to explore this question in depth with a large sample, I examined existing archaeological pottery collections held at museums and other repositories throughout the country. I targeted collections from the northern and middle Rio Grande Valley that dated to my period of interest, AD 1150-1750 and were culturally affiliated with Rio Grande Pueblos. The AD 1150-1540 period was incorporated in order to establish a baseline of pre-Contact symbols present for comparison. The collections examined came from the Museum of Indian Arts and Culture (MIAC) in Santa Fe, New Mexico; the Peabody Museum of Archaeology and Ethnology
at Harvard University in Massachusetts; the Denver Museum of Natural Science (DMNS) in Denver, Colorado; Salinas Pueblo National Park, New Mexico; and Western Archeological Conservation Center (WACC) in Tucson, Arizona. Additional data for this study came from images in a study of historic and ethnographic Puebloan pottery by Larry Frank and Francis H. Harlow (1974).

For the most part, vessels included in this analysis had been procured by museums from private collections or early excavations at large, domestic Pueblo IV and V period pueblos. This means that because of collector and early excavation biases, bowls and other larger vessels associated with supra-household feasting or communal events may be overrepresented. Vessels with more ornate decorations were more likely to be collected as display pieces. Lastly, vessels were not always provenienced to a specific pueblo or location, nor were they recovered in equal frequencies from the Northern Rio Grande and Middle Rio Grande. Nevertheless, the larger sample size, as compared to previous studies, will elucidate more robust conclusions.

**Methodology of Data Collection and Analysis**

For this project, a visual analysis was conducted on 466 vessels with complete designs. For each vessel, I identified the motifs present on all parts of the vessel and recorded them. I visually identified the motifs in person, except for those photographed and described by Frank and Harlow (1974), and then I took photographs of each vessel so that I could later reassess the symbols if needed and compare multiple symbols. The vessels I examined were selected by both curation staff and myself based on desired traits, primarily ceramic type and presence of motifs. Only decorated ceramic wares were selected, with biscuit, white, and glaze wares examined. The majority of my vessels were glaze wares. For all vessels I recorded the form, type, motifs
identifiable, and any associated provenience, temporal, and contextual information provided by the museum. These variables are described in detail in the following sections.

I took a photo of each of the four sides of a vessel using a Nikon D5300 DSLR camera with a standard 18-55mm lens to document all the motifs and allow me to reassess later any problematic motif after I left the museum. Standard lighting in the museum was used. Photos taken included an overlap with the previous photo so that a single motif was never incorrectly identified as two different motifs. Photo numbers were recorded in a notebook, along with a written copy of pertinent information. All information about each pot was entered into a Microsoft Excel spreadsheet with a unique numeric identifier and any additional notes.

For the most part, provenience and temporal information associated with the vessels examined was provided to me by the museums. This information included exact or estimated area or site where the vessels were procured, exact or estimated temporal association of the vessel, and the museum curation number. Some of the pots had large temporal intervals associated with them due to the poor documentation provided by the museums. I adjusted the temporal interval of some of the vessels based on their type and narrowed down the period when the ceramic type or period designation was incorrect or labeled using an outdated term or different chronology. These issues are described in more detail below.
After analysis, I removed 28 vessels from my sample since I found they dated to later, post-1750 time periods beyond the scope of my study, resulting in a sample size of 438 pots. Of the remaining 438 vessels, 376 came from the Northern and Middle Rio Grande Valley, which is the focus of my study (Table 4). In addition, 31 vessels from the Salinas region of New Mexico

<table>
<thead>
<tr>
<th>Region</th>
<th>Ceramic Type</th>
<th>Collection</th>
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<tbody>
<tr>
<td><strong>Northern Rio Grande</strong></td>
<td>Poge black on white</td>
<td>MIAC</td>
<td>1</td>
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<tr>
<td></td>
<td>Santa Fe black on white</td>
<td>MIAC</td>
<td>1</td>
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<tr>
<td></td>
<td>Wiyo black on white</td>
<td>MIAC</td>
<td>5</td>
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<tr>
<td></td>
<td>Rowe black on white</td>
<td>MIAC</td>
<td>2</td>
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<tr>
<td></td>
<td>Jemez black on white</td>
<td>MIAC</td>
<td>1</td>
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<tr>
<td></td>
<td>Abiquiu black on cream</td>
<td>MIAC</td>
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<td></td>
<td>Bandelier black on cream</td>
<td>DMNS</td>
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<td></td>
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<td></td>
<td>Glaze E Pecos glaze on polychrome</td>
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<td>Sankawi black on cream</td>
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<td>Peabody</td>
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<td></td>
<td>Sikyatki polychrome</td>
<td>Peabody</td>
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<td>San Bernardino polychrome</td>
<td>Peabody</td>
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<td></td>
<td>Payupki polychrome</td>
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<td>WACC</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4. Distribution of Vessels analyzed by Ceramic Type and Collection.
and 31 from the Hopi region of northeastern Arizona were also analyzed. These vessels were analyzed for comparative purposes with my main study of the Northern and Middle Rio Grande vessels. Analytic results for the Northern Rio Grande and Middle Rio Grande samples are compared to each other, as well as to vessels from other regions, including Salinas and Hopi Mesa area, to explore differences in how Spanish contact was experienced by different Pueblo groups.

**Attributes and Attribute States**

This study incorporated both decorative and physical attributes on vessels. For the purposes of this study, attributes related to the procurement and type of raw materials used, production of the vessel, and cultural context of its recovery and use are not included. It would have been helpful to have the culture context, but for the most part all that was provided was the general location the vessels came from. Although the cultural context of a vessel’s use and recovery has significance, the museum collections examined infrequently had specific provenience data. The physical attributes recorded for each vessel included its form, the motif types present, and the presence of runny paint. The primary attribute recorded was the ceramic type of the individual vessel. Each attribute type is described in detail with their importance below.

**Vessel Form**

Vessel form is important for several reasons. Different forms are used for specific functions, such as jars to store water and bowls to hold food. Form also impacts how vessel motifs can be interpreted as designs are found on certain parts of different forms. The form of vessels relates to the visibility of the design by others, e.g. Spanish authorities. For instance, the presence of European style motifs on vessels produced by indigenous people might provide
evidence of attempts to adopt a different social identity, ingratiate themselves with the Spanish, or associate themselves with Spanish authority. Vessel forms recorded include bowls, jars, canteens, plates, candle holder, cups, ladles, ollas, pitchers, and pukis. The Spanish introduced plates, candle holders, and cups to the Pueblo people. Certain types such as, ladles, were infrequent in my study based on what was available at the museums. Moreover, I wanted to analyze pottery vessels that were decorated and therefore did not analyze utilitarian wares such as corrugated vessels also representative of assemblages (Habicht-Mauche 1993). Definitions and characteristics for each form are provided for coherence.

A bowl is a vessel form with a large rim diameter that narrows to a rounded or semi-rounded base. Bowls in the Northern and Middle Rio Grande are typically painted atop a slip on both the interior and, less frequently, the exterior surface. Motifs are primarily restricted to the interior and occasional geometric decoration are present on the external surface near the rim (Eckert 2006:Table 3.5). On bowls, designs are often described by other scholars as private due to not always being visible, particularly not to the Spanish (Liebmann 2012; Mills 2002). A jar is a vessel that is similar to a bowl with a large body and rounded base, but has a narrowing neck and small rim diameter. Jars are often used for storage of bulk food or water and are painted on the exterior, a more public, visible location according to Mills (2002:90). Canteens vary in size, but have narrow necks, bulbous bodies and two handles or knobs. A plate, in terms of Puebloan ceramic forms, is a shallow bowl-shaped object often used to hold soup. A soup plate was a European form introduced to the Pueblo people (Liebmann 2012). A main difference between plates and bowls is that plates tend to have a relatively horizontal neck and lip and little vertical difference between the base and rim, whereas a bowl tends to have greater vertical difference between the base and the rim. A candle holder is a long narrow cylindrical vessel used to hold
candles and was introduced by the Spanish. Cups varied in form, but all are round, short cylinders with handles and introduced by the Spanish. A ladle is scoop shaped vessel. A pitcher is a tall vessel with a spout and used to pour liquids. Lastly a puki, is a shallow bowl shape, oftentimes constructed from the upper portion of a jar that was used as a base template for shaping and constructing a vessel, allowing potters to easily rotate their in-progress vessel. Pukis are oftentimes undecorated; however, the two present in the sample are decorated and are consequently incorporated into the analysis.

Ceramic Type and Temporal Association
Ceramic type (Table 5) suggests cultural affiliation, manufacture date, and location of manufacture. There were 27 different types in the study sample from both the Northern and Middle Rio Grande. I mostly relied on the type designations provided by the museums and am confident that most were correct. However, the variety of types, naming conventions, and stylistic differences that exist between the differing museum collections were problematic. As a result, two vessels that share commonalities may be identified as two separate ceramic types based on when they were typed, where they were found, and by whom. Subsequently, I sometimes combined ceramic types for coherence and congruence across collections. I only changed assigned type when there were two types listed or the typology had been modified since the vessel had last been analyzed and entered into the museum’s catalog. In these cases, I picked the more appropriate, updated type. Changes in typology were determined based on recent typologies compiled by Eckert (2006) and used by the New Mexico Office of Archaeological Studies. Pots that could not be identified definitively by type were not incorporated in this analysis due to the lack of temporal or cultural association. The associated time periods are important since they help distinguish between pre-contact, contact era, and post-contact periods.
Table 5. Vessel Types by Region.

<table>
<thead>
<tr>
<th>Northern Rio Grande</th>
<th>Middle Rio Grande</th>
<th>Salinas Region</th>
<th>Hopi Mesa Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poge Black on White (AD 1050-1350)</td>
<td>Galisteo Black on white (AD 1220-1450)</td>
<td>Jeddito Black on Orange (AD 1300-1375)</td>
<td></td>
</tr>
<tr>
<td>Santa Fe Black on White (AD 1150-1425)</td>
<td>Glaze A, Agua Fria Glaze on Red (AD 1315-1425)</td>
<td>Jeddito Black on Yellow (AD 1300-1375)</td>
<td></td>
</tr>
<tr>
<td>Wiyo Black on White (AD 1250-1450)</td>
<td>Glaze A, Cineguilla Glaze on Yellow (AD 1315-1425)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rowe Black on White (AD 1300-1425)</td>
<td>Glaze A, Sanchez Glaze on Red (AD 1315-1425)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jemez Black on White (AD 1300-1750)</td>
<td>Glaze A, Sanchez Glaze on Yellow (AD 1315-1425)</td>
<td>Chupadero Black on white (AD 1050-1550)</td>
<td></td>
</tr>
<tr>
<td>Abiquiu Black on Cream (AD 1350-1450)</td>
<td>Glaze B, Largo Glaze Polychrome (AD 1350-1400)</td>
<td></td>
<td>Sikyatki Polychrome (AD 1375-1625)</td>
</tr>
<tr>
<td>Bandelier Black on Cream (AD 1400-1550)</td>
<td>Glaze C, Espinosa Glaze Polychrome (AD 1425-1500)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glaze E, Pecos Glaze on Polychrome (AD 1500-1650)</td>
<td>Glaze E, Escondido Glaze on Polychrome (AD 1500-1600)</td>
<td>Tabira Black on White (AD 1550-1672)</td>
<td></td>
</tr>
<tr>
<td>Sankawi Black on Cream (AD 1500-1690)</td>
<td>Glaze E, Puaray Glaze on Polychrome (AD 1500-1600)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glaze F, Kotyiti Glaze on Red (AD 1520-1700)</td>
<td>Tabira Black on White (AD 1550-1672)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sakona Polychrome (AD 1625-1675)</td>
<td>Glaze F, Cicuye Glaze on Red (AD 1520-1700)</td>
<td>San Bernardino Polychrome (AD 1625-1700)</td>
<td></td>
</tr>
<tr>
<td>Glaze F, Kotyiti Glaze on Red (AD 1520-1700)</td>
<td>Tabira Polychrome (AD 1550-1672)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glaze F, San Diego Polychrome (AD 1520-1700)</td>
<td></td>
<td>Payupki Polychrome (AD 1625-1825)</td>
<td></td>
</tr>
<tr>
<td>Tewa Polychrome (AD 1650-1775)</td>
<td>Glaze F, Yunque Glaze on Polychrome (AD 1520-1700)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Motif Types

Motifs apparent in the surface decoration of vessels were recorded as either present or absent, in order to enable more robust comparisons between complete and broken vessels and across different time periods. In instances where two motifs were combined, for example a kachina motif with attached feathers, each was recorded separately. Motifs rarely were problematic to identify, but when they were the vessel was noted and the motif was later identified by comparing it against motif designations made by other scholars who had examined similar vessels from the Rio Grande Valley (e.g. Eckert 2008). The descriptions employed and distinguishing traits for motif types presented in Table 6 were derived from other ceramic stylistic analyses and are considered relatively standard types (Capone and Preucel 2002; Crown 1994; Eckert 2008; Hendrickson 2003:41-43; Mills 2002). For the purposes of this analysis, motifs were combined in groups in order to facilitate broad-based comparison over time between similar motifs. Motifs were categorized into five groups: avian, geometric, religious (identified as kachina/awanyus/Venus star), zoomorphic, and other/layout. All motifs are identified with their corresponding group in Table 6. Avian motifs include birds and bird associated motifs. Avian motifs were separated from the other categories since they are significant to the Pueblo worldview, but also at times represent birds locally available and not overtly religious. Avian motifs were specifically separated from religious motifs to enable assessment for their change through time, due to their noted presence on later historic pottery (Frank and Harlow 1974). Geometric motifs include shapes and symbols. Overtly religious motifs include kachinas, awanyus, star and solar motifs, and plus signs/Venus star. This category was called Kachina/Awanyu/Venus Star since these are the most common motifs. Although some motifs, such as terraced and stepped elements can be interpreted as religious, I only picked specific motifs that would have appeared as religious to the Spanish. Zoomorphic motifs include any
figures or animals. Non-motifs are defined as motifs that do not fit into any other category, such as plant/flower, or motifs with the primary function of laying out designs, e.g. framing and other types of lines, or filling in space such as dots and hachure.
<table>
<thead>
<tr>
<th>Motif Type</th>
<th>Description</th>
<th>Image of Motif</th>
<th>Motif Grouping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropomorphic (Other)</td>
<td>Human-like form with a face, non-kachina</td>
<td><img src="image1.jpg" alt="Image" /></td>
<td>Zoomorphic</td>
</tr>
<tr>
<td>Awanyu</td>
<td>A horned or plumed serpent figure with zig-zags</td>
<td><img src="image2.jpg" alt="Image" /></td>
<td>Awanyu/Kachina/Venus Star</td>
</tr>
<tr>
<td>Bird</td>
<td>Bird form or filled triangular figure with a hooked beak</td>
<td><img src="image3.jpg" alt="Image" /></td>
<td>Avian</td>
</tr>
<tr>
<td>Butterfly/moth</td>
<td>Butterfly/moth form or body/line with two wings attached</td>
<td><img src="image4.jpg" alt="Image" /></td>
<td>Zoomorphic</td>
</tr>
<tr>
<td><strong>Checkerboard</strong></td>
<td>A grid like pattern of black and white spaces</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td><strong>Circle</strong></td>
<td>An enclosed filled or unfilled circle form</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td><strong>Comb</strong></td>
<td>A thickened vertical or horizontal line with perpendicular attached lines on one side</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td><strong>C-Shape</strong></td>
<td>A curved line that forms a “c” shape</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>Motif</td>
<td>Description</td>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Dots</td>
<td>Two or more filled or unfilled circular forms adjacent to one another in a design panel</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Dragonfly</td>
<td>A vertical line with two perpendicular lines that cross it near the center and a rounded point on one end</td>
<td>Zoomorphic</td>
<td></td>
</tr>
<tr>
<td>Feather</td>
<td>Feather form or a triangular design with cross-banding</td>
<td>Avian</td>
<td></td>
</tr>
<tr>
<td>Motif</td>
<td>Description</td>
<td>Genre</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Feathered Key</td>
<td>An L-shape motif that has associated perpendicular lines forming feathers</td>
<td>Avian</td>
<td></td>
</tr>
<tr>
<td>Flower/Plant</td>
<td>A flower form or plant imagery</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Framing Lines</td>
<td>Lines that framed or served as the border line between motifs on the vessel</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Hachure</td>
<td>Enclosed parallel lines that fill in otherwise void space</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Horizontal Lines</td>
<td>Lines that run perpendicular to the vertical axis of a vessel and encircle the entire vessel</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Motif</td>
<td>Description</td>
<td>Style</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td><strong>Hourglass/Mirrored Triangles</strong></td>
<td>Two triangles intersecting at a single point</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td><strong>Kachina</strong></td>
<td>Kachina mask (triangle with eyes) or kachina-associated form</td>
<td>Awanyu/Kachina/Venus Star</td>
<td></td>
</tr>
<tr>
<td><strong>L-Shape</strong></td>
<td>Several sets of perpendicular lines that together form an L-shape</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td><strong>Parallel Lines</strong></td>
<td>A set of two or more lines parallel with one another that act as framing lines</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td><strong>Plus Sign/Cross/Venus Star</strong></td>
<td>Two intersecting lines at perpendicular angles</td>
<td>Awanyu/Kachina/Venus Star</td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>Description</td>
<td>Category</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Rectangle</td>
<td>Two sets of parallel lines that intersect at four points</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>Scalloped Line</td>
<td>A line that has several rounded semi-circular forms attached along one edge</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Scroll (Triangular)</td>
<td>A set of line segments that form a spiraling triangular shape</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>Snake</td>
<td>A serpent-like figure that may depict a specific species (e.g. rattlesnake)</td>
<td>Zoomorphic</td>
<td></td>
</tr>
<tr>
<td>Shape/Pattern</td>
<td>Description</td>
<td>Artworks</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>S-Shape</td>
<td>A set of interconnected line segments that form a reverse or normal &quot;z&quot; like shape, often with stepped elements attached</td>
<td>![S-Shape Image]</td>
<td></td>
</tr>
<tr>
<td>Star/Venus Star</td>
<td>A four-pointed, diamond-like figure</td>
<td>![Star Image]</td>
<td></td>
</tr>
<tr>
<td>Stepped/Half-Terraced Element</td>
<td>An enclosed form comprised of several combined rectangles, or &quot;steps&quot;, that become smaller</td>
<td>![Stepped Image]</td>
<td></td>
</tr>
<tr>
<td>Sun/Solar Motif</td>
<td>A multi-pointed form enveloping an enclosed circle</td>
<td>![Sun Image]</td>
<td></td>
</tr>
<tr>
<td>Terraced Element</td>
<td>An enclosed form comprised of two back to back stepped elements</td>
<td>![Terraced Image]</td>
<td></td>
</tr>
<tr>
<td>Motif</td>
<td>Description</td>
<td>Category</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Triangle</td>
<td>Three-sided form, usually filled</td>
<td>Avian</td>
<td></td>
</tr>
<tr>
<td>Turkey Track</td>
<td>Arrow-like shape with a long line that intersects at a point with two diagonal lines</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>X-mark</td>
<td>Two intersecting lines at an angle to form an &quot;x&quot;</td>
<td>Geometric</td>
<td></td>
</tr>
<tr>
<td>Zig-zag</td>
<td>A line that zig-zags in diagonal lines</td>
<td>Non-Motif</td>
<td></td>
</tr>
<tr>
<td>Zoomorphic (Other)</td>
<td>Undetermined animal figure</td>
<td>Zoomorphic</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Z-Shape</td>
<td>Three interconnected segments that form a &quot;z&quot;, often with parallel lines to two of the line segments</td>
<td>Geometric</td>
<td></td>
</tr>
</tbody>
</table>
Condition of Paint

The paint on some vessels showed indistinct borders, appearing to have “run” before or during firing. Paint runniness was noted if any motif showed drip lines which suggested that the paint had “run” as the vessel was being produced. Studies of Rio Grande pottery have suggested that this runny technique was an attempt by the Pueblo people to disguise specific designs from the Spanish (Spielmann et al. 2006). In that case study, Spielmann et al. (2006) compared the presence of overt ritual imagery on glaze wares at the Salinas Pueblos of Abo and Quarai, settlements occupied by Spanish, and Tabira whiteware vessels from Gran Quivira, a more isolated village. The authors of that study determined that at Gran Quivira, ritual imagery was highly overt, whereas at Abo and Quarai ritual imagery tended to be purposefully runny and simplified (Spielmann et al. 2006:642). Spielmann et al. (2006:630-631) defined “runniness” on glaze wares if the edges were rippled or jagged, or if there were actual drips of glaze across the vessel. The use of runny glaze paint increased from sixteenth century Glaze E to seventeenth century Glaze F. This is significant since it increased during the period of expanding and institutional colonization. Spielmann et al.’s (2006) study is significant to my thesis since it possibly shows an active practice of resistance to the Spanish in Spanish-occupied settlements and the maintenance and expansion of ritual imagery in more isolated settlements. An example of a runny vessel from my sample is shown below (Figure 3).
Recording Problems

As mentioned above, I had some limitations in my study, which included collectors and early excavation biases which limited the vessels available to study and oftentimes vessels were not always provenienced to specific pueblos or locations. In addition to these limitations, there were several problems I encountered while recording my attributes. The first problem was that the rooms I was working in were not well lit so sometimes it was hard to make out the motif if the vessel was dark. This was a problem for only two vessels, and they were re-examined under better lighting. Second, I was unable to identify some of the motifs while at the museums and used a miscellaneous category in those cases. These were later reassessed after reviewing other researchers’ motif designations. Third, some of the vessels had two ceramic types listed for the vessel, and in this case, I picked the best one that defined the vessel based on the vessel’s color and glaze type. Lastly, I was limited by what vessels were available to be analyzed at the museums. Bowls and other larger vessels may have been overrepresented due to collector and
early excavation biases. Moreover, vessels that were decorated were more likely to be collected. For the most part, I was able to record the attributes accurately. The only problem that was unable to be resolved satisfactorily was the absence of certain motifs from reconstructed sections on some vessels. Reconstructed vessels had areas where sherds were missing filled in with plaster or putty. Consequently, these areas lacked motifs which may have been present in the original whole pot. This means my sample may have some motif types underrepresented or absent. This problem, however, was minimal as no reconstructed vessels had large sections repaired. In sum, although I encountered limitations, I still have a larger and more detailed sample than other studies discussed in the Chapter 3.

**Theoretical Perspectives**

My objective is to explore the relationship between iconography and identity and how these changed in the face of Spanish colonialism in the Northern and the Middle Rio Grande. This chapter will discuss the two theoretical perspectives I apply: culture contact and social identity—to understand how the Pueblo people were impacted by the Spanish. First, I provide an overview of culture contact theory and its recent developments. I looked at specific case studies to understand culture contact and trace out the theoretical developments related to my thesis (Cusick 1998; Deagan 1996; Voss 2008; Liebmann 2013). My thesis focuses on a time of drastic culture contact and therefore it is important to understand the theoretical developments surrounding culture contact theory. I will then describe how anthropologists and archaeologists examine social identity. Lastly, I will discuss how these theoretical perspectives will be applied in my thesis.
Culture Contact

Culture contact involving the Spanish has been extensively studied in Central and South America, Florida, California, as well as the Southwest. This section serves to give a brief overview of culture contact studies through time. Culture contact studies increased in response to the 1992 Quincentenary (Deagan 1996). For the purposes of this paper, I will use Cusick’s (1998:16) definition of culture contact: “as a predisposition for groups to interact with “outsiders”—a necessity created through human diversity, settlement, and desire for exchange – and to want to control that interaction.” Culture contact studies often investigate processes of change and cultural syncretism, while also critiquing the concept of cultural superiority. Colonial encounters form part of the broader phenomenon of culture contact or interregional interaction (Stein 2005). Processes such as assimilation, acculturation, syncretism, bricolage, mestizaje, miscegenation, transculturation and creolization have been used to describe cultural blending by anthropologists over the past century (Liebmann 2013). Culture contact studies have used ideas of cultural transmission and ethnogenesis to discuss what occurs when two cultures come into contact (Silliman 2001). Most of these terms were created to describe a specific process; however, limiting their broader anthropological applicability. One problematic term that has been applied broadly to culture contact studies is acculturation.

Acculturation has the longest and most controversial use in exploring culture contact. Acculturation was initially defined by Redfield et al. (1936:149) as “those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original patterns of either or both groups.” Acculturation studies were at the forefront of cultural anthropology from the late 1930s through the 1950s. Early acculturationists of the 1950s and 1960s tended to define culture contact solely in terms of Europeans and Native Americans in the New World (Cusick 1998:3). The Quincentennial
approaches moved away from acculturation and linear change toward transculturation and ethnogenesis as explanations of the processes of contact (Deagan 1996:32). These approaches put an emphasis on variable human agency in structuring and effecting social change. These contrast with early archaeological studies of acculturation, which relied on a model that the dominant or superior culture was fully accepted by the colonized. Lists of European goods and traits in indigenous sites would be used to prove that model of acculturation. The old studies relied on trait lists to measure the degree of acculturation in a social group through the amount of foreign (usually European) artifacts in indigenous assemblages (Liebmann 2013:27). This resulted in an emphasis on an inferred ‘dominant’ (e.g. European) and ‘recessive’ or subordinate (e.g. Indigenous) culture and an absence of agency on behalf of native groups. The “acculturation” model of culture contact assumes a unidirectionality in which the dominant colonizing “donor” culture transforms the more passive indigenous “recipient” culture of the host community (Stein 2005:16). Stein (2005:17) states that “…what occurs instead is a bidirectional or multidirectional process in which diasporic cultures can form entirely new, composite identities through what has been termed transculturation, ethnogenesis, creolization, or hybridization.” Archaeologists need to understand this process is a transformative one and recognize its relationship to the developing colonies and power relations. The term acculturation is rarely used today since the concept implies an “othering”

Subsequently, culture contact studies took on a more important role during the postcolonial theoretical movement. In recent years the term hybridity has been added as a concept for understanding culture contact (Liebmann 2013). Liebmann (2013) explains hybridity in contrast to other culture contact terms that are used in archaeology and tries to offer a reconciliation of the condition-specific terms. Liebmann (2013) uses the term to describe the
transformative processes and results that occur during culture contact when people blend traits from both cultures to create something distinctly new. Liebmann (2013) exemplifies this approach in his discussion of the religious transformation or adaptation that occurs during contact periods, especially focusing on Pueblo religion and the Southwest during initial and sustained Spanish contact. For example, Liebmann (2013) explored this hybridization through two unique material culture examples that were explained in Chapter 3: a Catholic chalice and a cave art depiction. Both examples show the influence of Christianity on Pueblo identity. In both examples, traditional Puebloan cultural expressions, Jemez black-on-white ceramics and kachina rock art, incorporated attributes of the Spanish colonizers to create something new that does not neatly fit into either Puebloan nor Spanish cultural practices.

Archaeology can be instrumental in understanding the shift between the prehistoric period and ethnohistoric accounts and the study of change in both time periods is important (Lightfoot 1995:210). Lightfoot (1995:211) explains that to understand culture change, scholars must use multiple lines of evidence including archaeological records, ethnohistorical accounts, ethnographical accounts, linguistics and oral traditions. Archaeologists need to take a diachronic contextual approach that examines changes in the ideological structure of people in prehistoric, protohistoric, and historic contexts to better understand culture contact. Previous scholars have examined the colonized-colonizer dichotomy to understand identities that emerge from culture contact (Voss 2005:461). Voss (2005) argues to understand culture contact scholars must look at the changing social identity and related changes in material practice. For my study, I utilize an approach similar to Liebmann to examine the “hybridity” that occurred between the Pueblo and Spanish peoples in the Rio Grande Valley as exemplified in ceramic vessel motifs as a result of different daily encounters with Spanish missionaries, governors, and other authorities.
Social Identity

In order to understand culture contact and the effects of colonization it is imperative to understand how people identify socially. There are different types of identities including the individual and the group identity. Individual identities include how a single person identifies socially and may include age, gender, occupation, and ethnicity (Voss 2008). Individuals have nested sets of identities. In contrast, a group identity is how the overall identity of the group appears archaeologically and can be seen as in my case, Spanish versus Pueblo. A group identity can also be marked within a community using non-local design styles on locally produced pottery (e.g. Eckert 2008). For this thesis, I am interested in how people identified themselves socially as associated with traditional Puebloan cultures or adapting Spanish cultural attributes and how people recognized each other’s identities. I am interested in what motifs and materials the Pueblo potters used and also how the Pueblo people used either symbols of Spanish or Pueblo identity or a blending of the two, in their creation of material culture. The icons used will suggest how the Pueblo people reacted to the Spanish. Janusek (2004:16) defines collective social identity as “subjective affiliation with certain people in relation to (or in contrast with) others based on shared memory, place, ancestry, activities, gender, occupation, ritual practice, or cultural expressions.” For the purposes of this thesis I will use Janusek’s definition of social identity.

The early simple version of social identity developed out of the culture historical approach and is archaeologically visible through differences in material culture reproduced within a society (Taylor 1948; Bourdieu 1977). Specifically, identity refers to how people define themselves and how others in turn perceive them. Identity is an ongoing construction in which people continually reaffirm and modify who they are both as individuals and as members of groups. People tend to have multiple identities that may overlap and include, gender, age, status,
occupation, interest groups, and cultural affiliation. Moreover, during colonial encounters, there
are interactions with people of multiple identities and not just colonizers (Lightfoot 1995;
Deagan 1996). Both the European colonizers and indigenous colonized were comprised of highly
diverse groups, incorporating individuals from a variety of nationalities and ethnic groups. In
these encounters, social identities of colonizers, other foreign communities associated with the
colonizers and host communities can all change (Stein 2005). Archaeologists have previously
viewed the social identity of the colonizing group as essentially static, mirroring the culture of
the homeland in both ideology and material culture. Recently, anthropologists have noted and
actively applied the role of agency in creating one’s social identity (Silliman 2001; Lightfoot et
al. 1998). We need to pay attention to the notion that certain spaces constitute people’s
performative identities and not all spaces will be accessible through the archaeological record
(Wilcox 2009).

Archaeologists have attempted to investigate these variable identities through analysis of
artifacts and the contexts within which they were found. Voss (2005) argues that to understand
culture contact in the past, scholars must look at the changing social identities and material
practice that occurred through the use of historical records. Social identity studies such as that
produced by Lightfoot and his colleagues (1998) seek to understand how people create and
maintain social identities in the face of a new culture and lifestyle, particularly in response to
colonialism. Stein (2005) suggests that to study identity and its transformation more accurately,
archaeologists must develop refined contextually sensitive perspectives on colonies and
indigenous groups. To do this, archaeologists need to focus carefully on chronological variation,
changes in behavior, and symbolic activity in public versus domestic social contexts seen
through material expressions and the context of artifacts. Explorations of identity transformation,
cultural transmission and adoption, and ethnogenesis during the Pueblo Revolt era have been most recently considered by Robert Preucel (2002) and Matthew Liebmann (2002, 2012), and have become more widespread in the Southwest (Bernardini 2005). Archaeologists have explored social identity in the archaeological record through material culture and stylistic variation (Fowles 2013).

This thesis asks whether markers of social identity transformation can be found in Pueblo iconography during the time of Spanish contact and the subsequent colonial era in the Northern and Middle Rio Grande Valleys of New Mexico. These markers, stylistic variation in decorative motifs present and variation in forms of vessels produced, provide a glimpse into the negotiation of social identities during a time of significant upheaval. The use of Spanish pottery designs on indigenous pots is not necessarily inferred to be attempts by Pueblo people to adopt Spanish identity. There is abundant historical evidence of the overt suppression of traditional Puebloan cultural practices and evidence that Pueblo people were forced to use Spanish practices (Liebmann 2002). By understanding these stylistic changes as the products of a dynamic system of interaction, we may arrive a more holistic understanding of negotiated identity during the Pueblo Revolt.

Conclusion of Methods Section

The methods utilized in this study enable replicability by future researchers and comparison with other studies. Vessels were selected from museum collections based on their provenance from the Northern and Middle Rio Grande, their temporal association, and the presence of designs. Museum collections provided both a wealth of information for use and problems involving poor provenience and outdated documentation. Each vessel was photographed and descriptively analyzed. Following previous studies, motifs on vessels were identified as either present or absent. In addition to motif types, the presence of runny paint and
the form of the vessel were identified. The attributes and attribute types, including vessel forms, ceramic types and temporal associations, and motif types, used in this study were presented. These motif types will be important in the analysis chapter. Problems and limitations with this study were presented. Lastly, I discussed the theoretical perspectives that I used as my tool for analysis. I explained the theories surrounding culture contact and social identity and how these will be used in my thesis. The dataset collected will be analyzed and presented in the following section, with a discussion of the cultural implications.
Chapter 5: Analysis of Results

This chapter presents an analysis of the data collected on prehistoric and historic Rio Grande pottery and permits an evaluation of my research question: what changes are identifiable in the motifs of Contact and Revolt period pottery. I also compare the results of my study with those of other scholars who have undertaken similar studies. As presented in my methods chapter, the attribute types I analyzed for this study include; vessel form, motif type, and geographic source of the ceramic type. I will begin with a discussion of the form analysis, followed by an overview of the motif analysis for both the Northern and Middle Rio Grande. I describe the differences in motifs between the two regions and explore ways that different experiences of Spanish colonization in each region may have affected motifs chosen for pottery decoration. I compare my results to the Salinas and Hopi regions for this reason. These differences allow me to suggest ways that Pueblo people transformed their social identity during the Contact period.

Form Analysis
As stated previously in my methods chapter, I looked at vessel forms since vessels serve specific function and the form impacts how the motifs can be interpreted. For example, certain motifs, such as kachinas and awanyus, are strong signifiers of Puebloan religious practices and identity and as such their ease of visibility on jars as opposed to bowls is significant. Furthermore, vessel form is important in understanding how the Spanish impacted the Pueblo people since the Spanish introduced new vessel forms. Vessel forms present in my assemblage indicate overall use of traditional, utilitarian Puebloan types such as bowls and jars (Table 7). However, a typical assemblage of Rio Grande pottery also contains ladles, seed jars, and other forms that were not present in my analysis as they are usually undecorated (see Eckert 2006).
Additionally, new forms such as soup plates and cups likely represent the introduction of Spanish foods.

Table 7. Vessel Forms by region and grouped time period.

<table>
<thead>
<tr>
<th>Vessel Form</th>
<th>Northern Rio Grande</th>
<th>Middle Rio Grande</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bowls</td>
<td>Jars</td>
</tr>
<tr>
<td><strong>Pre-Contact Period</strong></td>
<td>18 (72.0)</td>
<td>6 (24.0)</td>
</tr>
<tr>
<td><strong>Contact Period</strong></td>
<td>52 (74.2)</td>
<td>16 (22.8)</td>
</tr>
<tr>
<td><strong>Revolt/Post-Revolt</strong></td>
<td>7 (58.3)</td>
<td>3 (25.0)</td>
</tr>
<tr>
<td><strong>Pre-Contact Period</strong></td>
<td>113 (77.3)</td>
<td>31 (21.2)</td>
</tr>
<tr>
<td><strong>Contact Period</strong></td>
<td>33 (70.2)</td>
<td>10 (21.3)</td>
</tr>
<tr>
<td><strong>Revolt/Post-Revolt</strong></td>
<td>38 (50.0)</td>
<td>23 (31.5)</td>
</tr>
</tbody>
</table>

Table 7 shows the vessel forms included in my sample from both the Northern and Middle Rio Grande by time period. There were seven different vessel forms present in the sample. Temporal association for specific ceramic types were combined into three general periods, Pre-Contact period (pre-1550), Contact period (1550-1680), and Revolt/Post-Revolt Period (1680-1750) to enable comparability. The majority of vessels from the Northern Rio Grande date to the Contact period, followed by the Pre-Contact period and then a limited sample from the Revolt/Post-Revolt period. The majority of vessels from the Middle Rio Grande date to the Pre-Contact period, followed by the Revolt/Post-Revolt period, and then a moderate sample.
from the Contact period. The distribution of my sample in both regions has implications for the results. For example, results drawn from the Contact period in the Northern Rio Grande are more robust than results drawn from the Revolt/Post-Revolt period. The same is true for the Pre-Contact and Revolt/Post-Revolt period as compared to the Contact period for the Middle Rio Grande. The most prevalent forms in the entire assemblage were bowls at 63.3% followed by jars at 21.6%, a common trend found in most domestic Puebloan sites (Habicht-Mauche 1993). The similarities between my sample and vessels found in general domestic sites indicates that my sample is likely representative of a typical Puebloan assemblage. As discussed in the methods chapter, bowls and jars had different functions within the domicile with bowls typically used for serving of food and jars for storage. The remainder of vessel forms account for 15.1% of the sample. Clearly apparent in Table 7 are the presence of both differences in the types of forms identified both between the regions and within each regional sample by time period.

There are several broad similarities noted between the Northern and Middle Rio Grande sample. Both have over seventy percent bowls for all vessels analyzed during the Pre-Contact and Contact periods, followed by a decrease to between 50-60% in the Revolt/Post-Revolt period. Within my sample, there is a general decrease in bowls, particularly in the Northern Rio Grande, which might be the product of my sample or might suggest that the people began producing more European introduced vessel forms after contact, representative of a change in cuisine and serving practices brought on by the Spanish. Additionally, the frequency of jars follows similar trends over time in both regions, even though the Northern Rio Grande sample is smaller. For instance, jars comprise between 20 and 25 percent, except for the 30 percent presence in the Middle Rio Grande Revolt/Post-Revolt period. This higher presence is likely a product of sampling, and not indicative of broader changes. There are, however, notable
differences between the Northern and Middle Rio Grande sample. Differences include the higher presence of canteens, cups, and the sole occurrence of a puki in the Middle Rio Grande sample. As I will discuss below in the Salinas regional analysis, canteens are noticeably more common in the Salinas area directly south of the Middle Rio Grande and interactions between these two areas likely resulted in the higher presence (Whitney 2017). The higher presence of cups, particularly in the Revolt/Post-Revolt Period in the Middle Rio Grande demonstrates the increased use of Spanish forms. Soup plates, another Spanish form, were found in low frequencies in only the Revolt/Post-Revolt period in both regions. The sole other, traditionally identified Spanish vessel form, was a candle holder and was present in Northern Rio Grande Contact period assemblage. Spanish introduced vessel forms show differences in the motifs found on them suggesting that they may have had a different meaning to the Pueblo people and traditional motifs were not used on these forms. The cups and soup plates in my assemblage were decorated with simple geometric designs which might suggest they had a different meaning than the traditional forms. In summary, the vessel form analysis demonstrates the adoption of some Spanish forms by populations predominately in the Middle Rio Grande over the Northern Rio Grande; however, the vast majority of the sample is represented by standard forms found in Pueblo village contexts. The higher presence of European forms in the Middle Rio Grande is indicative of the increased contact with the Spanish.

**Motif Analysis**

Motif types on the vessels in my assemblage, along with vessel date allow me to explore changes through time in Puebloan iconography on pottery, including periods both before and after Spanish contact. As discussed above, some motifs are elements of Puebloan cosmology and can be used to explore how Pueblo people negotiated the Spanish conquest. Table 8 shows the average number of motif types per vessel from the Northern and Middle Rio Grande for each
time period, with the number of individual motifs present in Table 9. As stated in the methods chapter, only whole vessels with minimal repair were analyzed for the Northern and Middle Rio Grande samples.

Table 8. Comparison of Motif Density in the Northern and Middle Rio Grande. *

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
<th>Total Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Rio Grande</td>
<td>3.68</td>
<td>3.70</td>
<td>3.58</td>
<td>3.68</td>
</tr>
<tr>
<td>Middle Rio Grande</td>
<td>3.77</td>
<td>3.00</td>
<td>2.64</td>
<td>3.32</td>
</tr>
</tbody>
</table>

*One way ANOVA test used to assess motif densities on vessels for both the Northern and Middle Rio Grande based on Pre-Contact, Contact, and Revolt/Post-Revolt periods. Results for all motifs by time period demonstrate decline in motif density and were statistically significant p < 0.0001. Variation in motif density by region, regardless of time were not quite significant at p = 0.051. Analysis of change through time within each region indicates motif density decreased in MRG over time (p < 0.0001), but remained stable in NRG (p = 0.83).

Table 8 indicates that the Northern Rio Grande had more motif types per vessel on average than did the Middle Rio Grande. Trends for individual time periods indicate that in the Pre-Contact period both areas had a relatively similar number of motif types per vessel. This is not the case for the Contact period nor the Revolt/Post-Revolt period, where the number of motif types on vessels from the Middle Rio Grande decreases to less than 3 motifs. In both, vessels in the Middle Rio Grande had noticeably fewer motifs types. Furthermore, most vessels have between 3 to 4 motif types present. The highest number of motif types present on a vessel was 7 and the lowest was 1. This contrasts with the types of motifs present, with the Middle Rio Grande sample incorporating every type of motif identified (Table 9). This is a product of sampling and having a larger representative sample from the Middle Rio Grande. Motifs that were identified as present on vessels from the Middle Rio Grande and not on vessels from the Northern Rio Grande occur infrequently. ANOVA results described below demonstrate that motif density in the Middle Rio Grande sample decreased significantly over time, while the Northern Rio Grande remained stable. This is interpreted as indicative of differences in the
actions and resilience of groups living in the Northern Rio Grande as compared to the Middle Rio Grande during the Contact and Revolt/Post-Revolt periods. The Northern Rio Grande was responsible for instigating and planning the Pueblo Revolt. The significant changes in motifs in the Middle Rio Grande suggests the great impact of the Spanish on indigenous iconography in this region.

Table 9. Number of Individual Motifs in the Northern Rio Grande and Middle Rio Grande.

<table>
<thead>
<tr>
<th>Motifs</th>
<th>Northern Rio Grande</th>
<th>Middle Rio Grande</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Anthropomorphic (Other)</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Awanyu</td>
<td>9</td>
<td>2.3</td>
</tr>
<tr>
<td>Bird</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td>Butterfly</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Checkerboard</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Circle</td>
<td>10</td>
<td>2.5</td>
</tr>
<tr>
<td>Comb</td>
<td>9</td>
<td>2.3</td>
</tr>
<tr>
<td>C-Shape</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Dot</td>
<td>45</td>
<td>11.4</td>
</tr>
<tr>
<td>Dragonfly</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Feather</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Feathered Key</td>
<td>8</td>
<td>2.0</td>
</tr>
<tr>
<td>Flower/Plant</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Framing Lines</td>
<td>48</td>
<td>12.2</td>
</tr>
<tr>
<td>Hachure</td>
<td>18</td>
<td>4.6</td>
</tr>
<tr>
<td>Horizontal Lines</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Hourglass</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Kachina</td>
<td>3</td>
<td>0.8</td>
</tr>
</tbody>
</table>
The analysis of the motifs starts broadly with looking at trends in the numbers of motifs. While conducting my analysis only a few motifs were relatively common in either region as compared to the vast majority of other motifs with frequencies less than five percent. According to my analysis and Table 9, in the Northern Rio Grande, 17.3% of the pots contained triangles, while 2.3% of vessels had birds and stepped elements were found on about 4.3% of the pots. In

<table>
<thead>
<tr>
<th>Motif Type</th>
<th>Northern</th>
<th>Frequency</th>
<th>Southern</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-Shape</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Parallel Lines</td>
<td>27</td>
<td>6.9</td>
<td>23</td>
<td>2.6</td>
</tr>
<tr>
<td>Plus Sign/Cross</td>
<td>6</td>
<td>1.5</td>
<td>24</td>
<td>2.7</td>
</tr>
<tr>
<td>Rectangle</td>
<td>7</td>
<td>1.8</td>
<td>39</td>
<td>4.4</td>
</tr>
<tr>
<td>Scalloped Line</td>
<td>2</td>
<td>0.5</td>
<td>12</td>
<td>1.3</td>
</tr>
<tr>
<td>Scroll</td>
<td>16</td>
<td>4.1</td>
<td>12</td>
<td>1.3</td>
</tr>
<tr>
<td>Snake</td>
<td>1</td>
<td>0.3</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>S-Shape</td>
<td>4</td>
<td>1.0</td>
<td>65</td>
<td>7.3</td>
</tr>
<tr>
<td>Star</td>
<td>3</td>
<td>0.8</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Stepped Element</td>
<td>17</td>
<td>4.3</td>
<td>65</td>
<td>7.3</td>
</tr>
<tr>
<td>Sun</td>
<td>6</td>
<td>1.5</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Terraced Element</td>
<td>1</td>
<td>0.3</td>
<td>7</td>
<td>0.8</td>
</tr>
<tr>
<td>Triangle</td>
<td>68</td>
<td>17.3</td>
<td>143</td>
<td>16.0</td>
</tr>
<tr>
<td>Turkey Track</td>
<td>2</td>
<td>0.5</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Vertical Lines</td>
<td>11</td>
<td>2.8</td>
<td>72</td>
<td>8.1</td>
</tr>
<tr>
<td>X-Mark</td>
<td>4</td>
<td>1.0</td>
<td>24</td>
<td>2.7</td>
</tr>
<tr>
<td>Zig-Zag</td>
<td>43</td>
<td>10.9</td>
<td>33</td>
<td>3.7</td>
</tr>
<tr>
<td>Zoomorphic (Other)</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>Z-Shape</td>
<td>2</td>
<td>0.5</td>
<td>5</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>MOTIF TOTALS</strong></td>
<td>394</td>
<td>100.0</td>
<td>893</td>
<td>100.0</td>
</tr>
</tbody>
</table>
the Middle Rio Grande, 16% of the vessels had triangles, 8.4% had birds and 7.3% had stepped elements. In the Northern Rio Grande region, the five most common motifs, discounting lines, dots, and hachure, were triangles at 17.3%, zig zags at 10.9%, stepped elements at 4.3%, scrolls at 4.1%, and birds at 2.8%. In the Middle Rio Grande, the five most common motifs, again discounting lines and dots, were triangles at 16.0%, birds at 8.4%, stepped elements and s-shapes at 7.3%, and rectangles at 4.4%. In the Middle Rio Grande, some motifs were more prominent than in the Northern Rio Grande including, dragonflies, feathers, s-shapes, birds and feathered keys. Further differences include the higher presence of zig-zags, dots, parallel lines, hachure, and scrolls in the Northern Rio Grande. To summarize the differences identified in my sample, figurative motifs are more common on the Middle Rio Grande glaze wares, as opposed to Northern Rio Grande biscuit wares with motifs that outline and fill in decorated areas.

Interestingly, although regional differences between the vessel forms and types of motifs present exist, both regions share some similar motifs which are linked to Puebloan cosmology. Other similarities present include the similar occurrence of framing lines, kachinas, and triangles. Most motifs with a low percentage of occurrence in one region appear in the same frequency in the other region. The trends described for similarities between the Northern and Middle Rio Grande represent traditional Puebloan imagery and a desire to decorate vessels with these images. The overall comparison between the Northern and Middle Rio Grande provided in Table 8 enables broad determination of differences between the two.

**Northern Rio Grande Analysis**

Motifs on vessels from the Northern Rio Grande are presented by time period and grouped by motif type in Table 10. Examinations of motif types present in the Northern Rio Grande sample over time show some general trends in terms of iconographic presence. There are noticeably fewer motifs identified on Revolt/Post-Revolt period vessels and only certain motifs
are identified. A trend for fewer motifs on ceramics dating to this period has been noted by previous scholars (Frank and Harlow 1974; Liebmann 2012). Avian associated, geometric, Kachina/Awanyu/Venus Star, and zoomorphic motifs decrease from the Pre-Contact through Revolt/Post-Revolt period. In contrast, non-motifs, such as framing, parallel, scalloped lines and dots, increase in frequency.

Table 10. Motifs Types Present on Northern Rio Grande Vessels by Time Period. *

<table>
<thead>
<tr>
<th>Motif Type</th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>25 (27.8)</td>
<td>57 (22.2)</td>
<td>6 (13.3)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>24 (26.7)</td>
<td>49 (19.1)</td>
<td>7 (15.6)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>7 (7.8)</td>
<td>18 (7.0)</td>
<td>2 (4.4)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>2 (2.2)</td>
<td>1 (0.4)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>32 (35.6)</td>
<td>132 (51.4)</td>
<td>30 (66.7)</td>
</tr>
<tr>
<td>MOTIF TOTALS</td>
<td>90 (100.0)</td>
<td>257 (100.0)</td>
<td>45 (100.0)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, religious, and zoomorphic motifs were compared to the non-motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant \( p = 0.002, \chi^2 = 12.66, \text{df} = 2 \).

By the Revolt/Post-Revolt period sample, they comprise 66.7% of the total motifs identifiable. In the Northern Rio Grande there are almost no religious (kachina, awanyu, Venus star, plus sign/cross) motifs identifiable on the Revolt/Post-Revolt period vessels. The Pueblo people may have removed icons that appeared not Christian such as a kachinas. Although, kachinas are roughly equivalent in frequency between the Northern and Middle Rio Grande, the decrease in their presence, and religious motifs in general, and lack thereof in the Revolt period in both the Northern and Middle Rio Grande is interesting and suggestive of intentional erasure by Pueblo potters in response to Spanish pressures. Moreover, the plus sign/cross motif, included within the Kachina/Awanyu/Venus Star group, stays relatively consistent during the Spanish
occupation suggesting that the Pueblo people continued using this motif and that, within the
confines of the Northern Rio Grande, it maintained a similar importance to the Pueblo people.

**Middle Rio Grande Analysis**

Table 11 presents the Middle Rio Grande motifs over time. On the Middle Rio Grande
vessels, there are fewer motif types identified in the Revolt/Post-Revolt period sample. This
could be interpreted as relating to the percentage of my total sample dating to the Revolt/Post-
Revolt period; however, the trends identified in the Northern Rio Grande and prior research does
not support that conclusion.

Table 11. Middle Rio Grande Motifs by Time Period. *

<table>
<thead>
<tr>
<th>MOTIF</th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>172 (31.2)</td>
<td>29 (20.6)</td>
<td>66 (32.8)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>165 (29.9)</td>
<td>38 (27.0)</td>
<td>51 (25.4)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>22 (4.0)</td>
<td>7 (5.0)</td>
<td>9 (4.5)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>13 (2.4)</td>
<td>4 (2.8)</td>
<td>2 (1.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>179 (32.5)</td>
<td>63 (44.7)</td>
<td>73 (36.3)</td>
</tr>
<tr>
<td><strong>MOTIF TOTALS</strong></td>
<td>551 (100.0)</td>
<td>141 (100.0)</td>
<td>201 (100.0)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, kachina/awanyu/Venus star, and zoomorphic motifs were compared to the other motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant (p = 0.02, $\chi^2 = 7.44$, df = 2).

Several trends within the sample over time are noted. Avian associated motifs decrease
from the Pre-Contact to the Contact period and then increase to a similar frequency during the
Revolt/Post-Revolt period. This is interesting as it might document a suppression of indigenous
avian forms during the Contact period and then their revival during and after the Pueblo Revolt.
In comparison, geometric motifs decrease slightly, while non-motifs, such as framing lines and
dots, increase significantly from the Pre-Contact through Revolt/Post-Revolt period. Religious
motifs, kachinas and awanyus for example, demonstrate little change in frequency and remain
relatively constant at below five percent presence. This contrasts slightly with the decreasing
trend noted in the Northern Rio Grande sample, that were present at around 7% during the Pre-
Contact and Contact periods. Trends identified in the Middle Rio Grande sample agree with
previous studies that have noted the low presence of figurative motifs on post-1700 vessels
(Frank and Harlow 1974; Mills 2002). Of the motifs that do appear in the Revolt/Post-Revolt
periods, avian motifs appear in higher frequency than the other groups of motifs. It is interesting
to note the use of different motifs often associated with birds present at this time, due to the
connection between birds and Pueblo religious practices and beliefs. This may be the result of
Post-Revolt potters attempting to retain indigenous iconography.

**Avian Associated Motifs**

Birds and associated motifs, including feathers, triangles, and feathered keys were clearly
important in the Puebloan worldview and their appearance on post-Contact pottery may help us
understand some of the pressures the Pueblo people faced in holding onto their traditions,
worldview, and cosmology after the Spanish arrived. As stated in my methods chapter, bird
imagery was important to the Pueblo people and various birds and bird feathers are used in ritual
ceremonies. Birds and associated motifs such as feathers were symbolically important in Pueblo
religion. Traditional Puebloan designs include birds, stepped elements, the double-headed key,
awanyus and kachinas. After Spanish contact there is a significant decrease in bird motifs on
pottery in the Northern Rio Grande, whereas in the Middle Rio Grande bird imagery increased in
presence. This is interpreted as the result of retention of indigenous iconography in the Middle
Rio Grande (Table 12). This could be explained as a result of the use of glaze wares with more
figurative motifs prominently in the Middle Rio Grande as opposed to the black-on-white
ceramics of the Northern Rio Grande with a prominence of layout motifs.
Table 12. Number and Percent Presence Avian Motifs on Vessels by Time Period. *

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>F</td>
<td>T</td>
</tr>
<tr>
<td>NRG</td>
<td>5 (5.4)</td>
<td>0 (0.0)</td>
<td>16 (17.4)</td>
</tr>
<tr>
<td>MRG</td>
<td>43 (7.8)</td>
<td>8 (1.5)</td>
<td>97 (17.6)</td>
</tr>
</tbody>
</table>

*Vessels with avian motifs were compared to vessels lacking avian motifs over time within the NRG and MRG separately using a chi-square test with significance at the 0.05 level. Results for the NRG indicate differences are not due to the vagaries of sampling and are significant (p = 0.009, \( \chi^2 = 9.35, df = 2 \)). Results for the MRG indicate differences are not due to the vagaries of sampling and are significant (p < 0.000, \( \chi^2 = 17.10, df = 2 \)). B = Bird, F = Feather, T = Triangle, F. Key = Feathered Key.

Table 12 explores bird and bird-related motifs in more detail, with the percentages represented indicating the frequency of a motif in relationship to the total number of motifs from that region for that time period. Bird and bird-related motifs decreased from the pre-Contact period to the Contact period and then increased in the Revolt/Post-Revolt period in the Middle Rio Grande. This contrasts with the Northern Rio Grande, where avian motifs decreased from 27.2% in the Pre-Contact period to 13.3% in the Revolt/Post-Revolt period. Bird motifs steadily increase in the Middle Rio Grande from 7.8% to 10.0% in the Revolt/Post-Revolt period, while they decrease in the Northern Rio Grande from 5.4% in the Pre-Contact period and were not identified in the Revolt/Post-Revolt period. Feathers did not change in occurrence in the either region from the Pre-Contact through Revolt/Post-Revolt period, representing at all times less than two percent. The presence of triangle motifs varies between the two regions, with a decrease overall in presence from an average of around 17.5% to slightly under 15% by the Revolt/Post-Revolt period. Triangle motifs also decrease in the Middle Rio Grande from the Pre-Contact to Contact period, before increasing by the Revolt/Post-Revolt period. Lastly, the feathered key (abbreviated as F. Key) motifs are never common, and follow a similar trend in both regions during the Pre-Contact through Contact periods, representing on average 4.4% and 1.8% respectively. No feathered key motifs were identified in the Revolt/Post-Revolt period in the
Northern Rio Grande, but increase to 5% in the Middle Rio Grande. As mentioned above, birds are commonly associated with a variety of Puebloan ceremonial practices and their decrease can be interpreted as relating to overt Spanish attempts to minimize and deter those practices or Pueblo attempts to placate the Spanish. A similar trend was noted above in the decrease of kachinas and awanyu motifs. The limited frequencies of avian motifs present preclude a detailed analysis of the results; however, some generalities are able to be described. As an aggregate, avian motifs present in the Northern Rio Grande are similar to those in the Middle Rio Grande during the Pre-Contact and Contact periods. Avian motifs in the Northern Rio Grande sample decrease from the Pre-Contact through Revolt/Post-Revolt period, and represent less than half found in the Pre-Contact period. This contrasts with the decrease and then increase of avian motifs in the Middle Rio Grande. The higher percentage of avian motifs that occur during the Revolt/Post-Revolt period sample in the Middle Rio Grande I link to the reassertion of Pueblonness during Spanish contact as birds are important to Puebloan way of life and feathers are important in religious ceremonies and on prayer sticks. Various feathers were used in kachina masks and on religious clothing. This increase in feathers and the use of less overt bird motifs on vessels might suggest that the Pueblo people were trying to use a less direct motifs to continue representing their Pueblo identity.

Certain elements generally appear to increase during the Pueblo Revolt period in both the Northern and Middle Rio Grande and include triangles and plus signs; see discussion below. Two studies, Capone and Preucel (2002) and Liebmann (2012) suggest that motifs that represent Pueblo ideology are emphasized during the Pueblo Revolt. One comment to note prior to furthering this discussion is that my sample incorporates both Revolt Period and Post-Revolt samples; however, trends noted are similar. Capones and Preucel’s study (2002) identified four
design icons which included feather motifs, hooked triangle/ F figure design, the double-headed key theme, and the cap steep/sacred mountain motif. These motifs are similar to the motifs found in my analysis, such as the avian associated and s-shape. In their study, they noted that these designs increased during the contact and the Pueblo Revolt period. Similarly, Liebmann (2012:154) explained the increase of these designs during contact and the Pueblo Revolt was due to a revitalization effort by the Pueblo people. The feather motif played an important role in ceramic decoration throughout the Pueblos in the 1680s, and appear on pottery from Zuni, Acoma, Zia, Santa Ana, Cochiti, the Jemez Province, and the Tewa region (Liebmann 2012). My results show that, although the feather motif does not increase, avian motifs from the Contact to Revolt/Post-Revolt period in the Middle Rio Grande which could be a reassertion of Pueblo identity and supports Liebmann’s (2012) analysis. The double-headed motif or s-shape motif also increased during the contact period which has been noted by Capone and Preucel (2002) to represent a return to traditional ways and Puebloan ideology. Capone and Preucel (2002) argued that some Revolt-era designs had been resurrected from the period of AD 1400-1450 (Glaze B times), as evidenced in the reemergence of designs such as the double headed key motif. Tewa women also used archaic design elements on their matte-paint wares. One of these motifs was the hooked triangle, which was not assessed as part of this study, that was found on Sankawi and Biscuit wares (Capone and Preucel 2002:109). Following Capone and Preucel (2002), the increase of these designs is possibly an attempt to return to Pueblo iconography. The increase in the double-headed key motif or the s-shape motif during the contact period has been linked to a resurgence in traditional designs since this motif also appears on pre-contact vessels (AD 1400-1450). This increase and revitalization of earlier designs suggests that the Pueblo people were actively resisting the efforts of acculturation and promoting their Puebloan social identity.
Images such as X marks have been examined to show changes brought on by the Spanish. X marks have been argued to represent birds or a bird in flight (see Mobley-Tanaka 2002); however, they are not counted as such for the purposes of this analysis since they vary, and this assertion has not been widely accepted. My analysis does not indicate definitive evidence for an increase in X marks due to the small sample. In the Northern Rio Grande, the presence of X marks remains constant at around one percent during the Pre-Contact and Contact period with no X marks identified in the Revolt/Post-Revolt period. In comparison, in the Middle Rio Grande X marks increase from 2.0% in the Pre-Contact period to 3.5% in the Contact period and 4.0% in the Revolt/Post-Revolt period. Mobley-Tanaka (2002) interpreted this shift as a desire for Pueblo people to replace idolatrous images with crosses or x marks to reference the Christian crosses and satisfy the Spanish friars. It is also argued that Puebloan imagery became simplified during the contact period (Frank and Harlow 1974). According to Frank and Harlow (1974) designs on glaze ware vessels made in Pueblos with Spanish missions became simplified and abstracted, potentially masking their reference to indigenous ritual.

**Bowls vs Jars Motif Analysis**

In the next section, data on motifs identified on bowls and motifs identified on jars will be explored through time for both the Northern Rio Grande and the Middle Rio Grande. For the most part, designs on bowls are found on the interior of the vessel and may be thought of as less public, as opposed to the exterior designs on jars (Mills 2002:90). Bowls are used in daily activities since they are normally used for serving food on a daily basis. Thus, interior designs on bowls may be understand as more private, as opposed to the more public elements on the exterior of a jar.
Motifs on bowls change drastically in the Revolt/Post-Revolt period (Table 13). Nearly all of motifs identifiable in the Revolt/Post-Revolt period are simple layout or filler designs (non-motifs), increasing from 38.6% of all motifs in the Pre-Contact and Contact periods to 70.8%. Interestingly, the only occurrence of kachinas on Northern Rio Grande bowls is during the Contact period as are the greatest number of awanyus, described below. Overall trends between the Pre-Contact and Contact period are relatively similar, with similar frequencies of zoomorphic, religious, and avian motifs. The only identifiable differences are the decrease in geometric motifs and corresponding increase of approximately 10% of non-motifs, for example framing lines, dots, etc. Avian motifs significantly decrease on bowls from the Contact to Revolt/Post-Revolt period, while other motifs increase to 70.8%. Geometric motifs slightly increase, while religious motifs slightly decrease. No zoomorphic motifs were identified in the Revolt/Post-Revolt period and, in general, are nearly absent from all Northern Rio Grande bowls examined. In summary, the avian, zoomorphic and religion motifs on bowls in the Northern Rio Grande that are identifiable in the Pre-Contact and Contact Periods are largely replaced in the Revolt/Post-Revolt period by simplistic, geometric motifs with very few instances of ritually

### Table 13. Motifs on Northern Rio Grande Bowls, N (%), by time period. *

<table>
<thead>
<tr>
<th>Motif Type</th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>15 (26.3)</td>
<td>41 (22.5)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>16 (28.1)</td>
<td>33 (18.1)</td>
<td>5 (20.8)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>3 (5.3)</td>
<td>14 (7.7)</td>
<td>1 (4.2)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>1 (1.8)</td>
<td>1 (0.5)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>22 (38.6)</td>
<td>93 (51.1)</td>
<td>17 (70.8)</td>
</tr>
<tr>
<td><strong>MOTIF TOTALS</strong></td>
<td>57 (100)</td>
<td>182 (100)</td>
<td>24 (100)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, kachina/awanyu/Venus star, and zoomorphic motifs were compared to the other motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant (p = 0.03, $\chi^2 = 7.22$, df = 2).
significant motifs. As mentioned previously, this supports a general trend in the Northern Rio Grande towards a removal of motifs associated with Puebloan religious practices due to Spanish colonialism.

Table 14. Motifs on Middle Rio Grande Bowls, N (%), by time period. *

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>133 (30.4)</td>
<td>20 (18.9)</td>
<td>33 (31.4)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>122 (27.9)</td>
<td>24 (22.6)</td>
<td>28 (26.7)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>21 (4.8)</td>
<td>6 (5.7)</td>
<td>5 (4.8)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>9 (2.1)</td>
<td>4 (3.8)</td>
<td>2 (1.9)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>153 (34.9)</td>
<td>52 (49.1)</td>
<td>37 (35.2)</td>
</tr>
<tr>
<td>MOTIF TOTALS</td>
<td>438 (100.0)</td>
<td>106 (100.0)</td>
<td>105 (100.0)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, kachina/awanyu/Venus star, and zoomorphic motifs were compared to the other motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant (p = 0.02, $\chi^2 = 7.51$, df = 2).

In comparison to the Northern Rio Grande, bowls from the Middle Rio Grande demonstrate different stylistic trends (Table 14). This is particularly the case in the Revolt/Post-Revolt period sample. While in the Northern Rio Grande sample, 70.8% of all motifs in the Revolt/Post-Revolt sample are categorized as non-motifs and increase over time from Pre-Contact period, in the Middle Rio Grande they remain relatively constant between approximately 30% to 40%. Furthermore, avian motifs do not decrease to near absence in the Revolt/Post-Revolt period, and actually increase to the same frequency found in the Pre-Contact period. This increase was described above. In contrast to these differences, three similarities between bowls in the Northern and Middle Rio Grande were identified. These include a relatively similar presence of geometric motifs that initially decrease from slightly below 30% to 20% and remain constant during the Contact and Revolt/Post-Revolt periods, a similar trend of the low
identification of zoomorphic motifs on bowls, and relatively consistent occurrence of Kachina/Awanyu/Venus Star motifs at around 5%. In summary, few similar trends are evident between the Northern and Middle Rio Grande bowl samples. The two most significant trends are the increase in avian motifs from the Contact to Revolt/Post-Revolt period in the Middle Rio Grande and the divergence from the Northern Rio Grande in terms of the frequency of layout and filler motifs. This is interpreted as a result of glaze wares containing more figurative motifs, as opposed to the predominant black-on-white ceramics of the Northern Rio Grande.

Table 15. Motifs on Northern Rio Grande Jars, N (%), by time period. *

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>5 (29.4)</td>
<td>14 (21.2)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>3 (17.6)</td>
<td>12 (18.2)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>3 (17.6)</td>
<td>3 (4.5)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>6 (35.3)</td>
<td>37 (56.1)</td>
</tr>
<tr>
<td><strong>MOTIF TOTALS</strong></td>
<td>17 (100.0)</td>
<td>66 (100.0)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, kachina/awanyu/Venus star, and zoomorphic motifs were compared to the other motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are due to the vagaries of sampling and are not significant (p = 0.12, \( \chi^2 = 2.33, \) df = 1).

Table 15 presents the motifs identified on jars in the Northern Rio Grande. There were no Revolt/Post-Revolt period jars present in the sample for the region and analysis will be limited to the changes from the Pre-Contact to Contact period. Broadly speaking, trends are very similar to those identified on Northern Rio Grande bowls, and the analysis is limited by the small sample for the Pre-Contact period. These similar trends include a decrease in avian motifs from around 30% to 20%, an increase in framing motifs from around 37% to over 50%, and a low occurrence of zoomorphic motifs, with none identified on jars. There is a difference, however, as geometric motifs do not change from the Pre-Contact to Contact period on jars, while they decrease on
bowls, and Kachina/Awanyu/Venus Star motifs are far more common on jars than bowls. These results, however, are limited as stated previously due to the small sample of the Pre-Contact period. Interpretations drawn from a comparison of bowls and jars of the Northern Rio Grande indicate general similarities in terms of motif changes from the Pre-Contact to Contact period.

Table 16. Motifs on Middle Rio Grande Jars, N (%), by time period. *

<table>
<thead>
<tr>
<th>Motif Type</th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>40 (35.4)</td>
<td>8 (28.6)</td>
<td>27 (37.5)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>39 (34.5)</td>
<td>11 (39.3)</td>
<td>18 (25.0)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>2 (1.8)</td>
<td>1 (3.6)</td>
<td>2 (2.8)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>4 (3.5)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>28 (24.7)</td>
<td>8 (28.6)</td>
<td>25 (34.7)</td>
</tr>
<tr>
<td>MOTIF TOTALS</td>
<td>113 (100.0)</td>
<td>28 (100.0)</td>
<td>72 (100.0)</td>
</tr>
</tbody>
</table>

*The combined avian, geometric, kachina/awanyu/Venus star, and zoomorphic motifs were compared to frequency of the other motifs over time using a chi-square test with significance at the 0.05 level. Results indicate differences are due to the vagaries of sampling and are not significant (p = 0.35, $\chi^2 = 2.13$, df = 2).

The jar sample from the Middle Grande is well represented for both the Pre-Contact and Revolt/Post-Revolt periods, with a smaller sample present for the Contact Period (Table 16). This means that trends mentioned for changes from the Contact to Revolt/Post-Revolt period are less robust than desired. Differences were also not statistically significant over time. Nevertheless, their description is insightful into changes in motifs and expression of Puebloanness. In comparison to the Northern Rio Grande, there are almost no kachinas nor awanyus identified for the Pre-Contact and Contact periods, as discussed in the next section. Differences are identifiable between the Northern and Middle Rio Grande jar samples. There is a higher presence of geometric motifs on Middle Rio Grande jars. Furthermore, whereas avian motifs on Northern Rio Grande jars decrease from nearly 30% to 20% during the Contact period,
avian motifs on jars remain relatively high in Revolt/Post-Revolt period in the Middle Rio Grande. This trend resembles the general decrease and increase found in Middle Rio Grande bowls, however avian motifs are found in higher frequencies on jars. Kachina/Awanyu/Venus Star motifs during the Contact period are similar for both the Northern and Middle Rio Grande, at below 5%, and zoomorphic motifs are nearly absent from all Middle Rio Grande jars. Similar to the trend discussed on Middle Rio Grande bowls, framing lines and other layout motifs do not increase as meaningfully as found in the Northern Rio Grande, and are found in around a third of all Revolt/Post-Revolt period jars. This contrasts with the over 50% presence on Northern Rio Grande jars. Oddly, an awanyu motif was present in the Revolt/Post-Revolt period and plus signs are present throughout each time period, however there is no corresponding increase of religious motifs. The conservative decoration of Middle Rio Grande jars at rates slightly lower than bowls is interesting and may relate to the ease with which a motif on a jar or bowl could be seen. In summary, although some similarities are found between bowls and jars of the Northern and Middle Rio Grande, trends indicate that bowls and jars from the same region are far more like the other in terms of motifs present in a specific time period and trends over time than to vessels found in the other region.

**Public vs Private Space**

In order to assess the impact of Spanish colonization of the region and the concept that bowls and jars where different in terms of their use in public versus private space, ritually-charged motifs are presented in Table 17. Frequencies in Table 17 represent the number of a motif present on the vessel form in relationship to the total number from that time period. Mills (2002) argued that kachinas were painted on bowls since bowl interiors offered a better surface that was more private or hidden than the exterior surface of jars. Mills also suggests that water jars which were more public were almost always decorated with geometric designs. Interestingly,
almost all the kachinas on the bowls in the assemblage were found on the exterior of the bowl which contradicts Mills (2002) idea. Within my assemblage, there are stark differences between the Northern and Middle Rio Grande. For example, awanyus are far more common in the Northern Rio Grande and found on both bowls and jars in relatively high frequencies in the Pre-Contact and Contact periods as compared to the Middle Rio Grande. Kachinas are present in 5.6 percent of jars from the Pre-Contact period and then only present in bowls in later assemblages in the Northern Rio Grande. In contrast, kachinas are present in low frequencies in the Middle Rio Grande on both bowls and jars and decrease through time. The most striking result was found with plus signs that actually generally increased in presence across time in both the Northern and Middle Grande, particularly on bowls.

Table 17. Percentages of Awanyus, Kachinas, and Venus Star on Bowls and Jars. *

<table>
<thead>
<tr>
<th>Region</th>
<th>Temporal Association</th>
<th>Awanyu</th>
<th>Kachina</th>
<th>Plus Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bowls</td>
<td>Jars</td>
<td>Bowls</td>
<td>Jars</td>
</tr>
<tr>
<td>Northern Rio Grande</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Contact Period</td>
<td>3.5</td>
<td>5.6</td>
<td>0.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Contact Period</td>
<td>2.7</td>
<td>1.5</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Revolt/Post-Revolt Period</td>
<td>0.0</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
</tr>
<tr>
<td>Middle Rio Grande</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Contact Period</td>
<td>0.9</td>
<td>0.0</td>
<td>1.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Contact Period</td>
<td>0.0</td>
<td>0.0</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Revolt/Post-Revolt Period</td>
<td>0.0</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*The combined religious motifs were compared over time between the NRG and MRG using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant (p < 0.000, $\chi^2 = 15.64$, df = 2).

These results are interpreted in two ways. The first is that the decrease in awanyus and kachinas was the product of Spanish efforts to remove motifs of traditional Pueblo ritual practices, and a form of tactical accommodation (Forde 2015). The second is the increase of plus signs may be an overt attempt by Puebloan potters to continue emphasizing their ritual motifs
and identity through symbols less likely to attract Spanish attention. It is likely that these two results are linked, however, future investigation is needed to assess the potential. Mills (2002) assertion that jars were more public and thus less likely to have overt religious motifs is not supported by my data, as jars contain the majority of kachina and awanyu motifs identified. Future research is required to assess whether this trend is found elsewhere. Another proposed idea for the masking of motifs by Pueblo potters is that they purposefully made their paint runny. This concept is explored below.

**Condition of Paint**

Some of the vessels showed paint runniness, in other words any motif showing drip lines which suggest that the paint had “run” as the vessel was being created. Studies of the Rio Grande pottery have discussed that this runny method was a conscious effort made by the Pueblo people to disguise indigenous designs in the face of Spanish colonialism (Spielmann et al. 2006). This may be significant with regard to the amount of Spanish control in the two regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Type</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Rio Grande</td>
<td>Contact Period</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>Pre-Contact Period</td>
<td>5</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>Contact Period</td>
<td>10</td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td>Revolt/Post Revolt Period</td>
<td>27</td>
<td>35.5</td>
</tr>
</tbody>
</table>

*Table 18. Number of All Vessels by Region with Runny Designs by Time Periods Present. *

The presence or absence of runny paint was compared for the Middle Rio Grande over time using a chi-square test with significance at the 0.05 level. Results indicate differences are not due to the vagaries of sampling and are significant (p < 0.000, $\chi^2 = 28.47$, df = 2).

Table 18 shows the breakdown of the number of runny vessels in both the Northern Rio Grande and the Middle Rio Grande. The number of vessels presented in Table 18 represent only those identified with runny paint, with the percentage representing how many vessels from that
time period and region (Table 7) have runny paint. The Northern Rio Grande had 4.3% of all vessels for the Contact period identified with runny paint, with none identified for Pre-Contact and Revolt/Post-Revolt periods. In contrast, the Middle Rio Grande sample had a significant number of pots with runny paint in all time periods. This is significant since the runny designs presence increases during the Contact and Revolt/Post-Revolt Period which suggests one of two interpretations. That either the Spanish influenced how the potters decorated their vessels, or that the interaction with the Salinas area, known for the presence of runny paint (Spielmann et al. 2006), resulted in the adoption of the technique. The increase during the Post-Revolt period could be representative of the resurgence of the Spanish in New Mexico. The differences in runniness between the two regions in the Rio Grande may be representative of the different intensities of Spanish occupation and control. When comparing the interpretations of Spielmann et al. (2006) to the results presented in Table 18, the differences between the Northern and Middle Rio Grande with regards to evidence of potential motif masking are interesting. Religious associated motifs are present in only slightly greater frequency in the Northern Rio Grande during the Pre-Contact and Contact period as compared to the Middle Rio Grande, yet extremely few vessels had runny designs. Additionally, avian motifs during the same time period follow similar trends, with a difference only notable during the Revolt/Post-Revolt period. These differences in motifs do not seem to be related to the presence of runny paint between the two regions, giving weight to the likelihood that the more frequent presence of runny paint in the Middle Rio Grande increasing up to around one-third of all pots in the Revolt/Post-Revolt period is the product of proximity and interaction with groups in the Salinas region. The use of the runny paint may also be an attempt to mask the problematic motifs during Spanish contact.
Regional Comparison

As part of my study, I analyzed samples of vessels from the Salinas region and the Hopi region. The motifs found on vessels from these regions were similar to those of the Northern and Middle Rio Grande, even though they experienced different amounts of contact. I provide a brief background on the Spanish contact in these regions since it relates to how they made their pottery.

Salinas Pueblos

The Salinas Pueblo region is located about sixty miles southeast of present-day Albuquerque and consists of two clusters, the Manzanos cluster on the north and the Jumanos cluster on the south (Spielmann et al. 2006). The Salinas Pueblos were colonized, and missions were established in this region. These pueblos underwent a similar colonization and Christianization process by Franciscan friars as did the Northern and Middle Rio Grande Pueblos (Hayes et al. 1981:4). In the late 1620s, two friars established large mission churches at the villages of Abo and Quarai in the northern portion of the region. These missions remained active until the villages were abandoned in the 1670s. Unlike the other regions, no vessels from the Revolt period were present in the Salinas sample I examined since the regions had been abandoned at this time. Similar to the Rio Grande Pueblos, the Salinas people tried to revive ceremonies under the Spanish control in the 1650s which resulted in them being punished by the Spanish authorities. From the 1620s to the 1670s Spanish missionaries were permanent residents of the pueblos in the northern Salinas, Manzanos cluster, but were absent from the pueblos in the southern, Jumanos cluster. The effect of the degrees of Spanish influence is seen in the different ceramic decorations from these two clusters of pueblos. The Salinas Pueblos had a connection with the Rio Grande Pueblos and Rio Grande glaze wares were found in Salinas Pueblos. The Salinas pottery I analyzed included the pre-Contact type; Chupadero black-on-white and the two
Contact types; Tabira black-on-white and Tabira polychrome. The most common motifs on the Salinas vessels were geometric motifs, followed by religious and avian motifs (Table 19). Spielmann et al. (2006:643) suggests that the change from abstract to explicit motifs on Salinas vessels was the result of people previously conveying concepts orally or through other media such as ritual paraphernalia through less explicit representation on vessels. In contrast to the “runny” glaze wares which were made by women in villages under Spanish control, the white wares were made by women in pueblos without resident Spanish friars (Spielmann et al. 2006). This difference in the degree of Spanish control explains the difference between the depictions found on the Tabira black-on-white vessels in Salinas versus the Glaze F vessels in the Rio Grande (Spielmann et al. 2006).

Table 19. Motifs present in Salinas regional sample by presence and percentage over time.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>3 (15.8)</td>
<td>32 (27.1)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>7 (36.8)</td>
<td>37 (31.4)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>4 (21.1)</td>
<td>4 (3.4)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>0 (0.0)</td>
<td>11 (9.3)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>5 (26.3)</td>
<td>34 (28.8)</td>
</tr>
<tr>
<td>MOTIF TOTALS</td>
<td>19 (100.0)</td>
<td>118 (100.0)</td>
</tr>
</tbody>
</table>

The results of my analysis indicate that there were several trends present in the Salinas region. The sample for the Pre-Contact period was far smaller than that of the Contact period, thus interpretations are limited. Avian associated motifs and zoomorphic motifs increase from the Pre-Contact to Contact period, while Kachina/Awanyu/Venus Star motifs decrease in presence. Both geometric and non-motifs remain relatively consistent between these two periods. In comparison to the more robust samples from the Northern and Middle Rio Grande, religious
motifs are found in far lower frequencies during the Pre-Contact period and avian motifs are higher and even increase from the Pre-Contact to Contact period. Geometric motifs and zoomorphic motifs are found similar frequencies, although zoomorphic motifs are less frequent in the Northern and Middle Rio Grande during the Contact period. Lastly, other and layout motifs, which represent less than 30% of all motifs during the Contact period, represent slightly over 50% in the Northern Rio Grande and nearly 45% in the Middle Grande. In summary, whereas the Northern and Middle Rio Grande vessels demonstrate fewer changes between the Pre-Contact and Contact periods outside of a slight decrease in avian motifs and corresponding increase in other motifs, vessels from the Salinas region increase in avian motifs from the Pre-Contact to Contact period and show minimal increase in other motifs. Results present, although limited by a lack of Revolt/Post-Revolt period sample and a small Pre-Contact period sample, do not indicate differences between the Salinas and Northern and Middle Rio Grande to be the product of Spanish contact.

_Hopi Pueblo_

The sample from the Hopi mesas contained vessels dating from before contact through the Post-Revolt period and provide a contrast to the Salinas and Rio Grande regions. The Hopi mesas 450 km from Santa Fe, New Mexico, were farther away from the central hub of Spanish control. The Hopi mesas’ isolation and lack of irrigation agriculture made them less attractive to Spanish colonists (Dongoske and Dongoske 2002). This remote isolation allowed Pueblo control to continue. The Hopi people experienced religious persecution in the 17th century when a permanent mission was established at Awatovi. The church at Awatovi was constructed over a kiva (Adams 1989; Brooks 2016). Similar to the other pueblos Hopi religious practices were suppressed and Hopis were forced to attend church. However, due to the different degrees of colonization it has been argued that compared to the Eastern Pueblos, Hopi religious practices
were more public. As, there was less intense religious persecution at Hopi and they continued to practice their religion, this is evidenced in their pottery. The pottery types I examined included, pre-contact Jeddito black-on-orange and Jeddito black-on-yellow; contact period Sikyatki polychrome (AD 1375-1625), and Revolt/Post-Revolt period San Bernado polychrome (1650-1700) and Payupki polychrome (1625-1780).

Table 20. Motifs present in Hopi regional sample by presence and percentage over time.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Contact Period</th>
<th>Contact Period</th>
<th>Revolt/Post-Revolt Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Motifs</td>
<td>22 (26.8)</td>
<td>2 (28.6)</td>
<td>8 (33.3)</td>
</tr>
<tr>
<td>Geometric Motifs</td>
<td>17 (20.7)</td>
<td>1 (14.3)</td>
<td>6 (25.0)</td>
</tr>
<tr>
<td>Kachina/Awanyu/Venus Star</td>
<td>5 (6.1)</td>
<td>1 (14.3)</td>
<td>3 (12.5)</td>
</tr>
<tr>
<td>Zoomorphic Motifs</td>
<td>6 (7.3)</td>
<td>1 (14.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Non-Motifs</td>
<td>32 (39.0)</td>
<td>2 (28.6)</td>
<td>7 (29.2)</td>
</tr>
<tr>
<td>MOTIF TOTALS</td>
<td>82 (100)</td>
<td>7 (100)</td>
<td>24 (100)</td>
</tr>
</tbody>
</table>

The small sample from the Contact and Revolt/Post-Revolt periods limits detailed interpretation, however general trends are noted (Table 20). Avian motifs remain relatively consistent at around 30% from the Pre-Contact through Revolt/Post-Revolt period, and increase slightly. Zoomorphic motifs are infrequent, as are Kachina/Awanyu/Venus Star motifs, when accounting for sample bias. Geometric motifs are found in similar frequencies as in the Northern Rio Grande, between 25% and 15%, but lower than the Middle Rio Grande. Furthermore, non-motifs relating to layout decrease from the Pre-Contact period at 39%, similar to the 37% identified in the Northern Rio Grande sample, to 29.2% in the Revolt/Post-Revolt period. This decrease is likely the product of sample bias, however trends indicate general similarity during the Pre-Contact period with the Northern Rio Grande, and to a lesser extent the Middle Rio Grande, and then diverge during the Contact and Revolt/Post-Revolt period. A more robust
sample would provide further details for comparison, particularly vessels dating to the Contact and Revolt/Post-Revolt periods.

**Discussion and Conclusion**

The analyses suggested that there are differences between the Northern and Middle Rio Grande regions across time. Northern Rio Grande vessels were more heavily decorated, with more motif types per vessel on average, than Middle Rio Grande vessels. Over time motif density decreased significantly in the Middle Rio Grande indicating that the Spanish influence was greater in that area. This is complimented by the vessel form assemblage. Vessel forms between the two also differed, with a higher frequency of European forms identified in the Middle Rio Grande sample. This is interpreted as a product of greater interaction with Spanish populations and an adoption of Spanish vessels. The increase in Spanish vessels may resemble a shift in cuisine and an incorporation of Spanish introduced foods. There are also motif differences between the two regions. Avian motifs are more common in the Middle Rio Grande and persist and increase into the Revolt/Post-Revolt period, while they decrease in frequency in the Northern Rio Grande. Based on the results of statistical testing, a similar trend is hypothesized for other samples in the region. This is interpreted as a resurgence or a revitalization in avian motifs as part of reassertion of Puebloanness during the Revolt/Post-Revolt period. Bird imagery may not have been suppressed since to the Spanish it might not have appeared as religious or representative of Pueblo worldview. In contrast, Awanyu/Kachina/Venus Star motifs do not display a similar trend, staying relatively consistent at around 5%. Geometric motifs decrease in the Northern Rio Grande, while they remain relatively consistent in the Middle Rio Grande. Lastly, whereas the Revolt/Post-Revolt period sample for the Northern Rio Grande is heavily dominated by framing lines and other layout
motifs, only one-third of all motifs for the Middle Rio Grande demonstrate the same trend. The importance of this trend is that while in the Northern Rio Grande, the majority of figurative motifs disappear starting in the Contact period and more extensively in the Revolt/Post-Revolt period, figurative motifs remain constant in the Middle Rio Grande and increase in the Revolt/Post-Revolt period. These differences between the two regions is indicative of variability among the Pueblos and the different degrees of Spanish control. The examination of bowls and jars from the Northern and Middle Rio Grande further demonstrate this result. Results further indicate that bowls and jars from a region are far more similar to one another than bowls are in the Northern Rio Grande to bowls from the Middle Grande in terms of motifs present.

The trends described for the Northern and Middle Rio Grande are found to a lesser extent in the Hopi and Salinas regional samples. Results of analysis from the Salinas sample do not support that differences between it and the Northern and Middle Rio Grande are the result of Spanish contact, with broad similarities identifiable and the only two differences with regards to avian motifs and layout motifs. In comparison, the Hopi sample is broadly similar during the Pre-Contact period to the Northern Rio Grande sample, and diverges during the Contact and Revolt/Post-Revolt periods in terms of layout motifs. The divergence during these later time periods, however, is problematic to further interpret due to a small sample.

Though the regions differ in motifs identified, there are some similarities which are linked to a shared Puebloan worldview. The Spanish impacted Puebloan pottery by introducing new forms such as candle holders, cups, and soup plates. These were most prevalently identified in the Middle Rio Grande sample which would suggest that the Middle Rio Grande was more accepting of the Spanish. During the Spanish occupation, symbolic icons of Pueblo religious practices such as awanyus and kachinas decreased with a corresponding increase in symbols
similar to Christian crosses. This suggests that Pueblo people removed overtly non-Christian motifs from their vessels during the Spanish contact period. These changes are interpreted as linked, however future investigations are needed to solidify these results. During the period of early colonization, the Pueblo people continued to express their Pueblo identity, although less overtly. This is demonstrated in the increase in avian motifs in the Middle Rio Grande, but no associated religious motif increase. This act of cultural maintenance demonstrates that Pueblo groups were not merely repressed individuals adopting Spanish practices, but rather chose which practices to adopt and how to incorporate them into Pueblo lifeways. Pueblo people adopted Spanish practices regarding Christianity, food and vessel forms. These trends were also seen in the examples described by Liebmann (2012) in demonstrating cultural hybridity. My results suggest that the Spanish impacted the Pueblo people, but that it is often times not clear if Pueblo people saw themselves as Pueblo or Spanish, but may have viewed themselves as both and blended both these identities to create a hybrid identity.
Chapter 6: Conclusions of Study and Future Research

The arrival of the Spanish into the Southwest and their colonization of Puebloan groups along the Rio Grande left a lasting and significant legacy. The Spanish impacted Pueblo society greatly and the religious transformation changed Pueblo people’s worldview (Preucel 2002). Through efforts to subvert, replace, and destroy traditional Puebloan ceremonial practices, the Spanish changed many practices in Pueblo communities. Pueblo people continued using their traditional designs during and after the Spanish occupation, sometimes incorporating other attributes as symbols of power (Liebmann 2012; Gruner 2014; Wilcox 2009). During the Pueblo Revolt, initiated by Tewa groups in the Northern Rio Grande, Pueblos drove out the Spanish and reinstituted past practices such as kivas, kachina religion, and settlement systems. However, these practices were not instituted in the same way at all Pueblos, particularly not in the Middle Rio Grande, and several groups returned to how they lived during the Contact period after the first few years of the Revolt (Liebmann 2012). The Pueblo Revolt is then best understood not as a singular event of cultural revitalization, but a highly variable expression of cultural hybridity between traditional Puebloan and Spanish practices. Evidence of this is found in the use of Spanish ecclesiastical vestments, architectural styles, vessel forms, religious practices, and the survival of some missions when others had been burned or partially destroyed.

This study attempted to assess the impacts of the Spanish by examining Puebloan iconography on vessels dating from the Pre-Contact period through the Revolt/Post-Revolt Period. My research question addressed if ceramic iconography changed during the contact period and how this related to other cultural changes. This thesis addressed these questions: How did the Spanish impact the form and decoration of Puebloan pottery? Did Spanish presence cause
changes to the use of motifs related to indigenous iconography? Can we see evidence of resistance to Spanish colonization through decoration on pottery?

This study is important since it expands on previous research efforts on the study of iconography on pottery before, during, and after the Pueblo Revolt and attempts to understand how the Pueblo people constructed their identity during the Spanish conquest. It differs from other studies since it relies on a large, diverse sample size including vessels from both the Northern and Middle Rio Grande and this study was based on the analysis of all motifs on these vessels, rather than the presence or absence of one or two motif types. The regions were compared to see the different degrees of Spanish colonization and the impact this had on pottery designs. This thesis further expands the study and literature of iconography and the effects of colonialism on the Pueblo people’s expression. Through my analysis I answered my research questions and it is evident that the Spanish affected the Pueblo society in some aspects of material culture. Results of my analysis indicate that, for the most part however, the Spanish did not greatly replace existing motifs present on Puebloan pottery, particularly in the Northern Rio Grande. Pottery designs did, however, change during Spanish contact. A short-lived revitalization movement may have existed after the Spanish left, but this is not overtly demonstrated in pottery designs. This and other results contrast with previous work, which often focused on a select symbol and not all motifs identifiable (Mills 2002; Mobley-Tanaka 2002). Unlike Mills (2002) study, no vessels in my assemblage had an overtly Christian cross identified. Similar to a study by Mobley-Tanaka (2002) of pottery from the Rio Grande bowls from Glaze B through Glaze F, in my assemblage there is a continuation of cross-like motifs, such as dragonflies and plus signs from the Pre-Contact through Post-Revolt period. This might suggest that the Pueblo people continued using a design that resembled a cross for the benefit of the
Spanish. Spielmann et al.’s (2006) argument for a link between the use of runny paint and intentional efforts to disguise motifs during the Contact period in the Salinas region is not strongly supported by my results. My results indicate that although the presence of runny paint increases, particularly during the Contact period and into the Revolt period along the Middle Rio Grande, no corresponding difference in the motifs depicted increase. One major trend noted was the motif density on vessels from the Middle Rio Grande decreases over time. This trend suggests that the variation on vessels decreased during Contact period and through the Revolt/Post-Revolt period. This might be due to the fact that pottery designs were not as instrumental in the Pueblo Revolt, particularly not in the Middle Rio Grande.

Additional results of my study indicate that only three major differences occurred from the Pre-Contact through Revolt period in terms of motifs and two in terms of vessel forms. The first is that avian associated motifs decreased over time in the Northern Rio Grande, with feathers likely being used as an abstract representation of birds. The decrease in bird motifs in the Northern Rio Grande might be due to the Pueblo people switching to different designs during colonization. Avian motifs are more common in the Middle Rio Grande and, although decreasing during the Contact period, they increase into the Revolt/Post-Revolt period, contrasting with the Northern Rio Grande. Birds were important to Pueblo cosmology and religion and by holding on to some form of a bird the Pueblo people were able to hold onto Pueblo social identity (Swentzell 1990). Pueblo people encrypted their ideology covertly on vessels during the Spanish occupation. Similar to Spielmann et al. (2006), the Pueblo people created simplified versions of their designs in order to continue the Puebloan ideology.

The second change identified in my study is that kachinas and awanyus decrease over time and are not found in great numbers on jars. Religious motifs also decrease in the Northern
Rio Grande, whereas in the Middle Rio Grande they remain relatively constant around five percent. This is interpreted as the primary evidence for Spanish action against traditional symbols of Puebloan ceremonial beliefs. Although not prominent prior to colonization, the decrease of kachinas and their near absence on jars suggests their public display was not allowed or, at the very least, extremely discouraged and suppressed by Spanish authorities in the area (Mills 2002). Pueblo people had to resort to other means to express their Pueblo identity and religion on vessels less directly. The last difference identified is the low, but increasingly prevalent occurrence of plus signs/crosses on particularly jars in the later dating ceramic types. This is interpreted as evidence that Puebloan groups utilized plus signs/crosses more publicly during the period of Spanish colonization and were likely encouraged to do. Overall, however, the sample from both regions demonstrates that the most prevalent motifs on vessels were geometric or layout/other designs. This is particularly the case during the Revolt/Post-Revolt period in the Northern Rio Grande where two-thirds of all motifs on vessels were non-motif designs and few instances of avian, religious, or zoomorphic motifs were identified. Differences identified in the Salinas and Hopi regions were minimal, likely due partially to small samples, and primarily related to differences in the frequency of layout motifs and do not clearly represent the product of various intensities of Spanish contact.

These changes in pottery suggest that the Pueblo people maintained their Pueblo social identity, while simultaneously and purposefully adopting new traits into their culture. Similar to the argument by Liebmann (2012), I argue that the Pueblo people created a new identity encompassing both Spanish and Pueblo aspects as evidenced by the continuation of Pueblo designs as well as Spanish European vessel forms. During the period of early colonization, the Pueblo people continued to express their Pueblo identity, but less overtly. I identify this with the
decreased presence of awanyus and kachinas. At the same time, some Pueblo people appropriated Spanish practices and Christianity into their way of life. This impact is seen presently since Pueblo groups incorporate Catholic saint days into their feast days, and identify as both Christian and Pueblo. Pueblo people adapted their religion by incorporating Christian motifs to redefine their identity and religion after and during Spanish contact. In addition to religious and iconographic changes, other changes were also found in my analysis.

Vessel form differences noted were a slight increasing production and use of jars over bowls during the Revolt period, and the diversification of vessel form. In the Contact and Revolt/post-Revolt period, several European-associated forms such as soup plates, cups, and candle holders were identified. These forms were especially identified in the Middle Rio Grande sample, with fifteen percent of the entire assemblage representative of European forms. Cups were the most common of these. Differences identified provide support for the Puebloan adoption of some Spanish domestic practices. This difference contrasts with the results that did not find any Christian crosses on vessels. The greater frequency of European vessel forms in the Middle Grande compliments the divergence between the Northern and Middle Rio Grande in the motif density on vessels in the Contact and Revolt/Post-Revolt periods. Thus, it can be stated that based on my study whereas the Pueblo people were impacted by Spanish colonization and adopted a variety of domestic practices, Spanish religious practices were infrequently incorporated into their repertoire of pottery designs. Furthermore, my study supports historical documentation that the Middle Rio Grande was more accommodating and impacted by the Spanish than the Tewa communities in the Northern Rio Grande, who were primarily the drivers of the Pueblo Revolt and revitalization movement. From a broader perspective, connected to prior research, the result of these interactions between European colonizers and Puebloan
communities transformed Pueblo society in numerous ways not yet fully understood as to their development.

Although the methods I used in this thesis proved effective, there are some aspects to this study that I would have done differently. It would have been easier from the start to only focus on a set of specific motifs rather than trying to see the changes in all motifs on vessels. Additionally, it would have been easier to have selected specific sites to focus on instead of looking at the entire Northern and Middle Rio Grande. Both methods were employed in the Mobley-Tanaka (2002) and Mills (2002) studies successfully. It would also have been useful to examine sites dating to a limited temporal range, for example the early Contact period or 1600-1650, in order to assess when particular changes in Pueblo society developed. Overall, however, my study provides a robust sample for this region and the results are therefore useful to the future line of study. Furthermore, a reliance on the results of geographically constrained case studies, as opposed to examining results from throughout the Northern and Middle Rio Grande, makes it difficult to assess the extent of broad, sweeping changes throughout Pueblo society in response to colonization and the Pueblo Revolt. Lastly, my methods are readily replicable and future researchers can easily access the same collections I analyzed.

**Directions for Future Research**

Here, I provide some suggestions to both better understand the Pueblo Revolt period and avenues of future research. To better understand the changes in Pueblo pottery during the Spanish occupation, future research could assess whether the trends noted are found elsewhere or are different by examining more pottery from the Rio Grande Pueblos. This would help demonstrate that there was a change in pottery and Pueblo society due to the Spanish and suggest that the Pueblo people constructed a new hybrid identity encompassing both Spanish and Pueblo ideologies together. The excavation of datable sites from the Pueblo Revolt period would provide
a strong dataset to test interpretations provided. Any excavations would need a strong emphasis on acquiring robust dates to determine if they were occupied early or late in the Pueblo Revolt period. This information would enable individual sites and regions to be compared against one another to assess the different ways in which individual Pueblo communities responded to the events of the Pueblo Revolt. For instance, it is well known that during this time some Tewa communities moved to the Hopi mesa and Zuni areas. Furthermore, the results of analysis from Pueblo sites during the Revolt period could be compared against the archaeological record found near El Paso del Norte to determine differences between Puebloan communities lacking direct Spanish intervention and the communities of the Pueblo and non-Pueblo groups the Spanish brought with them when they left the Northern and Middle Rio Grande and oversaw with intense Spanish management.
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