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Convento Kivas in the Missions of New Mexico

JAMES E. IVEY

There are a number of peculiar structures in the pre–Revolt missions of New Mexico that await an explanation. Perhaps the least understood of these are the kivas located in the conventos of the missions of Salinas Pueblo Missions National Monument and at Pecos National Historical Park.[1] In 1988, I hypothesized that the convento kivas of the Salinas missions were built with the approval of the Franciscans to serve as chapels and religious training rooms.[2] Evidence since then suggests that these "Christian kivas" are a province–wide phenomenon. The Franciscans employed these structures during the period from about 1610 to perhaps 1645 at many of the missions established during that time. As part of the transition to being Catholic members of Spanish society, the kivas may have been places of education and training in basic Christianity for the leading men of the pueblo and were probably built by the Indians under Franciscan supervision.[3] The convento kiva seems to be part of a centuries–old New World Franciscan tendency to use creative architectural provisions for religious and cultural training of the local population. Farther south, in the sixteenth century, the clerics used the Franciscan mosque, and the *atrio* and open chapel for these purposes. Fom the conquest of Mexico to the *entrada* of New Mexico, these structures served as useful conversion architecture in the sixteenth century. Once in New Mexico, the Franciscans appeared to have continued their tradition of architectural experimentation with structures other than churches.

Religious training of the Indians was a top priority in the first years of a new mission, and it was to be an important function of complete conventos. In Mexico, mass conversions and the training of large groups

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of people was the rule; in New Mexico, only a few important, influential members of Pueblo society were instructed at first and probably with great caution. In fact, Fray Estévan de Perea stated ca. 1629 that the first efforts of conversion in a new pueblo were usually directed at the "principal caciques and captains of the pueblo."[4] The convento kivas perhaps were places of instruction in basic Christianity. These structures contained catechismal rooms for the conversion and training of only influential persons, with no more connection to the katchina cults than the Franciscan "mosques" of the sixteenth century. I propose that the convento kivas were the schoolrooms referred to as a standard part of a convento in virtually every description of Franciscan method in New Mexico. Fray Alonso de Benavides, for example, says conventos all have rooms "in which the Religious besides the teaching and indoctrination of our Holy Catholic Faith, teach [them] to sing, read and write."[5] Constructed in the middle of the common space of a Franciscan convento the kiva would serve as a familiar space wherein the children and influential citizens of the local village could be taught the basics of Christianity, the catechism, and Spanish culture.

Kivas and Franciscan Evangelical Architecture

In 1661, the Franciscans of New Mexico suppressed the Pueblo katchina cult and eventually suppressed the kivas.[6] The attitude of Franciscans toward kivas, however, would not necessarily have influenced the Franciscan decision to use a kiva-like space for some purpose in the convento. This practice would have been similar to the process of structural adaptation that occurred in Spain during the Reconquest. While Moslems were forcefully converted or driven out of Spain, their mosques were used as Christian churches.[7] In fact, the great mosque of Córdoba today stands altered only slightly by the construction of the accoutrements of a Christian church in its center that converted it into the Cathedral of Córdoba.[8] The use of the temples of a conquered people to house the new religion is an old practice for Christianity. For example, on his way to Britain in 601 A.D. Pope Gregory wrote to Abbott Mellitus:

> ". . .the temples of the idols among that people should on no account be destroyed. The idols are to be destroyed, but the temples themselves are to be aspersed with holy water, altars set up in them, and relics deposited there. For if these temples are well-built, they must be purified from the worship of demons and dedicated to the service of the true God. In this way, we hope that the people, seeing that their temples are not destroyed, may abandon their error."[9]

This is precisely what happened at the Great Mosque of Córdoba, and the practice continued in the New World. For example, the Spanish conquistadors celebrated the first mass in New Spain on top of a pyramid at Cozumel in 1519 and Hernán Cortés held a victory mass conducted atop the main pyramid of Tenochtitlán after its conquest in 1521.[10] However, most churches for the Indians of Mexico were adaptations of the spatial arrangements of these temples, while the temples themselves were destroyed. Christian churches were frequently placed on the sites of destroyed native temples; this practice has been called "superposition."[11]

The first Christian church in Mexico City was San José de los Naturales, a school and chapel for the Indians of that area. Begun by Franciscan Pedro de Gante about 1527, this chapel was a "simple thatched portico" of one aisle. Such a style of church with one side open was "probably widely repeated in the decade of the 1540s, when provisional churches were needed in the many new Mendicant foundations."[12] John McAndrew noted that this early version of San José was "like some preconquest monuments," and suggested that "[t]he Indian workmen could have approximated a familiar model with more speed and dependability and less supervision than an exotic one, provided that the friars did not think the finished work too evocatively heathen."[13]

Within a few years, San José was converted from its original *portal* plan to something much more exotic. Through a series of remodelings, the church was rebuilt and by the 1550s it replicated the plan and appearance of a mosque.[14] This structure proved to have some popularity among Franciscans who built similar structures at several other missions over the next three decades. Oddly, no examples are known from other orders. In at least one case, at Toluca, the Franciscan mosque served as a school like its original in Mexico City.

Only a few examples of the Franciscan mosque survive in any recognizable form, and yet it is likely that others await discovery and recognition. The earliest copy known so far is the schoolhouse at Franciscan Asunción de Nuestra Señora de Toluca, built about 1560.[15] At San Pedro de Jilotepec, the plan of San José de los Naturales was replicated almost exactly, probably in the 1560s.[16] A similar mosque–like plan was used for the *capilla real* (the king's chapel) at Franciscan San Gabriel de Cholula, built probably in the 1570s.[17] Another example may have been Franciscan Corpus Christi de Tlalnepantla, begun probably in the late 1570s, where the structure of the *porteria* "suggests that a deep open chapel, like Jilotepec, once occupied this area, being later absorbed by conventual rooms."[18] Another copy of uncertain date may have been built at Concepción de Nuestra Señora de Etzatlán.[19]

Why were the Franciscans building chapel/schools in the form of mosques that were viewed as the greatest pagan threat to Christian Spain? McAndrew considered that a mosque form was put into use for some Franciscan missions as an open chapel or school because "[t]he mosque was not held to be the house of God, like the church, but only a gathering–place for prayer. . . and for readings from the Koran." The mosque plan was generalized with with no distinction; it was a structure well–designed for contemplation and instruction.[20] This appears to be an unsatisfactory answer because the Franciscans were considerably more conservative than other orders, and for them to make use of a "mosque" seems out of character. However, the evidence suggests that it was not, for the Franciscans were clearly willing to experiment with architecture throughout the colonial period in the New World, so long as the structures were relatively simple and plain.

From the 1540s to the 1580s, the Franciscan "mosque" served the same general range of purposes as the atrio and open chapel, more widely used by Franciscan, Augustinian, and Dominican missionaries in the same period. Although the principal use of the atrio and open chapel was for a stage during the open–air mass, the atrio also served a number of other purposes, most important among them the Sunday and weekday classroom.[21] George Kubler has demonstrated that the earliest known open chapel was the structure built at the Franciscan mission of San Francisco de Tlaxcala from 1537–39. Kubler suggested that the atrio and open chapel derived from the *teocalli* precinct, the Mexican pyramid with its chapel–like enclosure at the top (this was the teocalli proper, where the principal episodes of Mexican religious ceremonies were carried out) and the large walled court within which the pyramid stood. At Tlaxcala, the open chapel "commanded the ramp leading from a lower courtyard to the upper one. . . the chapel, like a teocalli, stood at the head of a considerable incline."[22] McAndrew echoed this argument,

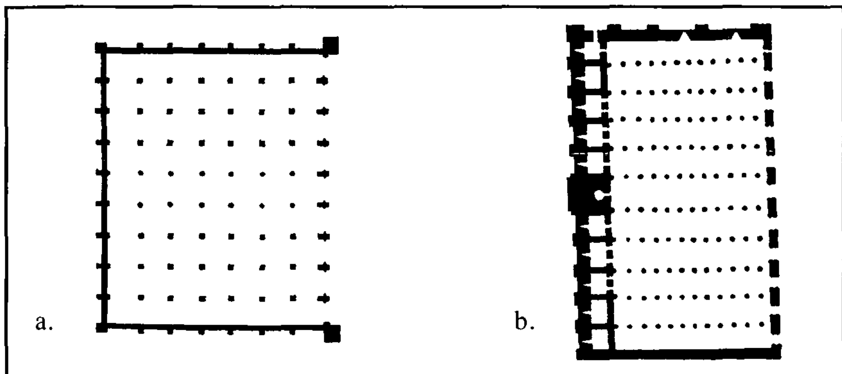

Figure 1: a. The Franciscan "mosque" of Cholula, Puebla, Mexico; b. The Great Mosque of Córdoba, Spain.

saying that "[c]ircumstantial evidence thus points to the teocalli court as the true parent of the *atrio*."[23] McAndrew added that the process of instruction in the Christian faith in this familiar space ranged from chatecism to mass.[24]

Convento Kivas

In the context of Franciscan practice in the sixteenth century during the conversion of Mexico, the Franciscan's use of evangelical architecture continued northward. It comes as no surprise to find kiva–like structures in the public areas of conventos in seventeenth–century New Mexico. The first such structures recognized were found in the Salinas missions, a well–preserved group in central New Mexico, near the town of Mountainair. These missions were abandoned in the 1670s and never reoccupied.

The kivas in the Salinas missions have stimulated considerable discussion and speculation since the first was found, probably by Reginald Fisher, at Quarai in the Salinas area about May 1935.[25] Joseph Toulouse located the kiva at Abó, also in the Salinas district, in mid–March 1939 and Alden Hayes found another at Pecos in July 1970.[26] These kivas have been discussed in several landmark studies of the missions of New Mexico. For example, in 1940 Kubler mentioned the Salinas kivas briefly in *The Religious Architecture of New Mexico*.[27] Ross Montgomery discussed the relationship between churches and kivas at length in the excavation report on San Bernardo de Awatovi, published in 1949; Hayes offered some alternative ideas in the *Four Churches of Pecos* in 1974, and John Kessell discussed them in *Kiva, Cross, and Crown*, published in 1979.[28] Rather than suggesting that these kivas were the New Mexican equivalent of the atrio/open chapel or the Franciscan mosque, the historiography offers several other possible explanations for the kivas found in direct association with the churches and conventos of New Mexico.

The first discussions of the convento kivas found at the Salinas missions presented two alternative suggestions for when and why these kivas arrived in their respective conventos. First, the kivas were built by the Indians before the arrival of the Spanish; the Franciscans subsequently placed the conventos carefully so as to enclose them, somewhat like the superposition of mission churches on the mounds of destroyed temples frequently carried out in sixteenth–century Mexico. Or second, the churches and conventos were built first, and the kivas were built into these places by the Indians as a "reverse superposition" during Franciscan absence from the mission or after its abandonment in order to symbolically reclaim the land taken by the church and convento.

The first and earliest proposal—that convento kivas are the result of "superposition"—explained these mysterious structures. The first mention of a convento kiva was the anonymous report published in *El Palacio* in 1936, probably by Ele Baker, describing the kiva found the year before in the convento at Quarai. The news note immediately offered the idea of superposition, purporting that Quarai mission may have been constructed on the site of a kiva.[29] In 1940 Kubler (the architect whose study of New Mexico missions is still the foremost structural evaluation of these buildings) maintained caution in his statements about this relationship, and hesitated to call the structures kivas. He echoed the explanation given in *El Palacio*, saying that each was a "pre-Spanish underground ceremonial chamber preserved by the friars to illustrate the victory of the Church over pagan customs."[30] In 1949, Montgomery, who worked on the Awatovi excavations, took these suggestions and reworked them into an explicit "Theory of Superposition" to explain the presence of kivas under or within religious buildings in New Mexico.[31] Montgomery argued this hypothesis without reservation, and constructed an entire theological metaphor of symbolic Christian dominance that the Franciscans, in his opinion, clearly intended to express by such an action. In the course of his discussion, Montgomery indicated that placing the convento patio so that it was centered on a kiva was only one possible expression of this metaphor. He implied that the mission was placed with the sanctuary of the church located over the kiva, demonstrating Christian dominance.[32]

The second suggestion, that convento kivas were the result of "reverse superposition," applies only in the case of kivas in the open air of the convento. Clearly, kivas under major structures such as altars or building walls could not have originated in this way. Toulouse (who excavated the mission at Abó), Dan Murphy (the archeologist at Gran Quivira in the 1970s), and Hayes (who found the kiva in the Pecos convento), all favored this alternative to explain these kivas.[33] There was an obvious problem with such an idea. If the convento was still in use by the Franciscans, "it seems unlikely," as Hayes put it, "that the missionary would countenance building a kiva while he was in residence—particularly in that location" in the convento patio.[34] Hayes suggested that the way around this problem was timing: the Salinas kivas "may have been built during a temporary hiatus in missionary efforts during the 1600s."[35] Murphy added that such an act on the part of the Indians "would give the priest apoplexy upon his return!"[36] Hayes considered the Pecos kiva to be an example of superposition after the Franciscans abandoned the site: The kivas was built from black bricks salvaged from the church of Pecos during the Revolt. Hayes added that since the Franciscans and Indians had completely abandoned Abó and Quarai from 1672–76, then the post-abandonment superposition sce-

nario would not apply at these two missions, unless there was a re–occupation of the pueblo by the Indians sometime after 1676.[37] Neither archaeology or historical research has suggested such a reoccupation.

Given the conditions generally thought to exist in New Mexico in the seventeenth century, these historical interpretations give the general impression that they are the only reasonable explanations. No one, however, reviewed the historical record to determine the Franciscan attitude toward kivas in the seventeenth century, or to clarify when and by whom superpositions might have occurred. A basic archaeological fact was used to indicate the relative sequence of events. The church over the kiva meant the church was superimposed on the kiva, or the church bricks in the kiva meant the kiva was superimposed on the convento. No evidence other than simple juxtaposition has ever been offered to bolster the two "superposition" alternatives; in spite of this, the idea of "superposition" has been accepted as the explanation for these kivas, and has never been questioned in print.

A detailed examination of the scant historical record and of the physical evidence produced by the excavations of these missions finds no significant support for either of the two alternatives. Another explanation is that the Franciscans did countenance the kivas in their conventos, and indeed, encouraged them. This hypothesis is supported by archaeological data from the known kivas found in and under Franciscan buildings, by the available historical documents, and by Franciscan practice in Mexico prior to the entrada of New Mexico.

Franciscan Methods in New Mexico

The available historical records make it clear that the Franciscans usually arrived at a new pueblo as petitioners for the favor of the authorities of the pueblo, and could not simply impose a sort of ecclesiastical martial law on the town. Documents suggest that the first permanent occupying forces, usually Franciscans with perhaps a small military escort, entered a pueblo with a considerable amount of caution.[38] For example, the Franciscan missionaries sent to Hawikuh purchased pueblo rooms to use as their first quarters. The mission to Hawikuh arrived in late July 1629, and within a few days a house was purchased and used to hold mass.[39] The missionaries began the usual process of political and religious maneuvering necessary to arrange for a tract of land in the pueblo where the permanent church and convento might be built. Even with such caution, within three years, Fray Francisco Letrado pushed the inhabitants of Hawikuh past their limits by attempting to force them to go to mass on one of the feast days. They rebelled against the Franciscans, killed one, and destroyed the church under construction.[40] The missionaries did not return to Hawikuh until more than ten years later.[41]

The archaeological data from the Salinas pueblos supports the methodical approach on the part of the Franciscans. Hayes, who excavated Mound 7 at Las Humanas from 1965–67, discussed the Franciscan presence in the pueblo in his report. Hayes found the convento built into the pueblo rooms at the west end of Mound 7, and he suggested that the Franciscans had used a process similar to that at Hawikuh.[42] Excavation uncovered what appears to have been a set of Franciscan rooms at the northeast corner of the northern–most room block of the historical pueblo at Abó, near the permanent church.[43] At Quarai, no such archaeological investigations have been conducted, but the physical traces of a similar structure can be seen at the southeast corner of the historical pueblo, near the permanent church.[44] Nels Nelson excavated at the Galisteo pueblos, and found similar rooms near the temporary church at San Lazaro.[45] At Pecos, the archaeological evidence reveals a more complicated story, but demonstrates Franciscan caution even more clearly. The Pecos Indians seem to have been uninterested in the offerings of the Franciscans when they first attempted to establish themselves in 1617, with the result that the missionaries were unable to get permission to use rooms in the North Pueblo or anywhere else on the mesilla top. Indeed, the best they could arrange was permission to establish a small church on an adjacent hilltop. Three years later, the political situation changed, and the Franciscans were given the right to renovate a ruined pueblo on the mesilla top in the northern part of the present South Pueblo.[46]

Strong archaeological evidence exists that the Franciscans continued to exercise caution for the first several decades they were in a new pueblo. One of the ways this caution was expressed was a tolerance for kivas through the 1650s. For example, during excavations at Las Humanas in 1951, Vivian found that kiva D apparently continued in use until about 1660.[47] This kiva was only fifteen feet north of the wall of the first church at Las Humanas, San Buenaventura I, built in 1629–34.[48]

Hayes felt that the artifacts associated with most of the kivas in use at Las Humanas when the Spanish arrived indicated that they had been destroyed some time after the arrival of the Franciscans in 1629, the suggested date is closer to the middle of the seventeenth century. One of these—kiva J—may have been in use until the abandonment of the pueblo around 1672. Discussing the location of San Buenaventura I, Hayes indicated that in his opinion, the site was selected because it avoided kivas.[49] At Pecos, Alfred Kidder found that at least three of the kivas he excavated appeared to have been abandoned in the late 1600s.[50] One of these, kiva 7, had three phases of major remodelling. The middle phase resulted in the kiva being floored with yellow adobes set in a purple mortar, and roof support posts were made of square–cut beams. The adobes were identical in size and shape to those used in the "Lost"

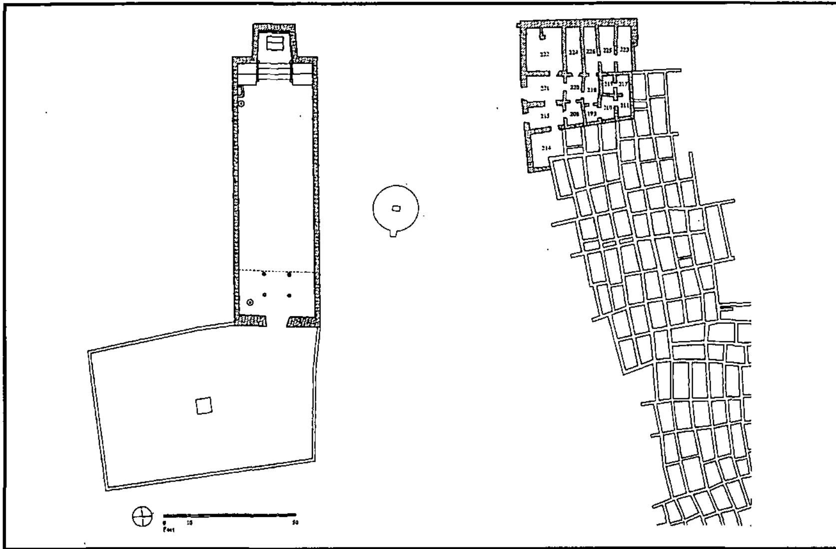

Figure 2: Kiva D at Las Humanas.

Church, built about 1617 a thousand feet northeast of the pueblo, and abandoned and dismantled about 1620.[51] The adobes are believed to have been salvaged from the church building by the Pecos. Adobes from this church also appear in South Pueblo, constructed from 1620–40 as what has been called a "Christian" pueblo, extending south from the temporary Franciscan convento. The purple mortar was apparently the same as that used for the construction of the "Lost" Church, which is again virtually the same as the mortar used in the earliest phases of construction of the convento, beginning in 1620–21.[52] That the Pecos and the Franciscans were sharing the adobes salvaged from the earlier church in order to build a new convento, a "Christian" pueblo room block and kivas, suggests some level of accommodation on the part of the Franciscans.

After New Mexico's change from a proprietary colony to a royal colony in 1610, these examples imply that the Franciscans usually followed a process of careful integration when they entered a New Mexico pueblo. When the soldiers left after the first few days, Franciscans were very careful about how they conducted themselves and used caution and conciliation rather than dominance to secure a place in the pueblo.

It appears that conciliation toward the pueblos was a standard policy on the part of Franciscan authorities in New Mexico from 1610 to about 1640. There is clear historical evidence of the conciliatory approach at Pecos. There, the attitude of tolerance on the part of top Franciscan authorities in New Mexico in the 1620s was strong enough to result in the transfer and replacement of a friar who was too harsh with his neo-

phytes. In 1620, Fray Pedro de Ortega reacted against the teachings of the Pecoseño called Mosoyo, who, said Ortega, was preaching "a perverse doctrine, persuading the Indians that they should not go to church and that they should set up idols, many of which. . .I ordered smashed."[53] This was presumably the resurgence of a katchina cult at Pecos. Early in their effort to convert the Pueblo population, the Franciscans forbade katchina cults as patent idol–worship.[54] Kessell proposed that Ortega's "smashing of Pecos idols had sorely strained his relations with the people," and that this was the reason Ortega was soon replaced with Fray Andrés Juárez, who "was more tolerant, more willing to accept the Pecos as they were."[55] In the context of the historical record, it seems unlikely as Montgomery suggested in the description of his "theory of superposition," that the Franciscans would begin a new mission with the intolerant action of taking over and destroying kivas without the approval of the local authorities.

Superposition Reconsidered

As mentioned above, the "theory of superposition" was first proposed in 1936, but elaborated upon by Montgomery in 1949. However, the idea of "superposition" in the Province *(provincia)* of New Mexico derived from the example of Awatovi. On examination, though, the supposed "superposition" at Awatovi appears instead to be open to another interpretation.

Church 2 was built so that the main altar stood over two kivas that the Franciscans intentionally backfilled. John Otis Brew excavated beneath the altar because Montgomery, the architect on the excavation crew, insisted that a kiva would be found there because of the theory of Superposition.[56] In the mind of Montgomery, the care with which the structures were backfilled with clean sand instead of the usual midden earth confirmed that the relationship between the kivas and the altar had symbolic significance. Brew agreed that the circumstances were unusual: "When Hopis abandon a kiva they do not leave the roof behind. Timber is too far away."[57] He added that the Awatovi excavations had revealed eighty–six subterranean structures at various Hopi sites, of which twenty–four were kivas at Awatovi, and only the two kivas beneath the apse of the mission church still had their beams in place.[58]

The actual physical arrangement of the buildings at Awatovi, however, does not suggest superposition in the sense of Christian dominance. Rather than being centered beneath the main altar, the first kiva found was offset so that the wall between the apse and the sacristy passed over it. The central hatchway of the kiva was several feet north of the wall, under the sacristy, with the result that only about the south quarter of the kiva was actually under any part of the sanctuary. The second kiva's center was primarily under the back and side walls of the church,

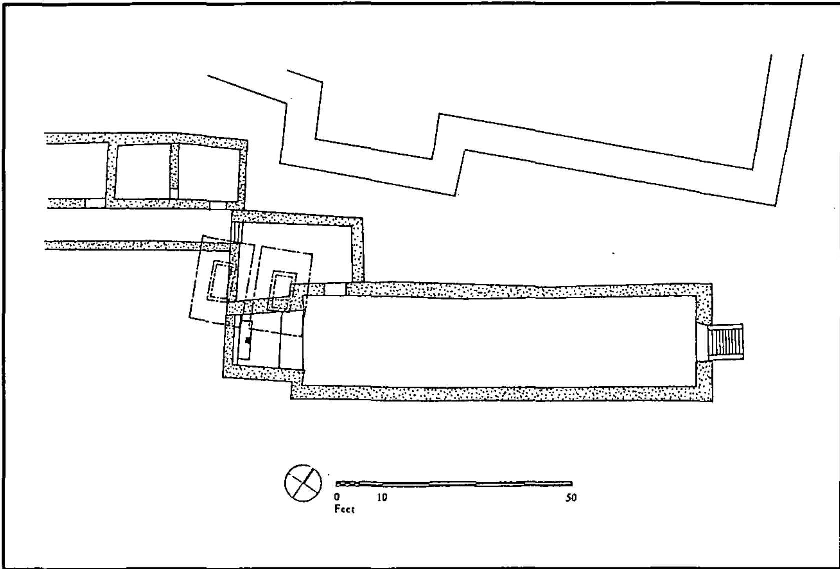

Figure 3: The location of kivas under the church at Awatovi.

the sacristy, and the space west of the church. The structure did not extend any significant distance inside the apse wall. The second kiva was only mentioned twice in the report, presumably because it was unconvincing as an example of superposition; but the first is hardly any better a contributor to the picture Montgomery wished to present.[59]

The untidy locations of these two kivas, largely offset from the apse, suggests that rather than the idea that these kivas were unique structures with a special relationship to the church, they were only actually two of several kivas in this area. Had excavators looked for them, other kivas probably would have been found under other parts of the church. Brew suggests "it is quite possible that a more or less continuous row of kivas existed in this part of the site, connecting up with the two under the church."[60] The Franciscan conciliation approach would ensure that when Franciscans made arrangements with pueblo authorities to use the area where the church was built, there were several relatively unimportant or unused kivas in this area. After negotiations, pueblo authorities may have allowed the Franciscans to remove the roofing and fill the kivas in order to form a solid platform on which to build the foundations of the new church, on the condition that the job be done carefully and with respect. It would be reasonable to assume that all kivas under the walls of the church received the same careful backfilling, with the roof beams left in place. By chance, Brew found two such examples in the area of the sanctuary at Montgomery's instigation. Had superposition been the driving factor and the Franciscans in enough of

a position of strength to choose to destroy a kiva and symbolically superimpose the church over it, it seems more likely that the main altar would have been centered precisely over one of the kivas.

More telling is the clear indication that Church 2 was not intended to be the permanent church at Awatovi; in fact, it is probably Church 1 and Church 3. The building was probably constructed as a temporary chapel, rather like San Buenaventura I at Las Humanas, with the intent that it would eventually be replaced by a larger, more elaborate building at a later date. This larger building that Brew and Montgomery called Church 1 was begun a few years later, but was never completed. Some sequence of events caused the Franciscans to halt the construction of the large permanent church and return to Church 1 (Brew's Church 2) that was renovated by the addition of two towers, a side chapel, and a baptistry.

No other example of kivas being buried under a mission church are known. Apparently at Awatovi, Montgomery, Watson Smith, and Brew found evidence of an unusual architectural circumstance rather than a standard practice. Awatovi is the only example in the province of New Mexico where the superposition of a church over a kiva exists. The circumstances suggest that this attribution is incorrect; as a result, superposition of a church over a kiva as an intentional act of dominance cannot be shown to have happened in New Mexico.[61]

Franciscan Absence and Abandonment

The "reverse superposition" explanation of the presence of kivas in the conventos of Abó and Quarai required one or several unsupported preliminary assumptions. These may be divided into two categories: the construction of these kivas happened during Franciscan absence or after Franciscan abandonment. Extended absences of resident friars have long been accepted by historians as typical of the New Mexico missions. The argument has been that the number of friars was so limited that they constantly had to travel from one mission to the next in order to attend properly to all the Christianized Indians.[62] The records show, however, that principal missions were continuously staffed, often with two or even three friars, while other missions were placed in *visita* status if the number of friars dropped.[63] In the Salinas area, Quarai and Abó were principal missions and were never left unmanned for any extended period, while Chililí was reduced to a visita of Tajique after about 1660, and Las Humanas moved in and out of visita status as the number of friars changed.

In addition, architectural and archaeological information demonstrates the presence of Spanish civil authorities in the pueblos and nearby settlements. The documents indicate that converted pueblos, or at least

those given in *encomienda*, had Spanish *alcaldes* in permanent residence throughout most of the century. Some pueblos apparently also had persons who may have been employees of the provincial governor. Outside the pueblos, there were usually a number of privately–owned *estancias* within only a few miles.[64]

Beyond the presence of all these persons supporting the Franciscans in the pueblo, the existence of a completed mission building indicates that influencial factions of the pueblo accepted the Franciscans. An anti–Franciscan faction building a kiva in the convento would be acting against the interests of the powerful pro–Franciscan faction. Since the pro–Franciscan factions of most pueblos seem to have been stable and powerful for decades at a time, such an act would probably have been foolish on the part of the (usually) less powerful and less influential anti–Franciscan factions. It is highly likely, therefore, that the average convento was always under the protection of someone associated or allied with Spanish authority until the period of decline after 1660.[65]

That the construction of the Salinas convento kivas may have occurred after the abandonment of the pueblos is a reasonable suggestion. "Abandonment" meant only that the Franciscans withdrew their missionary from the pueblo, and if possible, persuaded most of the Christianized Indians to go with them. Such a departure undoubtedly meant the loss of the tribute of the pueblo to its *encomenderos*. However, the anti–Spanish factions of the pueblos may not have left immediately, and could have built kivas in the conventos of the abandoned Quarai and Abó missions.[66] But several things argue against such a sequence of events. For example, the Abó and Quarai kivas are precisely centered in their patios, in a manner more suggestive of European planning methods than of the less rigid Indian approach to building. The Quarai kiva is square, unlike any others in the area, and therefore was probably not built by remaining residents of the pueblo. Furthermore, both the Quarai and Abó convento kivas have been intentionally refilled. Since there is no reason for the Indians to have filled the kivas before they finally left the pueblo, this must indicate that the Franciscans were in residence at the time the filling occurred.

These considerations, taken together, make it very likely that the construction and backfilling of the Salinas kivas must have occurred before abandonment. In fact, they were probably built and refilled before 1650.

The Archaeological Context of the Convento Kivas

At Abó, the convento kiva was apparently built about 1622–28 and went out of use about 1640. The first church and convento at Abó were under construction from 1622 to about 1628 or 1629.[67] Because of the gentle slope of the site, the mission was begun with the construction of a stone retaining wall outlining the buildings. This wall was filled with earth to make a low, flat, artificial platform somewhat like those later used at Quarai and Las Humanas. When completed, the floors of the convento rooms were only about three feet above the natural ground surface along the south and east edges of the building. At about this time, the kiva-like structure was built on the new platform, centered in the outline of the patio (see figure 1). It was laid out after the construction of the mission platform beginning in 1622, but well before the major remodelling that began about 1645. The structure was a round subterranean room about seventeen feet across with its center less than one foot from the center of the original patio. Available colonial Spanish surveyor's notes indicate that the usual method for the layout of a building or compound was to pick the center of the site and then plot diagonals from that point to locate the corners of the structure.[68] If the Franciscans had laid out the kiva at Abó, they would have done so in this manner, with the result that the kiva would be centered in the patio.[69] The location and stratigraphy strongly suggests that the kiva was built during or soon after the major construction effort on the first church, in the period from 1622 to 1628.

About 1647 or 1648, work on the second church of San Gregorio de Abó began. This reconstruction was completed about 1651 or 1652.[70] The first remodelling of the convento to fit the new church was undertaken at the same time, and was finished within a year or so.[71] This remodelling changed the plan of the patio, and it was probably early in this construction that the kiva was partially filled with earth hauled in for that purpose. The fill was dumped onto a two foot layer of wind-blown and washed-in sand and silt, indicating that the kiva had been unroofed and left open for several years before the partial filling. If the intentional fill occurred about 1647, the kiva was probably unroofed about 1640. After the intentional filling, the kiva was left open as a circular, flat-bottomed, stone-lined hole about four feet deep. A second, much more extensive remodelling was carried out a few years later, probably as part of the "Frontier Revival" of 1655–60.[72] This remodelling approximately doubled the size of the convento, but left the shallow pit of the kiva unchanged. After the abandonment of the mission

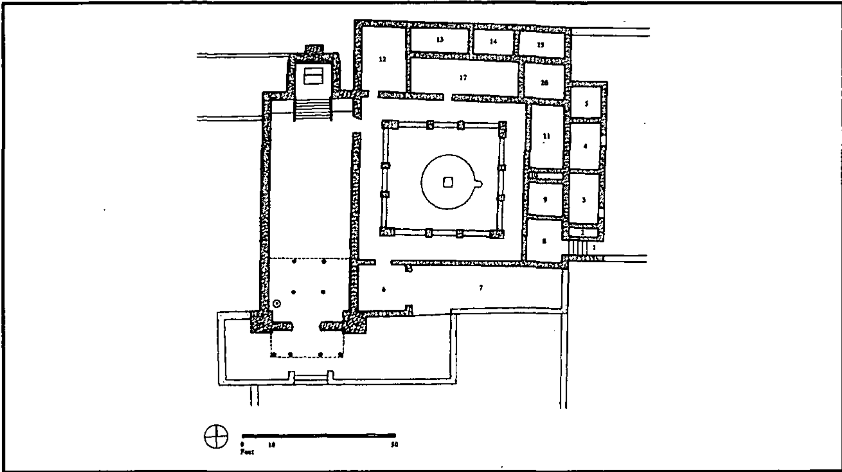

Figure 4: the first church and convento at Abó.

around 1672, the patio walls and the side walls of the kiva slowly collapsed into the pit along with blown sand, filling the hole until it was a shallow depression at the time Toulouse found it in 1940.

When it was found, about six feet of the wall height of the kiva survived. The stratigraphy implies that one or two feet of wall collapsed into the pit of the kiva after the abandonment of the mission. This indicates a distance from the floor to the underside of the ceiling of perhaps seven to eight feet.[73] The kiva had been built with firepits, a deflector, a ventilator shaft, and four large wooden pillars resting in stone–lined sockets on the floor and supporting the roof, which probably had a central entranceway; no *sipapu* was found.[74] The firepit was filled with ash, indicating an unknown period of use. No trace of the wood of the support pillars or roof was found.

Toulouse said in his report that the kiva was used as a dump from a nearby kitchen. However, his observation that fragments of the same ceramic vessels appeared at all levels of the material shows that the filling was a single event, rather than continuing over an extended period of time.[75] It is likely that the fill–dirt came from a pre–existing kitchen midden, hauled into the convento with the intent to fill the kiva to within a few feet of the surface of the patio. The ceramics included a good selection of Salinas Redware items of European design; both Toulouse and Hayes considered Salinas Redware at Abó to be virtually the same as Kidder's "Plain Red" ware at Pecos.[76] Therefore, the Salinas and Pecos polished reds may be considered to have an inception of 1625. Other Indian ceramics included Tewa Polychrome, today generally considered to have an inception date of about 1650.[77] The kiva fill also contained a number of *majolica* fragments, one of the two princi-

pal locations where this ceramic was found at Abó. The dates associated with these fragments are generally mid–seventeenth–century.[78] The strongly European content of the earth dumped into the kiva indicates that the source for the fill was probably the Franciscan midden along the walls of the early version of the convento, while the dale ceramics indicate that the midden from which the fill was removed went out of use after 1630.[79]

In a summary article published in 1940, just after he completed the excavations at Abó, Toulouse adopted the "reverse superposition" idea for the Abó kiva. He stated that "it is presumed that in [the] absence" of the Franciscans of Abó, the Indians "took a chance upon the building of a kiva" in the convento.[80] But in his final report in 1949, Toulouse offered no dates or responsibility for the structure other than the terse statement, without any additional explanation, that the kiva "appears to have been constructed during the building of the church."[81] Toulouse's decision to remove any reference to the Indians of Abó in connection with the convento kiva in the final report suggests that he had become dissatisfied with his earlier explanation that the kiva had been built by the Indians during an absence of the Franciscans. This would not be surprising, since it would be difficult to fit the sequence of construction and fill events Toulouse observed into a scenario in which the Indians built the kiva while all Franciscans and their supporters were absent from Abó.[82]

The Quarai Convento Kiva

The Quarai kiva followed the same general pattern seen at Abó. At Quarai, beginning in 1626, the Franciscans built a stone–sided platform for the mission like that at Abó. It appears that the mission platform was constructed on the mound of a circular pueblo ruin dating from about A.D. 1300.[83]

As at Abó, the plan of the friary centered on the patio. In the patio, a square kiva was built after the construction of the platform but before the abandonment of the mission about 1676 (see figure 2). The square kiva is precisely centered on its patio; diagonal lines drawn through the outside corners of the patio pass exactly through the center of the kiva. The kiva is surprisingly symmetrical—its north and east sides are 15.9 feet long, its south side is 16.1 feet long, and its west side is 15.2 feet long. In addition, the kiva at Quarai is the only known square kiva in the Salinas pueblos.[84]

The roof of this kiva, like that at Abó, was the level of the patio floor with an interior roof height of about seven feet. The kiva seems to have been unroofed and filled until it was level with the patio so that excavators did not recognize it until the final cleaning of the patio surface in 1934. Few details about the kiva at Quarai were preserved by its excavators. Excavations under the direction of Fisher located the struc-

ture in the friary patio in May 1935, but there is no record of the stratigraphy of the fill found within the structure.[85] Only one artifact from this fill is known: a large Salinas Redware chamberpot.[86] The presence of the chamberpot indicates that it could have been filled at any time after 1625.

Baker arrived about August 1935, in time to supervise the removal of the last foot or so of fill and to clean the floor features.[87] In the last of the fill in the square kiva, Baker noticed a large percentage of white "gypsum" plaster. On the floor, he found a "fire pit, altar, and 'sip–o–phe' [*sipapu*]," as well as a ventilator shaft.[88] The feature excavators identified as a sipapu has also been interpreted as the ladder pit—the sipapu is virtually unknown in Salinas kivas. The mass of white plaster on the floor of the kiva indicates that the structure was probably unroofed and left open for several years, as at Abó.

Unmentioned or unnoticed by the original excavators was an odd detail about the ventilator shaft. Apparently it was constructed with typical Spanish adobe bricks, the only adobe brick construction known at Quarai.[89] Since no adobe bricks were used elsewhere at Quarai, the Indians had neither any experience in its manufacture nor any ruin from which to salvage the material. The bricks must have been made by or under the direction of the Franciscans, specifically to be used in the construction of the kiva.

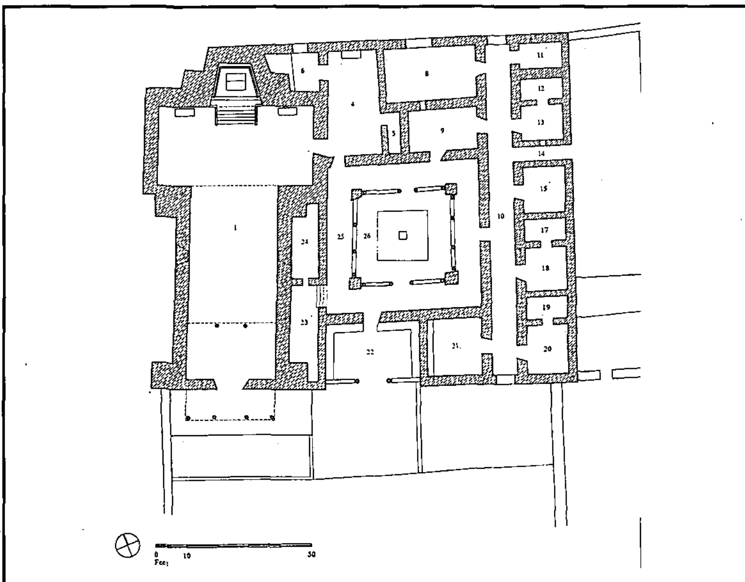

Figure 5: Quarai about 1630.

Baker eventually reconsidered his original explanation for the Quarai convento kiva. He became unhappy with his initial 1936 explanation—that it was a preexisting structure on which the convento was centered. Over the years, he evaluated the evidence and decided that the kiva had been built into the convento with the approval of the Franciscans. In 1988, he said, "this kiva appeared to be centered within the cloister garth as if it were permitted by the Spanish priests . . . to get them to convert to the Catholic religion much easier." He considered the convento kiva at Abó to be used for a similar purpose: "a means of trying to get [the Indians] to accept the Catholic religion."[90]

The Pecos Convento Kiva

The convento kiva at Pecos has long been accepted as a Revolt–period structure built by the Indians. Hayes, who found the structure, discovered that the walls "were. . .built up of black adobe bricks, undoubtedly salvaged from the destroyed church, on a masonry foundation from 1.0 to 1.8 feet high. . . . A mortar of red clay was used liberally, so the seams were nearly as thick as the bricks."[91] The north arc of the wall sat on bedrock which sloped off steeply to the west and south. The kiva had been placed in the corral rather than in the patio. Hayes suggested that this was because bedrock was only one or two feet below the original surface of the patio. The kiva had been placed as close to the center of the convento as it could be, and still be in enough depth of earth to fit below grade.[92] Later excavation found that the kiva had two ventilator shafts, one sealed and plastered.[93] This suggests that the kiva was in use long enough that some repairs became necessary. Both the original ventilator shaft and the later one—the one Hayes found first—were built of black brick.

It seemed reasonable, in the absence of any other evidence, for Hayes to assume that the Pecos Indians salvaged black brick from the church or the convento for the construction of a kiva in the convento ruins. However, a recent reevaluation of the structural history of the church and convento has demonstrated that certain adobe brick and mortar combinations were peculiar to certain periods of construction, and the Pecos kiva brick and mortar combination was one of the earliest. As a result of these observations, Hayes' assumptions must be reexamined.

Courtney White's intensive reexaminination of materials that were used in the specific episodes of convento construction has cleared up a number of questions about the sequence of construction and the probable dates for each episode.[94] His work indicates that black bricks with purple or maroon–red mortar appear to have been used only for the first two episodes of construction; later efforts used red–brown adobe bricks set in a brown mortar. The earliest red–brick/brown–mortar con-

struction at Pecos seems to be the "cellar" beneath room 36, whose bricks have the same measurements as black bricks and therefore were probably made in the old black–brick mold. Archaeomagnetic measurements show that the large furnace hearth in the "cellar" was fired to its greatest heat about 1640–50.[95] Based on this date and the sequence of construction of the convento, the changeover from black to red brick apparently occurred about 1640. The specific combination of black brick and purple–red mortar found in the kiva was used only in the period from 1620 to 1640.

Particle and trace element analysis conducted on the bricks and mortar of Pecos has shown that the mortar used between the black bricks in the kiva was the same as that used between the black bricks in the earliest construction of the convento.[96] Obviously, in 1680 the Pecos would not have painstakingly scraped up the mortar from between the bricks of the fallen church to use in their kiva. Now that it is clear that the kiva was built with the 1620–40 brick and mortar combination, the hypothesis that the construction of the kiva occurred in 1680 cannot reasonably be advocated.

Additional dating information came from the artifacts found in the kiva. On the floor of the kiva or in the firepit were found a number of potsherds, the most diagnostic of which were three cups and two bowls of polished plain redware, virtually indistinguishable from Salinas Redware. The presence of polished red ceramics on the floor suggest that the time of the last use of kiva 23 may have been as early as the 1630s.

Hayes described the earth that filled the kiva as "remarkably clean soil containing little cultural material and no wood." The kiva appeared to have been "deliberately backfilled"—the lack of charred or decayed

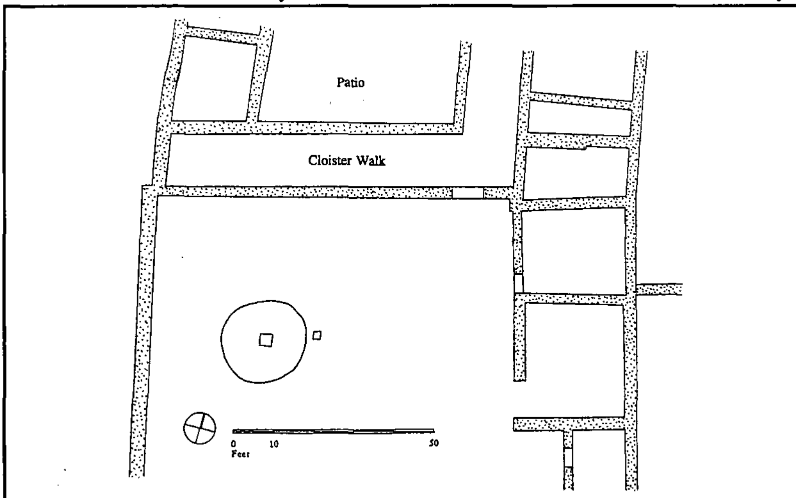

Figure 6: The Pecos Convento Kiva.

wooden beams indicates that the roof was removed to allow this. The fill contained 111 sherds, of which 24 were identifiable. The most diagnostic were several polished redware sherds, and one Tewa Polychrome sherd, again giving only a very general date for the unroofing and backfilling of the kiva.[97] The artifact evidence indicates only that the kiva was filled in the period between 1625 and perhaps the early 1700s.

Hayes' specific dating of the kiva was based on his interpretation of historical events during the post-Revolt period (1680–94) and not on the period of use of the bricks and mortar of which it was composed. More specifically, since there are no historical references to a kiva in the convento of Pecos, Hayes' dating derives from the historical assumption that the kiva was for Indian religious practices. The source of the bricks, the dates of construction and destruction, the evaluation of the dale ceramics, follow this single assumption: there is no other evidence that argues for this specific interpretation.

In the absence of any historical reference to the kiva, the reasons to suggest a different construction date than that indicated by the construction material can only come from architectural data and the artifact collection. If we look at the architectural and artifact information with no assumptions, the situation is clear: the adobe bricks and mortar demonstrate that a construction date of 1620–40 is reasonable. The artifacts on the floor of the kiva and the duration of their use implied by the construction of a replacement ventilator are consistent with the date of last use being 1640. The artifacts in the fill indicate that a reasonable date for its backfilling would be any time after 1650 or sooner, if the open hole next to the convento was filled with the earth from the cellar below room 36 (constructed about 1645).[98] In other words, the Pecos convento kiva seems to follow the same chronology seen at the Salinas missions, and therefore was apparently built in the convento yard under the supervision of the Franciscans.

Other Convento Kivas

Any one of the convento kivas discussed above might be dismissed as a peculiar circumstance or the result of confusion in the archaeological or architectural record. All of them together, however, are difficult to dismiss in this way. If the Franciscans really were using a kiva-like room for some purpose in their conventos from 1610, there should be other examples beyond those of Abó, Quarai, and Pecos. The presence of any other such examples in missions built in the period from 1610 to 1640 would argue strongly in favor of the Franciscan acceptance of a kiva-like structure in their convento as a matter of course. An examination of the available archaeological information reveals that every mission constructed between 1610 and 1640 that has received

careful archaeological investigation of its convento has been found to have a convento kiva. Unfortunately, this group includes only two additional missions, but nonethless, the kivas exist. The two missions of this period that have been excavated in any detail are Awatovi in northern Arizona and Las Humanas in Salinas Pueblo Missions National Monument.

At Awatovi, Brew excavated in the convento patio and wrote, "we turned to the garth for a possible further example [of superposition], like the kiva beneath the center of the garth at the 17th–century New Mexican mission of San Gregorio de Abó. Sure enough, in the very middle of the sacred garden was a kiva" which "might well have been in use when the Spaniards came." The kiva in the garth "had no roof *in situ* and it was filled with rubbish rather than clean sand," just like the kivas at Abó, Quarai, and Pecos. "Although this situation cannot be presented as a definitely established example of Superposition, it is quite possible to look upon the late kiva in the center of San Bernardo's garth as more than a coincidence."[99] The main enclosure of Awatovi was probably built beginning about 1633, with the kiva centered in the patio, and again the kiva probably went out of use about 1640.[100]

At Las Humanas, Gordon Vivian's kiva D seems to have similar characteristics. It was apparently built sometime after 1600 next to the first church at Las Humanas. This was the period in which Las Humanas was a visita administered from Abó. This kiva is located in the same relationship to the early church as is the kiva at Abó. Although excavation has not yet confirmed such, it appears that a wall stub extended south from the southwest corner of the convento rooms of Mound 7 towards the back wall of the apse of the church. Comparing the plan of Abó I with that of San Buenaventura, I suggests that as of 1630 the Franciscans were planning to expand the convento and tie it to the church by an additional row of rooms, forming a patio between the church and the Mound 7 convento, with the kiva in the center of the patio. In other words, rather than being an example of tolerance, kiva D may have been another example of Franciscan construction.[101]

The Visita Kiva

At other visitas established by the Franciscans in secondary or out–of–the–way pueblos, a situation similar to that at Las Humanas may have been the standard. At Giusewa, only the southern rooms of the convento have been excavated, but no investigation has been made in the area of the convento yard or possible patio. However, a kiva dating from the period when Giusewa was a visita has been found, and may be a Franciscan kiva like kiva D at Las Humanas. The Franciscans were absent from Giusewa from 1601 to perhaps 1610, during the years that the Juan de Oñate expedition was disintegrating. Beginning in 1610,

the pueblo apparently once again became a visita.[102] Between 1610 and 1621, the original simple visita church and associated rooms were modified and enlarged through the addition of a stone extension to the north end of the small stone church.[103] This enlargement at Giusewa was an unambitious change, and supports the picture of the mission as a visita at the time. The kiva immediately west of the church was built about the same time and analysis of the beams show that they were cut in 1610.[104] The location of this structure does not seem to have been in an area intended to be used by a new convento, but visita churches had the kiva located wherever convenient rather than in a possible future convento location.

Two additional examples of this sort of visita kiva are known. At San Lazaro in the Galisteo Basin, Nelson did not find any kivas by the visita church and convento, but an apparent kiva was built in the plaza of the historic pueblo.[105] Recent research by John Ware suggests that San Lazaro was a *reducción* pueblo, created by the Franciscans themselves.[106] Such a kiva would be peculiar in this sort of pueblo, unless sanctioned by, and perhaps used by, the Franciscans themselves. A similar situation can be seen at Sevilleta Pueblo.[107] Built about 1627, the visita church of San Luis Obispo de Sevilleta has an apparently late kiva located to the south. Michael Marshall and Henry Walt, however, suggest that this kiva was built after the Pueblo Revolt, and may have been the one mentioned by Governor Antonio de Otermín in 1681.[108] The visita structures of San Luis Obispo resemble those at Giusewa and San Lazaro.

Kivas and Franciscans

The archaeological evidence reviewed above indicates that there is a group of convento and visita kivas in New Mexico built between 1620–45 with the approval of and under the direction of the Franciscans. Since the Franciscans would certainly not have allowed Indian religious practices to be conducted within their conventos, the question remains: How were these rooms were used? Such a question cannot be answered because descriptions of the Pueblo vary with time and place and the perceptions of the observer.

The earliest descriptions come from members of the Francisco Vásquez de Coronado expedition, who in 1540–41 saw kivas as "estufas or hot rooms . . . which are the . . . places where they gather for conversation."[109] In the early years of conversion, some New Mexico Franciscans considered kivas to be directly associated with the Pueblo religion. For example, Fray Perea, custodian of New Mexico from 1629 to 1630, in his *Relación* described the Zuni kivas as "Temples with idols of stone, and of wood much painted."[110] Echoing Perea, Fray

Benavides, custodian of the missions from 1625 to 1629, mentioned kivas twice in his 1630 memorial, and both times referred to them as "estufas of idolatry."[111]

On the other hand, some thought of them as no more than community rooms, such as Fray Gerónimo de Zaráte Salmerón who had been a missionary in New Mexico up to 1626. He published *Account of All the Things That Have Been Seen and Learned in New Mexico* ca. 1629. In this rather strange compendium, Zaráte Salmerón mentioned that at Jemez, estufas were warm rooms "for their winters."[112] When Benavides revised his 1630 memorial in 1634, a number of similarities of phrase and story details indicate that he had read the *Account*, and apparently accepted Zaráte Salmerón's definition of an *estufa* over his own original idea. Benavides dropped all references to "estufas of idolatry," and instead described them as "the communal *estufas*." He wrote that these estufas were an "easy means of relief" against the cold of the New Mexico winters.[113]

Writing a description of New Mexico from Mexico City in 1638, Fray Juan de Prada portrayed kivas as "the ceremonial chambers of barbarous idolatries."[114] It is clear that Prada had read Benavides' 1630 memorial as the source for his ideas about New Mexico. So far as is known, Prada was never in New Mexico, and was merely echoing Benavides' first description of these structures. This mixture of Franciscan views of Pueblo religion and its relationship to the kiva remains confusing. Perea considered kivas at Zuni to be religious structures; Zaráte Salmerón thought of those at Jemez as places to get warm during the winter cold; and Benavides took both positions at different times. Ultimately, Benavides thought that kivas were communal warming houses, more a social club than a center of religious activity for the pueblos. By the late 1650s, the Franciscan attitude had returned to that expressed by members of the Coronado expedition. Franciscans viewed kivas as "estufas beneath the earth" with no other modifiers.[115]

With the advent of the *katchina* controversy in 1661, Governor Bernardo López de Mendizábal was accused of encouraging the Indians to carry out their ceremonies involving the katchina dances and masks. Fray Alonso de Posadas, newly appointed custodian of the New Mexico missions, wrote in 1661 that at Isleta "there had been. . .openly in this pueblo an. . .[estufa] or room below the ground, which was [found to be] full of idols, offerings, masks, and other things of the kind which the Indians were accustomed to use in their heathenism, and that the same condition prevailed in the rest of the pueblos."[116] Posadas said that the guardian of the mission of Isleta described this kiva as a "temple, for such they say it appears to be. "[117] This particular kiva at Isleta was submerged near the church of the convent. In fact, near the west end of the church, katchina masks were found hanging on the wall, under one of which was "a wreath of flowering grasses," assumed to be an offer-

ing to the mask. Posadas summarized the various observations of this kiva, stating that it was a house of some type or temple used for idolatrous worship.[118] Presumably, since the estufa had been "openly" present just west of the church and convento for some time, the statement indicates that the use of the "council chamber" as a temple of idolatry or as a structure directly associated with the katchina dances was the element that came as a surprise to everyone.

Fray Posadas issued a new decree of prohibition against the katchina cult in May 1661, and ordered the confiscation of all objects associated with this cult. The beginning of the "kachina wars" can be dated to this event. Posadas ordered the father secretary to take away all the paraphernalia at the kiva. He then ordered all other ministers to follow the same procedure, and it was believed "that a great quantity of objects of this kind has been collected as a result."[119] The available historical documents and the archaeological record both indicate that the active destruction of kivas only began after Posadas' realization that they frequently played some part in the forbidden katchina cult activities.

Convento Kivas and Church Chronology

Examining the list of nearly fifty pre-Revolt mission establishments in the province of New Mexico, all but five missions were founded in the period from 1610 to 1640. Therefore, virtually all of the New Mexico missions are potential candidates to have convento or visita kivas. Although the scant evidence indicates that the convento kiva was used all across the province, there is no particular reason to presume that convento kivas were used at every New Mexican mission. Some Franciscans may have preferred simply using a room in the convento as a classroom, although when compared with the rather dramatic choices made at other missions, such a decision would seem drab and judgmental.

In New Mexico, only a few missions possess the potential and correct combination of characteristics to have a convento kiva. Only fourteen mission sites are at known locations of abandoned pueblos. Of these, six are owned by public agencies and eight are privately owned. The six publicly owned missions are Abó, Quarai, and Las Humanas in Salinas Pueblo Missions National Monument, Pecos in Pecos National Historical Park, Giusewa at Jemez Springs State Park, and part of San Lazaro in the Galisteo Basin, owned by the Bureau of Land Management. The publicly owned missions have been excavated or surveyed, and all appear to have convento or visita kivas. The eight privately owned missions are Hawikuh, owned by the Zuni; San Cristóbal, Galisteo, and San Marcos in the Galisteo Basin owned by private landowners; Awatovi owned by the Hopi; Sevilleta held by the Sevilleta

Land Grant; and Tajique and Chililí, in the Salinas Basin. Of these, Awatovi has been excavated and has a convento kiva and Sevilleta has been surveyed and apparently has a visita kiva. San Marcos has been acquired by the Archaeological Conservancy but it has not been surveyed. The six abandoned and unexamined missions might eventually be used to test whether the "Convento Kiva" hypothesis is predictive, should the landowners decide to permit surveys or excavations in the future.

The convento and visita kivas apparently went out of use after 1645 because all of the missions were past the initial phases of proselytization. Missions established in the 1620s and 1630s may have kept their kivas in use until perhaps 1645, but no new ones were constructed after that year. There are a few marginal exceptions to this statement: Hawikuh and Halona were reestablished about 1642–45 after more than a decade of abandonment.[120] A new church and convento of San Buenaventura were begun in 1659 at Las Humanas, and Guadalupe at El Paso was begun in 1662. The mission at Las Humanas had been in existance for over thirty years when the construction of San Buenaventura II was begun, suggesting that the Indians there were well past the period of initial evangelization. Excavations in the patio of San Buenaventura II specifically were conducted to look for a kiva, but found that it definitely did not have one.[121] El Paso was established among the Manso, who apparently did not use kivas; the convento area of the mission is presently under the Cathedral of Juárez and is not available for excavation. However, the Zuni missions should have had convento kivas, because the first evangelical effort there was so short that it probably had little effect on Zuni society. Unfortunately, neither Hawikuh nor Halona were excavated in a manner that would have revealed a convento kiva. The excavations at Hawikuh were conducted from 1917–23, before convento kivas had been seen elsewhere. The investigators did no excavations in the patio.[122] At Halona, the excavations were carried out in 1966. Among the other areas investigated, a test pit was placed in one corner of the mission patio, but did not extend far enough from the walls to tell whether a kiva occupied the center of the patio.[123]

Conclusion

This examination of the convento kivas of New Mexico suggests that they were part of a century-old New World Franciscan effort to use innovative architectural combinations for the religious and cultural education of their neophytes. In the early sixteenth century, Franciscans used the Franciscan mosque and the atrio and open chapel for these

purposes. While in New Mexico, the Franciscans appear to have continued this tradition of architectural experimentation through the use of the convento kiva.

A careful examination of the historical record and the physical evidence produced by archaeology indicates that the Franciscans themselves encouraged the use of the convento kiva. The examples presented here suggest that during the first half of the seventeenth century in New Mexico, the Franciscans usually followed a process of careful integration and conciliation rather than dominance to enter a pueblo and acquire converts.

The most significant implication of the "convento kiva" is that the tradition of architectural innovation in mission structures, begun by Pedro de Gante in Mexico City in the sixteenth century, continued in New Mexico in the seventeenth century. It seems clear that in the sixteenth century, Franciscans began a process of architectural experimentation outside the church building, making use of the structural spaces of other religions as a means of increasing the effectiveness of their conversion methods. It is reasonable to suppose that similar experimentation occurred on other frontiers of the Spanish New World during these two centuries.

NOTES

1. Kivas are usually underground rooms, either circular or square, that have a number of uses in Pueblo society. Some are associated with the katchina dances celebrated in various pueblos, while others are clan or social group meeting rooms. They are usually called *estufas*, sweatrooms or hot rooms, in the Spanish documents; this term is frequently translated as "council chamber" in English. Ramón Gutiérrez says "The kiva . . . was the physical symbol of political society" in the pueblo; the political society of each pueblo was essentially "a theocracy." Ramón Gutiérrez, *When Jesus Came, the Corn Mothers Went Away: Marriage, Sexuality, and Power in New Mexico, 1500–1846* (Stanford, California: Stanford University Press, 1991), 22. A "convento" was the missionary residence; it was usually built against one wall of the mission church. Although the typical convento plan varied somewhat among the missionary orders and changed through time, in general it consisted of a series of residential rooms, offices, workshops, and storerooms arranged in a square around a central patio with other sheds, barns, granaries, corrals, and stables sometimes built to one side of the main convento.

2. James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions* (Santa Fe, New Mexico: National Park Service, 1988), 415–21.

3. Ele Baker, one of the excavators at Quarai in the 1930s, eventually arrived at a similar conclusion; however, he never published his interpretation.

4. Gordon Vivian, *Gran Quivira: Excavations in a 17th–Century Jumano Pueblo*, National Park Service Publications in Archeology, no. 8 (Washington, D.C.: National Park Service, 1979), 24; Lansing Bloom, "Fray Estévan de Perea's Relación," *New Mexico Historical Review* 8 (July 1933), 233.

5. Fray Alonso de Benavides, *The Memorial of Fray Alonso de Benavides, 1630*, Mrs. Edward E. Ayer, translator (Albuquerque, New Mexico: Horn and Wallace, 1965), 19. Numerous other references to convento schools are mentioned in Benavides, and in the documents pulled together by Adolph Bandelier. See Charles Wilson Hackett,

editor, *Historical Documents Relating to New Mexico, Nueva Vizcaya; and Approaches Thereto, to 1773, Collected by Adolph F. A. Bandelier and Fanny R. Bandelier*, vol. 3 (Washington, D. C.: Carnegie Institution of Washington, 1937), 109, 143, 146.

6. Katchinas are "benevolent anthropomorphic supernaturals vaguely considered ancestral [to the Pueblos] and associated with clouds and rain. They very often personify the power in objects such as the sun, earth, corn, and so forth, and bring rain and well-being to the people . . . it is these supernaturals which are personified in the masked [katchina] dances." The "katchina cult" is the activity associated with the impersonation of "katchinas" through the wearing of masks in dances held at specific times of the year at each pueblo, and is a form of supplication to these powerful entities, "with rain-making as one of its prime functions." It "crosscuts clan affiliations and serves as an integrative device within the village." Polly Schaafsma and Curtis F. Schaafsma, "Evidence for the Orgins of the Pueblo Katchina Cult As Suggested By Southwestern Rock Art," *American Antiquity* 39 (1974), 535–45.

7. John McAndrew, *The Open-Air Churches of Sixteenth-Century Mexico: Atrios, Posas, Open Chapels, and Other Studies* (Cambridge, Massachusetts: Harvard University Press, 1965), 183.

8. Ibid., 235, 390–92.

9. Saint Bede the Venerable, *A History of the English Church and People* (Baltimore, Maryland: Penguin, 1968), 86–87. McAndrew made the same point, *Open-Air Churches*, 186.

10. McAndrew, *Open-Air Churches*, 185.

11. The idea of "superposition" derives most strongly from Mexico, where the practice of building Christian churches on the sites of destroyed Mexican temples was fairly common. See McAndrew, *Open-Air Churches*, 184–86; and Ross Gordon Montgomery, Watson Smith, and John Otis Brew, *Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Establishment at a Hopi Indian Town in Northeastern Arizona*, Reports of the Awatovi Expedition, No. 3, Papers of the Peabody Museum of American Archaeology and Ethnology, vol. 36 (Cambridge, Massachusetts: Peabody Museum of American Archaeology and Ethnology, 1949), 134–36, 265–72.

12. George Kubler, *Mexican Architecture of the Sixteenth Century*, vol. 2 (New Haven, Connecticut: Yale University Press, 1948), 329. Pedro de Gante used an unusual method of teaching. He instructed his pupils in the catechism by means of Mexica pictographs. See Justino Cortés Castellanos, *El catecismo en pictogramas de Fr. Pedro de Gante*, Biblioteca Histórica Hispanoamericana 10, serie 5 Centenario (Madrid: Publicaciones de la Fundación Universitario Española, 1987). Thanks to Carroll L. Riley for this information. A similar method may be seen at Augustinian Actopán, where narratives of stories from the Bible are painted on the walls of the open chapel using Mexica graphic style and conventions and Augustinian Ixmiquilpán, where a similar method of depiction is used for wall paintings in the church. See Donna L. Pierce, "Identification of the Warriors in the Frescoes of Ixmiquilpán," *RCA Review*, 4 (October 1981), 1–8. Thanks to Donna Pierce for bringing this article to my attention.

13. McAndrew, *Open-Air Churches*, 391–92.

14. Kubler, *Mexican Architecture*, 329–30, 332–33, 466–68; McAndrew, *Open-Air Churches*, 393.

15. McAndrew, *Open-Air Churches*, 400, 416–17; Kubler, *Mexican Architecture*, 483.

16. Kubler, *Mexican Architecture*, 331, 462–63; McAndrew, *Open-Air Churches*, 411–14.

17. Kubler, *Mexican Architecture*, 454–55; McAndrew, *Open-Air Churches*, 401.

18. Kubler, *Mexican Architecture*, 329, 480.

19. McAndrew, *Open-Air Churches*, 400, 414–16; and Kubler, *Mexican Architecture*, 497.

20. McAndrew, *Open-Air Churches*, 390.

21. Ibid., 207, 211–15

22. Kubler, *Mexican Architecture*, 330–31.
23. McAndrew, *Open–Air Churches*, 237.
24. Ibid., 240.
25. Ivey, *In the Midst of a Loneliness*, 325.
26. Ivey, *In the Midst of a Loneliness*, 309; and Alden Hayes field notes, 1970, Archeological Files, Pecos National Historical Park.
27. George Kubler, *The Religious Architecture of New Mexico in the Colonial Period and Since the American Occupation*, fourth edition (Albuquerque: School of American Reseach, University of New Mexico Press, 1972), 19–20, 20 n. 22, 73 n. 12.
28. Montgomery, Smith, and Brew, *Franciscan Awatovi*, 135; and Alden Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), 32–35; John Kessell, *Kiva, Cross, and Crown: the Pecos Indians and New Mexico, 1540–1840* (Washington, D.C.: National Park Service, 1979), 239. Popularized versions of the various explanations for the convento kivas are mentioned in other publications, both scholarly and popular, that have drawn from the discussions of these authors. For example, Walter Briggs, "The Cities that Died of Fear," *New Mexico Magazine*, 51 (July/August, 1973), 19; and Watson Smith, Richard B. Woodbury, and Nathalie F.S.Woodbury, *The Excavation of Hawikuh by Frederick Webb Hodge: Report of the Hendricks–Hodge Expedition, 1917–1923*, Contributions from the Museum of the American Indian, Heye Foundation, vol. 20 (New York: Museum of the American Indian, Heye Foundation, 1966), 44. In writing about the relationship between kivas and conventos at Hawikuh, Smith echoed the ideas of Ross Montgomery: "inasmuch as it was customary for the Spanish to erect Christian altars directly above native Indian sacred places, they may have placed the altar of their church at Hawikuh above an existing kiva . . . it seems plausible to suppose that a kiva may underlie the sanctuary, although no effort was made to find it."
29. Anonymous, "Kivas Found," *El Palacio*, 40 (May–June 1936), 122.
30. Kubler, *New Mexico*, 19–20, 20 n. 22, 73 n. 12.
31. Montgomery, Smith, and Brew, *Awatovi*, 65–67, 134–37, 265–72.
32. Ibid., 136.
33. Joseph Toulouse Jr., *The Mission of San Gregorio de Abó: A Report on the Excavation and Repair of a Seventeenth–Century New Mexico Mission*, Monographs of the School of American Research, no. 13 (Albuquerque: University of New Mexico Press, 1949), 6, 11–12, 13, 21.
34. Hayes, *The Four Churches of Pecos*, 32.
35. Ibid.
36. Dan Murphy to Walter Briggs, correspondence, 6 July 1973, files of Pecos National Historical Park, file H2215, 1970–75.
37. Hayes, *The Four Churches of Pecos*, 32.
38. Ivey, *In the Midst of a Loneliness*, 37.
39. Bloom, *Perea's Relación*, 228.
40. James E. Ivey, "Pueblo and Estancia: The Spanish Presence in the Pueblo, A.D. 1600–1680," *Current Research on the Late Prehistory and Early History of New Mexico*, New Mexico Archaeological Council, Special Publication 1 (Albuquerque: New Mexico Archaeological Council, 1992), 221–22; France V. Scholes and Lansing B. Bloom, "Friar Personnel and Mission Chronology, 1598–1629," *New Mexico Historical Review* 20 (January 1945), 81; and Frederick W. Hodge, *History of Hawikuh, New Mexico* (Los Angeles, California: The Southwest Museum, 1937), 82; and Ivey, *In the Midst of a Loneliness*, 38.
41. James E. Ivey, "Another Look at Dating the Scholes Manuscript: A Research Note," *New Mexico Historical Review* 64 (October 1989), 341–48; and France V. Scholes, "Documents for the History of the New Mexican Missions in the Seventeenth Century," *New Mexico Historical Review* 4 (January 1929), 52–56.
42. Alden Hayes, Jon Nathan Young, and A. H. Warren, *Excavation of Mound 7, Gran Quivira National Monument, New Mexico*, National Park Service Publications in Archeology, no. 16 (Washington, D.C.: National Park Service, 1981), 32, 36.

43. Ivey, *In the Midst of a Loneliness*, 55, 311–12.

44. Ibid., 111.

45. Nels Nelson, *Pueblo Ruins of the Galisteo Basin, New Mexico*, Anthropological Papers of the American Museum of Natural History, vol. 15, part 1 (New York: American Museum of Natural History, 1914), 97–98; and Hayes, *Excavation of Mound 7*, 32.

46. James E. Ivey, "The Construction of New Room Blocks as a Result of Spanish Presence at Pecos Pueblo, New Mexico," unpublished manuscript.

47. Vivian, *Gran Quivira*, 44–45, 54, 110.

48. Ivey, *In the Midst of a Loneliness*, 167.

49. Hayes, et al. *Excavation of Mound 7*, 58, 61, 75.

50. Alfred Kidder, *Pecos, New Mexico: Archaeological Notes*, Papers of the Peabody Foundation for Archaeology, vol. 5 (Andover, Massachusetts: Phillips Academy, 1958), 182–215.

51. "Lost" Church is the name given by Stanley Stubbs and Bruce Ellis to the small church located on a low hill adjacent to the mesilla on which the pueblo stands. This little church is about a thousand feet northeast of the present ruined church of Pecos. Stanley Stubbs, Bruce Ellis, and Alfred Dittert, "'Lost' Pecos Church," *El Palacio* 64 (March–April 1957), 67–92.

52. Kidder, *Pecos, New Mexico*, 198; Courtney White, "Adobe Typology and Site Chronology: A Case Study from Pecos National Historical Park," *Kiva* 61 (Summer 1996), 354; and Maury Morgenstein, *Petrographic, Geochemical and X–Ray Diffraction Analysis of Adobe and Mortar Samples, Pecos National Historic Park, Pecos, New Mexico* (Boulder City, Nevada: Geosciences Management Institute, 1995).

53. Quoted in Kessell, *Kiva, Cross, and Crown*, 111.

54. Hackett, *Historical Documents*, 133, 172, 208.

55. Kessell, *Kiva, Cross, and Crown*, 121.

56. Montgomery, Smith, and Brew, *Awatovi*, 134–37, and appendix D, 265–72.

57. Ibid., 64–67, 77, and figure 22d.

58. Ibid., 66.

59. Ibid., 66, 77.

60. Ibid., 85.

61. This is not to argue that acts of superposition did not happen during the conquest of Mexico. Such activities are well documented; the evidence simply does not justify the assumption that superposition was the determining factor in the location of the church of Awatovi.

62. See, for example, Hayes, *The Four Churches of Pecos*, 32. Hayes wrote that the kiva in the convento at Pecos "may have been built during a temporary hiatus in missionary efforts during the 1600s." ; and Dan Murphy to Walter Briggs, 6 July 1973. Dan Murphy, the National Park Service archaeologist at Gran Quivira National Monument wrote, "[i]n those frontier days the priests were often absent for long periods of time. It is easy to imagine an Indian, polytheistic to begin with, 'cashing in on a good thing' by putting a kiva on ground already consecrated by another religion ." and Joseph Toulouse Jr., "San Gregorio de Abó Mission," *El Palacio* 47 (March 1940), 57. Note that this scenario requires that some portion of the pueblo remained non–Christian. This was undoubtedly the case. A percentage of the population at most pueblos rejected Christianity and remained in opposition to the Franciscans and the Spanish, although they had been nominally "converted" during the mass conversions of the first decade of the missionization; see also Benavides, 1630, 20, 24, 27, 28. Logic alone indicates that non–Christian, anti–Spanish Indians remained at all those pueblos where revolts occurred through the seventeenth century.

63. A *visita* was a mission establishment that was visited at intervals by a Franciscan permanently stationed nearby at the *cabecera*, or head mission. Scholes, "Documents," 52–56. In 1663–66, several missions had more than one Franciscan, two missions had three friars, and another seven had two.

64. James Ivey, "Another Look at Dating the Scholes Manuscript" 346; Ivey, *In the midst of a Loneliness*, 25–27; and Fray Angélico Chávez, *Origins of New Mexico Famlies: A Genealogy of the Spanish Colonial Period*, Revised Edition (Santa Fe: Museum of New Mexico Press, 1992), 71–72, 101.

65. Ivey, *In the midst of a Loneliness*, 417–18.

66. James Ivey, "'The Greatest Misfortune of All': Famine in the Province of New Mexico, 1667–1672," *Journal of the Southwest* 36 (Spring 1994), 89–90.

67. Ivey, *In the midst of a Loneliness*, 55–66.

68. Ibid., 44–46.

69. Ibid., 46.

70. William J. Robinson, John W. Hannah, and Bruce G. Harrill, *Tree–Ring Dates from New Mexico I, O, U: Central Rio Grande Area* (Tucson: University of Arizona, Laboratory of Tree–Ring Research, 1972), 88. The beams for the bell landing were cut in 1649, indicating that the bell landing could not have been built until these logs cured about 1650, and that the completion of the church was probably one or two years later.

71. Ivey, *In the midst of a Loneliness*, 72–74.

72. Ibid., 31.

73. Toulouse, *Abó*, 11, and figure 5.

74. Ramón Gutiérrez defines the *sipapu* as "the earth's navel, through which the people emerged from the underworld and through which they would return." Gutiérrez, *When Jesus Came the Corn Mothers Went Away*, 21.

75. Toulouse, *Abó*, 6, 11–12.

76. Hayes, *Mound 7*, 101. Hayes, in fact, called the two ceramic types "nearly identical." Toulouse, Hayes and A. H. Warren argued that the Salinas polished redwares were made by the same potters who made Glaze F, and that the inception date for Glaze F should be pushed back to 1625; Toulouse, *Abó*, 15 n. 87; Hayes, *Mound 7*, 99, 101–02; and A. H. Warren, "A Petrographic Study of the Pottery of Gran Quivira," in *Contributions to Gran Quivira Archeology, Gran Quivira National Monument, New Mexico*, National Park Service Publications in Archeology, no. 17 (Washington, D.C.: National Park Service, 1981), 70.

77. Toulouse, *Abó*, 21. Hayes found two sherds at Las Humanas, in a context predating 1670; Hayes, *Excavation of Mound 7*, 49, 103.

78. *Majolica* is a tin–enamelled earthenware ceramic made in Mexico and imported to Spanish sites in the Southwestern United States by the supply trains.

79. Ivey, *In the midst of a Loneliness*, 99.

80. Joseph Toulouse, "San Gregorio de Abó Mission," *El Palacio* 47 (March 1940), 57.

81. Toulouse, *Abó*, 11.

82. For example, if the kiva had been built by the Indians as a gesture of defiance against the Franciscans, then they would have excavated a hole in the patio without regard for such niceties as carrying the backdirt away—the backdirt would have been piled indiscriminately around the patio at the edges of the kiva, or dumped into the adjacent convento rooms. The first act of the friar upon returning and discovering such an act of disrespect would be to remove the roof of the kiva and shovel the dirt back into the hole. This would get the backdirt out of the way, and get rid of an embarassing episode in the history of the convento. The earth in the kiva was not the clean fill removed from the center of the patio; rather, it was midden dirt hauled in from outside the convento. This suggests that the Franciscans, not the Indians, were responsible for the construction and dismantling of the room. During construction, they would have had the earth from the original excavation hauled away and disposed of properly, probably as part of the fill of the convento platform. Later, when the kiva was no longer used, they would have partly refilled it using earth from the nearest source—the midden just outside the doors of the convento.

83. Ivey, *In the midst of a Loneliness*, 15, 111. A kiva found under the eastern part of the mission compound apparently was part of the early pueblo ruin on which the church was built. This was a round kiva under the terraced section of the second courtyard, only a few feet east of the east wall of the friary. The Franciscans built the upper retaining wall of the terraced courtyard across the center of the kiva. The limited archaeological and photographic information indicates that the kiva was in ruins and had partly collapsed some time before the Franciscans built the second courtyard terraces across it. The structure survived to only a few feet of height for most of its circumference.

84. Several very late kivas at Las Humanas, built into hidden rooms in the pueblo, are square or rectangular, but these are a response to the anti–kiva crusade of the Franciscans after 1661. Hayes, *Excavation of Mound 7*, 47–48, 61.

85. Reginald G. Fisher, map dated May 1935 in Ely, "Excavation and Repair of Quarai," *El Palacio* 39 (December 1935), 133–48; Albert Grim Ely, "The Excavation and Repair of the Quarai Mission" (M.A. Thesis, University of New Mexico, 1935), Acknowledgements and 23.

86. The excavators recovered most of a chamberpot from the kiva; the hand–written label "K–1" (kiva 1) can be seen on its side. The chamberpot is a peculiarly European object—this one was manufactured by the Indian potters for sale or trade to the European settlers or Hispanicized Indians.

87. Baker's work was recorded in "Quarai–Mission Excavated March 20, 1936. Ele and Jewel Baker," plan in the files of the Laboratory of Anthropology, LA 95, file 4, drawer 2, Museum of New Mexico, Santa Fe, New Mexico.

88. Anonymous, "Kivas Found," *El Palacio*, 40 (May–June 1936), 122.

89. Wesley R. Hurt, "The 1939–1940 Excavation Project at Quarai Pueblo and Mission Buildings," 1985, manuscript in the files of Salinas Pueblo Missions National Monument, 11–28, file K5417; and Ivey, *In the midst of a Loneliness*, 328. The ventilator shaft washed out in the late 1930s and Hurt repaired it using stone in place of the orginal adobe bricks in May, 1939.

90. Cheryl Foote, "Interview with Ele Baker, August 30, 1988," transcript in the files of Salinas Pueblo Missions National Monument, reports 7–8.

91. Hayes, *The Four Churches of Pecos*, 33.

92. Ibid.

93. Ibid., 33–34.

94. White, "Adobe Typology," 357.

95. Jeffrey Eighmy, "Archaeometric Laboratory Report, Room 36, S. Wall," 2 December 1994, in the files of Pecos National Historical Park.

96. Morgenstein, *Analysis*, 10–11, 17.

97. Hayes has suggested that the Tewa polychrome sherd in the fill indicates that the hole was "filled in post–rebellion times." Alden Hayes to James E. Ivey, written communication, 14 March 1994; Hayes, *The Four Churches of Pecos*, 34.

98. Hayes, *The Four Churches of Pecos*, 48.

99. Montgomery, Smith, and Brew, *Awatovi*, 85.

100. James E. Ivey, "This Venerable Temple," manuscript on file in the office of the History Program, Intermountain Cultural Resource Center, National Park Service, Santa Fe, New Mexico.

101. Vivian, *Excavations*, 44–45, 54, 57, and 110; and Hayes, *Excavation of Mound 7*, 58, 61.

102. Scholes, "Notes," 63.

103. James E. Ivey, "Un Templo Grandioso," manuscript on file in the office of the History Program, Intermountain Cultural Resource Center, National Park Service, Santa Fe, New Mexico.

104. Robinson, Hannah, and Harrill, *Tree–Ring Dates*, 18–19.

105. Nelson, *Pueblo Ruins*, 97 and Plan 6.

106. John Ware to James E. Ivey, personal communication, 23 April 1996.

107. Michael P. Marshall and Henry J. Walt, *Rio Abajo: Prehistory and History of a Rio Grande Province* (Santa Fe, New Mexico: New Mexico Historic Preservation Program, 1984), 203.

108. Marshall and Walt, *Rio Abajo*, 205; Charles W. Hackett and Charmion C. Shelby, *Revolt of the Pueblo Indians of New Mexico and Otermín'0s Attempted Reconquest, 1680–1682* vol. 2 (Albuquerque: University of New Mexico Press, 1941), 129.

109. Quoted in Benavides, *1630*, 260–61, n.40.

110. Bloom, *Perea's Relación*, 228.

111. Benavides, *1630*, 34, 66; in Benavides's original text this is *"estufas de idolatria . . . ,"* *Memorial of 1630*, 123, 170.

112. Fray Gerónimo de Zaráte Salmerón, *Relaciones*, Alicia Ronstadt Milich, translator (Albuquerque, New Mexico: Horn and Wallace, 1966), 92–93.

113. Fray Alonso de Benavides, *Fray Alonso de Benavides' Revised Memorial of 1634; With Numerous Supplementary Documents, Elaborately Annotated*, Frederick Webb Hodge, George P. Hammond, and Agapito Rey, translators and annotators (Albuquerque: University of New Mexico Press, 1945), 38, 97.

114. Hackett, *Historical Documents*, 108–09.

115. Ibid., 134, 152, 158, 165, 166, 177, 178, 179, 209, 222.

116. Ibid., 166.

117. Ibid., 166, 179, 209.

118. Ibid., 179, 209.

119. Ibid., 166–67.

120. Ivey, "Another Look," 343, 346; and Scholes, "Documents," 244–45.

121. Charles Voll and Roland Richert, "Archeological Tests in San Buenaventura de los Jumanos, Gran Quivira National Monument, New Mexico," manuscript in bound volume at Salinas Pueblo Missions National Monument, New Mexico.

122. Smith, Woodbury, and Woodbury, *Hawikuh*, 118.

123. Louis R. Caywood, *The Restored Mission of Nuestra Señora de Guadalupe de Zuni, Zuni, New Mexico* (St. Michaels, Arizona: St. Michael's Press, 1972), fig. 2.