“Cultural Preservation and Societal Migration Among the 17th Century Pueblos of New Mexico”

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By

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The agrarian cultures of the New Mexican Pueblos are remarkably well preserved. Despite years of colonial repression, the Pueblo people still maintain their unique languages, ancestral lands, artisan skills and native religion. This continuity of culture is in many ways unique to the Pueblo. Though scholars have long studied the cultural exchange between the Pueblo and Spanish colonists, they have only recently begun to ask why the Pueblos of New Mexico were able to succeed in preserving their culture where countless other Native American groups either completely failed, or were only marginally successful. One of the most intriguing theories concerning the success of the Pueblos comes from the recent anthropological work of Michael V Wilcox and Jeremy Kulishek. Wilcox argues that the generally sedentary Pueblo were able to exploit the vastness of New Mexico to remove themselves and their culture from Spanish colonial influences.¹

The historical narratives discussing Pueblo migration as a survival strategy are lacking. Further, Wilcox only discusses migration as a strategy for cultural preservation. I expand significantly on his work by discussing how such migratory behavior necessitated a dispersion of agriculture which allowed the Pueblo to both feed as well as insulate themselves from Spanish influence by meeting Spanish tribute demands. Engaging the recent anthropological data as well as the archival narrative of the Spanish colonial and religious authorities, I will demonstrate how the dispersion of agriculture, as well as people, allowed the Pueblos to maintain a food source which the Spanish or nomadic rivals such as the Navajo or Apache could not exploit. This allowed the Pueblo to meet Spanish tribute demands in a previously unrecognized form of social accommodation.

**Culture Preserved**

An analysis of the Pueblo people’s cultural preservation first requires an understanding of what the Pueblos have preserved from the past. Pueblo society is a closed society. Even today, all information released by the Pueblo is carefully scripted. Access to archeological sites is also closely regulated. Scholars who ask permission to visit specific sites are sometimes turned away or ignored.\(^2\) Despite this control of information, the level of cultural preservation displayed is significant. The nineteen Pueblos of New Mexico all retain their native language. The Pueblos maintain much of their traditional religious beliefs such as the *Kachina* dances and oral histories. This is impressive because of the Spanish Franciscans’ intensive missionary efforts to convert the Pueblos to Christianity. The Pueblos retain much of their ancestral lands. The Pueblo of Taos, for example, claims to be the oldest continuously settled community in North America. The United Nations Education Scientific and Cultural Organization (UNESCO) recognized this claim in 1992 by declaring Taos a World Heritage Site.\(^3\) The vast expanses of New Mexico and a deliberate pattern of migration allowed for this high-level of cultural preservation among the Pueblos of New Mexico.

**The Extent of Pueblo Migration**

Emerging archeological evidence suggest that migration was a widespread phenomenon. Further, the fluidity with which individuals were able to travel within

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\(^2\) David Roberts, *The Pueblo Revolt: The Secret Rebellion that Drove the Spaniards out of the Southwest* (New York: Simon and Schuster Paperbacks, 2004), 54-61, 92-96, 142-147. The problems involved in understanding and gleaning information from living Pueblo peoples is immense, and his frustration is demonstrated over the above listed pages. However, the sheer wealth of information currently available in print does suggest that the Pueblos preserved massive amounts of their culture.

territory pacified by the Spanish supports the use of migration by the Pueblos. I hypothesize that agriculture could only be dispersed when it could be moved to a region which was both inaccessible to the Spanish and arable. Given the rugged topography of New Mexico (See Appendix A for Maps), the Pueblo did not have to move far to sufficiently isolate themselves from the Spanish. For Example, of the dozen or more villages associated with the Jemez Pueblo, Fray Alonso de Benavides describes the Jemez nation as residing in only two villages. Such oversight demonstrates the Spanish’s limited understanding of the Pueblos and their population. Ultimately more archeological research needs to be conducted to conclusively determine the scale and impact of the Pueblo’s use of migration. Still, it is plausible to argue that migration was a key factor in determining a Pueblo’s continued existence following the 1680 Pueblo Revolt.

Pueblos Pre-history

Oral traditions of the Pueblo peoples are a chronicle of migration. In the Pueblo narrative, the Pueblo peoples originally were said to have migrated from Sipapu, a fissure in the earth near the four corners area of northern New Mexico. From this common origin at Sipapu, the various Pueblos of New Mexico migrated south and east to their present location on the Rio Grande and its tributaries. Archaeology corroborates this story. The imposing ruins at Chaco Canyon, Mesa Verde and countless other sites

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confirm that an ancestral Pueblo civilization lived in northwestern New Mexico and Southwestern Colorado, the approximate position of Sipapu.

The ancestral Pueblo society at Chaco Canyon was arguably more advanced than the contact-era Pueblos the Spanish encountered. Rising four stories above the canyon floor and containing some seven hundred rooms, Pueblo Bonito represents the apogee of ancestral Pueblo culture. Hundreds of miles of roads radiate outward from Pueblo Bonito connecting dozens of other great houses. Archeologists argue that the pattern of Chacoan roads sets Pueblo Bonito apart as either a political or spiritual capital. The existence of such a capital is important, because it implies a centralization of power and unity of culture which is absent in later Pueblo societies. Further, Chacoan civilization supported a larger population than colonial era Pueblos. This necessitated the need to develop intensive agriculture capable of feeding thousands of Chacoans.

Farming in the Southwest is difficult not only because of sparse rainfall, but because of the unstable nature of the weather patterns. The El Niño Southern Oscillation is a meteorological event characterized by a period of abnormally high surface water temperature in the Pacific Ocean. El Niño events bring unusually cold winters to North America. In the Southwest, this generally results in record snowfalls which feed intermittent streams throughout the region. Conversely, unusually cold surface water temperatures bring about a strong La Niña effect. A strong la Niña event brings drought

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6 Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin Books, 2005), 149-153. Paul F. Reed, *The Puebloan Society of Chaco Canyon* (Westport: Greenwood Publishing Group, 2004), 46-47. Archeologists argue that the layout of the roads suggests that they were not built as major thoroughfares, and instead had spiritual significance. However given the strong evidence for an import economy, and the fact that Chaco still is the center of this road system, the evidence for centralization stands.
to the Southwest. La Niña as a meteorological event is still poorly understood. Though preliminary evidence suggests that La Niña happens on an approximate ten-year cycle, the data is not absolute. Other information suggests that a time scale of several decades is needed before a clear pattern of oscillation between El Niño and La Niña events can be discerned. Despite this variability, the data suggest that the annual precipitation in the Southwest is tied to the unstable and shifting phenomenon of El Niño and La Niña. This cyclical fluctuation in rainfall made farming quite difficult. This presented a problem for ancestral and pre-modern Pueblo peoples, a reliable food supply was rarely certain.

Drought is not the only meteorological obstacle in the Southwest. Due to the sandy soil of the region, erosion caused by heavy rains can be as detrimental to agriculture as inconsistent rainfall. Erosion can lower the physical elevation of an irrigation ditch. Lowering the base elevation of the diversion channel, without lowering the elevation of the field makes irrigation impossible. This destruction could prove detrimental in regions, such as Chaco Canyon or the later missionized Pueblo of Gran Quivira, where irrigation by perennial waterways or stored rain runoff was necessary for agriculture. To cope with this unreliable weather pattern, the Pueblo people spread their farming communities over a wide geographic area. This gave the Chacoan society a buffer against famine. In Chacoan society communities devoted to agriculture were established to support the large spiritual and cosmopolitan center at Pueblo Bonito. Still, despite the Chacoan efforts to prevent famine, a prolonged drought in the twelfth century,

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probably the result of a strong La Niña event, led to the decline of their civilization. Between 1150 and 1250, the people of Chaco Canyon migrated to other settled areas.10

Following the Chacoan period, Pueblo life settled into a period of normalcy which shaped the Pueblo culture that the Spanish encountered. The pre-historic Pueblo of Tijeras is a good example of this pre-contact Pueblo society. These pre-contact Pueblos practiced agriculture and supplemented their diet with food from the surrounding mountains, like the society of Chaco Canyon.11 Tijeras differs from Chacoan society in that they were not a completely fixed agricultural society. At Tijeras periods of intensive agriculture were punctuated by periods of hunting and gathering, possibly supplemented with seasonal agriculture. During these periods of hunting and gathering, the people of Tijeras abandoned their permanent dwellings. Archeological evidence suggests that despite the abandonment of the Pueblo, the surrounding canyons and mountains remained active hunting and gathering grounds. This suggests that the former residents of Tijeras did not leave the region. This ability to switch between a fixed agricultural system and a semi-nomadic hunter-gatherer society represents another strategy the Pueblo developed to cope with the environmental uncertainty caused by La Niña events.

The earliest wooden beams recovered from Tijeras date the site to 1313. The people of Tijeras abandoned the site temporarily around 1370. Given that the site shows no signs of a violent abandonment, we can conclude that environmental factors most likely prompted this departure. However, archeological data suggest that despite the abandonment of the Pueblo, the canyons and mountains surrounding the Pueblo remained

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viable hunting and foraging grounds for the former residents of the Pueblo. Further, evidence suggests that agriculture on a seasonal basis was practiced at Tijeras, even during this period of abandonment. Rebuilt in 1390, the Pueblo of Tijeras lay abandoned for some twenty years. It is important to recall that the former residents of the Pueblo still lived in the region. This implies a change in survival strategy and not of territory. Thus, those who later resettled the Pueblo abandoned the site as children and revisited the site during the period of abandonment. The reuse of the settlement site highlights the importance of oral tradition and collective memory in Pueblo culture. The residents of Tijeras permanently abandoned the Pueblo in the fifteenth century. Following this final abandonment, the surrounding mountains remained, like after past abandonment’s, an active hunting ground until the historic period.  

The Arrival of the Spanish in New Mexico

Intermittent contact between the Pueblos of New Mexico and the Spanish occurred throughout the 16th century. Francisco Coronado led the most famous of these entradas (expeditions) in 1540. Unlike Cortés, Coronado did not find a rich civilization. Instead he found a great wilderness. To be sure, the expedition found many natural marvels; one of Coronado’s lieutenants visited the Grand Canyon. Still, the expedition discovered little that Coronado deemed valuable or worthy of further exploration.  

Colonizing New Mexico in 1598, the Spanish hoped to find a land similar to Nueva Galicia in Northern Mexico. This region, though inhabited by fierce nomadic

tribes such as the Chichimec and Yaquis, produced vast amounts of wealth from its silver mines and ranches. Don Juan de Oñate, the first colonial governor of New Mexico, made his fortune when he discovered one of the richest silver mines in northern Mexico.\textsuperscript{14} The promise of material wealth attracted many willing colonists. The Church, interested in the Pueblos since the time of Coronado, willingly pledged to undertake the conversion of the Pueblos. The Franciscans were charged with establishing missions and converting the natives of New Mexico.\textsuperscript{15} Spanish colonists were charged with a similar responsibility, this took the form of the \textit{encomienda}.\textsuperscript{16}

\textbf{Encomienda}

\textit{Encomienda} literally translates as “entrust.” It refers to a group of Indians entrusted to the physical and spiritual protection of an \textit{encomendero}, Spanish nobleman. The Spanish monarchy expected the \textit{encomendero} to instruct his charges in Spanish culture and Roman Catholicism. \textit{Encomienda} thus represented both civilizing and Christianizing mission.\textsuperscript{17} This humanitarian aspect is important to understand, because it is often lost in the ocean of abuses committed by \textit{encomenderos}.

\textit{Encomienda}'s notoriety provoked a response from both secular and ecclesial authorities in Spain. Disturbed by allegations of atrocities and troubled by the possibility

\textsuperscript{14} Marc Simmons, \textit{The Last Conquistador: Juan de Oñate and the Settling of the far Southwest} (Norman: University of Oklahoma Press 1991), 52.

\textsuperscript{15} Eleanor B. Adams Collection, University of New Mexico Center for Southwest Research: Box 9, Folder 34. – Juan Diaz de la Cruz’s account of the founding of New Mexico. Eleanor B. Adams Collection is housed at the University of New Mexico Center for Southwest Research. Henceforth will be referred to as Adam’s Collection.


of a competing nobility in the Americas, King Ferdinand enacted the Laws of Burgos. Though generally ignored, the Laws of Burgos served as the starting point for activist clergy such as Bartolomé de Las Casas. Through the work of Las Casas, Phillip II passed The New Laws in 1542. The New Laws curtailed the power of an encomendero by prohibiting the expansion of encomienda, and decreeing that an encomienda could not be inherited. Encomenderos reacted violently to these revisions. For example, these reforms resulted in civil war in Peru. In Mexico, Viceroy Antonio de Mendoza understood that he did not have the military force necessary to enact the king’s will. He recognized the king’s authority but had limited power to enforce it. In this way Mendoza and other officials embodied the phrase yo obedezco pero yo no cumplo – I obey but I do not comply. Recognizing the awkward position of the Viceroy, King Phillip II allowed encomienda to continue in Mexico and other portions of the empire where royal decrees could not be enforced.

The encomienda in New Mexico represented the changes and turmoil of the 16th century. New Mexican encomenderos were not entitled to the collection of Indian labor, and thus encomienda clearly differed from slavery. However, the abuse of the encomienda became a defining facet of Pueblo Spanish relations in the 17th century. For example, Governor Otermín, the final governor of New Mexico prior to the 1680 Pueblo Revolt, issued writs of encomienda as late as 1678. Eighty years after the initial

20 Ibid
21 Kamen, Empire, 142. Burkholder and Lyman, Colonial Latin America, 111.
22 Kessell, Kiva, Cross and Crown, 98-99. France V. Scholes Papers, University of New Mexico Center for Southwest Research: Box 1, Folder 50. Title of encomienda for Juan Dominguez de Mendoza. Interestingly, one a fraction of the encomienda is entrusted to Mendoza, suggesting a lack of viable encomiendas or a latent corruption among the nobility of New Mexico.
colonization of New Mexico, *encomienda* should have been waning in its importance and use. Yet, Otermín extended *encomienda* by issuing new writs which, like those issued by Oñate, were inheritable for three lifetimes. Similarly, Governor Martínez (1634-1637) abused *encomienda* by illegally increasing the material tribute he required and demanding Indian labor as tribute. A Franciscan observed that Governor Martínez “attended only to his own profit, with great excess and damage to all these provinces by the excessive work he has given these poor recently converted souls.”23 In this statement, we also find the conflict which allowed for the greatest abuses of *encomienda*: the tension between secular and clerical authorities.

The tension between church and state began in 1610, shortly after the appointment of Father Ordóñez as custodian of New Mexico.24 This conflict remained important in politics throughout the 17th century, and offered an additional incentive for colonial officials willing to overlook the abuse of *encomienda*. For example, Governor Luís de Rosas (1637-1641) allowed the Indians of Pecos to retain their native religion, so long as they paid twice the normal tribute *encomienda* required.25 In this calculated political move, Rosas accomplishes two goals. He first enriched himself. Second, he undercut the power of his rival, the Church. Governor Bernardo López de Mendizábal (1659-1661) used a similar strategy. Fray Juan Ramírez testified before the Inquisition on Mendizábal’s abuses as governor:

23 John L. Kessell Papers, University of New Mexico Center for Southwest Research: Box 2, Folder 3. Letter from Fray Ybargary to the Viceroy dated 1636. It condemns Governor Martínez for abusing his authority, and demanding labor as tribute from the Pueblos. France V. Scholes Collection, University of New Mexico Center for Southwest Research: Box 2A, Folder 7. A chronological and complete list of New Mexico’s governors. Attributed to Scholes. Henceforth the John L. Kessell Papers will be referred to as Kessell Papers, and the France V. Scholes Collection will be referred to as Scholes Collection.
25 Kessell Papers: Box 2, Folder 4. Testimony against Governor Luis de Rosas. Testimony stipulates that he allowed the Pueblo of Pecos to maintain their native religion, if they agreed to pay twice the annual tribute. Scholes Collection, Box 2A, Folder 7: Chronological list of governors.
López de Mendizábal then relieved the Indian women bakers (panaderas) and ordered them and all other servants not to bake for him [the custodian of Galisteo- Fray Nicholas de Villar]. The sacristans, cooks, and a boy who had served in the mission Lopez ordered to pay him tribute—gamuzas and mantas—for no other reason than serving the friar.26

As governor, Mendizábal did not have the authority to increase the tribute requirement on the Pueblo. However, Mendizábal’s strategy allowed him to similarly undermine the power of the Church.

The Missions

Most cultural exchange occurred at the Missions. Unlike the encomenderos and other Spanish colonists, the Franciscan missionaries lived among the Pueblos. The Spanish monarchy forbade the settlement of colonists among existing Pueblo settlements, to minimize secular influences on recently converted Indians. Only partially successful, this command granted the missions a great deal of autonomy. Because of their role in preventing the dissolution of the colony in 1607, the Franciscans felt entitled to this autonomy. In 1607 Governor Oñate resigned, abandoning his colony as a failure. Economically destitute and with the Spanish colonists on the verge of mutiny, the future of New Mexico was far from certain. Only the missionaries believed the colony could be salvaged. In hopes of convincing the King to maintain the colony, the Franciscans sent glowing reports of their progress in converting the Pueblos back to Spain. Claiming seven thousand Pueblo converts, the Franciscans succeeded in convincing the king, thus saving New Mexico as a colony. The Franciscans living in New Mexico understood the economic realities of the region. They viewed their continued mission work as the only

26Kessell Papers, Box 2, Folder5. Testimony against Governor de Mendzibal for the mistreatment of both the clergy, and the abuse of his privilege to demand tribute from the Pueblos. Mantas refer to a cotton textile. One of these textiles was demanded as tribute by the Spanish annually. Gamuzas: The exact meaning of the term is vague. It is different from fanega which was the usual measure of tribute for corn. Given the context it most likely refers to a measure of corn, similar to a fanega. Scholes Collection, Box 2A, Folder 7, Chronological list of Governors.
legitimate purpose of the colony. This view put the Franciscans at odds with their secular rivals.

The importance of the Franciscans can be witnessed in the amount of royal patronage they received. France V. Schole’s study of royal treasury records revealed some surprising figures on expenditures in colonial New Mexico. The royal treasury spent 1,254,500 pesos on the Franciscans’ ministry. Alone, that figure is impressive; however, the context of that sum increases this sentiment. The expenditures for New Mexico from 1598 to 1680 totaled only 1,776,786 pesos. This means that 70% of all expenditures in New Mexico were tied to the missions.27 Further, only 164,381 pesos were spent on military endeavors.28 This figure is surprising given the ongoing conflict between the Spanish and Apache.29 The poverty of New Mexico also becomes clear from this study. From 1598 to 1680 only 17,518 pesos were generated as revenue for the Royal treasury, less than one percent of the total expenditures for the same time period.30

From 1610 until 1640, the Franciscans orchestrated a massive campaign of building and conversion. The results the Franciscans achieved are impressive, especially considering their numbers. Only ten Franciscans accompanied the colony into New Mexico. Twenty years later, the Franciscans remained understaffed. In his memorial Fray, Alonso de Benavidez, custodian of New Mexico from 1625-1629, claims fifty churches were built in New Mexico.31 However he further writes that, “You cannot go visiting from one Pueblo to another without finding a priest who has in his charge four or

27 France V. Scholes, “Royal Treasure Records Relating to the Province of New Mexico 1596-1683,” The New Mexico Historical Review18, 159.
29 Scholes Papers, Box 1, Folder 6. “Edicts Concerning a Council of War and Petition for Horses and Provisions for a Campaign Against the Apaches 1668.”
30 Scholes, “Royal Treasury Accounts,” 159.
31 Morrow, A Harvest of Reluctant Souls, 43.
fleeve of these Indian towns.’”²³² Accepting these numbers, there could hardly have been
more than 15 Franciscans in the entire province.

By the 1650s, the number of friars in New Mexico had roughly tripled. However,
Church documents show that sixty-six friars were deemed necessary to administer the
province. Even with this significant increase in the number of priests, the Franciscan
missionaries remained thinly spread.³³ The reasons for this short staffing are many;
however, the isolation of the colony and the occasional martyrdom of a priest give the
reader some idea of the conditions the Franciscans were working in. Despite this shortage
of priests, the conversion of the Pueblos advanced rapidly.

The Franciscans instructed the Pueblo Indians in more than Christianity:

In addition, all the trades and arts useful to humans are taught, such as those of the tailor cobbler,
carpenter, smith and the rest, in which the Indians have proven themselves most adept. All of these
depend on the solicitude and care of the friar.³⁴

The Franciscans were as important in the cultural conversion of the Pueblo as they were
in their religious instruction. As Benavides states, the Franciscans taught the Pueblo
European building techniques. The fruits of the friar’s labor manifested themselves in the
massive mission churches – ruined or not – which dot the landscape of New Mexico.³⁵

These churches required great amounts of labor. The only possible source of this labor
was the missionized Indians. This ability to use Pueblo laborers angered the

encomenderos of New Mexico. Encomenderos were explicitly forbidden by the Spanish
Crown to demand labor as tribute, a practice known as repartimiento. Though built to
serve a Pueblo community, and thus not tribute, the secular authorities viewed the friar’s

²³² Morow, A Harvest of Reluctant Souls, 91.
³³ Scholes Collection, Box 1, Folder 83, “Attested Copy of Autos and Decrees of the Superior Government
Concerning Increase in the Number of Friars for the Missions of New Mexico 1656-1657,” 3.
³⁴ Morow, A Harvest of Reluctant Souls, 90
³⁵ Please reference the attached appendix of photos. Specifically, photos (A and H) show the grand scale of
the mission churches built. Quarai and Pecos were both very large churches.
ability to utilize Pueblo labor as illegal. This ability to use Pueblo labor undoubtedly upset secular officials, especially when the friars repeatedly testified before the inquisition concerning the abuses of encomienda committed by the secular authorities.\textsuperscript{36} This smoldering conflict distracted both secular and ecclesial authorities from their duties to protect and convert the Pueblos. This allowed the Pueblo a greater deal of mobility.

**Disease, Famine and War: the Reality of Pueblo Populations**

The historical record for New Mexico is surprisingly silent on the subject of disease. Only two recorded instances of disease have been identified in the archival narrative of 17\textsuperscript{th} century New Mexico. However, the archival record reveals a clear pattern of decline for both Pueblo populations and the number of populated Pueblo villages. For many the physical evidence of depopulation suggests that disease was a dominant factor in Pueblo de population, and trumps the narrative’s lack of evidence. These scholars argue that Spanish apathy or bias led them to omit repeated epidemics of disease. However, the Spanish relied heavily on Pueblo tribute to sustain the fledgling colony. It is unlikely that the loss of such an important source of tribute would escape the attention of Spanish chroniclers.\textsuperscript{37}

Accepting that disease did not play a dominant factor in the de-population of the Pueblos of New Mexico during the 17\textsuperscript{th} century is difficult for many scholars to do, because of the devastating affect that European disease had on the native populations of the central valley of Mexico and Peru. Despite New Mexico’s isolation on the fringe of

\textsuperscript{36} Kessell Papers, Box 2, Folder 2. “Fray Alonso De Benavides’s Testimony Against Governor Eulate.” Kessell Papers, Box 2, Folder 1. “Parea’s Testimony Against Governor Eulate.” Kessell Papers, Box 2, Folder 3. “Fray Ybargaray’s letter to the Viceroy condemning the actions of Governor Martinez.” All of these documents share a common theme, that the political authority in New Mexico was thwarting the efforts of the priests. This took the form of enslaving of orphans, as well as abuse of the tribute system.

the Empire, it still had many factors which made outbreaks of disease likely. As agriculturalists, the Pueblo settled in communal villages. Such aggregation of population makes the spread of disease more likely. Similarly the proximity of recently introduced livestock, an additional vector of contagious disease, elevated the probability that European diseases were regularly transmitted to the Pueblo. However, despite this propensity towards disease, there still exists a lack of physical evidence to support repeated outbreaks of disease among the 17th century Pueblos.\textsuperscript{38}

Despite the lack of evidence for great outbreaks of disease in the archival record, the statistics do record a gradual reduction in the overall number of populated Pueblo villages. This supports a general decline in the Pueblo population during the 17th century. However, it does not imply that disease was the primary cause for the decline in the number of Pueblo villages. The presence of abandoned villages does not give the reason or context behind the evacuation. Famine or Apache raids could have caused the abandonment of the villages. Further, the reducciones – the congregating of several smaller Pueblo villages into one – undertaken by the Franciscans moved large numbers of Pueblo Indians into larger more easily administered villages. The steady depopulation of outlying communities suggests the success of the reducciones as much as it suggests repeated occurrences of disease.

The majority of Pueblo villages abandoned during the 17th century were in the southern districts of New Mexico. These southern Pueblos were on the fringe of the colony. With only a handful of soldiers, these sites were vulnerable to attacks by the Apache and other nomadic tribes. The abandonment of the Pueblo of Quarai in the

Estancia basin demonstrates this. Fray Diego de Parraga recounts the reason for the abandonment of his mission:

The drought and famine continue. Many are sick, some are dying. I am giving charity to the natives. Provisions stored for just this case are pitifully low. We have received more cattle and other provisions for the Spanish soldiers and the natives. The terror and outrages continue. Some are leaving every day. Fray Francisco de Ayeta the procurator general and the custodian of the provinces of New Mexico was to bring us carts of supplies and reinforcements, but I have decided that we can wait no longer. We must leave, all two hundred families, and go north to Tajique where there is a mission and settlement. If that, too, is unprotected, we will go on to Isleta and be with other Tiwa- speakers.  

Parraga mentions sickness as a reason for the abandonment, yet there are two important details which mitigate its importance. Though he says “many are sick,” he qualifies this by saying that only “some are dying.” Further, the true reason for the abandonment is found in the final line of this excerpt: “If that, too, is unprotected, we will go on to Isleta.” The use of the word unprotected is vague. It could refer to protection from hunger, disease, or attack. However, Parraga’s earlier statement complained of a lack of reinforcements and supplies. This need for troops suggests that the refugees from Quarai sought physical security, and not merely relief from disease or hunger.

Despite the invasive Apache raids recorded by the Spanish, most scholars still attribute the archival narrative of Pueblo population decline to disease. There is little concrete evidence for this theory. Only the biological propensity for New World populations to be decimated by disease supports the disease narrative. However, anthropological data from the Jemez region of New Mexico challenges this narrative of decline. Evidence suggests that the Pueblos of Jemez increased in population during the 17th century. This theory is best articulated and supported by the work of Jeremy

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40 Ibid
41 Ibid
42 Ramenofsky, “The Problem of Infectious Disease in New Mexico,” 177.
Kulisheck. He bases his argument on the increased number of “farm house” style sites on the Jemez Plateau.

These farm houses, as the name implies, were seasonal (or permanent) residences near agricultural fields. These field houses limited the time consumed in transit between the Pueblo and the fields. This saved time, but did not imply a fundamental change in Pueblo agricultural practices.\textsuperscript{43} As witnessed in earlier cultures, such as the Anasazi, the aridity of the region forced the dispersion of crop production to insulate the food supply from crop failure and drought. This expansion in the number of food producing communities is not conclusive. This increase only implies that food production similarly increased. The Spanish extracted large amounts of tribute from the Pueblo Indians, and the expansion of agriculture can be explained as a way of compensating for the food lost to the Spanish as tribute. However, Kulisheck also deduced an expansion in the use of farm house agriculture from 1540 to 1600.\textsuperscript{44} Combined with the lack of documentary evidence for depopulation by disease, a growing population prior to the 1600s lends itself to a narrative which includes an expanding Pueblo population in the 17th century.

**Pueblo Populations and the Archival Record**

If Pueblo populations expanded in the 1600s, how is it possible to reconcile the documentary evidence of population decline? One possible explanation is migration or dispersion of population. As we have seen from the example of Jemez, some Pueblos dispersed food production over a wide area. Though the historical reason for this dispersion was generally a defense against hunger, there is another possible

\textsuperscript{44} Wilcox, *The Pueblo Revolt*, 150-151.
explanation. The Jemez region of New Mexico refers to a large volcanic mountain range which is dominated by the Valle Caldera. This region is cut by steep canyons gouged from the relatively soft volcanic rock. This rolling landscape makes agriculture difficult, because there is very little level ground suitable for agriculture. The majority of the arable land is located on top of flat top geologic features the Spanish called mesetas, but which today are colloquially referred to as mesas (literally table).

Isolated by the rugged terrain, these outlying villages or work stations would have been seldom visited by Franciscan friars, and probably never visited by Spanish colonial officials. This is important for three reasons. First, by dispersing the population over a wide area the risk of spreading contagious disease dropped. The reason for this is simple. The European diseases introduced to the Americas, such as smallpox, measles and influenza, are all crowd diseases; meaning that they thrive in areas of dense population. By dispersing the population, the Pueblos were able to potentially diminish the spread of these diseases. Further, such a dispersion of population could have been conducted in response to an outbreak of disease which also potentially could have diminished infection rates. Second, given the limited Spanish contact at remote Pueblos such as Jemez, Pueblo migration did not necessitate a long journey. In the mountainous district of Jemez, moving less than twenty miles could effectively isolate a Pueblo village from Spanish influence. This strategy could have easily been implemented by all of the northern Pueblos of New Mexico, which all reside in or on the border of extensive mountain ranges. Finally, because few Spaniards had direct contact with the more remote

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46 Romenofsky, “Native American Disease History,” 243.
Pueblos, it is unlikely that the population numbers given by the archival record are accurate.

The archival record does not lend itself to any conclusive determination on population growth or decline. Both Ramon Gutiérrez’s estimate of the total Pueblo population from 1598-1680 and Ann Palkovich’s population estimates for individual communities from the same period reveal that the Pueblo population both declined and recovered during the 17th century. Most intriguing, is that the population estimates for both 1620 and 1680 seem to be the same. This implies that Pueblo populations declined and recovered in a mere sixty years.47 Such a fluctuation is not what one would expect to see in a society chronically decimated by disease or war. Such fluctuation brings into question the legitimacy of the historical population estimates. As I argued earlier, Spanish officials probably did not visit each individual Pueblo village. This means that they counted only the natives of the missionized Pueblos or those villages in the immediate proximity of a mission. Spanish officials very likely did not count the population of isolated villages. In this way, Pueblos who utilized migration would have appeared de-populated to the historical record when their people were probably only displaced.

**Migration as Resistance**

As we have seen, the Pueblo peoples used migration to respond to the many environmental pressures of the Southwest. Similarly, the Pueblo used migration as a way to escape the religious, cultural and economic demands the Spanish levied upon them.

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The Pueblo also migrated as a means of enabling their potential for resistance to the Spanish.

Migration is a reactive behavior, undertaken in response to an outside pressure, and thus is generally not associated with resistance. Instead it is generally thought of as a passive behavior. However, migration can also be used as an active tool of resistance. Runaway slaves in the Americas are a good example of this. The slave is exploited for labor. By running away, the slave both economically injures his master and simultaneously gains a greater measure of freedom. This economic attack transforms a seemingly passive act into active resistance.

The Spanish extracted great quantities of corn and textiles from the Pueblo under encomienda. In this system, the Spanish exploited the Pueblo. This exploitation served as an outside pressure forcing the Pueblo away from their settlements and towards the periphery of the colony. Evidence of this is present in both the anthropological record and the archival record. In Governor Peralta’s (the second governor of New Mexico) instructions, the Viceroy warns Peralta, saying:

> It seems best that none shall be detained there by force, in order to avoid trouble and inconvenience, but that they be allowed to come and go freely: and provided that the necessary number of residents remain (and they must do so to carry out their obligations of colonization).48

Writing fewer than fifteen years after the permanent founding of the colony, the Viceroy’s warning confirms that migration represented one of the earliest techniques the Pueblo employed to resist colonial rule. The Viceroy, writing from Mexico City, did not have first hand knowledge of this practice. Instead he relied upon the intermittent reports of his governor. The direct mention of migratory behavior in Peralta’s instructions suggests the frequency with which it occurred.

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48 Scholes Collection, Box 2A, Folder 31, “Governor Peralta’s Instructions,” 1089.
Oñate’s conquest of New Mexico was relatively bloodless. The brutal entradas of Francisco Coronado and Antonio de Espejo strengthened Pueblo fear of the Spanish. This motivated many communities to abandon their villages and retreat to the surrounding countryside, thus avoiding conflict. Oñate hoped to avoid the brutality of earlier expeditions as well as the flight caused by the brutality of his predecessors. Oñate tried concealing his party for as long as possible, to prevent the Pueblo from having sufficient time to flee to the countryside. Given the size of his colonial enterprise, it is not surprising that he failed in this endeavor. Despite these early setbacks, Oñate convinced the Pueblo to return to their homes by giving them gifts and promising not to harm them.

This trust did not last. Less than three years later one soldier wrote, “The Indians fear us so much that, in seeing us approach from afar, they flee to the mountains with their women and children, abandoning their homes.” The soldier further accounts how the Spanish provisioned themselves by pillaging abandoned villages: “so we take whatever we wish from them….until this year this tribute has been collected with such severity that [they] had nothing but what they had on [their backs].” From this soldier’s statement, the cause of the Pueblo’s abandonment is ambiguous. On one hand, the soldier

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49 Kessell, *Kiva Cross and Crown*, 42- This quote, by a member of the Espejo expedition, perhaps best demonstrates Spanish brutality to the Pueblo. “The corners of the Pueblo were taken by four men, and four others with two servants began to seize those natives who showed themselves. We put them in a kiva. Because the Pueblo was large and the majority had hidden themselves in it, we set fire to the great Pueblo of Puala [Pauray], where some we thought were burned to death because of the cries the uttered. At once we took out the prisoners, tow at a time, and lined them up against some cotton-woods close to the Pueblo of Puala where they were garroted and shot many times until they were dead. Sixteen were executed, not counting those who burned to death.” 42. Roberts, *The Pueblo Revolt*, 73-75. Wilcox, *The Pueblo Revolt*, 110, 120.

50 Simmons, *The Last Conquistador*, 103-105. Robert, *The Pueblo Revolt*, 75. The scholarship points to Onate, having little success among the southern Pueblos. However as he moved north, he was better received.


52 Ibid
highlights the injustice of the Spanish demands. Still, the primary motive the Spaniard gives for Pueblo flight is fear.

There is considerable archeological evidence that during the early 17th century agriculture intensified in regions on the periphery of Spanish control. In the Jemez region of New Mexico an increase in the use of farm house agriculture suggests that the Pueblo were intentionally moving their sources of food production away from easily exploitable villages. This increase in farm house agriculture could also be explained as refugee farmers, not an organized movement. A satisfactory answer to Pueblo motives remains elusive.

Despite the ambiguity of Pueblo’ motives for moving their food production, Pueblo migration represented resistance in two ways. First, by dispersing the Pueblo defied the Franciscans’ desire to congregate them into easily administered communities known as reducciones. This is tied both to the question of food, as well as the Franciscans’ ability to requisition Indian labor to build churches and accomplish other tasks. The second is that by moving beyond the control of the Spanish, the Pueblo gained the ability to freely plot armed resistance.

The Pueblo rose in rebellion numerous times during the 17th century. Most of these uprisings were limited in size, and often directly targeted only the Franciscan friars. However, returning to Peralta’s instructions the viceroy further warns the governor saying:

The Pueblos and nations are on the frontiers of the Apaches, who are usually a refuge and shelter for our enemies, and there they hold meetings and consultations, hatch their plots against the whole land, and set out to plunder and make war, therefore, it is desirable to congregate the dispersed.

54 Scholes Collection, Box 2A, Folder 31, “Governor Peralta’s Instructions,” 1089
Peralta’s instructions first highlight the importance of the *reducciones* and demonstrate how Pueblo migration acted directly against Spanish goals. More importantly, the Viceroy is warning Peralta about the threat posed by an Apache-Pueblos alliance. Fears of a Pueblo and Apache alliance were relatively unfounded. The Apache frequently raided the vulnerable southern Pueblos of the Estancia basin. These raids were so troublesome, that the Spanish abandoned the Estancia Basin in the 1670s. This is significant because the Estancia basin had many salt mines. These salt mines represented one of the colonies few viable economic engines. Their abandonment betokens the seriousness of the Apache threat, and the impotence of the Spanish military presence in New Mexico.

The reasons for the 1680 Pueblo Revolt are many. Longstanding animosity between the Pueblo peoples and the Spanish was fueled by continued oppression and injustice. In 1675, Governor Treviño imprisoned forty-five Pueblo leaders, charging them with sorcery. Treviño executed two of these men. The other forty-three men were beaten. In response to these beatings, the *Tewa* Pueblos (Nambe, Pojoaque, Santa Clara, Ohkay-Owingeh, San Ildefonso and Tesuque) marched on the colonial capitol of Santa Fé. With the city surrounded, Governor Treviño released his captives. Among the men who were beaten was a spiritual leader from Ohkay-Owingeh named Popé. Following his humiliation Popé began plotting his revenge. Mistrustful of his own people as possible informants, Popé sought refuge in the remote northern Pueblo of Taos. This move to Taos was not merely motivated by paranoia. In 1670, the rebellion of Esteban Clemente had been foiled by missionized Indians loyal to the Spanish.\(^{55}\) By moving to the periphery of the colony, Popé removed himself from areas of high Pueblo-Spanish cooperation. This

\(^{55}\) Kessell, *Pueblos Spaniards and the Kingdom of New Mexico*, 105-106.
minimized the likelihood of Popé’s plans being revealed. Still, the Pueblo Revolt began early because Popé’s rebellion was similarly compromised. Nevertheless, the Pueblo Revolt of 1680 was successful because the plot was discovered only one day prior to its intended start. Such short notice did not allow the Spanish time to move against the insurrection as they had against Clemente.56 After Popé’s victory, he faded from history. Wilcox asserts that without the unifying influence of the invading Spanish, the fragile pan-Pueblo movement which had enabled the Pueblo revolt died. However, this is only conjecture. All we know is that after 1680 Popé, like many leaders of popular rebellions, is absent from history. 57

Although Popé is lost to history, his rebellion still stands as one of the most prominent uprisings in Spanish Colonial America. Utilizing migration and freedom of movement, Popé organized the most effective armed resistance the Spanish confronted in New Mexico. When the Pueblo moved beyond the control of the Spanish, they flourished. They reestablished agriculture, and provided a refuge for persecuted Pueblo leaders.

**Pueblo Spanish Cooperation**

Pueblo migration depended upon access to an area outside of Spanish control that could support intensive agriculture. Without an alternative territory, migration could not occur. Several Pueblos did not have the luxury of wide scale migration, most notably the Pueblos of the Estancia valley and Galisteo basin. Both of these communities had access

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57 Wilcox, *The Pueblo Revolt*, 219,232
to mountain ranges which potentially could support a hunter gatherer society, such as Tijeras. However, both of these regions were easily accessible to the Spanish. This meant that even migration did not offer a viable escape. Further, given that the Spanish could easily exploit these Pueblos, it is likely that the surrounding mountains in both of these regions were already being exploited by the Pueblo for game and other supplemental food sources. This made migration less likely because the resources of these mountains were already being utilized to support the Pueblo proper and could not be used by a migrating faction. Without migration, cooperation became a necessity.

The close proximity of the Spanish and the lack of a viable escape strategy meant that the Pueblo had two options: resistance or cooperation. As shown above, armed resistance did occur with some frequency in New Mexico. However, given the long period of occupation, cooperation became necessary. The missions are a great example of this cooperation. During the first thirty years of the Franciscan evangelization of New Mexico, the Pueblo built many churches for their new neighbors. Given the primitive tools and lack of a skilled labor pool, the construction of these churches is nothing short of astonishing. Many of these churches rise two and even three stories in height. Further, at these mission sites, European-style agriculture replaced the traditional Pueblo method of dry land farming. Instead of using digging sticks to plant seeds, the Pueblo Indians used the plow and teams of oxen. The early 1600s was a relatively wet period with little mention of starvation. In the relationship, the Pueblos benefited from European contact and, though perhaps begrudgingly, did acquiesce to Spanish demands. This base level of reciprocity faded as the 17th Century progressed. The Spanish had little to offer the

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Pueblo. After skills, such as carpentry, were learned or in the case of European style agriculture, proved to be inferior, the Pueblo’s cooperation likely diminished.\(^{60}\)

The arrival of the Spanish upset the natural order of Southwestern society. With the Apaches no longer able to obtain goods through trade, they resorted to raiding. This raiding intensified during periods of drought or famine. Undefended Pueblos were easy targets for the skillful Apache raiders. Only the Spanish had the military skill needed to check the Apache. The Apache, masters of hit-and-run tactics, practiced a maddening style of guerilla warfare which frustrated the Spanish. These tactics were so effective that the Apaches effectively used them to outwit Mexican and American military expeditions until the late nineteenth century.\(^{61}\) Despite their technological superiority, the Spanish, they lacked the manpower to effectively police the colony. To supplement this manpower shortage, the Spanish formed auxiliary units made up of Pueblo warriors. One such example of this was the use of Pueblo Indians to guard wagon trains transporting goods between Santa Fe and Parral, a city in Northern Mexico. Counted among the passengers of the trading caravan were “twenty-four or twenty-six Indians with bow and arrow, who he says, go willingly and with pay.”\(^{62}\) The use of Pueblo forces to guard a trading caravan, traveling over thousands of miles of desert, with only a few Spaniards suggests that there was trust between the Spanish and their Pueblo allies. Similarly, the willingness of Pueblo auxiliaries to fight alongside the Spanish also implies a more cooperative relationship between the Pueblo and the Spanish than is generally recognized.

\(^{60}\) Spanish style agriculture was not as viable in times of drought as Pueblo methods; this will be discussed later in the section on migration as accommodation. For more information see Edgar L. Hewitt and others “Hewitt Excavations at Gran Quivira, 1923-1925” (United States Department of the Interior: National Parks Service, 1925), Section 4.

\(^{61}\) Chávez, New Mexico: Past and Future, 144.

\(^{62}\) Scholes Collection, Box 1, Folder 20, “Appointment as Visitador of a Trading Caravan: Santa Fe, December 16, 1666,” 1.
Migration as Accommodation

It is clear that during the 17th century the Pueblo and Spanish were developing a cooperative relationship. Though able to mitigate Spanish influence through the use of migration, the prolonged Spanish presence made cooperation impossible to avoid. Even those Pueblos who took part in migration had to, on some level, cooperate with the Spanish. In these final pages some key concepts will be examined, to clarity the importance of migration to the Pueblo.

As we have seen, migration allowed the Pueblo a means of maintaining their culture with minimal Spanish interference. Basic survival as well as cultural survival prompted much of the migration witnessed in the 17th century. The reason for this is that the Spanish extracted the tribute of *encomienda* in a manner tantamount to pillaging. To reiterate one Spaniard’s observation, the Spanish left the Pueblo with “only what they had on their backs.”63 This led many Pueblos to move their means of food production, if not move their entire village, beyond Spanish control. This dispersion of food production can be viewed as an extension of farm house agriculture, which Kulisheck studied in his evaluation of the Pueblo population of the Jemez regions. Central to Kulisheck’s correlation between expansion of agriculture and population density, is the assumption that the Pueblos acted as “rational economic actors.”64 In a harsh environment such as the Southwest, farmers were forced to make choices which potentially could lead to starvation. Though this is perhaps an overly simplistic starting point, it does remove the timelessness with which pre-Columbian civilizations are often viewed. Further, allows for a dynamic relationship between the Pueblo and their environment.

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Agriculture was practiced to ensure the greatest likelihood of success. This led to an intensified use of farm house agriculture beginning in 1525 and continuing through the 17th century.65 Such a long term trend in intensification, coupled with a continued occupation of large Pueblo villages of more than one thousand rooms, strongly suggests a growing population throughout the 16th and 17th centuries. Kulisheck is cautious in the claims he makes regarding his data. He does not contend that an increase in the occurrence of field house agriculture necessitates a growing population. He contends that a decrease in the amount of arable land could account for the data, and more importantly that an increase in food production only suggests an increase in population density, not numbers.66

A decrease in the amount of arable land or a drought could account for the agricultural intensification of the 16th and 17th centuries. However, it is unlikely that large sites would be maintained in such an extended period of, essentially, agricultural failure. Similarly, a trend of increasing population density runs counter to the narrative of population decline, especially the disease narrative. Aggregation lends itself to the spread of contagious disease. With this in mind, an increase in population density also suggests a wider increase in population.

An alternative to an increasing population, is an increasing demand for food from the meet Spanish tribute demands. Though this does not nullify a theory of increasing population it must be recognized as at least a partial check on the true trajectory of the Jemez population. Kulisheck roundly rejects this theory, because of a lack of documentary evidence and the relatively late evangelization of the region. As Kulisheck

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points out, there is relatively little mention of Jemez in the historical record. Still, given the widespread success of the Pueblo revolt, the loss of records is not surprising. Similarly, Jemez plays prominently in the Memorial of Fray Alonso de Benevides. Benevides rebuilt two missions among the Jemez, and when coupled with the missions built around the periphery of the Jemez plateau, Cochiti, and Santo Domingo, a low level of Spanish influence is unlikely. The economic demands of the Spanish on Pueblo agriculture can, in part, explain the continued agricultural intensification Kulisheck observed.

As I previously mentioned, the Spanish were aware of Pueblo migration. Further, the Viceroy clearly instructs Peralta to allow the Pueblo to continue migrating. The one clear caveat the viceroy gives is the failure of the Pueblo to meet tribute demands. Tribute records for the Pueblo of Jemez are not readily available. This does not support either argument that tribute was or was not collected. However, it does make assessing the Spanish presence difficult.

The first record of encomienda for Jemez is in 1608. The establishment of an encomienda at Jemez strongly supports that the Spanish did extract tribute from the encomienda of Jemez. Onaté’s charter capped the number of encomiendas granted at thirty-five. Encomiendas were highly sought after. A poor village, which did not produce the required tribute, would not have been maintained as an encomienda. Further, given the importance of the corn extracted as tribute, from the Pueblos, it is highly unlikely that the tribute of Jemez was not collected.

If the tribute of the Jemez *encomienda* was collected, one could argue that it did not represent an economic burden to the Pueblo. However, even a cursory analysis shows this to be unlikely. Using the mean of three thousand persons, I extrapolate that there were between 800 and 1000 taxable families. With each family responsible for one *fanega*, roughly 2.6 bushels or 145 lbs, the *encomienda* of Jemez was obligated to produce roughly sixty tons of corn annually. Such a burden on the community necessitated the expansion of corn production.

Though Kulisheck’s work focuses on the Jemez region of New Mexico, there is archival evidence which suggests that other Pueblo used farm house, dispersed, agriculture to meet the growing demands of the Spanish. In 1638 a Spanish soldier, Ensign Juan Pérez Granillo, testified against the Governor of New Mexico, Luis de Rosas, saying; “that if they [the people of Pecos] would pay the tribute a second time he would allow them to practice idolatry, and give them freedom in their sect.”69 Though the quotation does not explicitly stipulate that the Pueblo of Pecos did return to native religion, Granillo gave his testimony before the Inquisition suggesting that such an incident did occur. Pecos’s population is thought to have been slightly smaller than Jemez’s population. Still, the tribute required to meet the Governor’s offer would be roughly one hundred tons of corn.

The Pueblo of Pecos practiced farm house agriculture until the end of the 17th century.70 Located in the foothills of the Sangre de Cristo Mountains, Pecos, like Jemez, had the opportunity to disperse their agriculture. The conscious decision to pay double the tribute is important, because it suggests that Pecos could continue to pay double the

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69 Kessell Papers, Box 2 Folder 4, “Testimony of Fray Juan de San Joseph against Governor Luis de Rosas,” 2.
tribute. Governor Rosas made this proposition no earlier than 1637. By this time, Pueblo-Spanish relations must have reached some type of normalcy. This is significant, because one cannot claim that the Indians were ignorant of Spanish brutality or their imbalanced concept of reciprocity. This suggests that the Pueblo was willing to double their tribute burden, in exchange for the freedom to return to their native religion. For this to be a reasonable economic decision, the Pueblo must have produced surplus crops with enough regularity that doubling their tribute did not put the Pueblo at risk for starvation. If this was a taxing decision, the Pueblos would have maintained their religion in secret, as they had been doing for the past forty years.

From both the example of Pecos and Jemez, a new picture of Pueblo-Spanish relations emerges. Many Pueblos were capable of growing excess food to meet the demands of the Spanish. Paying tribute did not represent a major economic burden to the Pueblo. By paying off the Spanish, Jemez and Pecos maintained cordial relations with the Spanish and even received concessions. These surpluses were the direct result of the dispersion of agriculture under an intensive farm house model. Thus, migration represented cultural accommodation on the part of the Pueblos of Pecos and Jemez. The inability to conduct farm house style agriculture in the Estancia Basin represents one possible reason for the abandonment of the Pueblos of Abo, Quarai and Los Jumanos, now called Gran Quivira.

The Pueblos of the Estancia Basin were all highly missionized communities. The seat of the Inquisition in New Mexico, the guardian of Catholic Orthodoxy, rested at the Pueblo of Abo. This strong Franciscan presence is mentioned in the Memorial of Fray Alonso Benevides. The Pueblos of the Estancia Basin were all ethnically Tompiro. Of the
Tompiro nation, Benevides tells us that six churches and priests worked among the Pueblos of the Estancia Basin. Benevides also comments on the poor nature of the land saying, “it is a poor land due to its frightful coldness and little water.” Contemplating this land three centuries later, the archeologist Edgar Hewitt remarked, “no water has been found outside of the natural moisture of the soil.” If the Pueblos did not have ready access to water, how was agriculture possible? The answer to this question is that they used cisterns to collect rain water. Still visible today, a series of terraces and dams allowed the people of the Estancia Valley to irrigate their crops. Hewitt illuminates this system saying,

As far back as any record of rainfall in these parts of the country can be found, they show a yearly average of about 15 inches. As a rule the summer rains come heavy and fill every hollow in which the water will stay a long time. Snow often comes before Christmas and stays for about three months – usually about two feet deep. Thus water could be impounded twice a year, and a million gallons could easily be stored without taxing the full capacity of the reservoirs.

By storing water, irrigation and thus intensive agriculture became possible.

Though agriculture was possible in the Estancia Basin, it was also the place where European agriculture proved to be detrimental to the Tompiro Pueblos. Farm house agriculture never flourished in the Estancia Basin. Instead an intensive method of dry farming, using dams and irrigation, was necessary. Still, the indigenous version of planting proved superior to the European, as Hewitt explains:

Much of the Land which once the Indians cultivated is now ploughed up, and in such places the moisture has escaped, so great sand banks can now be seen where even twenty years ago one could find good grazing land, but even the summer of 1923, after two years of drought the farmers reported good corn in sheltered places where the sand had not exposed the roots. The Indian being a scientific farmer would use a planting stick, pushing it down about 18 inches where there would be moisture and planting perhaps 20 or more seeds in one hole.

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72 Ibid.
73 Edgar L. Hewitt and Others “Hewitt Excavations at Gran Quivira, 1923-1925” (United States Department of the Interior: National Parks Service, 1925), Section 4, 1. I found Hewitt’s field report in the John Kessell Collection Box 7 Folder 49. It is notated as such on my full bibliography.
74 Hewitt, “Gran Quivira”, Section 4, 3.
75 Ibid.
Using European tools such as the plough led to a loss of the natural moisture of the ground. This necessitated greater irrigation, which could not be supported. Benevides proudly praises his missionaries for teaching the Pueblos European style agriculture saying,

They raise cattle and use them to plow new ground for the Indians, who have never lived in settlements. And after they build houses and complete towns, plow and sow the land, and give the people all their necessities of those first few months.  

This well-intentioned act probably contributed to the demise and abandonment of the Pueblos in the 1670s. The primary reason given for the abandonment is Apache raids, but another reason mentioned is famine.

The ability of the Pueblo to remove its agriculture contributed to their survival. First, it served its primary function of feeding the Pueblo, and second, it allowed for the Pueblo to fulfill the tribute demands of the Spanish in an act of social accommodation. This strategy was not possible in the Estancia Basin, because the terrain did not allow for it. The Estancia Basin is a large flat plain. Even if the Pueblos of this district dispersed their agriculture, they could not successfully isolate it from the Spanish or Apache. Because of this, the Pueblos of the Estancia Basin were not able to grow enough food for themselves. This led to their abandonment. Thus, migration served an equally important role in preserving Pueblo culture through reciprocity and social accommodation as it did in facilitating the plotting of violence and resistance.

Conclusion

The intermittent migration of a primarily settled people is a testament to the adaptability of the native peoples of present day New Mexico. The Pueblos of New

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Mexico utilized migration in several different forms. Some openly fled the influence and brutality of the Spanish. Others moved a short distance to established farming communities to meet Spanish demands of tribute or resorted to hunting and gathering in times of drought. Both of these responses were important to preserving the cultures of many Pueblos. Migration also facilitated both violent resistance and social accommodation. Resistance eventually drove the Spanish out of New Mexico and gained the Pueblos substantial respect and better treatment under the Spanish colonial authorities of the 18th century. By dispersing their agriculture some Pueblos were able to feed both themselves and meet Spanish demands for tribute. At times this garnered better relations between the Spanish and Pueblos and led to small but important Spanish concessions. The Pueblos who could not migrate disappeared. The Pueblos of the Estancia Basin best demonstrate this. The Pueblos of the Estancia Basin could neither effectively plan resistance or accommodate the demands of the Spanish. This led to the eventual abandonment of the region, and the near extinction of the Tompiro people.
**Bibliography**

**Site Visits**

The following sites are ruins of pre-contact or missionized Pueblos. Visiting these sites allowed me a greater understanding of variation in the climate and physical geography that the Pueblo peoples inhabited and still inhabit today. Visits to the three sites designated as state or national monuments also reinforced a base level of knowledge about current understanding of 17th century missionized Pueblos. The museums at these three sites were superb, as were the various trail/site guides. These have been cited when applicable in my paper. Further, the opportunity to walk through various sites gave me greater familiarity with the site when reading the excavation records of certain sites.

**Jemez State Monument**

Jemez State Monument occupies the ruins of Guisewa. Guisewa was one of the two identified Spanish mission sites in the Jemez district. Set in a rugged canyon, it was easy to understand how geography affected the individual Pueblo’s ability to migrate. The rugged terrain does not easily allow for travel by horseback. Horses were a key part of Spanish military superiority. Removing horses evened the odds militarily for the Pueblo, a fact which would not have been lost on a 17th century Spaniard.

**Pecos National Monument**

Pecos is located in the foothills of the Sangre de Cristo Mountains. Occupying the pass between the Rio Grande Valley and the plains of eastern New Mexico, Pecos was a key trading center both before and after the arrival of the Spanish. Pecos is interesting for two reasons. First, the mission church at Pecos was enormous. Benavidez described the church saying, “there is an elegant rectory and temple, of a particularly fine and distinct architecture and construction, into which a priest put extraordinary work and care.” The beauty of the mission church implies a high level of Pecos Spanish cooperation. This leads into the second point which is that the Pueblo itself is broken into two distinct room blocks. This breaks, suggest that only a certain faction accepted Christianity, and also presents a narrative where certain factions of Pueblos actually supported the Spanish presence. This presents a narrative of cooperation which is rarely mentioned in the historiography of 17th century New Mexico.

**Salinas National Monument**

Salinas National Monument consists of three ruined mission Pueblos: Quarai, Abo and Gran Quivira (called Los Jumanos during the 17th Century). Located in the Estancia Basin, geography made these Pueblos vulnerable to attack. Located on a flat plain, Apaches could raid these Pueblos at will. Further, located one hundred miles south of Santa Fe the Salinas missions were isolated from the protection of Spanish soldiers garrisoned at the capitol. Gran Quivira also gave me insight into indigenous agricultural practices.
Tijeras Pueblo Archeological Site

Tijeras Pueblo is a pre-contact Pueblo. Built and abandoned before the arrival of the Spanish, Tijeras gave me a greater understanding of Pueblo culture. Migration was essential to the survival of the people of Tijeras. The Pueblo was rebuilt and abandoned twice. This is significant, because it suggests that settled agriculture was not always feasible in New Mexico. In years where agriculture was not possible, the region was used to support a hunter gatherer society. This adaptability and willingness to move communities I argue was a key element in preserving the culture of the Pueblos of New Mexico. Visiting the site also gave me a greater understanding of the physical geography and the sites lay out when I read Linda S. Cordell’s 1975-76 excavation report.

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Box 9: Folder 31 (Translation of a Royal Cedula sent to the Custody and Governor of New Mexico 1621)

Box 9: Folder 34 (Translation of Juan Diez De la Cruz’s Discovery of the New and Rich Kingdom of Mexico)

Box 9: Folder 37 (Translation of Governor Ottermin’s Account of the Pueblo Revolt, 1680)

France V. Scholes Papers, University of New Mexico Center for Southwest Research

Box 1: Folder 6 (Translation of a petition for horses and provisions for a campaign against the Apaches by Governor Fernando de Villanueva, 1668)

Box 1: Folder 7 (Translation of a report on an Apache raid on Zuni, 1658, Edited by Scholes)

Box 1: Folder 20 (Transcription and translation of the Appointment by Governor Villanueva of Cristobal Anaya as visitador of a trading caravan, 1666)

Box 1: Folder 21 (Transcription and translation of Appointment by Governor Villanueva of Juan Manso as visitador of the mission supply caravan, 1665)

Box 1: Folder 34 (Transcription and translation of the Commission of Baltasar Dominguez de Mendoza as a Captain of Cavalry, 1674)
Box 1: Folder 35 (Mendoza’s request for admission into one of the military orders of Spain, 1695)

Box 1: Folder 40 (Translation and transcription of forged documents concerning Batasar Dominguez de Mendoza and his father. Scholes’ notes and discussion are also included)

Box 1: Folder 50 (Translation and transcription of the Title of Encomienda for Isleta Pueblo, 1678)

Box 1: Folder 83 (Translation and transcription of the Attested copy of Autos and Decrees of the Superior Government concerning Increase in the Number of Friars for Missions of New Mexico, 1656-1657)

Box 2A: Folder 7 (Scholes’s list of and chronology of New Mexican governors)

Box 2A: Folder 31 (Translation of Governor Peralta’s Royal Cedula, 1609)

Box 2B: Folder 5 (Scholes’s findings and assessment of archival sources in Spain and Mexico)

Box 3B: Folder 22 (Scholes’s notes on the clan relationships at the Pueblo of Jemez)

John L. Kessell Papers, University of New Mexico, Center for Southwest Research.

Box 2: Folder 1 (Translation of Testimony against Governor Eulate, 1622)

Box 2: Folder 2 (Translation of Fray Benavidez’s Testimony against Governor Eulate, 1626)

Box 2: Folder 3 (Copy and Translation of Correspondence between Fray Ybargaray to the Viceroy, 1636)

Box 2: Folder 4 (Translation of Fray San Joseph’s Testimony Against Governor Rosas, 1641)

Box 2: Folder 5 (Translation of a letter from Fray Nicolas de Villar to Fray Juan Ramirez concerning the mistreatment of the clergy under Governor Mendzibal, 1660)

Box 2: Folder 7 (Translation of Fray Juan Gonzalez’s testimony against Governor Mendzibal, 1661)
Box 7: Folder 49 (NPS Report on Edgar L. Hewett's Excavation of Gran Quivira, 1923-1925)

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Books


**Articles**


Lovell, W. George, “‘Heavy Shadows and Black Night:’ Disease and Depopulation in Colonial Spanish America,” *Annals of the Association of American Geographers* 82, no. 3 (Sep. 1982): 426-443.


**Dissertations**

Appendix B: Maps

All maps courtesy of Google Maps.

Map 1: Map of north central New Mexico, red arrows denote possible migration routes. Note, all migration routes head into mountainous terrain where the Spanish were not likely to follow.
Map 2: Map of the Estancia basin. Red dots denote the approximate position of missionized Indian communities. The furthest north village is Quarai, the middle is Abo, and the southernmost is Los Jumanos/Gran Quivira. Note the lack of significant rugged terrain for the Pueblo to flee to. Though the Monzano mountains are in relatively close proximity, these mountains lack the depth and rainfall which allowed the Jemez and Sangre de Cristo Ranges to support disbursed Pueblo’ populations in Northern New Mexico.
Map 3: Overview of the area of interest. Note the difference in size between the Jemez and Monzano Mountain Ranges.
Appendix B: Photos of Pueblo Sites

All photos courtesy of the author.

Photo A: The mission church at Quarai. One of the Pueblos of the Estancia Valley, Quarai was abandoned in the 1670s due to Apache raids.

Photo B: One of the cisterns used to collect rainwater at the Pueblo of Gran Quivira. See my discussion of Hewitt and agriculture pages 33-34.
Photo C: A large *kiva* located at the Pueblo of Gran Quivira. *Kivas* were central in traditional Pueblo religion. After the arrival of the Spanish, such ceremonial chambers were moved to within the actual Pueblo room complex.

Photo D: Pueblo room complex at Gran Quivira. Note the difference in the construction styles between the Pueblo and European building styles. In this photo note the characteristic door which does not extend all the way to the floor.
Photo E: The *convento* which housed the Franciscans ministering to the inhabitants of Gran Quivira. Note the traditional European style door.

Photo F: Looking Northwest from Gran Quivira. Note the openness of the terrain, and the relative ease with which it could be traversed. This openness made Gran Quivira vulnerable to raids from the nomadic Apache.
Photo G: The ruins of the Pueblo of Pecos.

Photo H: The mission church at Pecos.