

# THE SPANISH COLONIAL ARCHITECTURE OF PECOS PUEBLO, NEW MEXICO

Archaeological Excavations and Architectural History  
of the Spanish Colonial Churches and Related Buildings  
at Pecos National Historical Park,  
1617-1995

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"Contrary to the information given to me by architects and a student of historical church architecture, the fortified church was not uncommon in the New World. It was almost without exception the only type constructed during the 16th century in New Spain. . . . However, so far as is presently known, the type is exemplified in New Mexico only by the Pecos structure and the building remains unique in all respects."

Jean Pinkley, "Monthly Report, Pecos Archeological Project, February 1968," March 5, 1968

"At the beginning of the 1968 field season, no two people in the Park Service agreed on the best approach to what is now called the 'Pecos problem' instead of the Pecos project."

Gary Matlock, Park Archeologist, Pecos National Monument, in Larry Nordby, Gary Matlock, and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," 1975, p. 10



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## FOREWORD

Working for the last several years on the archeological and structural histories of Pecos National Historical Park, I was frequently reminded of the cartoon that shows a rather scruffy individual lounging in the kitchen, smoking a cigar and eating leftovers, while in the living room a husband says to his wife: "*My* uncle? But I thought he was *your* uncle!"

The ruins of the Pecos pueblo and mission are perhaps the most significant single prehistoric and historical site in the southwest, because of its long prehistorical and historical record, and because it was the focus of breakthrough archeological investigations by Alfred Kidder in 1915-1929. And yet, in spite of, or perhaps *because* of this great significance, Pecos is without a doubt the most mistreated surviving archeological site in the southwest. To a very real extent, most of the investigators who worked there thought Pecos was someone else's uncle; that because Pecos was so significant, someone else had done all the important excavations or research, and they were just cleaning up the place for public viewing. The story of the Pecos excavations occupies a large portion of this study. I have no wish to blacken the reputations of sincere, respectable researchers who ran aground on the unexpected reef of Pecos; but in order to inform readers, both within the Park Service and outside it, of what we *know* about Pecos, I must look rather closely at the errors of those who worked there. I have tried to be sympathetic, I have tried to define clearly the circumstances that led the thinking of these people astray, and I have tried to attain the same compassionate inspection of the record that I am sure each of us would hope for, when we think of our own shortcomings and incomplete work still sitting on a back shelf.

Probably the most influential circumstance contributing to the confusion of the excavators at Pecos is the site itself. Pecos should undoubtedly be scored as the most difficult Spanish colonial site ever excavated in the American southwest. This difficulty derives from two factors: 1) the mission is of adobe construction and much of the adobe brick was made using the midden of the pueblo as the source of the earth, so that as it decayed and collapsed, it formed new strata of fill with fragments of ceramics, charcoal, bone and other cultural material against the surviving walls, making it difficult for the unwary excavator to tell the difference between layers of occupation debris and layers of dissolution debris, even in areas that had already been excavated before; and 2) the mission was used from 1620 to the 1830s almost continuously, with at least one major destruction and rebuilding, and any number of remodellings, all stacked like a layer cake (or better, swirled like a marbled cake), producing an incredible tangle of foundations, walls, and floors of various ages cutting through each other. Looking at photographs of the convento made in the 1880s and early 1900s, before any excavation, we can see the same innocuous-looking, smoothly-rounded bumps and hummocks of the partly collapsed church and the convento ruins that the excavators saw, giving no hint that the low hill upon which it appeared to be built was actually the ruins of earlier convento buildings, extending in some places nine or ten feet into the earth.

Contributing to the confusion of the excavators working at Pecos was the simple fact that, with the exception of San Bernardo de Awatovi and perhaps Purísima Concepción de Hawikuh, *no* mission in the American southwest has ever been completely excavated in a manner that

would meet even the lowest standards of modern archaeology.<sup>1</sup> Most, in fact, were emptied of fill as quickly as possible in the 1930s, with the concomitant destruction of the vast majority of information about its construction and use. There were reasons for this approach – the strongest was the conviction that the historical record contained everything we needed to know about a site. Archaeology was not seen as a research device that could be used to discover unknown aspects of the history of a place; it was instead considered a tool to prepare a site to be displayed to the public and to collect museum pieces and artifacts for that display. When the excavators emptied a room a day in the 1930s, they believed that the important research had already been done, and they were just cleaning up the site.

When an archeologist working on the Spanish colonial southwest wishes to examine the results of other mission archaeology, he or she looks at the Awatovi Report, the Hawikuh report, and perhaps Toulouse's brief summary report of his work at Abó. It should be recalled that neither the Awatovi nor the Hawikuh reports include analysis of Spanish artifact material found at the site, including large quantities of burned cabinetry, retablo, and structural wood from Hawikuh. Bill Witkind, working at Pecos in the late 1930s, could visit other mission excavations in New Mexico and Arizona, if he could afford the time and the travel, but he would have seen work that was, in most cases, worse than his own efforts. Only if he traveled to the Hopi country in northeastern Arizona would he have seen the excellent investigations underway at Awatovi; but the report on this work would not be available for another ten years. Jean Pinkley, excavating the Pecos convento in the 1960s, was little better off; she could examine the excavated stone ruins of Abó, Quarai, Gran Quivira, and Giusewa, but she couldn't review published monographs containing careful discussion and examples of the proper methods of excavating, recording, and reporting such sites.<sup>2</sup>

More disturbing is the fact that we still cannot do so today. Although a number of missions all across the Spanish United States, from Georgia and Florida to California, have seen excavation since the 1930s, virtually none have been completely excavated and the results presented to the public as a report or a series of reports. The single exception I know of is the work of Gary Shapiro, Richard Vernon, and Bonnie McEwan at San Luis de Talimali, in Tallahassee, Florida.

Such a legacy, or the absence of it, makes the study of the architecture and material culture of the Spanish mission considerably more difficult than the student new to this area might expect. The situation indicates that a good deal of what is generally thought to be the basic

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<sup>1</sup>Ross Gordon Montgomery, Watson Smith, and John Otis Brew, *Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Established at a Hopi Indian Town in Northeastern Arizona*, vol. 36, *Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University (Cambridge: Peabody Museum, 1949); 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*, vol. 20, *Contribution from the Museum of the American Indian* (New York: Heye Foundation, 1966). Since the 1930s, a number of small excavations have been conducted at a number of missions in Texas, Arizona and California that do meet accepted archeological standards, but none of these were a substantive examination of a mission as a whole; all were essentially test excavations intended to answer some specific question about a small part of a given mission. Missions are just too large for the average excavator to be able to investigate the entire site.

<sup>2</sup>Except, again, the Awatovi report, which she never mentions having seen.

knowledge of mission construction and operation is founded on little more than guesses and traditionally accepted assumptions, rather than on ascertained fact. Indeed, whenever some question about mission life or methods is pursued beyond the few brief secondary sources available, the student quickly realizes that this is an unknown area of enquiry. After several such pursuits, the wise student accepts that perhaps half (or more) of what we thought we knew about missions in the southwest is either conjectural or only a special case within some broader range of activity.

What is to be done about this? Clearly, rather than continuing to repeat the opinions of the great first investigators into the mission world of the southwest, it is time for us to move on to new investigations, the collection of new data, and new thinking about the old data. Obviously, the thorough and exacting excavation of a mission, using acceptable methods and complete analysis, is of high priority. But such an excavation would be expensive and time-consuming, costing several million dollars and requiring at least ten years (if not twice that) from the first remote sensing examination to the final publication. Time and money in this quantity are usually made available only for investigations that would be considered of "wider" interest; that is, they would take place in another country, examining a site of some better-known civilization, with much more spectacular architectural and material cultural remains. It should be unnecessary to point this out, but until we have a better understanding of our own cultural history, we are in a poor position to understand the cultural history of others; therefore, the excavation and understanding of American cultural sites should be seen as at least as important as the romantic sites of other lands.<sup>3</sup>

Until this revolution in thinking and funding occurs, however, we can pursue other routes to knowledge. Most of the missions excavated in the 1920s, 1930s, and 1940s (and 1950s, 1960s and 1970s, for that matter) have an untouched mass of field notes, photographs, and artifact material that should be reexamined, or examined for the first time, and reported upon. The limited Cultural Resources Management excavations (what used to be called "salvage archaeology") of the last quarter of the twentieth century need to be reexamined in terms of broader research questions than were the concern at the time the work was published. The Spanish cultural material from Awatovi and Hawikuh sit in their collections, virtually unknown. As part of such a reexamination of the results of work at southwestern missions, in the 1980s I wrote structural histories of the missions of San Antonio, Texas, and the Salinas missions of New Mexico.<sup>4</sup> A similar approach has served as the foundation for the present reappraisal of Pecos.

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<sup>3</sup>This study (and most others in the Southwest) assumes that those areas of the United States that began as Spanish colonies are as much a part of our national heritage as those that began as English, Dutch, French, or Russian settlements. Unfortunately, such an approach is not generally accepted among the "Original Thirteen Colonies" of the eastern seaboard. Curiously, though, the entire east coast of the United States south of the James River was also first settled as a Spanish colony.

<sup>4</sup>James E. Ivey, "Of Various Magnificence: The Architectural History of the San Antonio Missions in the Colonial Period and the Nineteenth Century," in the files of San Antonio Missions National Historical Park, San Antonio, Texas, 1993; James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, *Southwest Cultural Resources Center, Professional Papers* (Santa Fe: National Park Service, 1988).

### The Pecos Project

My own involvement with Pecos began in 1988, when I began comparing the descriptions of Fray Francisco Dominguez to the plans of various conventos in New Mexico. This produced such interesting results as the demonstration that the plan of the convento at Halona (the present Zuñi) as it existed in 1776 was virtually identical to the convento at Hawikuh, destroyed in 1672, indicating that both were probably designed and built by the same Franciscan in the 1640s. When I began working out the plan of Pecos according to Dominguez, it was immediately apparent that something was wrong: whereas at other mission conventos Dominguez's description is clear, straightforward, and fits the physical remains with no particular ambiguity, at Pecos there was no obvious connection between the description and the plan found by archaeology. I presented a paper at the Pecos Sesquicentennial Commemoration Symposium at Pecos, August 6, 1988,<sup>5</sup> where I outlined the Pecos plan as it was described by Dominguez, and compared it to the plan present on the ground. My conclusion was that the eighteenth-century plan of the Pecos convento had been completely destroyed by time and archaeology, and was essentially unknown to the Park Service today. If it could be retrieved at all, the evidence for the eighteenth-century plan of Pecos as Dominguez saw it might be found hidden in the archeological records dealing with the site. After an intense period of research, I am happy to say that I was indeed able to find the plan of the eighteenth-century mission in the archaeological notes and documents of Pecos.

Much of the field work at Pecos has never been published or discussed in detail anywhere, which required that I had to work up what amounted to preliminary or summary reports on the work of each investigator before I could make use of their observations to reach conclusions about the history of construction and use of the mission buildings. The amount of information that could be squeezed from the old journals and pictures was astonishing, and the amount of confusion about the earlier excavations shown in later work was equally astonishing. Of all of these people, I think that Bill Witkind's work has been the most critical and the most rewarding to bring out of the darkness. Reading his journal, I acquired a real liking for Bill, and I suspect that had the war not intervened, he would have written a report on his work at Pecos at least the equal of Joe Toulouse's report on Abó. I considered Jean Pinkley's criticisms of Witkind's work to be gratuitous and based on a complete misunderstanding of both what he did, and the limits placed by the WPA on what he was allowed to do. Witkind clearly recognized the research value of archaeology, and tried to meet both the hurry-up stabilization schedule of the state of New Mexico, and the appropriate level of recording of what he was finding. I think that Witkind was quite aware of the implications of what he was seeing. He recognized that the layers and levels of construction and reconstruction of the convento went physically far deeper than he was allowed to look, and unlike Pinkley, he saw the depth of time and change in these rooms, as well. Had he been able to write a final report, much of this awareness and understanding would have been available for future archaeology, and Pinkley would not have been left in the quandary she found herself in. I think that Witkind was on the edge of

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<sup>5</sup>Pecos Sesquicentennial Commemoration Symposium, August 6-7, 1988; see Acting Superintendent Ken Mabery to James Ivey, February 16, 1988, and Superintendent Linda Stoll to James Ivey, August 11, 1988, manuscripts in the files of Pecos National Historical Park, Pecos, New Mexico.

recognizing the outline of the pre-Revolt church when the Pecos project was shut down at the end of 1940 – he had found the edges of the building in several places, and had he had another month of fieldwork, I think he would have realized what it was, and worked out its outline. But World War II stopped all this, and Witkind was never able to return to the Pecos Problem.

Jean Pinkley, in spite of her tendency to blame Bill Witkind for all her troubles (and in a real sense, he *was* responsible for them) did far better than has been recognized in the back halls of the National Park Service, when her untimely death left the final job of writing up her field work undone. The insiders considered her lack of recording her field-work to be a failure, requiring a cover-up. In reality, her work, although lacking in a number of ways, was quite good enough for what it was intended to do – the majority of the failure was in Management’s planning, and the expectation that most of the work had already been done, leaving her mostly with clean-up and stabilization. Without a full understanding of Witkind’s work, and what its limitations were, the planning for Pinkley’s Pecos project was inevitably based on a misunderstanding of the situation at Pecos. Without a detailed description of Witkind’s work, and its results, it would have been extremely difficult to write a full report, and Pinkley and her supervisors would eventually have had to settle for a description of only the work she did, with only a brief summary of Witkind’s work. Pinkley inherited the Pecos Problem from Witkind, and did not have the chance to fight it to a conclusion. She was determined enough to find a way to do this, had she been given the chance.

This present study of the architectural history of the Spanish colonial buildings at Pecos has taken an unusually long time to complete. It officially started in 1993.<sup>6</sup> At the same time, however, it was becoming obvious that the fabric research by Todd Metzger and Courtney White seemed to be producing important new information about the structural history of the mission buildings, and by 1994 the park decided that the writing of the structural history should wait until this fieldwork was done. I helped Courtney White with much of the fieldwork and interpretation during this analysis in 1992-1995. The fabric analysis was completed in 1995, and the first draft of this structural history was submitted to the park in December, 1997. Unavoidable “additional duties as assigned” has prevented the review and finalization of that manuscript until now.

Finally, the work at Pecos over the years is a long parable on research methods in the ground, in the interpretation of what was being seen in the ground, and in the historical record. The Pecos Project (and Problem) should, among all its other attributes, serve as a heuristic example for archaeologists and historians: prior assumptions will lead you astray. Not until John Kessell began to find the real history of Pecos in the small details of the historical records, and Todd Metzger and Courtney White began to find the real record of construction in the finest details of grain size and trace elements, in both cases without trying to force the facts to fit the already (supposedly) known “truth” about Pecos, did we actually begin to understand what happened there. The most basic of research rules is illustrated by the Pecos Problem: let the interpretation of the research results form the conclusions, not the other way around.

Here is an appropriate place to state some conventions followed in this book. First, when I use Spanish terms, I will italicize them at the first use and define them, but subsequent uses will

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<sup>6</sup>“Task Directive, Historic Structure Report, Pecos National Historical Park, Pecos, New Mexico,” June 18, 1993, in the files of Pecos National Historical Park.

be neither italicized nor defined. Second, most of the primary documentation for this study has been xeroxed and bound, and is on file in the collections of Pecos National Historical Park. Third, I call the church and convento at Pecos a mission, even though there has been some criticism of the use of this term for pre-Revolt New Mexico Franciscan stations. William Broughton, in an article in the *New Mexico Historical Review* published in January, 1993, criticized historians of colonial New Mexico because they used the term “mission” in referring to the Franciscan evangelical establishments in the province. Broughton said “the mission as an institution has a very specific meaning in colonial Latin America and its attributes, especially that of ‘reducing’ an indigenous population for the purposes of proselytizing, indoctrination, and instruction, simply do not apply to the New Mexican situation in the seventeenth century.” He adds that the term *misión* or *misionario* never appear in the documents used by France Scholes for his interpretation of the history of New Mexico – instead, the documents refer to the missions as *doctrinas* and their ministers as *doctrineros*. It was a mistake, Broughton said, for Scholes to use the equivalent English terms, mission and missionary.<sup>7</sup>

Broughton was correct: it is clear that after the 1630s the missions of New Mexico were *doctrinas* and the missionaries were *doctrineros*. Essentially, if a native people already lived in villages and carried out agriculture, they qualified to be under the direction of a *doctrinero*, who would minister only to their spiritual training, rather than both their spiritual and temporal training, where temporal training was concerned with the daily practices of living in towns, conducting daily life in a village, and managing agricultural fields. However, the Franciscans of New Mexico found that they could not entirely abrogate the temporal training usual in a *conversión* as opposed to a *doctrina*, because the Pueblo Indians did not farm in the European manner and needed training in that, did not have the usual range of European skills and needed instruction in those, had no experience in managing herds of livestock and had to be taught how to do that. As a result, New Mexico missions were a hybrid of a mixture of *conversión* and *doctrina* administration practices.<sup>8</sup> Broughton overlooks the use of the term in its most generic sense, that the Franciscans were carrying out their “mission” of evangelization at the establishments. These Franciscan training stations can legitimately be called by the name “mission” because that is what they were, with the stipulation that the New Mexico missions in the seventeenth century fell in the management category called “doctrina,” with a lot of “conversión” characteristics still in effect at most of them. For the sake of simplicity, I will continue the use of the terms “mission” and “missionary” as convenient and familiar English terms that are the generic identifiers for these evangelical centers.

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<sup>7</sup>William Broughton, “The History of Seventeenth-Century New Mexico: Is It Time for New Interpretations?” *New Mexico Historical Review*, 68(January, 1993)1:11.

<sup>8</sup>For a more detailed discussion of the missionization system and the various levels of development of a mission, especially the difference between the *misión*, *reducción*, *conversión*, and *doctrina*, see Daniel S. Matson and Bernard L. Fontana, "Introduction to the Bringas Report: A Microcosm of Indoctrination," in *Friar Bringas Reports to the King* (Tucson: University of Arizona Press, 1977), pp. 17-19; James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, *Southwest Cultural Resources Center, Professional Papers* (Santa Fe: National Park Service, 1988), pp. 24 n. 46, 33; James E. Ivey, “Secularization in California and Texas,” *Boletín: The Journal of the California Mission Studies Association* 20(2003)1:23-36.

Broughton's implication that the term *reducción*, a mission village formed by the consolidation of several Indian villages into one, was inappropriate for New Mexico is not correct. There are a number of specific statements to the effect that the Pueblo Indians in some areas were reduced from numerous villages to only a few or only one, where the mission was established. It was not the usual way missionization business was carried out in New Mexico, but it certainly happened in several cases.

The historiography and historical archaeology of Pecos, carried out by investigators from Adolph Bandelier to Genevieve Head, sought an understanding of the story of Pecos and the complex sequence of structural change in this nearly four-hundred-year-old group of buildings. Ultimately, a century after Bandelier first speculated on the age and plan of the church, convento, and other Spanish buildings at Pecos, we have finally begun to achieve this understanding. This report will summarize those years of work, and the conclusions to be reached from them.

## Acknowledgments

For a project that has lasted as long as this one, acknowledgments can be both difficult and painful. I owe a great debt to both Al Hayes and Tom Giles, the first superintendent of Pecos, for their open discussions of the difficult days of the Jean Pinkley excavation and the Hayes work that followed it, and regret that both these men died before the project could be completed.

Fortunately, most others who are in one way or another culpable for this study still live. I believe the single most powerful influence and guiding intelligence behind this study was that of Joseph Courtney White, who took the suggestions about possible avenues of research suggested by his mentor, Todd Metzger, and ran completely out of sight with them, creating a whole new methodological approach to archaeological architectural analysis. It is far understating the case to say I couldn't have done this without him. On the other hand, it's largely his fault this work has taken so long. Well, partly his fault.

Close tie for second place goes to Ann Rasor, the Chief Ranger at Pecos during the years Metzger and White were peeling off stabilization adobes all over the convento, and Robert (Hans) Lentz. Ann put up with us, and even encouraged us. Her constant support and patience kept the study going. Finally she had to escape the crazed goings-on to become Superintendent at Tumacácori, where she once again has had to put up with both White and Ivey as we did the research for a Historic Structure Report there. There's a lesson in that somewhere, something about karma.

Robert "Hans" Lentz's careful, detailed observations of the structural remains of the ruined convento at Pecos under Pinkley and Hayes (but unappreciated at the time) laid the groundwork that gave White and me the evidence we needed to make sense of the results of the brick analysis we conducted at Pecos in 1992-1995. Robert himself worked as a volunteer at the park for years after the Pinkley and Hayes excavations, and has since become a well known and respected iconic artist, living at the Franciscan friary of St. Michaels in Arizona, about halfway between Awatovi and Hawikuh. Again, I have to say that I could not have written this without him. I hope that those who read this study emerge with as great a respect for his skills of eye and mind as I have.

Genevieve Head directed the cultural resources inventory of Pecos National Historical Park in the 1990s, and freely shared the results of this survey as they came in. A number of essential points in my study depend on her work.

Fran Levine, now the Director of the Governor's Palace, has spent as much time looking at and researching Pecos as I have, if not more. Her work on the Pecos Indian community was invaluable for coming to terms with the mission in the eighteenth century.

Larry Nordby and the late Bill Creutz carried out research on several of the structures of Pecos, including the South Pueblo and the Square Ruin. Their notes and reports gave me information to help with the determination of the place of these structures in the sequence of development of the buildings at Pecos, without which this could not have been done. Catherine Colby and Miriam Stacy carried out an analysis of the Kozlowski stage stop buildings, and found the critical evidence for the reuse of bricks from the convento of Pecos in these buildings.

At the Laboratory of Anthropology, Willow Powers made the archival collection available to me and helped me find some of the correspondence between A.V. Kidder, Stanley Stubbs, and Bruce Ellis, and Lou Haecker showed me a number of Kidder's plans and drawings in the Laboratory files.

Dave Snow treated me to reminiscences of his visits to Pecos while Jean Pinkley was conducting her excavations there, and helped me understand the methodology of Jean's work.

As always, thanks to the Luneros, and especially Dedie Snow, for advice, criticism, comments, and more criticism, all when it was most needed.

Rosemary Nusbaum's memories of her father, Jesse Nusbaum, and her encyclopedic knowledge of his activities and projects, allowed me to work out a number of questions about Jesse's 1915 work at Pecos. Max Witkind's recollections of his father were helpful for understanding Bill Witkind's approach to the archaeology at Pecos. Max was also involved with the beginning of Pinkley's Pecos Project, and helped his mother, Beverly Witkind Young (who died at the age of 90 in May of 2004), collect the information and photographs that she supplied to Pinkley. Max almost became a crew member on the excavation, but Pinkley decided that money was too short, and stayed with only her Park Service crew. I was able to interview Marjorie F. Lambert several times during the process of conducting the research for this study. Her recollections about her brief period of work on South Pueblo, and her reminiscences about the other archaeologists involved in that project and in the other WPA projects across the state were of great help for understanding how these projects were managed, and especially the nature of the rules within which they were conducted. Gary Matlock's frank and humorous discussion of his years as archaeologist for Pecos was a window into the period immediately after the completion of the archaeology on the churches and convento. He was kind enough to allow Courtney White to grill him on a number of questions raised by what he had written in his room histories, "A Stabilization History of Pecos National Monument: 1974 and Before," on a visit to the park in 1995, and gave us his sympathy and understanding as another one of the small band of brothers and sisters who have been caught in the entanglements of the Pecos Problem.

Tom Windes stoically spent long hours collecting archaeomagnetic samples for us, as well as corings of virtually every piece of wood in the park. The dates from his samples served as an armature around which the hypotheses about the buildings of Pecos had to fit. He kept us as honest as it was possible to be in such a huge mass of information and possibility.

Judy Reed worked with me on the excavations at Abó in the 1980s, and went on to become the Chief of Resources at Pecos. She has borne the burden of dealing with this project for the last several years, and deserves a lot of the credit for getting it finished.

Todd Dulyea drew many of the final base maps and plans from my original rough drawings. These base maps and plans allowed me to produce the many variations on his diagrams used here to illustrate the complex story of Pecos.

Melody Webb, Neil Mangum, Art Gomez, and Bob Spude have been my supervisors at various stages of the research, fieldwork, and writing of this study. Their constant support has kept it as much on track as it has managed to be. Linda Stoll, Duane Alire, and Dennis Ditmanson, superintendents at Pecos National Historical Park during the progress of this report, have been unfailingly supportive as well.

And last, and always, thanks to my wife, Lee Goodwin, historical researcher and editor beyond compare, who put up with me through much of the research and writing for this project, and without whom it wouldn't have been anywhere near as interesting.

## Abbreviations used in this study:

Governor's Palace, Photographic Collection, Museum of New Mexico . . . . .	MNM
Museum of New Mexico, Laboratory of Anthropology, Archaeological Site Files . . . . .	LA
Pecos National Historical Park, Photographic Collections and Manuscript Files . . . . .	PNHP
National Archives and Records Center, Fort Worth Branch, National Park Service, Pecos National Monument Records . . . . .	NARC
Files of the National Park Service, Southwest Regional Office, Santa Fe . . . . .	SWRO
Southwest Archaeological Center, Globe, Arizona . . . . .	SWAC

The majority of the government records collected at the National Archives and Records Center in Fort Worth, the Southwest Regional Office files in Santa Fe, and the files of Pecos National Monument were assembled into a series of bound volumes of collected notes and correspondence as part of this research project, and placed in the collection of Pecos National Historical Park to serve as convenient reference volumes for this study.



PART I  
PECOS NATIONAL HISTORICAL PARK:  
A BRIEF ADMINISTRATIVE HISTORY



## Chapter One The Creation of Pecos National Monument

### Private Property and State Monument, 1300-1960

About 1300 the Pecos Indians began construction of a pueblo on the mesa top near present-day Pecos, New Mexico. At the beginning of the fourteenth century, anthropologists suspect, an increase in raids by Plains Indian prompted the Pecos Indians to look for a more defensible location than the low-lying, open pueblos where they had been living, such as the Forked Lightning Ruin half a mile south of Pecos Pueblo. They selected the present flat-topped but easily defended mesa for their new site.

For the next century and a half, the Pecos built random clusters of buildings. Relations with the Plains people to the east worsened, and by 1400 most of the families in the Pecos Valley had collected on the mesa. About 1450 the Pecos decided to build a "single, defensible, multi-storied apartment building,"<sup>1</sup> forming a large, enclosed square on the highest point of the mesilla.

By 1540, when the first Spanish explorers came to the pueblo, Pecos had a population of perhaps 2,000 people within its walls. It was rich by the standards of the pueblo cultures of the southwest, thriving on a strong and dependable trade between the Pueblo people and the Plains Indians. The Spaniards, under the command of Captain Hernando de Alvarado, were a detachment from the expedition of Governor Francisco Vázquez de Coronado, looking for legendary golden cities somewhere in this northern country. Coronado had arrived in New Mexico earlier in the year, and had sent Alvarado to Pecos after meeting with a delegation of Indians from the pueblo. Alvarado recognized Pecos as one of the most powerful of the cities in the area, and one of the most impressive. The Spaniards' demands for supplies from the Indians of Pecos soon resulted in hostilities. Eventually, after fights at Pecos and other pueblos, in 1542 the expedition returned south, leaving the pueblo world to rebuild, restock, and wonder when these warlike people would return.

For 40 years afterwards, the Pecos saw no more Spanish, but in 1581 the invaders came again. The expedition of Fray Agustín Rodríguez and the soldier Francisco Sánchez Chamuscado arrived in the Rio Grande valley in the middle of the year. The Franciscan was interested in bringing the Catholic religion to the Pueblo Indians, while the soldier hoped to find the source of the legends of golden cities. In late 1581 the expedition passed near a pueblo that was probably Pecos, but made no demands on it. In 1582 most of the expedition returned south, leaving the Franciscans in New Mexico.

Late in 1582 a second expedition set out for New Mexico to check on the circumstances of the Franciscans left by Chamuscado. The expedition, under the command of Antonio de Espejo and accompanied by Fray Bernardino Beltran, arrived in the Pueblo area in early January, 1583. They learned that Pueblo Indians along the Rio Grande had killed the Franciscans left there in 1582. Espejo began a wide-ranging exploration of the area and eventually arrived at Pecos, where he successfully demanded supplies from the inhabitants. Finally, late in 1583,

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<sup>1</sup>John L. Kessel, *Kiva, Cross and Crown: The Pecos Indians and New Mexico, 1540-1840* (Washington, D. C.: National Park Service, U. S. Department of the Interior, 1979), pp. 10-12.

Espejo left the Pueblos for New Spain, determined to lead a colonizing expedition back to New Mexico. As it happened, however, Espejo died before he could return and Don Gaspar Castaño de Sosa made the first attempt at settlement.

Sosa's expedition arrived at Pecos on the last day of 1590. After several conflicts with Pecos and some exploration of the country, Sosa was arrested by a detachment of soldiers. He and his colonists were taken back to New Spain.<sup>2</sup>

Spanish colonists did not return to the northern Rio Grande until 1598, under the command of Juan de Oñate y Salazar. With the establishment of the colony of New Mexico on the northern Rio Grande in 1598, the Spanish presence in the Pueblo world became permanent.

Contact with the Spanish eroded Pecos society. The Indians were ground between the two stones of civil government and the Franciscan missionary system in the church-state conflicts of the 17th century. The stresses eventually led to the Pueblo Revolt of 1680, in which the Pecos Indians took part. The reconquest of New Mexico, lead by Diego de Vargas, began in 1692. Eventually he reestablished Spanish rule over all the pueblos. Pecos surrendered to de Vargas in September, 1692.

During the following century the grindstones were land-hungry Spanish from the Rio Grande Valley and disease. Pecos became a visita of Santa Fe in 1782, and by 1790 only 154 people still lived in the pueblo. By 1838 there were not enough Pecos left to keep the walls standing and the fields plowed. The surviving families elected to abandon the pueblo and move to join their linguistic kin at Jemez.

After their departure, the land the Pecos had left behind became even more attractive to Spanish settlers. Later, after the American conquest in 1848, the land aroused the interest of Anglo-American entrepreneurs. The Spanish simply settled on the land they needed, trusting (correctly, as it turned out) that fate would allow them to keep it. The Anglos wanted more from the land, such as the abstract concept of "profit." They required signed deeds from the Pecos to the settlers, which did not exist.<sup>3</sup>

In 1868 the Pecos Indians sold one quarter of the grant to John N. Ward and in 1872 the remaining three-quarters to Frank Chapman. A year later Chapman purchased the last quarter from Ward. There followed a period of 25 years of legal battles, claims and counter-claims between technically legal owners and prior settlers, and multiple transfers of the title among land speculators. In 1898, John Laub, then the current owner, sold the Pecos Grant to Henry W. Kelly.<sup>4</sup> Twenty years later, Kelly transferred the title to Gross, Kelly and Company, in which he

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<sup>2</sup>Kessel, *Kiva, Cross and Crown*, pp. 3-9, 12-25, 37-43, 45-61.

<sup>3</sup>See G. Emlen Hall, *Four Leagues of Pecos: A Legal History of the Pecos Grant, 1800-1933* (Albuquerque: University of New Mexico Press, 1984), and Kessel, *Kiva, Cross and Crown*, for a complete discussion of the later history of the Pecos Indians and the squabble over their land.

<sup>4</sup>Hall, *Four Leagues of Pecos*, p. 93, 105-06, 200.

was a partner.<sup>5</sup> A year later in 1919, after further litigation, Gross, Kelly and Company received a confirmed title to the southern two-thirds of the grant.<sup>6</sup>

In the meantime, interest in the archeological potential of the pueblo and church had been growing. In 1880, Adolph Bandelier, the polyglot, hyperactive Swiss-American anthropologist, put the ruined pueblo on the archeological map with a detailed surface survey and historical investigation. Other surveys followed, most notably those of Edgar L. Hewett in 1904 and Alfred V. Kidder in 1910.<sup>7</sup>

Based on the results of the earlier surveys, in the summer of 1915 Kidder began excavation on the pueblo with the permission of Gross, Kelly and Company. He conducted excavations at Pecos until 1929 under the sponsorship of the Phillips Academy of Andover, Massachusetts. Ultimately Kidder excavated nearly thirty percent of the North Pueblo, and made himself a name as the leading archeologist of the American Southwest. After completing each area of excavation, Kidder backfilled the empty pueblo rooms.

During the 1915 season, Jesse L. Nusbaum, the famous archaeologist and photographer of the Museum of New Mexico, cleaned out the ruins of the church and stabilized the walls as best he could. Once Nusbaum completed this work, the church received no further maintenance until the late 1930s.

Public interest in the ruins and their importance in terms of both archeology and history burgeoned during the excavations. As a result, the state of New Mexico took steps to make the ruins into a state monument, controlled and protected by a tripartite arrangement between the Museum of New Mexico, the University of New Mexico, and the School of American Research. On June 16, 1920, Henry Kelly and Gross-Kelly and Company each transferred their interest in the pueblo and church of Pecos to the Archdiocese of Santa Fe, consolidating the title. On January 28, 1921, Archbishop Albert T. Daeger transferred the pueblo and church to the Museum of New Mexico, on condition that "the said premises shall be held for the preservation and maintenance thereof and the ruins thereon as a historic monument, and for no other use or purpose."<sup>8</sup> Finally, on February 20, 1935, a proclamation of the state of New Mexico established Pecos State Monument.

### *Development by the State*

From 1935, when Pecos became a state monument, until 1940, the principal goal of the State of New Mexico was the preparation of Pecos as one of the tourist attractions for the Coronado Cuarto Centennial to be celebrated in 1940. This meant that the state's first emphasis

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<sup>5</sup>Frank Wilson, "Administrative History of Pecos National Monument," manuscript in the files of Pecos National Monument, National Park Service, 1969, p. 5.

<sup>6</sup>Hall, *Four Leagues*, p. 217.

<sup>7</sup>Alden C. Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), p. xii.

<sup>8</sup>San Miguel County Clerk's Office, Deed Records, Book P-1, page 380.

was on developing visible, stabilized ruins attractive to visitors. Further excavation and stabilization beyond that necessary for the Cuarto Centennial was never carried out.<sup>9</sup>

The work to prepare Pecos for the Cuarto Centennial did not begin until three years after it was made a state monument. The state finally began the project in November, 1938. The School of American Research administered the excavation and stabilization, with Edwin N. Ferdon as the field supervisor. Labor was supplied by Civilian Conservation Corps (CCC) crews. For the first few months, work concentrated on the reconstruction of the defensive wall around the top of the mesa. The example of other excavations conducted during these years and the surviving record indicates that the management and goals of the project were probably variable, confused, and poorly directed. No report was written and few field notes, plans, or artifacts survive from these excavations.

William B. Witkind assumed supervision of the entire Pecos project in January, 1939. Witkind began the restabilization of the church, using a National Youth Administration (NYA) crew. They filled voids in the walls with old car frames, chicken wire, and other debris. During the same period Witkind excavated portions of the convento. Only a brief report was published, but additionally some field notes, plans, and photographs of the work survived.<sup>10</sup>

In June, 1939, the project shifted its focus to the South Pueblo. This time the emphasis was on excavation, under the direction of J. W. Hendron. In October, John Corbett took over the South Pueblo excavations. Corbett, a very tall man who had difficulty fitting into coach airline seats, afterwards kept a special interest in Pecos, his first major excavation.<sup>11</sup>

During the work, the project's goal was the exposure of as many rooms and the recovery of as many artifacts as possible before the start of the Cuarto Centennial in 1940. To maintain the necessary speed, the supervisors used crews of as many as 35 persons. Corbett prepared a map of the South Pueblo excavations, and published a two-page report on the work. He left no other records of the excavations.

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<sup>9</sup>Wilson, "Administrative History," pp. 6-9.

<sup>10</sup>Edgar L. Hewett and Reginald Fisher, *Mission Monuments of New Mexico* (Albuquerque: University of New Mexico Press, 1943).

<sup>11</sup>Corbett later joined the National Park Service and, as Chief Archeologist, was in the Washington office during the 1960s. He influenced policy decisions concerning Pecos during these critical years.

PART II  
THE ARCHAEOLOGY OF SPANISH COLONIAL PECOS:  
THE PUEBLO AREA



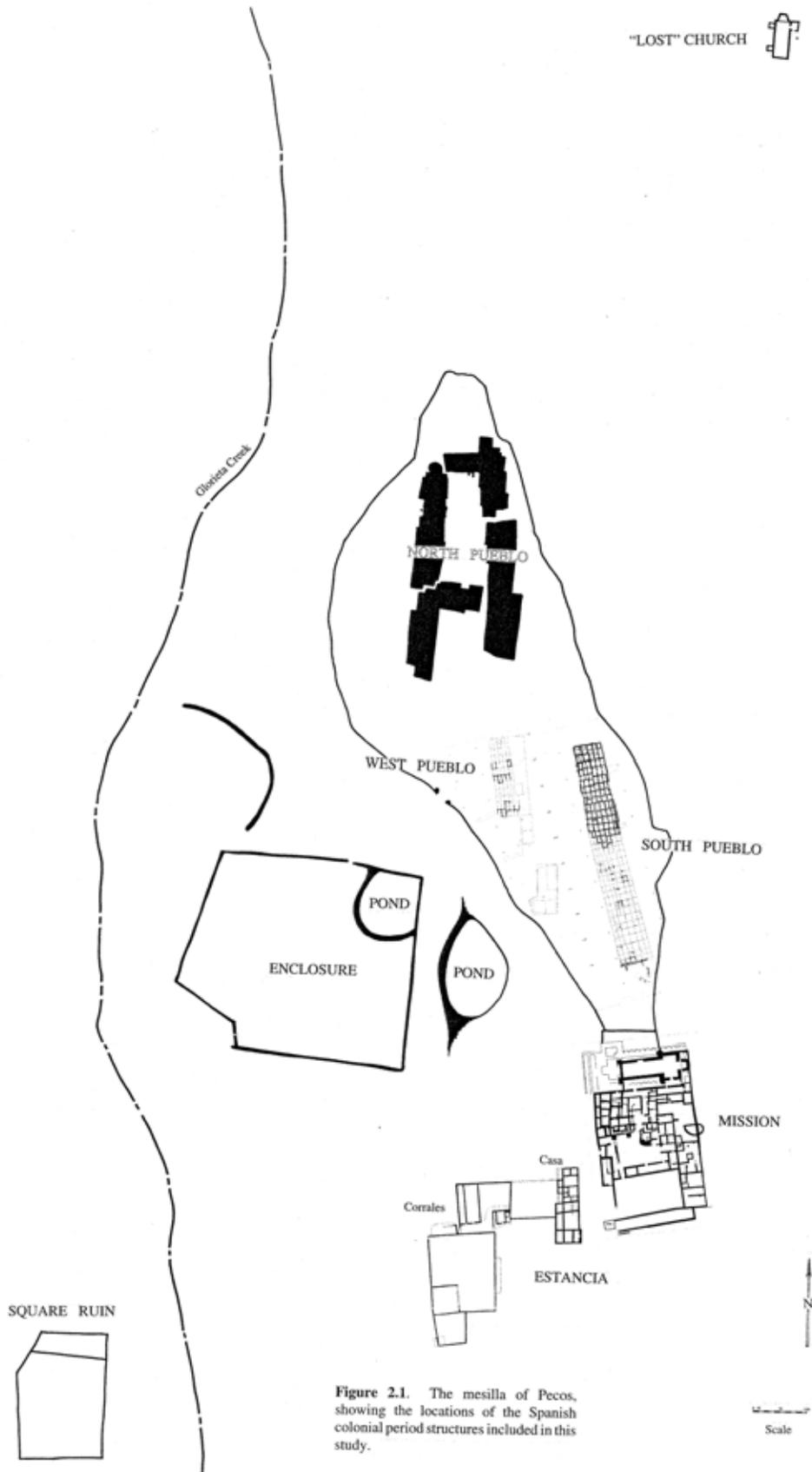


Figure 2.1. The mesilla of Pecos, showing the locations of the Spanish colonial period structures included in this study.



## Chapter Two

### Introduction to the Archaeology

This study will concentrate on those buildings explored at Pecos built by, or in association with, the Spanish who came to the pueblo to stay beginning in 1617. The structural history of the North Pueblo is very complex, and will eventually require a separate volume to itself. For the purpose of simplifying this discussion of the archaeology of the Spanish colonial ruins of the Pueblo of Pecos, I have divided it into two sections: the colonial structures in and around the area of Pecos Pueblo are discussed in Part II, and the principal church and convento in Part III. The history of the archaeology of the colonial structures outside the final church and convento will be discussed first, because their examination and excavation had some influence on how the archaeology of the church and convento was interpreted.

#### The Methodology of this Structural History

Part of the purpose of the present report is to reevaluate the evidence found by the early researchers, in light of more recent discoveries both at Pecos and at other missions of the province of *Nuevo Mexico*, and to assemble a new history of Spanish construction at Pecos from that evidence. In the process, several misunderstandings that have acquired the appearance of historical fact will be considered and, hopefully, corrected. The fundamental assumption at work here is: if a hypothesis is correct, subsequent discovery fits with it and gives it further support; if it is incorrect, further information fits less and less comfortably, and begins to suggest alternative possibilities. Rather than attempting to force the new data to fit the old hypothesis, we must allow all the available evidence to suggest its own pattern of past events.

Therefore, I have sorted out the known from the suppositions in the correspondence, available notes, and reports of the various investigations of Pecos, in order to arrive at a reasonable assessment of what each found. This has resulted in a new hypothesis about building sequences and materials used at Pecos, which is presented in Part IV, Construction of the Spanish Colonial Buildings of Pecos.

### Archaeology at Pecos

#### Pecos as an "Archaic Church" of New Mexico

At the beginning of the twentieth century, and for almost fifty years thereafter, the standing ruined church at Pecos was considered to be one of the oldest churches of New Mexico. Adolph Bandelier, the first scientific investigator at Pecos, in 1880 interpreted the ruins of the present church as though they had survived the destruction of 1680.<sup>1</sup> This influenced researchers for the next several decades. For example, in 1904 Edgar L. Hewett published a short ethnological report on the Pecos families at Jemez based on a paper he had presented at the

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<sup>1</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), pp. 120-22, 133; James E. Ivey, "George Kubler and the Prime Object at Pecos," thesis, University of New Mexico, 2003, p. 37.

annual meeting of the American Anthropological Association in Washington, D. C. in December, 1902. In the introductory paragraphs to the paper, Hewett said that "[t]he great mission church [of Pecos], the ruins of which have for more than half a century formed such an imposing landmark on the old Santa Fe trail, was erected about 1617."<sup>2</sup>

In 1916, *The Memorial of Fray Alonso de Benavides, 1630* was translated by Emma Burbank Ayer. This translation included notes by Frederick W. Hodge and Charles F. Lummis, and a selection of photographic plates. The photograph of the standing ruins of the Pecos church were captioned "Ruins of the 'Templo muy luzido' at Pecos," using a descriptive quote from Benavides's description of the church in 1630.<sup>3</sup>

Paul A. F. Walter said in 1918 that "it is to be doubted whether any of the missions built in early days survived the Pueblo revolution of 1680. But it is certain ... that a few of them include the very walls of the more ancient structures." Specifically, he listed Abó, Quarai, Tabirá (later called Gran Quivira, now called by its seventeenth-century Spanish name, Las Humanas), Giusewa (at Jemez Springs), and Pecos.<sup>4</sup>

Edgar Hewett began calling these five the "Archaic" Churches of New Mexico. In an article entitled "Hispanic Monuments," published in *El Palacio* in 1938, Hewett referred to Pecos as one of this "archaic group" of five New Mexican missions. These five "were built within a quarter of a century after 1617 and all, with the exception of Pecos, which probably functioned as a mission to near one hundred years ago, have been in ruins for two and a half centuries."<sup>5</sup> As a result of this initial set of assumptions, the accepted historical opinion about Pecos was that the standing ruins of the adobe church were the remains of the building in use from its first construction about 1617, through its burning and partial dismantling in the Pueblo Revolt of 1680 and its partial reconstruction in 1694, to its abandonment in 1838.

Because of this perception of Pecos, the Museum of New Mexico and the University of New Mexico included it in their acquisition of the "archaic" mission sites of New Mexico, and by 1938 had arranged an agreement giving each institution a half interest in each site, with the Museum having administrative responsibility. Each of the five ruins became a major restoration

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<sup>2</sup>Edgar L. Hewett, "Studies on the Extinct Pueblo of Pecos," *American Anthropologist* 6(1904)4:428.

<sup>3</sup>Fray Alonso de Benavides, *The Memorial of Fray Alonso De Benavides, 1630*, trans. Emma Burbank Ayer (Chicago: Edward E. Ayer, 1916), pp. 21-22, 37, 103.

<sup>4</sup>Paul A. F. Walter, "New Mexico Mission Churches," *El Palacio* 5(1918)8:115-16.

<sup>5</sup>Edgar L. Hewett, "Hispanic Monuments," *El Palacio*, 45(September and October, 1938): 57, 63. A note at the beginning of the article stated that it began as a paper presented at the October, 1935, meeting of the International Congress of Americanists at Seville, Spain. In the body of the text is an extensive quote taken from what Hewett mentioned only as "a recent annual report," presumably, therefore, dating to at least 1934, wherein he first referred to the five "archaic missions." See also Edgar L. Hewett and Wayne L. Mauzy, *Landmarks of New Mexico*, Handbooks of American Archaeological History Series, The University of New Mexico and the School of American Research (Albuquerque: University of New Mexico Press, 1940), p. 88; Edgar L. Hewett and Reginald G. Fisher, *Mission Monuments of New Mexico*, Handbooks of American Archaeological History Series, The University of New Mexico and the School of American Research (Albuquerque: University of New Mexico Press, 1943), p. 135.

project in the 1930s, to prepare them as exhibits open to the public as part of the Quarto Centennial, the 400th anniversary of Coronado's arrival in New Mexico in 1940.<sup>6</sup>

The characterization of Pecos as "archaic" was accepted by most researchers of the day. The archaeologist Albert Grim Ely, for example, stated that the "Pecos State Monument is but one of five 'archaic' missions which are a heritage of New Mexico's past ages."<sup>7</sup> In 1940, the architectural historian George Kubler, whose book *The Religious Architecture of New Mexico* has been probably the most influential study on the topic, accepted the apparent antiquity of the Pecos church. He objected to the use of the term "archaic missions" in his study of the mission architecture of New Mexico, but this was a disagreement about the terminology itself, not about the seventeenth-century origin of the church.<sup>8</sup> This view of the Pecos Church continued as the accepted story until 1956, with the publication of *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez*.<sup>9</sup>

### The Dominguez Report

In the notes to Dominguez's section dealing with Pecos, Eleanor Adams and Angelico Chavez raised the first question in print about the "archaic" concept for the standing church: "We learn from Dominguez that there were two churches, the older one somewhat smaller than the one in use in his time [1776]. It seems likely that the new church was built after the Reconquest, but when it was started or how long it took is still a question."<sup>10</sup> The clear description by Dominguez left no doubt that there was a smaller church next to the present ruined building, and that it had been in use before the present building. This resulted in confusion among the historians, because the descriptions of the pre-Revolt church suggested a large and imposing building, which fit reasonably well with the appearance of the standing church, while Dominguez described the earlier church in less than imposing terms.

In the absence of any clear archaeological evidence to resolve the conflicting pictures presented by the documentary evidence, archaeologists and historians were left to propose possible alternative meanings to the seventeenth-century statements about the Pecos church. These varying interpretations, and deductions from them, left a strong imprint on the accepted structural history of Pecos as it is told today. The strongest single impression left by this episode of interpretation was a reinforcement of the idea that although the pre-Revolt period spoke of

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<sup>6</sup>Anonymous, "Pecos Repairs Begun," *El Palacio*, 45(October, 1938):82-83; Albert G. Ely, "Field Work At Pecos," *El Palacio*, 46(June, 1939):124-26.

<sup>7</sup>Albert Grim Ely, "Field Work at Pecos," *El Palacio*, 46 (June 1939) 124-26.

<sup>8</sup>George Kubler, *The Religious Architecture of New Mexico in the Colonial Period and Since the American Occupation* (Albuquerque: University of New Mexico Press, 1940), pp. 135-36

<sup>9</sup>Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956).

<sup>10</sup>Dominguez, *Missions*, p. 209 n. 2.

itself in grandiose terms it was actually simpler and more primitive than post-Revolt New Mexico.

Not until Jean Pinkley found the foundations of a huge adobe church beneath the standing ruins in 1967 did it begin to become apparent that the pre-Revolt documents were actually describing a larger building than anyone had imagined, much larger than the standing building. The results of this discovery were first integrated into the story of the mission at Pecos, *The Four Churches of Pecos*, by Alden Hayes in 1974.<sup>11</sup> However, Hayes was not aware of how thoroughly the previous misconceptions about the mission had colored the archaeological notes and reports upon which he based his historical and structural interpretations, and he did not have the time (or the mandate of the Park Service) to sort things out.

The historiography of Pecos up to the publication of *The Four Churches* in 1974 can be sorted out with a little care. The continuity of thought over the eighty-six years between Adolph Bandelier and Jean Pinkley is clear, and the Park Service has had no reason to question the interpretation of the history of Pecos based on this thinking since Pinkley's death in 1968. A century of repetition cannot simply be put aside; the origins of the basic elements of the Pecos story must be reviewed before the alternatives can be seen. With this in mind, it is clear that the problem started with Bandelier.

### Adolph Bandelier

Adolph Francis Alphonse Bandelier could, with justice, be called the first historical archaeologist to work in the American southwest.<sup>12</sup> Born in Bern, Switzerland in 1840, Bandelier moved with his family to the United States in 1848, settling in the Swiss colony of Highland, Illinois, a little east of St. Louis. He attended public school in Illinois, and probably received some tutoring at home. In 1857 his father sent him to study geology in Switzerland; he had returned to Illinois by 1862, when he was married. He again returned to Switzerland in the late 1860s, where he studied the law. In 1867 Bandelier again returned to the United States, and began working in his father's bank. He took part in local activities, and became a naturalized citizen of the United States in 1877.

In the early 1870s, Bandelier became interested in ethnology and anthropology through contact with Lewis Henry Morgan, who has been called the "Father of American Anthropology." Bandelier had developed a strong familiarity with the history of the Spanish Southwest by this time, and through correspondence with Morgan began the study of Native American social structure. Between 1877 and 1879, Bandelier wrote a series of papers on the ethnology of pre-Columbian Mexico that won the respect of the committee of the just-created Archaeological Institute of America (AIA). As a result, Morgan offered him a position on a field trip to New Mexico in 1880. Although Morgan himself ultimately was unable to make the trip, the AIA eventually decided to finance Bandelier's visit to New Mexico alone.

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<sup>11</sup>Alden C. Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974).

<sup>12</sup>This biographical sketch is taken from *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), pp. 1-26.

Bandelier departed St. Louis by train for New Mexico in August, 1880, arriving in Santa Fe in the evening of August 23. As the train moved slowly up the Pecos River valley that afternoon towards Glorieta Pass, Bandelier saw the most extraordinary sight out the east-facing window of his rail-car. On a hill below him was a large, red structure, much bigger than anything he would have expected to see in that rural valley. Someone told him that was the ruined mission church of Pecos.

Bandelier probably determined at that moment to go to Pecos, to make it his first intensive exploration of a pueblo ruin. By mid-afternoon of his first day in Santa Fe, August 24, he was working out the plans necessary to spend some time at the old mission and pueblo.<sup>13</sup> He began his investigation of Pecos the afternoon of August 28, and returned to Santa Fe ten days later, on September 6.<sup>14</sup> Over the next seven days, Bandelier wrote a summary of his research at Pecos, sending off the final pages and plan drawings in the mail on September 13. This manuscript was published as the first volume of the American Series of the AIA in 1883.<sup>15</sup>

Bandelier's original daily journal is in the manuscript collection of the Museum of New Mexico. Although apparently some field sketches are missing from this collection, many of Bandelier's original sketch plans of the ruins of Pecos are roughly drawn on the bottoms and backs of pages of the journal. These sketch plans and associated notes add some surprising, and in some cases contradictory, details to the published report.<sup>16</sup>

This first detailed anthropological inspection of Pecos was surprisingly important. Bandelier's published report strongly influenced Alfred Kidder's ideas about the late history of the pueblo when he began his work there thirty-five years later. Bandelier's presentation of the relationship between the Pecos and the Franciscans, between European methods of construction and aboriginal traditions, colored Kidder's interpretation of the structural and cultural events that occurred at the pueblo after the arrival of the Spanish in 1598.

While examining the ruins of the pueblo of Pecos, Bandelier saw adobe bricks and squared beams in several places, and decided that they were taken from Franciscan buildings rather than made by the Pecos. In the North Pueblo, for example, in the west wing of this quadrangular building, he saw "in several places squared beams of wood inserted in the stone work lengthwise. These beams (of which there is also one in the opposite wing similarly embedded) are identical and apparently of the same age with the (not sculptured) beams still found in and about the old church. . . . there are at several places adobe walls, the adobes containing wheat straw!<sup>17</sup> . . . I am even convinced that it was done after 1680; for the beams

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<sup>13</sup>Bandelier, *Journals*, v. 1, pp. 71, 72.

<sup>14</sup>Bandelier, *Journals*, v. 1, pp. 74-83.

<sup>15</sup>Bandelier, "Visit."

<sup>16</sup>Bandelier Collection, M73-5/9 box 7 (box 71, Museum of New Mexico Manuscript Collection), pp. 8-14.

<sup>17</sup>So far, the only adobes at Pecos that contain wheat straw are those from the standing church, built between 1715 and 1720 (see Chapter 12). If Bandelier indeed recognized wheat straw, it is therefore probable that they were in bricks made after 1715. Mollie S. Toll, "Plant Parts Found in Adobe Bricks at an 18th C. Spanish Mission, Pecos

evidently came from the church or the convent, which buildings we know were sacked and fired by the Indians in the month of August of that year. If this conclusion be correct, the southwestern part of A [the North Pueblo], its entire westerly wall, was somehow destroyed after 1680, and partly rebuilt with materials unknown to the Indians at the time when Pecos was first erected."<sup>18</sup>

Bandelier pointed out "that the northern part of building B [the South Pueblo] is also mended in places with adobes of the same make as those used in repairing the western wing of A, and that, while the squared beams are wanting, the stonework there in places appears also of a more recent date."<sup>19</sup>

Bandelier did not, of course, know of the pre-Revolt church foundations waiting to be found under the standing ruins of the post-Revolt church; his interpretation of the ruins were based on the belief that the standing ruins of a church at Pecos were the remains of the *only* church there. Bandelier assumed that the adobe bricks and squared beams in the North Pueblo could only have arrived there as a result of salvaging these components from the ruins of the present church and convento after the Revolt of 1680. Why he made this assumption is not clear: considering that all of the bricks used in the construction of the church and convento were made by Pecos workers, and that the Pecos had an established reputation as woodworkers by the 1630s, such assumptions are in direct contradiction to historically documented Pecos craftsmanship. However, Bandelier's statements about the origins of the adobes and squared beams in the North and South Pueblos were accepted by his successor, Alfred Kidder.

#### Alfred V. Kidder

By the beginning of the twentieth century, to some extent because of Bandelier's investigations, the pueblo ruins of northern New Mexico were recognized as important landmarks in the development of the cultures of the Southwest, but their relative ages and their relationships, culturally and chronologically, to the rest of the area were unknown.

Alfred Vincent Kidder first worked in the Southwest as a Harvard undergraduate helping Edgar L. Hewett survey some of the sites near Yellowjacket in southwestern Colorado. In 1909 he began graduate school in archaeology at Harvard. During his graduate work, Kidder and Kenneth M. Chapman gathered a large collection of potsherds from Pecos in 1910, attempting to work out representative ceramic types and their sequences, and in 1911-12 he again carried out fieldwork in New Mexico. During the summer of 1911, Kidder, Chapman, and Jesse

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NM: III," 1995, p. 2, in the files of Pecos National Historical Park.

<sup>18</sup>Bandelier, "Visit," p. 72.

<sup>19</sup>Bandelier, "Visit," p. 74.

Nusbaum visited the ruins of Pecos. Nusbaum took a series of photographs of the pueblo and church during the visit.<sup>20</sup>

In 1912-14, Nels Nelson conducted a series of investigations in the Galisteo Basin and other areas of the northern Rio Grande valley, and demonstrated that careful stratigraphic excavations in the midden deposits of the pueblos "could yield information as to sequences of ceramic types, which in turn would permit recognition of contacts between, chronological ranking, and estimates of length of occupancy of all ruins at which those types appeared."<sup>21</sup> Nelson's work in New Mexico would strongly influence Kidder's methods and ideas about the way to conduct archaeology on Puebloan sites. In fact, Nelson and his wife visited the Pecos excavations about halfway through the first season, in August of 1915; during the visit, Kidder and Nelson discussed the nature of midden deposits and the probable structure of the Pecos midden.<sup>22</sup>

Kidder completed his dissertation in 1914 and received his Ph.D (the sixth to be granted for archaeology in the United States). The dissertation outlined his proposed ceramic sequences for the Pajarito Plateau area, from which his later ceramic studies at Pecos derived, and suggested that stratigraphic excavations like those conducted by Nels Nelson might confirm his suggested sequences. Kidder returned to the southwest in the summer of 1914, where, working for Harvard's Peabody Museum, he conducted detailed studies of Basketmaker sites in northeastern Arizona.<sup>23</sup> In 1915, he returned to Pecos, where he began eleven years of excavation, establishing the chronological ceramic-sequence basis of Southwestern archaeology.

Kidder applied the use of natural stratigraphy, rather than the "metric" approach popular with most excavators in the United States. Many of his contemporaries felt that excavating an archaeological site by its layers of deposition, or "natural stratigraphy," was too imprecise and time consuming; they advocated the use of "metric" stratigraphic excavation, where the earth is removed in a series of specific, uniform thicknesses that ignored the natural strata. "Kidder appears to have been one of the few, or perhaps the only, American stratigrapher of the 1920s and 1930s who favored the natural as opposed to the metrical method. . . . his Americanist colleagues seem to have believed, or at least to have operated, otherwise. . . . Emil Haury [and

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<sup>20</sup>Alfred Vincent Kidder, *An Introduction to the Study of Southwestern Archaeology; With a Preliminary Account of the Excavations at Pecos*, (New Haven: Yale University Press, 1924), p. 89; Richard B. Woodbury, *Alfred v. Kidder* (New York: Columbia University Press, 1973), pp. 1-21. "Kidder Notes, 1915-Daily Record," Sunday, June 7th [6<sup>th</sup>], 1915, p. 1, in the collections of Pecos National Historical Park (PNHP); Jesse Nusbaum, MNM # 6518, 6630, 6631, 6632, 6639, 12919, 139545, PECO 1015, sometime in May-August, 1911.

<sup>21</sup>Alfred Vincent Kidder, *Pecos, New Mexico: Archaeological Notes*, Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 5 (Andover: Phillips Academy, 1958), p. xii; Kidder, *Southwestern Archaeology*, pp. 161-62.

<sup>22</sup>"Kidder Notes, 1915-Daily Record," August 28, August 30, 1915, pp. 35, 37, PNHP.

<sup>23</sup>Woodbury, *Kidder*, pp. 21-29.

others] all dug by metrical units."<sup>24</sup> Emil Haury, perhaps the most prominent opponent of Kidder's methods, became Jean Pinkley's mentor in the 1930s. He felt that the "natural or physical strata were too small and represented spans of time too brief to be of individual significance in determining the periods or phases of the refuse growth."<sup>25</sup> The difference in excavation philosophy and methodology between these two founders of American archaeology would have further consequences at Pecos in the 1960s. It is ironic that a difference of opinion about field techniques developed at Pecos in 1915-1929 would have such a strong effect on the excavation of the same site forty years later.

Kidder's description of his activities at Pecos are available in several publications. For the purposes of this report, the most important sources are the *Introduction to the Study of Southwestern Archaeology*, published in 1924, and the *Pecos, New Mexico: Archaeological Notes* of 1958. In *Pecos*, Kidder included brief discussions of the "Lost" Church and a few other historical structures and their possible associations to the standing church and associated convento; beyond this, Kidder never published a final assessment of the Spanish colonial buildings he encountered at Pecos. Some additional material on these structures is available in Kidder's original notes and correspondence, copies of which have been collected at Pecos National Historical Park and in the Museum of New Mexico. Kidder's field notes and letters will be examined in detail as I assemble the full picture of what is known about these buildings through archaeology.

### Kidder and the Pecos Expedition

In 1914 the Phillips Academy of Andover, Massachusetts, decided to conduct a multi-year excavation at a selected site of the Puebloan southwest. Kidder's field work, his thoughtful and organized analyses and presentations of that work, and his discussion of broad outlines of southwestern prehistory based on the cultural events suggested by the fieldwork and analysis, made him the obvious choice to conduct this excavation. Kidder had been considering for several years where the best stratified deposits were most likely to be found, and upon his selection as project director, suggested that Pecos be the site chosen.<sup>26</sup> Pecos was the natural choice for Kidder; he and Kenneth Chapman had collected a good sample of potsherds from the ruined pueblo in 1910, and conducted an intense inspection of the pueblo and church with Jesse Nusbaum during the summer of 1911, and Kidder had left New Mexico with a strong sense that deep midden deposits were to be found along the sides of the Pecos mesilla, perhaps containing

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<sup>24</sup>Gordon R. Willey and Jeremy A. Sabloff, *A History of American Archaeology*, 2nd ed., (San Francisco: W.H. Freeman and Co., 1980), p. 93.

<sup>25</sup>Willey and Sabloff, *A History of American Archaeology*, p. 93.

<sup>26</sup>Douglas R. Givens, *Alfred Vincent Kidder and the Development of Americanist Archaeology* (Albuquerque: University of New Mexico Press, 1992), p. 39; Kidder, *Southwestern Archaeology*, p. 89.

the stratified ceramics he believed necessary to begin a major analysis of the cultural sequence of the Southwest.<sup>27</sup>

Charles Peabody wrote to Hewett about early March, 1915, asking permission for Phillips Academy to conduct excavations at the ruins of Pecos during the summer season of that year. Hewett replied, probably in late March, that this would be acceptable to the Museum, with certain conditions. These were that the ruined church be repaired so that it would not collapse, and that a reasonable sample of the artifacts collected in the excavation be made available to the Museum. Hewett proposed Jesse Nusbaum as the Museum representative onsite, who would also conduct the stabilization work on the church, using Phillips Academy funds. On April 15, Peabody accepted these requirements, proposed that the stabilization could be extended over several seasons, suggested a \$1,000 limit on the amount to be spent on stabilizing the church, and requested that Nusbaum not be given the final word on the archaeological endeavors at Pecos, even in the church. He proposed that Dr. Hewett and Dr. Kidder should arrive at a consensus on archaeological decisions. He also requested that already existing plans and surveys of the ruins be made available to the Academy project.<sup>28</sup>

Hewett responded on May 26. He indicated that repairs to the church ruins should be immediate, rather than space out over years, and declined to accept a \$1,000 limit on the cost of the stabilization. He was willing, however, to accept any agreement on work and cost arrived at between Dr. Kidder and Mr. Nusbaum. This resulted in the arrangement during the excavation, reflected by such statements as Kidder's on September 20, 1915, "This force [5 men & team] on church for rest of day but paid by excav[ation] fund."<sup>29</sup> Hewett further stated that John Percy Adams, who was in Central America at the time of his writing, would be back by the summer, and would turn over copies of all his survey work at Pecos to Kidder.<sup>30</sup>

The Adams survey information mentioned by Hewett was the fieldwork Adams had conducted in 1913, a detailed survey of at least two of the "archaic ruins" of New Mexico, and perhaps including all five. He surveyed the ruins of Quarai in the Salinas area in order to build a model; his model of this pueblo and mission has been restored and is presently on display at the Quarai Visitor Contact Station.<sup>31</sup> At Pecos, Adams conducted "careful and repeated surveys made of the site and the ruins preparatory to building" his model of Pecos. "So carefully have the measurements and the surveys been made at the site of the ruins that the absolute correctness

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<sup>27</sup>"Kidder Notes, 1915-Daily Record," Sunday, June 7th [6<sup>th</sup>], 1915, p. 1, PNHP; Jesse Nusbaum, MNM # 6518, 6630, 6631, 6632, 6639, 12919, 139545, PECO 1015, sometime in May-August, 1911.

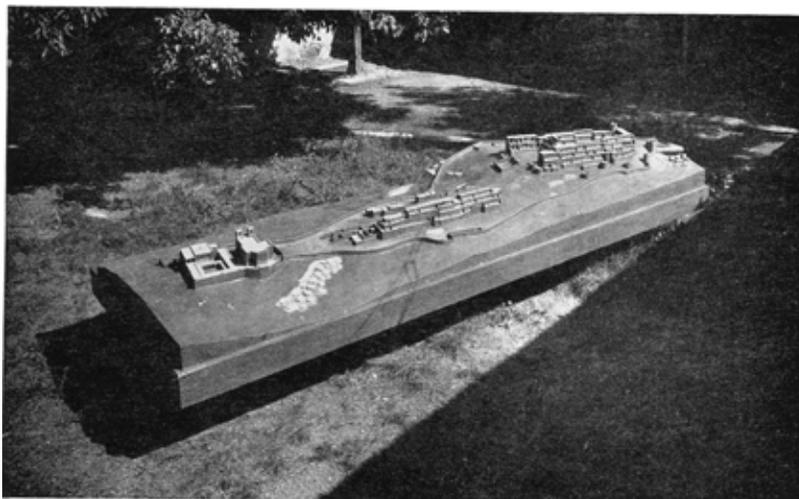
<sup>28</sup>April 15, 1915, Charles Peabody, Peabody Museum of Harvard University, Cambridge, Massachusetts, to Edgar L. Hewett, Museum of New Mexico, Santa Fe, Manuscript Collection etc. History Library, Governor's Palace, Museum of New Mexico [hereafter MS].

<sup>29</sup>"Kidder Notes, 1915-Daily Record," September 20, 1915, p. 33, PNHP.

<sup>30</sup>Kidder, *Southwestern Archaeology*, p. 56-57; Woodbury, *Kidder*, pp. 29-31; Hewett to Peabody, May 26, 1915, MS.

<sup>31</sup>Ivey, *Loneliness*, p. 319.

of the restoration is a matter of certainty." The model of the pueblo and church was about sixteen feet long, and was completed about April, 1914.<sup>32</sup> *El Palacio* says that Adams was almost finished with the Pecos model as of February or March. In April or May, the model was described as finished and on display at the Governor's Palace; a photograph of it was published in *Old Santa Fe Magazine* in July.<sup>33</sup> The Quarai and Pecos models were exhibited at the San Diego Exposition of 1915, and then returned to the "State Museum" in Santa Fe. Although the Quarai model survived in the basement of one of the Museum buildings until it was rescued in the late 1980s, the Pecos model has disappeared.



**Figure 2.2.** The John Percy Adams model of Pecos Pueblo and mission.  
A. V. Kidder, *Southwestern Archaeology*, plate 5 following p. 14.

### The Historical Structures of Pecos

Bandelier located the principal colonial structural groups at Pecos, and arrived at a general appraisal of their periods of construction and use. His conclusions influenced the work of virtually every subsequent investigation at Pecos, including the present study, either as a guide to the correct interpretation of the buildings, or as opinions to be reevaluated.

Although Kidder had a considerably greater familiarity with the archaeology and architecture of Puebloan sites than did Bandelier when he arrived at Pecos, he was no more familiar than Bandelier with the archaeology and construction of historical pueblos. Kidder correctly considered Bandelier's opinions about the historical period at Pecos to be the best

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<sup>32</sup>*El Palacio*, vol. 1, no. 4-5 (February-March, 1914), p. 4; vol. 1, no. 6-7 (April-May, 1914), p. 4.

<sup>33</sup>Paul A. F. Walter, "The Pecos Pueblos and Mission," in the *Old Santa Fe Magazine (OSFM)*, vol. 2, no. 5 (July, 1914), pp. 106-108; photograph of Adams's model of Pecos on page 107. Alfred Kidder included this photograph in *Southwestern Archaeology*, plate 5 following p. 14. None of the field notes or original plans made by Adams in 1913 are presently available. The Walter article was apparently written several months before its publication; it describes the progress Adams was making on the model as of perhaps March.

available, but appears to have accepted them without further question; for example, he was still echoing Bandelier's idea that the form-made adobes and squared timbers used in Pecos puebloan structures came from the standing church and its convento, even when writing his final assessment of Pecos in 1958. However, Kidder's greatest interest was in the centuries before the Spanish arrived at Pecos, and he clearly regarded the historical period as a brief, recent episode at the very end of the Pecos story. This suggests that he accepted Bandelier's appraisal of these last years through convenience, and never discovered evidence of a sufficiently poor fit of Bandelier's ideas to the archaeological information to require a reevaluation of them. By the time Stanley Stubbs and Bruce Ellis produced archaeological results in 1956 on the "Lost" Church and South Pueblo that should have inspired a reappraisal, Kidder was in the last stages of his final write-up of the Pecos excavations, and was unwilling to reevaluate his views of the post-1600 period of Pecos.



### Chapter Three The "Lost," or Ortiz Church

We will begin the discussion of archeological investigation of the Spanish colonial buildings at Pecos with the earliest known structure, the "Lost" Church, located about 1,280 feet northeast of the ruins of the Pueblo. Following the method used throughout this study, the church will be referred to by the name of its builder; in this case the evidence makes it fairly certain that the "Lost" church was built by Fray Pedro Zambrano Ortiz, beginning about 1617.

Bandelier wrote the first published description of the Ortiz Church. "About one quarter of a mile east of the building A [the North Pueblo], on a bare sunny and grassy level, are, quite alone, the foundations of a singular ruin" (see Figure 3.1). Bandelier described the building as being 25 meters, or about 82 feet long, and 10 meters or 33 feet wide; the actual outside measurements are 84.4 feet long and 31 feet wide. "From its form I suspect it to have been a Christian chapel, erected, or perhaps only in process of erection, before 1680. Not only is it completely razed, but even the material of the superstructure seems to have been carried off."<sup>1</sup> As subsequent examinations of the building showed, Bandelier's observations were of uncanny accuracy.

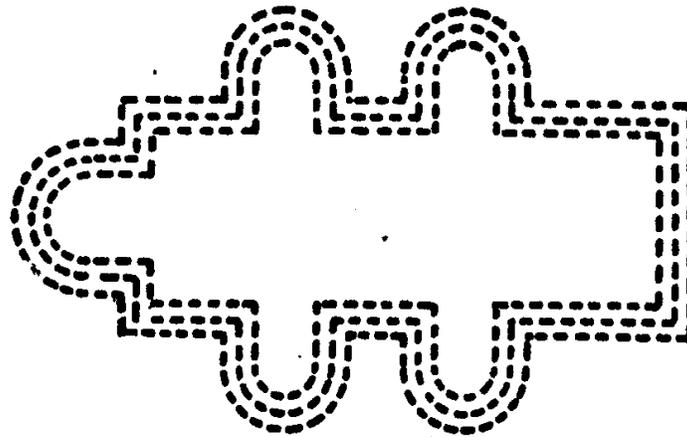


Figure 3.1. Bandelier plan of the "Lost" Church.

Bandelier's plan shows the apse of the building and the two buttresses on the west side, both as semicircular structures rather than polygonal, but he was unable to make out details on

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<sup>1</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), pp. 88 and plan on Plate V, fig. X.

the east side. Instead of showing the sacristy, he drew two more buttresses, identical to those on the west.

During his work at Pecos, Alfred Kidder returned to the Ortiz Church. "I paid little more attention to this foundation than had Bandelier," said Kidder, "but I did have a new plan of it made . . ." The mapping occurred on August 3, 1925, when "Ted [Amsden] & Mark [Howe, Jr.] worked on old chapel preparing to map it. Sherds there also of about middle 5 period."<sup>2</sup>

Kidder conducted his testing of the building on August 19, 1925:

"Chapel N. E. of ruin (dimensions from map by T[heodore] A[msden]) The wall had stone foundations with adobe upper parts. Frag[ment]s of yellow adobes found in pits dug by M[ark] H[owe] Jr. Pottery G[laze] V. In trench w[est] of church front the earth is hard adobe with a little charcoal and a few [Glaze] V-VI sherds (no modern as yet). Subsoil is hard red clay at about 3'6".

Church adobes	1'9" (21") x 11" x 3"
S.W. passage	1'7" (19") x 9" x 3" <sup>3</sup>

Kidder compared the Ortiz Church adobes to those of the Southwest Passage at the southwestern corner of North Pueblo, because he found "a number of walls" in this area built of adobes similar to those in the church. In the published report, he summarized the examination of the Ortiz Church: "By a little digging, I found evidence that adobes had been laid on the flat stones of the foundation. I also recovered a few sherds, the latest being thin-rimmed Glaze V."<sup>4</sup> Kidder decided that the building "was started around 1600 and never finished because they found that it was subject to floods," presumably based on his excavations and the remark by Bandelier that the building appeared unfinished.<sup>5</sup> Kidder thought nothing more about the building; he was far more concerned with the origins and evolution of the pueblo of Pecos than in the details of very recent events, those that took place after 1600. As a result, the Ortiz Church did not enter into anyone's thinking about the Colonial period at Pecos until Eleanor Adams and Fray Angelico Chavez published the Dominguez report in 1956.

Until 1956 everybody thought that the standing church ruins at Pecos were those of the church built in 1617. With the publication of Dominguez's description and its reference to an

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<sup>2</sup>Kidder, "Field Notes, 1925," August 3, 1925, p. 24, in Kidder Collection, Pecos National Historical Park (PNHP). For some reason, in 1956 Kidder told Stubbs and Ellis that Singleton P. Moorehead had draw the plan of the church; he also left the impression that the examination of the building occurred "about 1915." Stubbs, "'Lost' Pecos Church," p. 67; Kidder to Stubbs, December 3, 1956, in New Mexico Laboratory of Anthropology, Site Files, LA 4444 (the site number for the "Lost Church" before it was combined with the rest of the Pecos buildings under LA 625). The Amsden map is not in the Kidder Collection at Pecos National Historical Park, and is presumably lost.

<sup>3</sup>Kidder, "Field Notes, 1925," August 19, 1925, p. 30.

<sup>4</sup>Kidder, *Pecos, New Mexico: Archaeological Field Notes* (Andover, Massachusetts: Phillips Academy, 1958), pp 112-113, 329.

<sup>5</sup>Kidder to Ellis, July 2, 1956, Kidder Collection, PNHP.

older church at Pecos, researchers in the Southwest became aware that the sequence of church construction there was more complicated than the simple idea current at the time. Kidder realized that the Ortiz Church could have some critical bearing on the question of church dates and locations. Preparing to write a discussion of the ruin, Kidder decided that the differences between the plan drawn by Ted Amsden and the plan by Bandelier were too great, and could not decide which to trust. He wrote to Stanley Stubbs in early 1956 asking if it were possible to remeasure the building.<sup>6</sup> Stubbs, Fred Wendorf, and Bruce Ellis carried out the new survey and sent Kidder a revised plan about March 28, 1956. The resurvey involved no significant excavation of the Ortiz Church, but looked much like the final version later printed in the “Lost” Church article in *El Palacio*.<sup>7</sup>

Pursuing the question of the significance of the Ortiz Church, Kidder wrote to Angelico Chavez in April, 1956. He praised the Dominguez translation, which he had apparently just read, described the remains of the Ortiz Church, and asked Fray Angelico his opinion about the little church. Fray Angelico responded, "I would say that the Bandelier foundations are those of the pre-Revolt church." He went on to suggest that the "old church" mentioned by Dominguez was a temporary building constructed immediately after the Reconquest, and served as the church until the completion of the present, standing building sometime after 1715, after which the older church was incorporated into the convento. This suggested interpretation of the post-Revolt history of the churches of Pecos by Angelico Chavez, essentially a rephrasing of Dominguez's description, is the first statement of this sequence of events on record; it was later supported by archeology and further historical studies.<sup>8</sup>

This, however, did not clear up Kidder's questions. He decided that he did not have enough information to arrive at any conclusions, and suggested to Stubbs and Ellis that they examine the Ortiz Church more closely. The “Lost” Church excavation of 1956 resulted.<sup>9</sup>

While preparing for the investigation, Stubbs arrived at the general expectation that the Ortiz Church was "possibly the first church built at Pecos . . . it was later removed to the more suitable location to the south."<sup>10</sup> By this interpretation, the standing ruins would have been built sometime later in the seventeenth century, been damaged by the Revolt, repaired after the Reconquest, and continued in use until abandonment in the nineteenth century—essentially, a minor change from the pre-Dominguez view of Pecos. Kidder, in a return letter, passed on

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<sup>6</sup>Stanley A. Stubbs, Bruce T. Ellis, and Alfred E. Dittert, Jr. "'Lost' Pecos Church." *El Palacio* 64(1957)3, 4: 67.

<sup>7</sup>Alfred Kidder to Stanley Stubbs, March 28, 1956, LA 4444. Although no copy of the resurvey in February or March, 1956, is available, the plan of the building published later as part of the report on their excavation of the church in June, 1956, "turned out to follow rather closely the outline first sent" to Kidder in March. Stanley Stubbs to A. V. Kidder, July 1, 1956, LA 4444.

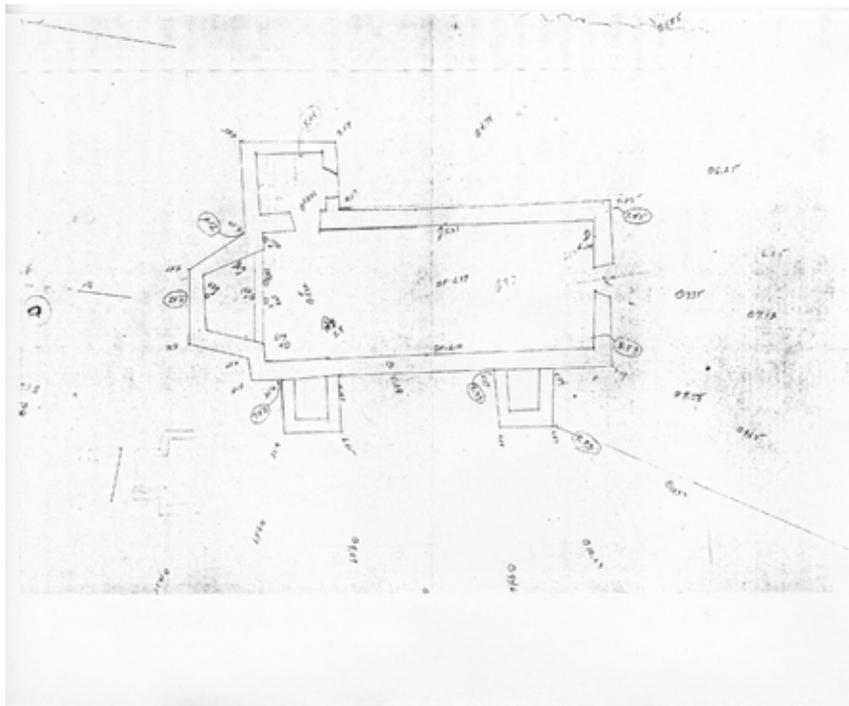
<sup>8</sup>Angelico Chavez to Alfred Kidder, April 11, 1956, in New Mexico Laboratory of Anthropology, Site Files, LA 625, folder 3.

<sup>9</sup>Kidder, *Pecos*, p. 329.

<sup>10</sup>Stubbs to Kidder, April 19, 1956, LA 625, folder 3.

Chavez's suggestion about the sequence of construction.<sup>11</sup> After further thought, Kidder suggested to Stubbs that he should watch for "any indication of conflagration" while excavating the Ortiz Church. Fray Agustín de Vetancurt, he pointed out, had stated that the seventeenth-century church was burned in the Revolt of 1680,<sup>12</sup> but neither Nusbaum's trenches along the walls of the standing ruins or Kidder's excavations through the floor of the nave a few years later had found any signs of burning. Clearly, traces of a major fire at the Ortiz Church would go a long way towards proving that it was the church in use in 1680.<sup>13</sup>

#### The Stubbs and Ellis Excavation of the Ortiz Church



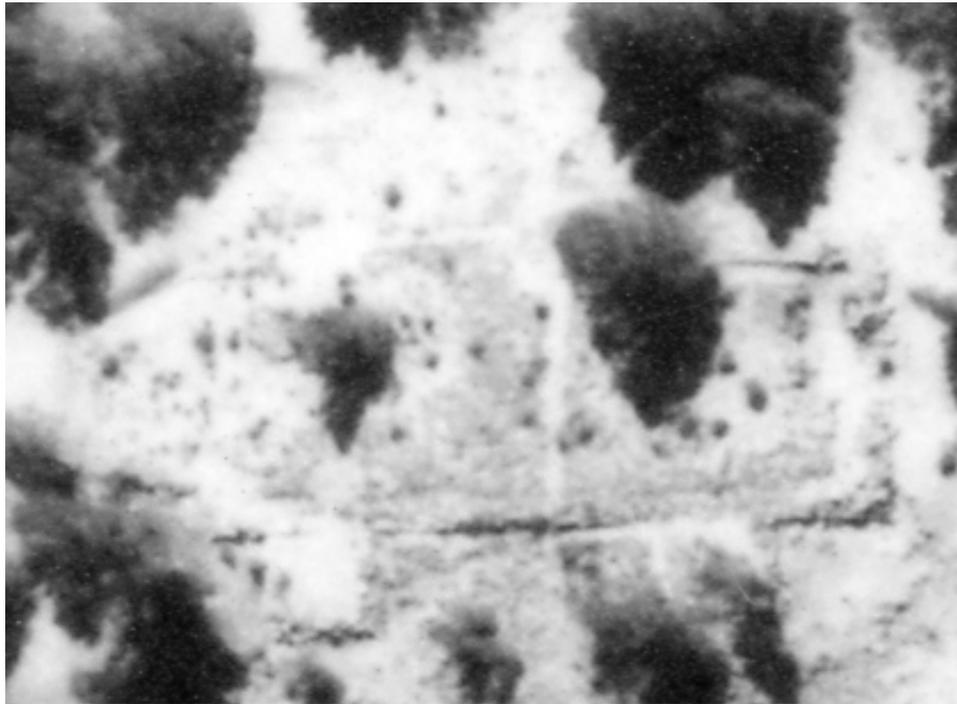
**Figure 3.2.** Stubbs and Ellis pencil field plan of "Lost" Church. New Mexico Laboratory of Anthropology, LA 4444 flat files.

<sup>11</sup>Kidder to Stubbs, April 25, 1956, LA 4444.

<sup>12</sup>Fray Agustín de Vetancurt, *Chronica de la Provincia del Santo Evangelio*, volume 3 of the *Teatro Mexicano: Descripción Breve de Los Sucessos Exemplares de la Nueva-España en el Nuevo Mundo Occidental de las Indias*, José Porrúa Turanzas, ed., Colección Chimalistac de Libros y Documentos Acerca de la Nueva España, vol. 10 (Madrid: José Porrúa Turanzas, 1961), pp. 277-78.

<sup>13</sup>Kidder to Stubbs, June 1, 1956, LA 4444.

Stubbs and Ellis began field work on June 5.<sup>14</sup> During the first day they excavated trenches around "all exterior corners,"<sup>15</sup> and had trenched the sanctuary by June 7. Over the next few days they cut two other trenches across the nave, and trenched around the interior of the sacristy. The testing of the Ortiz Church was finished by perhaps June 10, and additional excavations in the South Pueblo began about that time. These were completed by perhaps June 15. Terah Smiley of the Tree-Ring Laboratory at Tucson visited Pecos from June 19 to June 22 to pick up a few fragments of charcoal from the Ortiz Church, oversee the collection of tree-ring samples from the South Pueblo excavations, and carry out some sampling of piñon trees around the Ortiz Church.<sup>16</sup> Stubbs and Ellis drew a new map of the church during the excavation, Figure 3.2. They found that the nave of the church was 24.7 feet wide on the interior, wider than the post-Revolt church, the nave of which was 23.5 feet wide, and 66.2 feet long on the interior from the front door to the retaining wall across the mouth of the sanctuary.



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<sup>14</sup>Memorandum, Stubbs to Director Boaz Long, June 28, 1956, LA 625, folder 3.

<sup>15</sup>Stubbs, Ellis and Dittert, "'Lost' Church," p. 68.

<sup>16</sup>Smiley to Stubbs, June 9, 1956, LA 4444; Stubbs, Ellis and Dittert, "'Lost' Church," p. 67.

**Figure 3.3.** The “Lost” Church in 1966. The backfilled excavations of the northwest buttress, the apse, and the sacristy can be seen, as well as one trench across the center of the nave.



**Figure 3.4.** Stubbs and Ellis excavation of “Lost” Church. Looking north-west from the sacristy towards the sanctuary. Adobe bricks can be seen in the east wall of the sanctuary, and the adobe brick wall across the mouth of the sanctuary, at the left edge of the picture. New Mexico Laboratory of Anthropology, LA 4444.

**Table 3.1.** Distribution of Ceramics Found by Stubbs and Ellis At “Lost” Church.

Ceramics: Area:	Gl. I	Gl. II	Gl. III	Gl. IV	Gl. V	Gl. VI	Sank B/c	Tewa Red	Unk
Sanctuary	4		1		3				7
Nave, NW Corner	4			2	6				10
Nave, NE Corner	1			2					4
North Buttress Fill			1						1
South Buttress Fill									1
Sacristy							1		
Outside SE Corner, Nave			1						21

Near Church						1		1	
Total	9	-	3	4	9	1	1	1	37

During the excavation of the church, Stubbs and Ellis did not clean out the entire structure. Although they left off the outlines of their excavations from the plan published with their report, they marked the outlines of their trenches on one version of the plan of the building in the LA 4444 files. In 1994 Courtney White and I remapped the building for the National Park Service, and included the plan of the last surviving adobes on its walls; see Figure 3.6. On this plan is indicated the approximate outlines of the trenches excavated by Stubbs and Ellis, as shown on their various maps of the structure. These trenches are also visible as filled outlines in the aerial photographs taken of Pecos on July 31, 1966, ten years after the excavations (Figure 3.3).<sup>17</sup>

In the Laboratory of Anthropology files were found three photographs and their negatives, taken at the time of the excavations; one of these is included as Figure 3.4. In Stubbs's correspondence with Kidder, he described several other color photographs of the Ortiz Church excavations that he sent to Kidder. The available pictures, although black-and-white, were obviously taken at the same time, but not copies of those that were sent. Therefore, there are at least two more Stubbs photographs of the 1956 excavations of the Ortiz Church still unlocated, probably the best ones.<sup>18</sup>

The photographs show that as their plans indicate, Stubbs and Ellis did not excavate the entire interior of the church and sacristy. Instead, they trenched along the walls of the north end of the nave and around the interiors of the sanctuary and sacristy. They left a block of unexcavated fill in the center of the sanctuary, shown in Figures 3.4, and a larger block in the sacristy.

Of equal importance, the files contain the analysis of the ceramics, carried out from June 5 through the end of the excavation. The diagram associated with the analysis had the distribution of ceramics shown in Table 3.1. Going strictly by these ceramics, the latest materials on the site were Sankawi Black on Cream, 1525 to 1650, and Glaze VI, 1625 to 1700. The ceramic evidence alone suggests a date of construction and use at about the end of Sankawi B/c and the beginning of Glaze VI, or about 1625-1650. Since historical documents show that a larger church was built at Pecos beginning in 1620 or 1621, these scant ceramics suggest a date of just before 1620 for the construction and use of the Ortiz Church.

Soon after the completion of the fieldwork, Bruce Ellis wrote to Kidder, giving him detailed information about the Lost Church. His summary was:

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<sup>17</sup>“Lost” Church maps, LA 625, flat files.

<sup>18</sup>Stubbs to Kidder, September 4, 1956, LA 625, folder 3.

Stan and I found that some of the stone foundations in the northeast section of the church were still topped by several courses of adobe bricks. Last Friday, for purposes of comparison, I re-cleared a segment of the adobe brick floor in the North Quadrangle kiva which Fred excavated for you in 1952 [Kiva 7] . . . Regarding the church, we are at present completely stumped. . . . Just now I can say only that (1) not a single European artifact was found [during the excavation of Lost Church], (2) no evidence of a major burning was found, (3) only a few very small and scattered pieces of wood were found, in placeable architecturally and of doubtful dating value (they are now at Arizona), (4) the relatively few, and small, pot-sherds recovered could all have come from adobes brought to the site<sup>19</sup> - the latest examples being Polished Black, Pecos Glaze V and probable Sankawi, and (5) the structure shows no signs of extended use by either Whites or Indians. That it was completely erected is suggested by the presence of many clay masses in the fill showing twig and pole impressions - presumably roof material - and also by the presence of plaster on both the inside and the outside of the nave foundation walls. That it was deliberately and thoroughly dismantled soon after building may be indicated by (1) the complete absence of any structural wood, burned or unburned, and (2) the presence of about 250 adobes - some clean and sharp-edged, others bearing traces of mortar - stacked slanting on edge in regular rows in the former sacristy. . . . possibly salvaged bricks stored for a re-use which never developed (unless this cache was the source of the bricks used for flooring the kiva noted above; all bricks were without straw and of long, thin type, averaging 20" x 9" x 2½".) There are other queer features, too, in none of which have we as yet found clues as to when the church was built, or by whom. . . .<sup>20</sup>

A few days later, based on the excavations and the artifact analysis, Stubbs gave his conclusions to Kidder: "Very few scraps of charcoal were found; there was no sign of burning. However, the building gave the appearance of having been almost completely demolished, and the beams, roofing materials of poles, etc., taken away, the adobe walls largely removed (some of the bricks being left in the sacristy). . . . My guess on one possibility of the 'lost church' is that it is definitely pre-rebellion and that it was dismantled and the materials from the roof on down to the foundations was re-used elsewhere in the pueblo." Prompted by Kidder, Stubbs accepted the possibility that the dismantling could possibly have been part of the 1680 revolt destruction: "Such action would destroy a structure more completely than burning as was done in some of the other villages in 1680."<sup>21</sup>

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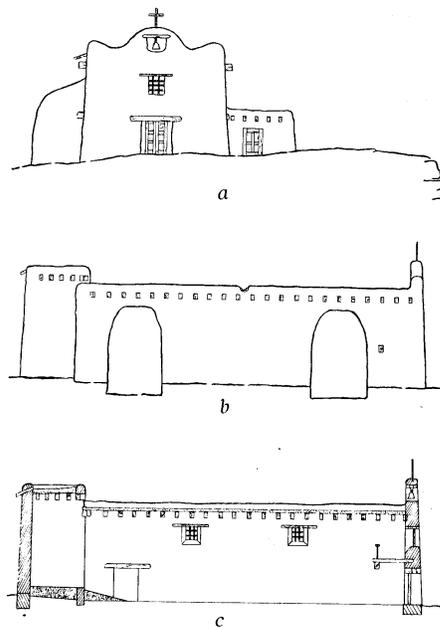
<sup>19</sup>This is unlikely – the yellow adobes of "Lost" Church are virtually clean, containing few, if any, artifacts.

<sup>20</sup>Bruce T. Ellis to Alfred V. Kidder, June 28, 1956, in the collections of the Peabody Museum, Harvard University, Cambridge, Massachusetts; copy in PNHP.

<sup>21</sup>Stubbs to Kidder, July 1, 1956, LA 4444.

However, in their joint final report on the Ortiz Church, Stubbs backed away from this acceptance of Kidder’s argument, and tacitly followed Ellis's assessment that the available evidence placed "the building-date of the 'lost' church not later than in the first two decades of the 1600s."<sup>22</sup> It had to have been built after 1617, at which time there was no church at Pecos,<sup>23</sup> but predated the church and convento begun by Ortega about 1621 and finished by Juárez before 1626. Although they agreed on the general dates for the construction of the Ortiz church, Stubbs and Ellis disagreed on which building was the Ortega-Juárez building that replaced it in 1621-1625 . Stubbs thought that the Ortega-Juárez church must be the present ruined church standing at Pecos, while Ellis considered that the pre-Revolt church was the "old" church in the Pecos convento south of the present church, as described by Dominguez.<sup>24</sup>

Ellis felt that the Ortiz Church had been "stripped of its woodwork for re-use in a new, better-located structure," presumably the new church at the south end of the *mesilla*, and that the Ortiz church was "left as an empty, roofless shell, its adobes at the disposal of the Indians."<sup>25</sup>



<sup>22</sup>Stubbs, Ellis and Dittert, "'Lost' Church," p. 85.

<sup>23</sup>Stubbs, Ellis and Dittert, "'Lost' Church," p. 77 n. 3, citing Hodge's notes on the two Benavides Memorials; Hodge listed Pecos as one of the ten pueblos having churches in 1617 in the notes for the 1630 memorial, but omits it from the list in the notes for the 1634 memorial; see Emma Burbank Ayer, *The Memorial of Fray Alonso de Benavides, 1630* (Edward E. Ayer: Chicago, 1916), pp. 232, 269; Frederick W. Hodge, George P. Hammond, and Agapito Rey, *Fray Alonso de Benavides' Revised Memorial of 1634* (Albuquerque: University of New Mexico Press, 1945), p. 272. Ellis's statement to this effect indicates that he thought the "Lost Church" had to have been built after 1617.

<sup>24</sup>Stubbs, Ellis and Dittert, "'Lost' Church," pp. 78, 79, 85.

<sup>25</sup>Ellis to Kidder, June 28, 1956, Kidder Collection, PNHP.

**Figure 3.5.** The Stubbs and Ellis reconstruction of the appearance of the Ortiz Church.

A few days later Stubbs wrote to Kidder and described the bricks in the sacristy as "both new and salvaged . . ." <sup>26</sup> Kidder replied with several questions: "Did the pile of adobes look as if they were salvaged stuff?" <sup>27</sup> Stubbs answered: "the adobes stacked in the sacristy were both salvaged and new. Some retained fragments of hard adobe mortar, others were just as sharp and clean as though they had just been removed from the forms and set up to dry. If all had a new appearance one could argue that the church was never finished or that the priest was getting ready to add another room. Since both new and used were stacked together . . . [t]he church could have been razed by the Indians . . . [who] carefully saved as many bricks as possible as they demolished the church, adding them to a small lot already collected by the priest for additions to his church." <sup>28</sup> Ellis added that ". . . the remaining wall-stubs were leveled at an early date, before the Pecos Indians acquired much livestock . . ." because of the lack of manure deposits within the walls. <sup>29</sup> Stubbs and Ellis considered that some of the adobes removed from the Ortiz Church were reused in Kiva 7; <sup>30</sup> Kidder later noted that the Kiva 7 adobe brick floor was made using not only yellow bricks identical to those found in the Ortiz Church, but also two that are described as black (probably type Ia) bricks, both with dark red mortar. <sup>31</sup> This suggests that either the brick floor was laid about 1620, before the beginning of manufacture of the black brick used to construct the principal church and convento, and then repaired sometime before 1640, when the black bricks went out of use; or it was laid in 1620-30, when yellow Ortiz Church adobes were still available, as well as the black bricks from the church and convento construction. Although the published report does not mention it, Stubbs and Ellis found similar bricks that they thought were from "Lost Church" in their excavations of South Pueblo, used for repair or reconstruction. In fact, they found brick rubble in all ten rooms they excavated, and room #7 had an adobe brick floor of the same yellow bricks as seen at Ortiz Church. <sup>32</sup>

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<sup>26</sup>Stubbs to Kidder, July 1, 1956, LA 4444.

<sup>27</sup>Kidder to Stubbs, September 10, 1956, LA 625, folder 3.

<sup>28</sup>Stubbs to Kidder, September 17, 1956, LA 625, folder 3.

<sup>29</sup>Stubbs, Ellis and Dittert, "'Lost' Church," p. 84. Such manure deposits from sheep or cattle are a standard stratigraphic element of colonial sites; for example, the convento of the standing church was used extensively as a sheep pen, leaving varying thicknesses of manure deposits in a number of rooms.

<sup>30</sup>The published report only says ambiguously, "Whether adobes of the 'lost' church type found pueblo use other than in Kiva 7 is not yet known." Stubbs, Ellis and Dittert, "'Lost' Church," p. 84.

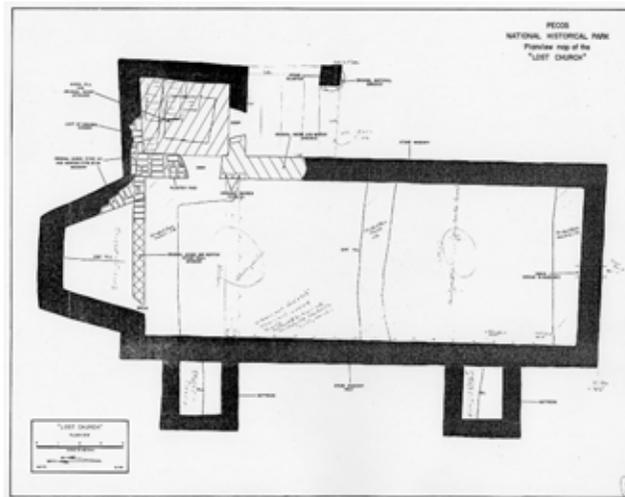
<sup>31</sup>Kidder, *Pecos*, p. 191

<sup>32</sup>"Adobe bricks were evident in the fill of the ten rooms we checked. One room, #7 (1956), had been floored with adobe bricks, again the same size and color as those from the 'lost church' . . ." Stubbs to Kidder, July 1, 1956, LA 4444.

Stubbs and Ellis had returned to the Ortiz Church because Kidder was hoping that a more detailed examination than he had given the building would allow an estimate of the date of its construction. They didn't get it; at least, not in the solid and resounding way they had hoped. Only ceramics were found, and they only indicated a use sometime early in the seventeenth century. Hard evidence for the actual dates of construction, abandonment, and dismantling (which could only have come from tree-ring dates for beams clearly used in the building) eluded them, except insofar as these could be determined by the relative sequence of the Ortiz Church structural events compared to the indirect evidence from the very sparse documentary evidence for Pecos.

Fitting such unsatisfactory hints together, then, Stubbs and Ellis felt that the Ortiz Church had been constructed after 1617 but before 1620, abandoned and stripped of its woodwork about the time of the beginning of construction on the new church (wherever it might be) as of 1621 or 1622, and mined of most of its adobes soon thereafter; some of these adobes went to South Pueblo, some to North Pueblo, and some to Kiva 7.

In 1993, Courtney White and I scraped the fill away from the wall tops of the Ortiz Church in order to prepare a new map of the structure and to collect samples of the yellow adobe bricks for analysis. We plotted the location of all surviving bricks, of which there are probably at least a hundred in the walls of the altar platform and the walls of the sacristy. In the process of cleaning the walls in order to draw the plan, we found a rectangular stone pillar base beside the sacristy, apparently intended to support a roofed portal outside the sacristy doorway. This suggests that the friar lived in the sacristy during the construction; therefore the sacristy was probably finished first.<sup>33</sup>



**Figure 3.6.** White plan of “Lost” Church. The penciled markings were copied from a Stubbs and Ellis plan, indicating where they dug their trenches.

<sup>33</sup>J. Courtney White, “Pecos National Historical Park, Planview map of the ‘Lost Church,’” August, 1994, PNHP.

### The Physical Evidence from the Ortiz Church

Compiling all the information from Kidder, Stubbs and Ellis, and the work by Courtney White and myself allows a fairly detailed description of the building. Construction apparently started soon after the arrival of Fray Pedro Zambrano Ortiz in 1617. When construction stopped probably in 1620, the church contained about 82,000 bricks of a distinctive yellow-tan color, made of a virtually clean clay containing no ceramic sherds, charcoal, bone, or other midden material; the bricks were laid up in a red-brown or purple-brown mortar much like that used later in the first periods of construction of the church and convento. The estimated average rate of construction for the large church a few years later was 5,500 bricks laid per month.<sup>34</sup> Assuming that the location of this church indicates considerably less support, it is reasonable to suppose a rate perhaps half that, or about 3000 bricks per month with a smaller crew. The church would then have taken 27 months to construct, or three years at nine months of construction per year. At this rate, with the beginning of construction in 1617 the primary fabric of the building would have just been completed in 1620, and the building would have been in the process of being roofed and finished on the interior when the move to the pueblo happened and the dismantling began. Fragments of roofing material found in the nave and sacristy leave little doubt that the majority of the roof had been put in place, and therefore the choir loft had also been built. The roofing and other woodwork would have been cut and cured first, then trimmed to shape by the Pecos — probably their first training in the carpentry for which they would soon become famous throughout the province of New Mexico. This would have totalled 23 beams each about one foot square and 31 feet long (including the beam for the choir loft main joist), nine beams about one foot square and 18 feet long for the sacristy roof, and a number of other, smaller beams for the sanctuary roof, the choir loft floor, the lintels of the doors and windows, and the portal outside the sacristy.

During the first few months of construction, Fray Pedro Zambrano Ortiz may have lived in a "shelter"-like structure found by Stubbs and Ellis between large boulders down the slope just to the east of the church.<sup>35</sup> The sacristy and adjacent portal were probably built up quickly, taking two months for the walls and another week or two for the roofing and doors. The interior of the sacristy was not plastered, and a small hearth was made in the southwest corner of the

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<sup>34</sup>Bill Witkind found that a six-man crew making adobes in the traditional manner could make between 275 and 375 adobes a day, depending on weather conditions. He had a loss rate of about 6 bricks out of every 75 or 80. Brick production began to drop off in October, when the cool weather increased the drying time, and his construction crew was able to lay bricks faster than the brick-making crew could produce them. Witkind felt that brick production became unfeasible about November 1 in the Pecos valley, and remained risky because of frosts through the end of April. If bricks were stockpiled, construction could be conducted during periods of good weather in this six-month interval; William Witkind daily journal, "The Excavation, Stabilization, and Reconstruction of Cicuye;" June 1 and October 17, 1939. Richard Whitehead quoted Fray Estevan Tapis in 1799 in California as saying that the average nine-man crew would make 360 adobes a day, working only the first four or five days of the week, for only a half of each day; Richard S. Whitehead, *Citadel on the Channel: The Royal Presidio of Santa Barbara, Its Founding and Construction, 1782-1798* (Santa Barbara: Santa Barbara Trust for Historic Preservation and Arthur H. Clark Company, 1996) pp. 155-56.

<sup>35</sup>Stubbs, Ellis and Dittert, "'Lost' Church," p. 75.

room, between the doorway into the church and the doorway out to the portal.<sup>36</sup> The sacristy and portal served as the house for Ortiz during the remainder of the construction.

The choir loft would have been built when the walls of the nave reached about 13 feet in height, about three months into the second season of construction. No traces of a front porch or choir balcony were seen in the excavations, nor any indication of choir loft support beams or a choir stairs, but the interior was excavated only in three trenches across the nave, none of which were in the most likely area of the choir loft supports, about 18 feet from the front of the building. It is possible that the south buttress contained a choir stairway, but more likely that a simple wooden staircase or ladder served that purpose.

Excavation shows that the buttresses were added after construction had been carried above the level of their foundations. They were placed on the downhill side of the church; the bedrock sloped about five feet downward to the southwest from the center of the church toward the southwestern corner, and the buttresses were apparently intended to prevent any shifting of the foundations or walls downslope. The buttress foundation stones were placed against the plastered face of the church foundations, but plastering was a method of protecting the construction from the weather, and may have been added as weatherproofing as the walls went up; this does not have to indicate that the building had been completed before the buttresses were added. This use of large buttresses on a mild slope was repeated a number of times by the Franciscans later on the Pecos convento.

The church had no baptistry as a separate room; this did not become a standard until after 1640. The baptismal fount probably would have been located in the southwest corner of the nave, under the choir loft. The building probably had a front porch, but no traces of this were seen, since no excavation was done in the appropriate area. The building probably did not have a transverse clerestory window – the limited evidence suggests that these were not used in New Mexico churches until after about 1626.

On the interior, the church was plastered, but the final white coat had not been applied and any decorative painting had not yet been executed. This would wait until the altar had been constructed. The facing wall for the altar platform had been built, and the space behind it was in the process of being filled, one bucket at a time, when the work stopped. The ramp-like structure found by the excavation was apparently an access ramp to allow workers to walk over the top of the wall to dump buckets of fill dirt behind the wall to create the altar platform. It would not have been long before the altar stairs, predella, and the altar itself would have been built. New adobes were undoubtedly waiting in stacks here and there for the final construction of the altar to begin.

Stacked bricks inside the sacristy indicate that the friar moved out before the dismantling began, probably to new housing in South Pueblo. When the demolition began, the roof beams would have been removed first, then the bricks of the wall tops, followed by the other woodwork as the removal of the walls allowed. As whole bricks were removed, they were probably stacked on edge in long rows all around the building, including the sacristy. Mortar rubble and broken bricks piled up in heaps along the wall bases, both inside and outside the walls. The stacks of

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<sup>36</sup>Stubbs, Ellis and Dittert, "‘Lost’ Church," pp. 75, 84.

unused bricks waiting for the finishing of the altar platform and stairs were probably included into the piles of removed bricks. As the walls came down, the heaps of rubble built up along their bases; at the end of the demolition process, several hundred bricks were left buried in the rubble on the foundation tops and in the altar platform wall, and another 250 or so in the rubble-filled sacristy; at most, perhaps 700 total. In other words, the available evidence suggests that less than 0.8 percent of the total number of bricks made for the church were left at the site, and potentially as many as 81,000 bricks might have been taken to the pueblo and new Franciscan construction, depending on how many bricks were broken during the dismantling of the building. The remains of the building were then left to the weather.

#### Kidder's Final Evaluation of The Ortiz Church

Kidder, after reading the final conclusions stated in the "Lost" Church report, told Stubbs and Ellis that he could "summarize the results" of the article in an appendix in his Pecos report, "and add certain ideas, which of course do not controvert anything you say, but which seem to me should be considered in regard to the 'Lost' church. The lack of any sign of a *convento* worried me somewhat in considering, as I am inclined to do, that the church in question was in use up to 1680 . . ." Kidder then briefly listed historical evidence for and against a convento at Pecos, and concluded that in the single trustworthy seventeenth-century description of Pecos, no convento was mentioned. He carefully discussed the reference to a convento at Pecos in the 1600s by George Kubler, p. 85, pointing out that Kubler's source was Hackett, vol. 3, p. 247, which, Kidder demonstrated, was not a reference to a convento at Pecos, but to the convento in Santa Fe. Oddly enough, however, on previous pages of Hackett, for example pp. 240, 241, 243, and 245, are numerous references to the Pecos convento, which Kidder apparently missed. As a result, he concluded that the historical evidence indicated that there was no convento at Pecos before the Pueblo Revolt. "This," he continued, "helps to explain the absence of such a structure in the 'Lost' Church."<sup>37</sup> That is, the archeological and historical evidence both suggested that the Ortiz Church was the pre-Revolt church of Pecos, in use from 1617 to 1680 and then destroyed in the Revolt.

This summation by Kidder did not sit at all well with Stubbs:

Your letter states that you feel the structure was in use up to 1680. This would allow probably some seventy-five years of European occupation. Surely, if this were the case, there would have been one small scrap of European material, china ware, metal, or such, turn up in our digging. We did not find a single bit of such material, either on the surrounding area or in the excavation. Also, nothing later than Glaze V came from the digging or the adobes. On this strictly archaeological evidence I would put the date at a considerably earlier period, maybe even 1542 to 1610 . . . and probably not too long an occupation.<sup>38</sup>

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<sup>37</sup>Kidder to Stubbs, December 4, 1956, LA 625, folder 3.

<sup>38</sup>Stubbs to Kidder, December 11, 1956, LA 625, folder 3.

Kidder resisted Stubbs's criticism. In May, 1957, as he was completing *Pecos*, he replied to Stubbs that he was going to "add a small note as an Appendix to the Pecos book suggesting the possibility — although it's perhaps barely that — that the [Ortiz] church was in use until the Revolt. I admit that Ellis' position is far stronger, because it is so difficult for me to account for the adobe pile in the Sacristy and also for the lack of all European objects including sherds of china . . ." <sup>39</sup>

Pinkley's discovery of the principle church beneath the standing ruin ten years later effectively ended any further consideration of Kidder's argument, and effectively confirmed Stubbs and Ellis's reasoning about the probable period of construction of the Ortiz Church. Unfortunately, Stubbs had died in 1959 and Kidder in 1963, so two of the three principles in the debate did not get to see the ultimate solution to this question. The removal of this question from the field allowed a more reasoned evaluation of the implications of the discoveries at the Ortiz Church. The essential question really was: who salvaged the bricks? The Franciscans, or the Pecos? So far as the available evidence goes, the only known examples of reuse of the brick were in Puebloan structures, not Franciscan. This seemed to demand that the context of at least the salvage was a time when the Franciscans were not available to make use of the beams and bricks from the Ortiz Church.

As a result, in 1956 it therefore did not seem unreasonable to Kidder to assume that the salvage occurred as part of the Revolt of 1680. This conclusion was what Kidder had been arguing for all along—but Kidder, Stubbs, and Ellis were missing some essential bits of evidence. The results of Alden Hayes's excavations at Gran Quivira's Mound 7 showed Borderlands scholars what a Franciscan first occupation in a pueblo looked like; the resemblance between the Mound 7 rooms and those at the north end of South Pueblo are obvious. Based on such a comparison and the evidence from the excavation of South Pueblo (discussed in Chapter 4), it is clear that the first of the new construction of South Pueblo was Franciscan, followed by “Christian” Pecos.

Although random salvage or Pecos manufacture could have put the yellow adobes and squared timbers in North Pueblo at any time after the arrival of the Spanish, it was the Franciscans and their converts who placed the yellow Ortiz Church bricks found in South Pueblo. It follows, then, that even in the context of Kidder's thinking in 1956, the Revolt was *not* the most likely time for the dismantling of the Ortiz Church. Instead, 1620 or so would fit quite nicely: the Franciscans were moving from the Ortiz Church to South Pueblo.

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<sup>39</sup>Kidder to Stubbs, May 7, 1957, Laboratory of Anthropology Archives, Folder 89CO5.048, "Stubbs-Kidder 1950s."



## Chapter Four South Pueblo

The South Pueblo is a long, narrow room block extending north to south between the ruined Pecos mission church and the massive, rectangular North Pueblo. The ruins are about 400 feet long and 70 feet wide. In his notes for August 22, 1925, Alfred Kidder wrote that he counted "28 sets of [rows of six] rooms in S. house N-S . . . 3 sets of lower ones at S. end . . ." for a total of about 180 ground-level rooms.<sup>1</sup> The middle four rooms of each row were apparently two stories in height, with some occasional third-story spaces, adding perhaps 120 upper-level rooms, for a total of about 300 rooms in South Pueblo.

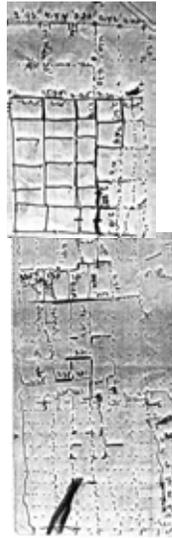


Figure 4.1.

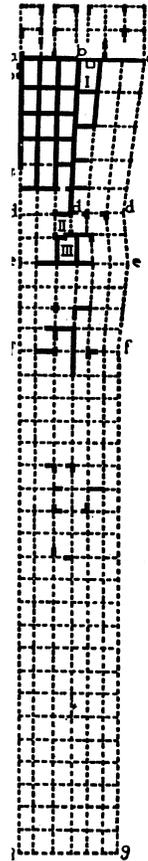


Figure 4.2.

**Figures 4.1 and 4.2.** Bandelier's field sketches of the north half of the pueblo, Figure 4.1, and his published plan of South Pueblo, Figure 4.2. Both plans are shown at approximately the same scale. The field sketch ends thirteen rows south of the point marked "f" on the right side of the published plan.

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<sup>1</sup>Alfred Vincent Kidder, "Field Notes, 1925," August 22, 1925, in Kidder Collection, Pecos National Historical Park (PNHP).

When Dominguez inspected Pecos in 1776, 139 years before Kidder arrived at the site, he found South Pueblo still standing, and still partly occupied. He described the pueblo as south of the main rectangle of North Pueblo: "another block, or tenement, like [North Pueblo]. The only difference is that it stands alone and extends a long distance from north to south."<sup>2</sup>

Artist's impressions of the ruins began to be made in the 1840s, within a decade of the abandonment of the pueblo. The earliest available is Seth Eastman's sketch, apparently an 1854 copy of a drawing made by J. W. Abert in 1846, less than ten years after the final occupants left – see Figure 13.1 in Chapter 13.<sup>3</sup> Little detail of the construction of the South Pueblo can be made out from this sketch, but in general it can be seen that the central sections were higher than the westernmost portions of the buildings; the impression is that some central rooms still stood to a height of two, or even three, stories, while the western sections were only one story high. The highest sections of the roomblock seemed to be at its northern end.



Subsequent photos and descriptions continued this impression. At the time of Bandelier's visit to Pecos, he encountered George C. Bennett. Bandelier helped Bennett carry his photographic equipment to the site on September 2, 1880, and assisted him with picture-taking the rest of the day; on September 3, he again walked to the site with Bennett, left for part of the day, and returned in the afternoon when he found Bennett and Benjamin Wittick both at the Pecos ruins.<sup>4</sup> Bennett took several photographs of the ruins of South Pueblo during Bandelier's visit. One of these was a photograph taken from the top of the north transept of the church looking north towards South Pueblo.<sup>5</sup> This photo shows the standing walls at the

**Figure 4.3.** South Pueblo from the northwest in 1880 as Bandelier saw it. The standing walls are those Bandelier marked in heavy lines on his plan. Photograph by Ben Wittick, 1880, MNM #15695, courtesy Museum of New Mexico.

<sup>2</sup>Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956), p. 213.

<sup>3</sup>Seth Eastman, about 1854, in H. R. Schoolcraft, *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, Part IV, Bureau of Indian Affairs (Philadelphia: Lippincott, Grambo and Co., 1854), p. 29. Eastman is listed as the illustrator for this volume. See a more detailed discussion of the relationship between the Eastman drawing and Abert's sketch in Chapter 12.

<sup>4</sup>Adolph Bandelier, *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), pp. 79-81.

<sup>5</sup>W.H. Brown, Class 2617, neg. 2140, #342, PNHP.

north end of South Pueblo as Bandelier saw them. A second Bennett photograph looks southeast toward South Pueblo and the church.<sup>6</sup> About the same time, Ben Wittick took a photograph looking north along the South Pueblo rooms.<sup>7</sup> The highest standing walls are just to the north of the photo point, and North Pueblo is visible beyond. Also about 1880, W. P. Bliss made a photo from almost the same point as the Wittick photo.<sup>8</sup> This gives a clear view of the sections of standing wall. South Pueblo clearly has several sections standing to some height towards the north end along its centerline, perhaps to at least two stories. It is clear that this is the two-story section visible in the Eastman drawing of 1846-47, and the high part of the ruin that Bandelier explored and mapped in 1880, perhaps the same day the Bennett picture was taken. The plan matches later maps of South Pueblo quite well, and show that Bandelier's Room I, the highest section where he describes a number of second-floor details, was Room 29 on the map made by John Corbett and George Carr in 1939-40.<sup>9</sup> This was the next room north from the room Kidder would number 102.

Bandelier described the ruins of South Pueblo in great detail. His observations, written only 42 years after the abandonment of Pecos Pueblo, fill out the archeological record of South Pueblo excavations. While examining the remains of South Pueblo, Bandelier became convinced that the southern half or two-thirds of the ruins were much earlier than the northern third.<sup>10</sup>

The southern two-thirds were largely collapsed; he could see "nothing else but foundations of small chambers indicated by shapeless stone-heaps and depressions." The northern series of rooms, however, were "in a better state of preservation; a number of chambers are more or less perfect, the roofs excepted." "The southern portion of the building . . . was, in all probability, the one first built. The northern portions were added to it gradually as occasion required." Noting that a number of areas of adobe brick could be seen in the construction of the northern rooms, he stated flatly: "I am decidedly of the opinion that the northern section is the latest, and erected after 1540."<sup>11</sup>

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<sup>6</sup>G. Bennett, Museum of New Mexico Photographic Collection (MNM), 139057.

<sup>7</sup>B. Wittick, MNM 15685.

<sup>8</sup>W. P. Bliss, MNM 117671.

<sup>9</sup>John Corbett and Bill Witkind excavated the entire northern two-thirds of the South Pueblo in 1939-1940, including the rooms Kidder had excavated in 1920 and 1924. Corbett and George Carr of the National Forest Service surveyed these rooms in February and March, 1940, producing the plan called "South Mound, Pecos Ruin, N.M.," in the Laboratory of Anthropology map files, LA 625; this map is hereafter referred to as the Carr-Corbett map.

<sup>10</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), pp. 47-65 and Plates II and III.

<sup>11</sup>Bandelier, "Visit," pp. 48, 55.

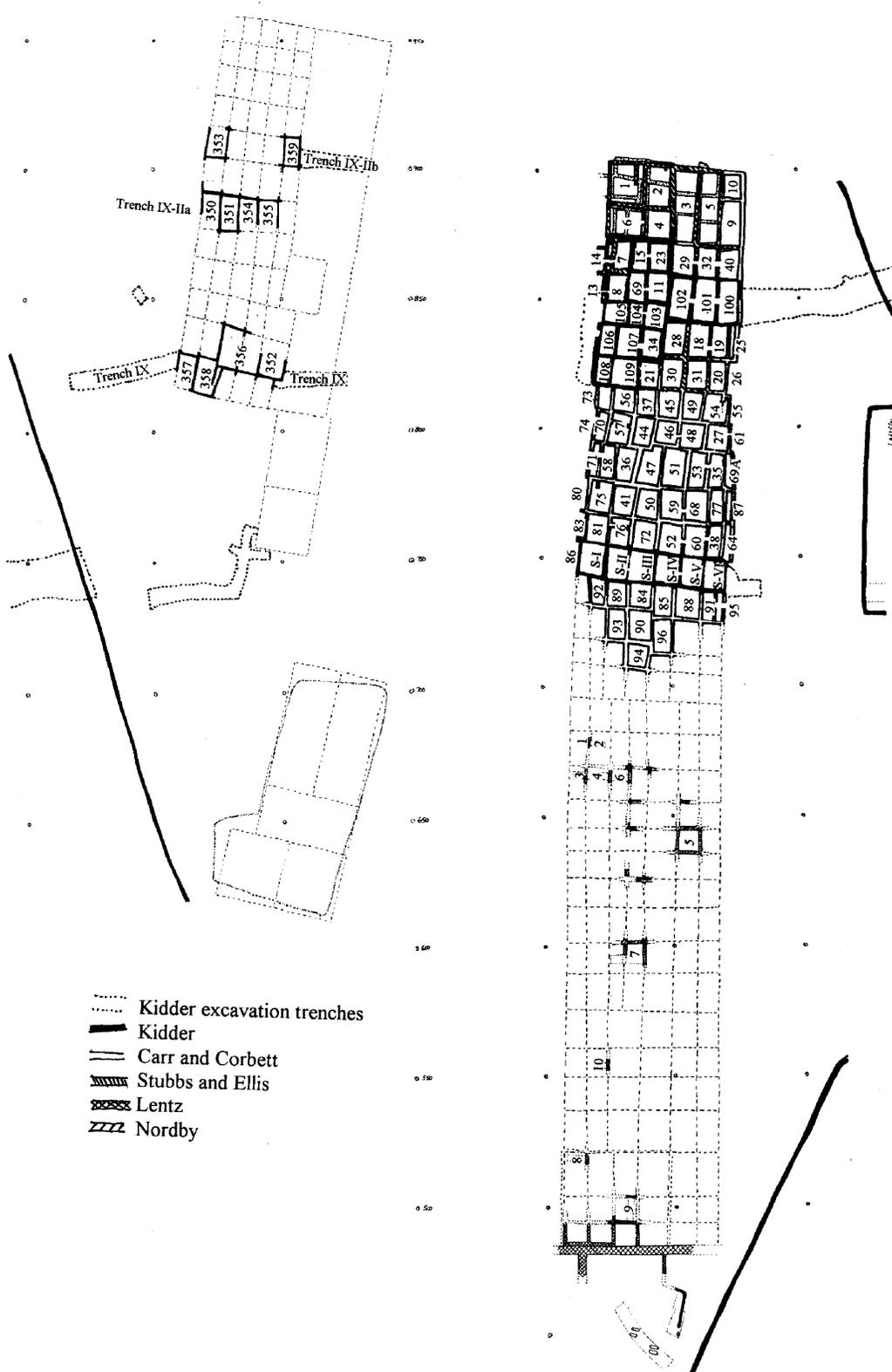
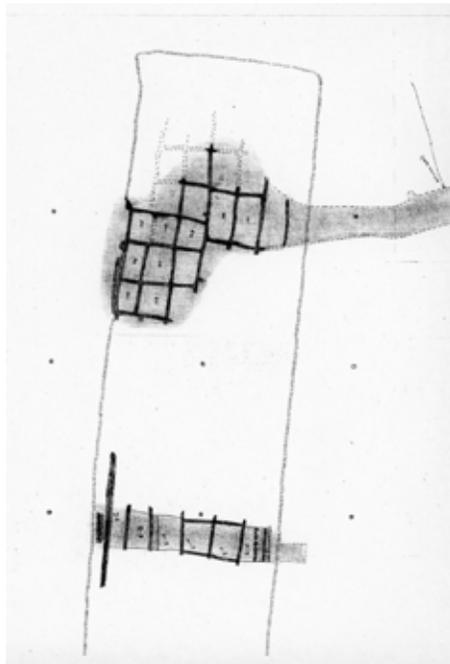


Figure 4.4. South Pueblo and West Pueblo.

The northernmost row of rooms, however, were as much collapsed as were the southern two-thirds of the ruins. This area is shown in the Bennett photograph, MNM 139057, looking from the northwest. Examining the Bennett photograph and Bandelier's map, it is immediately obvious that Bandelier was able to see, still standing in 1881, the plan of the rooms recorded after excavation by the Carr-Corbett map of 1940. Bandelier indicated that the northwest quadrant of approximately 18 rooms still stood in clear outline; these were the rooms he described as "more or less perfect." The northernmost tier, that Bandelier saw as badly fallen in, was apparently a series of eight large rooms, fallen to less than one story high, with their plans marked only tentatively on his map. Few photographs of South Pueblo are available for the period between Bandelier's visit in 1880 and the beginning of Kidder's excavations there in 1920. The two that show any detail were taken by Jesse Nusbaum in the summer of 1911, and in 1915; both show the ruined structures of South Pueblo as they stood just before Kidder began his work on this building.<sup>12</sup> They show about the same distribution of high and low walls as visible in the 1880s, although the higher walls have fallen to about half their 1880s height.



**Figure 4.5.** The plan of the 1920 and 1925 excavations on South Pueblo. The 100-Series rooms near the north end of the pueblo, excavated in 1920, are at the top, and the S-Series of 1925 are at the bottom.

#### Kidder on South Pueblo

Forty years after Bandelier described and drew plans of the ruined South Pueblo, Alfred Kidder excavated several rooms in the ruined mound. "We did relatively little on it," he wrote,

<sup>12</sup>J. Nusbaum, MNM 6632, 1911; J. Nusbaum, MNM 12944, 1915.

“merely clearing a few rooms toward its northern end in 1920.” These were Kidder's rooms 101-109, which became rooms 15, 12, 7, 33, 44, 43, 22, and 78 on the Carr-Corbett map. Later, “in 1924 [actually 1925] we excavated one of the six-room sections: Rooms 39, 62 [actually 63], 66, 67, 79, 82 of the Carr-Corbett plan . . .”<sup>13</sup> This was the S-Series of rooms.

When Kidder began his excavations at Pecos in 1915, he had the surveyor J. P. Adams lay out a fifty-foot grid across the mesilla top. From about June 18 to the first few days of July, Adams placed the primary grid stakes marking out fifty-foot squares across the mesa top. The origin of this grid system was just north of the southernmost wall of Area A of the Pecos mission convento, north of the present parking lot. From this point, marked “0,0” on the plans, distances to the north were indicated by an “N” prefix, and distances east or west of this prime meridian were indicated by an “E” or “W” prefix. A typical location would be given as “N850E100,” indicating the grid stake 850 feet north of the 0,0 stake, and 100 feet east of the north-south line running from it.<sup>14</sup> During the following ten years, Kidder referred to locations and trench lines on the mesa top using this grid system.

After the 1925 season, Kidder wrote a summary of his impressions of the South Pueblo:

“The South House south of the S series crosscut in 1925 is a billowy mound of fallen building stones — all of the coarse pebbly sandstone of the ledge that underlies it. The stones show no shaping at all, nor are they naturally shaped (i.e. flat). Bits of wall appear here and there and there is a tendency toward heaping at room corners where the junction of four walls has served to retard destruction. In spite of this it is almost impossible to map the rooms accurately, because the transverse series do not seem to correspond well with each other over long distances. Excavation would show, I think, a rather irregular plan in detail, though there is no doubt that in general the plan consists of transverse series of six rooms with balconies both E. & W. There are a number of rooms that have fallen relatively recently, as the holes are deeply concave, & here & there can be seen the ends of roof-beams. As Bandelier remarked, the N. end of the building looks to have been kept in use longest, and there seems to have been considerable remodelling of the core rooms [reading uncertain] in the S[outh] P[ueblo] region. There has also been a considerable use of adobe, both in the west facing of the N. end, and in the extreme N. rooms themselves.”<sup>15</sup>

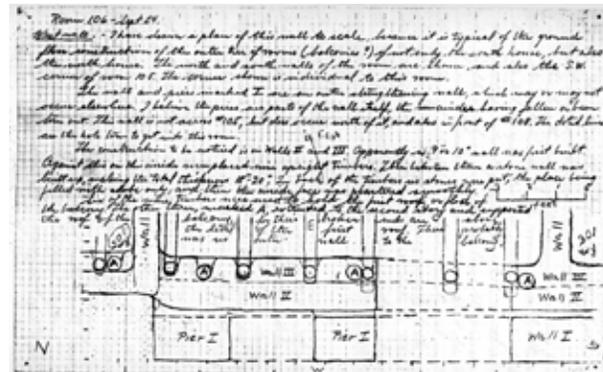
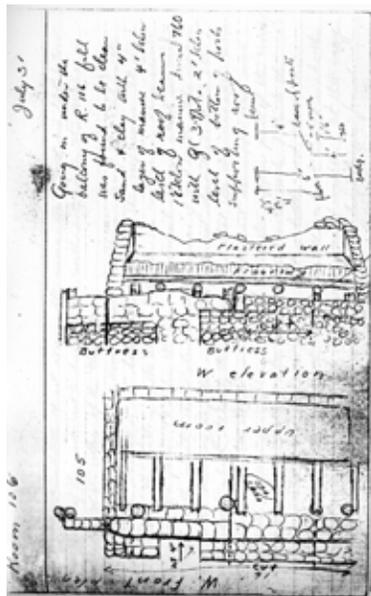
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<sup>13</sup>Alfred Vincent Kidder, *Pecos, New Mexico: Archaeological Notes*, Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 5 (Andover: Phillips Academy, 1958), p.106; see also pp. 107-113, 121, 330-332

<sup>14</sup>Alfred Vincent Kidder, *An Introduction to the Study of Southwestern Archaeology; With a Preliminary Account of the Excavations at Pecos*, (New Haven: Yale University Press, 1924), p. 91 n. 4; “Kidder Notes, 1915 Daily Record,” July 2-3, 1915, pp. 14-15, PNHP; Adams, “Elevations,” Kidder Notes, Miscellaneous Notes, 41/28b, PNHP.

<sup>15</sup>Kidder, “Field Notes, 1925,” August 3, 1925, p. 2.

The 1920 excavation of the South Pueblo began on July 13 with the establishment of a trench on the 850 transect line, east of about the middle of the best-surviving group of rooms near the north end of the mound. Under the direction of E.A. Hooten, the trench was started about 15 feet east of the traces of the eastern defensive wall that surrounds the mesilla top. Within two days it became clear that virtually all the ceramic material found in the trenching was Glaze V, suggesting a date of between 1515 and 1650 or later for the deposition of the material. As the trench crossed the line of the defensive wall on July 19, Kidder found that there were two of these, one at the surface and the other about two feet deep and a little farther east down the slope. Most of the Glaze V stopped at the walls; under the wall bases, the excavators found the lowest stratum contained Glaze II (about 1400-1450), while the stratum above it, just under the walls, was a mixture of Glaze III and Glaze IV (ca. 1425-1515).<sup>16</sup>



**Figures 4.6 and 4.7.** Guthe's note cards for his excavation of two rooms in the South Pueblo. Figure 4.6, on the left, is his plan and west elevation of Room 105, and Figure 4.7 is his plan of Room 106.

As the trench crossed the space between the wall and the east side of the mound buildings, Kidder continued to see a mixture of many Glaze II-IV sherds, with a "very few" Glaze V and "modern" sherds. Kidder's "modern" or "modern painted" ware was later identified by Standly Stubbs as being Puname Polychrome and some related wares, dating about 1700-

<sup>16</sup>Alfred Vincent Kidder, "Kidder Notes," July 13, 1920, p. 8; July 14, 1920, p. 9; July 15, 1920, p. 10; July 16, 1920, p. 11; July 17, 1920, p. 14; July 19, 1920, p. 16.

1760.<sup>17</sup> Kidder felt that he was seeing a Glaze III stratum as the principal occupation surface in this area. On July 24 the trench reached the east wall of Room 101, the easternmost recognizable room.<sup>18</sup>

The references to the excavation of the rooms, series 100, are fragmentary. Kidder began Room 101 on July 24.<sup>19</sup> Kidder's assistant, Karl Guthe, made notes of Rooms 101, 102, 105, 106, 107 and 108. No reference is ever made to Rooms 103, 104, or 109, suggesting that although they were probably rooms clearly enough outlined to be numbered, they were not excavated by Kidder or Guthe. However, these rooms could have been emptied so quickly that they were not mentioned in the daily notes, and Guthe may not have had the chance to conduct a detailed examination of them.<sup>20</sup> One tree-ring sample, KL-25/7, was taken from Room 103, but this was carried out in 1925, not 1920. The first reference to Room 102 was on July 28, in notes by Carl Guthe headed "before being trenched." On this day, Kidder also continued work in Room 101, and started a second excavation into the pueblo from the "W. side of the 101-102 room series," that is, from the west side of the mound on the 850 transect.<sup>21</sup> On the 29th, Room 102 was emptied, and Kidder had excavated through the west-side doorway of Room 105 and was 3 feet east of the doorway, digging along the south wall through packed rubble.<sup>22</sup> On the 30th, Kidder finished Room 105, and began excavating Room 106 on the west side, and had it almost empty by the end of the day, while Guthe recorded notes about Room 102 "after room was abandoned by excavators." Guthe made after-excitation notes of Room 106 on July 31.<sup>23</sup> Kidder went to the Rio Grande Valley on August 3, leaving Guthe in charge of the excavations of South Pueblo. Guthe made further notes on Room 106 August 3, 4, and 5. On the 5th, Guthe began excavation of Room 107, still in good repair with the floor almost complete.<sup>24</sup> He made

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<sup>17</sup>Stubbs to Kidder, March 26, 1957, Museum of New Mexico, Laboratory of Anthropology, site files, LA 625, folder 3.

<sup>18</sup>"Kidder Notes," July 19, 1920, p. 20; July 22, 1920, pp. 24, 25; Room Series, Kidder notes, July 24, 1920, p. 91, rm. 101, Kidder Collection, PNHP.

<sup>19</sup>Room Series, Kidder notes, July 24, 1920, p. 91, rm. 101.

<sup>20</sup>It is also possible that Guthe's Room Series notes are simply missing these cards.

<sup>21</sup>Room Series, Guthe notes, July 28, 1920, p. 93, rm. 102; "Kidder Notes," July 28, 1920, p. 29.

<sup>22</sup>Room Series, Kidder notes, July 29-30, 1920, p. 94, rm. 105.

<sup>23</sup>Room Series, Kidder notes, July 29-30, 1920, p. 94, rm. 105; Room Series, Guthe notes, July 30, 1920, p. 94, rm. 102; "Kidder Notes," July 30, 1920, p. 29; Room Series, Guthe notes, July 30, 1920, p. 94, rm. 102; Room Series, Guthe notes, July 31, 1920, p. 98, rm. 106.

<sup>24</sup>"Kidder Notes," August 3, 4, 5, 1920, p. 33; Room Series, Guthe notes, August 3, p. 98, rm. 106; August 4, p. 99, rm. 106; August 5, p. 100, rm. 106; August 5, p. 102, rm. 107.

further notes on Room 106 on August 6, and returned to make final notes on Room 105 on August 9, because it was to be backfilled that day (Figures 4.6 and 4.7).<sup>25</sup>

Work on the South Pueblo stopped from August 11 to the 21st, Guthe being sick and unable to direct the excavations. He returned to the site on August 23, but was unable to do any excavation; instead, he caught up on the mapping of the excavations.<sup>26</sup> Kidder went to Santa Fe on September 7, leaving Guthe in charge of the entire excavation.<sup>27</sup> Apparently no work was carried out in South Pueblo for the period from September 9 through September 24 while Guthe directed excavations on other areas of the ruins. On the 24th, with only four days of fieldwork remaining, Guthe returned to finalize his notes on Room 105, which had not been backfilled after all, and continued detailed notes on Room 106 and 107. He added a few notes on Room 108, but these deal only with the northeast corner of the second floor, where a portion of the flooring material survived. The excavation closed on September 27, having spent a total of about 21 days on the 100-series rooms.<sup>28</sup>

Rooms 105, 106, and 107, on the west edge of the pueblo, were the best-preserved of those excavated. Guthe remarked that Kidder had planned to "restore" the area of Room 107; apparently for this reason, Rooms 105, 106, and 107 were not backfilled. However, the restoration was given up,<sup>29</sup> and as a result, the three best-preserved rooms of those excavated were left open to the elements and eventually fell into complete ruin, so much so that by the time the WPA excavations began under Hendron, Corbett and Witkind in 1938-39, Rooms 105 and 106 retained no recognizable characteristics, and were shown on the Corbett-Carr map as a gap in the neat ranks of the South Pueblo rooms. Kidder, who never returned to Pecos after the end of his excavations there, and therefore was unaware of how much collapse had occurred over the decades, made another effort in 1950 to restore this area. While the state was toying with the idea of some possible restoration of portions of North or South Pueblo, Kidder was asked for his ideas on the topic. He wrote to Director Boaz Long of the Museum of New Mexico suggesting that some rooms at the north end of the South Pueblo should be restored, since here the walls survived to several stories and evidence for ceiling heights and construction methods was well-defined; this description could only be applied to Rooms 105-107.<sup>30</sup>

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<sup>25</sup>"Kidder Notes," August 6, 7, 9, 1920, pp. 34-33; Room Series, Guthe notes, August 6, 1920, p. 103, rm. 107; August 9, 1920, p. 95, rm. 105.

<sup>26</sup>"Kidder Notes," August 11-21, 1920, p. 35, "Guthe sick during this period;" August 23, 1920, p. 35, "Guthe came to ruin for first time since his illness & is mapping;" August 31, 1920, p. 36, "Guthe to Santa Fe."

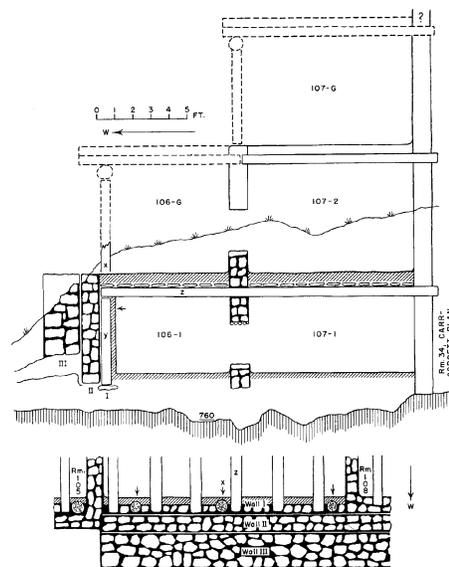
<sup>27</sup>"Kidder Notes," September 7, 1920, p. 38, "[A.V.Kidder] To Santa Fe. Guthe in charge."

<sup>28</sup>"Kidder Notes," September 9-27, 1920, p. 38, "Work from Sept 9-27 when season closed recorded in room cards." Room Series, Guthe notes, September 24, 1920, p. 96, rm. 105; p. 101, rm. 106; p. 104, rm. 107; p. 107, rm. 108.

<sup>29</sup>Room Series, Guthe notes, September 24, 1920, p. 106, room 107, "plans to restore this room were abandoned."

<sup>30</sup>Alfred V. Kidder to Boaz Long, June 23, 1950, files of the New Mexico State Monuments, Museum of New Mexico.

Guthe's notes of Rooms 101, 102, 105, 106, and 107 are quite detailed, and are accompanied by his meticulous drawings. In addition, Kidder had two photographs of these rooms taken, one of Room 101 about halfway through its excavation, and one of the west entrance to Room 106 after it was excavated. Guthe's notes and the photographs make Room 106 the best recorded of the South Pueblo rooms, with rooms 105 and 107 a close second. In 1956, Kidder devoted two pages and a large diagram to the details of the construction of Room 106, separating it into three phases and relating it to the surrounding rooms.<sup>31</sup>



**Figure 4.8.** Kidder's cross-section, above, and plan, below, of Room 106, based on Guthe's notes and drawings, Figure 4.7.

The excavations produced some dating information about the rooms at the north end of South Pueblo. Room 101 had been used as a barn, or perhaps an under-balcony animal pen like Rooms 105 and 106 on the west side of the building, for a time late in its life; its last deposit was a layer of manure 18 inches thick in the middle of the room, and random bovine bones. Included in this stratum were a piece of "Spanish ware," and a number of "coarse modern ware" sherds, probably Puname Polychrome. The notes for Room 102 mention no artifacts. Room 105 contained a copper button and a copper gun stock ornament. The "second" floors of both Rooms 105 and 106 formed balconies on the west side of the South Pueblo, apparently part of an entire line of them along this facade. At ground level, the room space under the balcony floor was only about 4 feet high, and had been used as an animal pen; it had four inches of manure on the floor.

<sup>31</sup>Kidder, *Pecos*, pp. 93-94 and figure 34.

A small doorway opened eastward into Room 107. On the floor of the under-balcony area of 106, Guthe found an adobe brick fragment, filled with straw, with plaster on one large face, and a quarter-inch-thick deposit of soot on the other; he surmised that it had been part of a hearth wall or fireplace, and had fallen from above through a gap in the decaying balcony floor. So far as the present evidence goes, straw was used in adobes at Pecos only after the Reconquest, suggesting that this brick was made for repairs or modifications in South Pueblo in the eighteenth century. Room 107 had its floor largely intact, except for a partially collapsed section in the southwest corner. A sub-floor space 3 feet 8 inches high was beneath the floor, and was reached by the doorway through to the under-balcony space of Room 106. The fill under the floor contained a fragment of a "modern" bowl, and "many black potsherds," possibly Kapo Black, mostly 18th-century materials. Only a small portion of the second floor of Room 108, just south of 106, was excavated.

Guthe noted that these rooms showed evidence of considerable remodelling. Room 105 had been changed, and Rooms 106 and 107 to the south had been enlarged, all during "late" times. However, the wall fragments and traces of the pre-remodelling room plan were all associated with Black-and-White and Glaze I ceramics, ca. 1315-1425. A number of dendrochronology samples were taken from this group of rooms, and indicated that many of the beams used in the remodelling had been cut in 1443-44. Surrounding rooms, sampled later, had cutting dates ranging from the 1430s to 1447.<sup>32</sup>

This discrepancy of periods continued to appear in later information, and suggests that the beams sampled in South Pueblo were not the beams used in its original construction, which apparently occurred in the late fourteenth century, but were salvaged elsewhere and brought in to build the new South Pueblo about 1620. Guthe felt that the 1920 investigation demonstrated that the best-surviving rooms, located at the north end of South Pueblo, were originally constructed in Glaze I times, ca. 1350, occupied through Glaze III, abandoned from late Glaze III to about 1600, and rebuilt extensively in the Spanish period of Pecos, using salvaged beams for the new roofing.<sup>33</sup> The tightness of the dendrodates suggest that the beams were not from random salvaging, but were acquired through the dismantling of groups of rooms built in the mid-1400s. The strong presence of Glaze V and later materials indicated that the Spanish-period reconstruction probably happened early in the 1600s, and, at least at the north end of South Pueblo, occupation continued through the 1700s.

The straw-filled adobe from the subfloor of Room 107 indicates that the rooms of the north end were still in use and being remodeled at least as late as 1714-1718, the general period of the construction of the present church for which these straw-filled bricks were made. Dominguez's description of the building in 1776 indicates that some part of it was still in use by that date, but undoubtedly the abandonment and collapse of the southern portions of the room block were already well-advanced.

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<sup>32</sup>William J. Robinson, Bruce G. Harrill, and Richard L. Warren, *Tree-Ring Dates from New Mexico J-K, P. V, Santa Fe--Pecos--Lincoln Area*, Laboratory of Tree-Ring Research. Tucson: University of Arizona, 1973) pp. 27-28.

<sup>33</sup>Room Series, Guthe notes, July 24-September 24, 1920, rooms 96, 101, 104, 107.

### 1925 on the South Pueblo

In 1925, Kidder returned to South Pueblo, where he cut another section through the mound of ruins one hundred feet south of the 1920 cross-section.<sup>34</sup> In spite of the several statements in his published material that he had excavated the second series of rooms in the South Pueblo in 1924, Kidder's notes make it clear that this excavation occurred in 1925. This time he was near the center of South Pueblo, on the 750 transect line; the excavation was recorded as the S-Series of rooms. Kidder began the excavation on Monday, August 24, 1925: "2 [men] on a new cut in S. house (S-II series)." The last reference to work on the S-series in South Pueblo was on September 5.<sup>35</sup>

The undated individual room cards made during these thirteen days were apparently written by George C. Valliant—the handwriting is the same as the notes for the 350-series rooms of West Pueblo, excavated by him from September 11 through September 15, 1925.<sup>36</sup> The cards have rough section drawings of each room, and a different hand drew a cross-section of the entire transect when it was complete.<sup>37</sup> Valliant saw a great deal of evidence that these rooms were largely of very recent, post-1600 occupation. Room I was found to have multiple walls, and was possibly a rebuilt raised walkway. The upper floor surfaces were mostly associated with Glaze V, late Glaze V, and Spanish materials, including in Room S-II, a pair of "china ear-rings, a bottom of a candle stick in copper, and a large piece of church bell," associated with "modern" sherds. "The beam sockets are about 5'6" from the true floor" in both S-II and S-III. In Room S-IV, Glaze I and II sherds were found in the construction trenches of the south wall near the southeast corner, and the stub of a roof beam was found six feet above the floor. In S-V, "A number of chimney pots [apparently only used after the Reconquest at Pecos] came out of the debris of the fallen roofs. The sherds were consistently upper V and later." S-VI seems to have been a room that grew by accretion onto a patio or walkway along the west side of the pueblo roomblock. The excavation notes leave us unsure whether balconies had been constructed on the east and west sides of the pueblo at this point in its structure, but certainly suggest that this was a possibility. The notes of this excavation are superficial when compared to the clear observations of Guthe five years earlier.

The dates of use of the S-Series rooms seems, like the 100 series to the north, to be early 1600s to late 1700s, with a scattering of Glaze IV in the room fill. On the cross-section drawing of the entire room series, however, are a number of notes indicating Glaze I, II, and III in the

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<sup>34</sup>Kidder, *Pecos*, p.106; see also pp. 107-113, 121, 330-332. In spite of the several statements in this final report that he had excavated the second series of rooms in the South Pueblo in 1924, Kidder's field notes make it clear that this excavation occurred in 1925.

<sup>35</sup>"Kidder Notes, 1925 – General Notes (Kidder)," August 24, 1925, p. 34A, to Saturday, September 5, 1925, p. 38, Kidder Collection, PNHP.

<sup>36</sup>"Kidder Notes, 1925" (Valliant), September 11-15, 1925, pp. 42a-43a.

<sup>37</sup>Room Series, Kidder notes, Rooms S-I to S-VI, nd., pp. 1-11; Kidder Collection drawing 625/25, LA flat files.

lowest layers of fill under floors, and at least one Glaze III sherd was found in the mortar of a wall.

No tree-ring dates appear to have come from these rooms, even though Kidder had Ted Amsden collect samples in 1925, and dates from wood collected in that year from the North Pueblo, South Pueblo Room Series 100, and the convento of the church are on record.<sup>38</sup> However, in 1939-1940, some wood samples were taken from South Pueblo. One such sample was taken from Room 52, the next room north from S-IV. This gave a date of 1673vv, indicating probably a repair date just before the Pueblo Revolt.<sup>39</sup>

Unlike the 100-series rooms at the north end of South Pueblo, the S-series rooms show no evidence of having been rebuilt from earlier, ruined structures associated with Glaze I through Glaze III. Instead, the rooms all seem to have been built in the late Glaze V period, after 1600, on top of a thin trash layer of Glaze I-III, using mortar made from Glaze I-IV midden deposits; this mortar, when it washes out of the walls, will deposit a mixed I-IV deposit that would be difficult to distinguish from the real thing.<sup>40</sup> The general impression left by the notes and drawings is that a single episode of construction occurred here in the first half of the seventeenth century, followed by later addition or remodelling of the outermost rows of rooms.

#### The South Pueblo under the Civilian Conservation Corps (C. C. C.)

The next effort to excavate South Pueblo began fourteen years later, as part of the preparation of Pecos for the Coronado Quarto Centennial. In June, 1939, the Pecos Project expanded from working on the church and convento to include excavation on South Pueblo. The South Pueblo work was begun as a separate project under the direction of J. W. Hendron, and later under Marjorie F. Tichy (later Lambert) and John Corbett.<sup>41</sup>

During the work, the project's goal was the exposure of as many rooms and the recovery of as many "restorable" artifacts as possible before the start of the Cuarto Centennial in 1940. To maintain the necessary speed, the supervisors used crews of as many as 35 persons.

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<sup>38</sup>"Kidder Notes, 1925" June 26, 1925, p. 8a, "T[ed] A[msden] cut beams from N. & S. houses . . ."; William J. Robinson et al., *Tree-Ring Dates from New Mexico J-K, P. V, Santa Fe--Pecos--Lincoln Area*, Laboratory of Tree-Ring Research (Tucson: University of Arizona, 1973), pp. 27-28.

<sup>39</sup>This was sample GP-2399, listed in Robinson, et al., *Tree Ring Dates*, p. 27, as coming from Room 52; "GP-1380-1384 sent in November 1939 to G[ila] P[ueblo] by John Corbett of the School of American Research; GP-2389-2410 acquired by GP in March 1940 from S[chool of] A[merican] R[esearch]; GP-2645-2646 acquired from William Witkind in September, 1940 . . .," Jeffrey S. Dean, Laboratory of Tree-Ring Research, University of Arizona, to Gary Matlock, Archeologist, Pecos National Monument, April 17, 1973, PNHP.

<sup>40</sup>In the Square Ruin, for example, exactly this situation has occurred. The structure is clearly Spanish in design and construction, but most of the artifacts date from the fourteenth and fifteenth centuries. A similar set of circumstances are seen in the convento.

<sup>41</sup>Albert Grim Ely, "Field Work at Pecos," *El Palacio*, 46(June 1939):124-26.

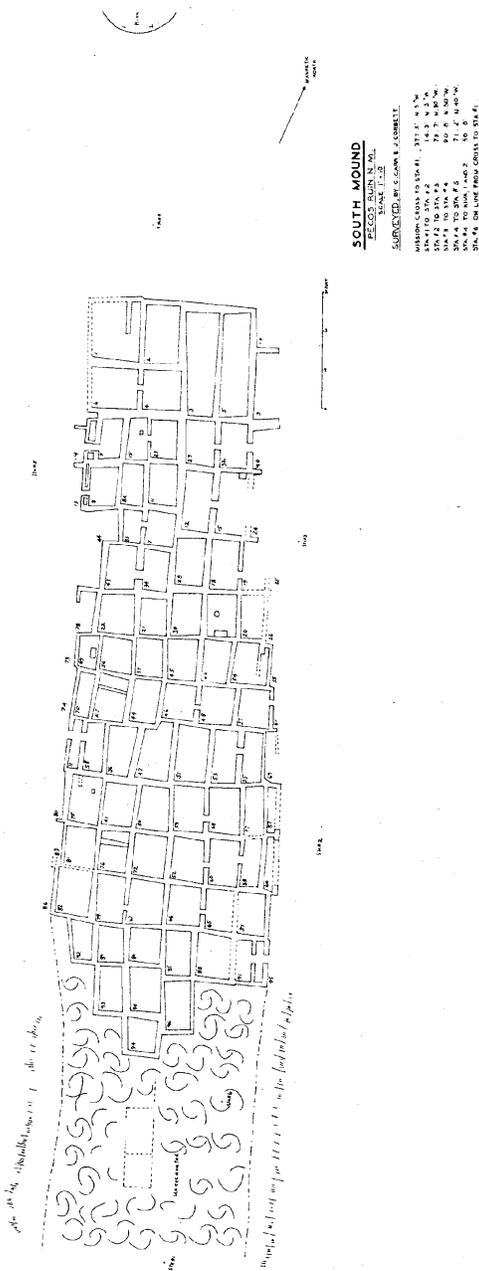


Figure 4.9. The Carr-Corbett map of February-March, 1940.

As so often seems to have happened at Pecos, this round of excavations had little or no information about previous investigations. For example, from June 6 to June 29 Hendron carefully excavated Kiva 16 at the north end of South Pueblo, quartering the fill and meticulously recording strata in a textbook manner, only to find a metal tag at the bottom of the kiva reading "EXCAV 1929 ANDOVER."<sup>42</sup>

Hendron devoted July to stabilization of Kiva 16, and by the end of the month had completed about half the roof of the structure. On August 3, Hendron noted that he had enough laborers available to begin excavation of the South Pueblo itself, and started this part of his assignment the same day. Having been fooled once by Kidder's backfilled excavations, Hendron added, "Some reports have it that Andover excavated parts of the mound and I think that perhaps the truthfulness of this report can be determined." The excavations removed the fill along the north wall of the South Pueblo from August 3 to August 7, finding "a considerable amount of pottery," with no further identification. On the 7th, Hendron remarked that he was "finding some bits of copper and Spanish ware" near the north wall.<sup>43</sup>

Hendron began the excavation of the northwesternmost room of South Pueblo on August 8. He began a new numbering system for the rooms of South Pueblo, with no connection to Kidder's numbers assigned to the few rooms he excavated. Hendron and the other excavators who followed him numbered the rooms in the order they were excavated, following a random sequence but generally

<sup>42</sup>J. W. Hendron Field Notes, June 29, 1939, copy in the files of PNHP.

<sup>43</sup>Hendron Notes, August 3-7, 1939.

proceeding from the north end of the pueblo ruin southward. "We are now excavating some of the north rooms of the east mound and to my surprise the amount of pottery and artifacts is heavy. . . . The fill against the north rooms of the mound is rich in its production of sherds and artifacts." By the 9th he was becoming convinced that Kidder had not excavated in South Pueblo: "Excavation continued today on the east mound. The fill does not appear to have ever been tampered with before as has been suggested by various parties." The artifacts continued to indicate a historical occupation: "Occasionally we run into a fragmentary bit of Spanish porcelain in the fill and at the bottoms of the rooms are occasional chunks of adobe bricks. Pottery runs very late." He noted occasional traces of white plaster on the walls of Room 1.<sup>44</sup>

Hendron continued to see strong evidence of Spanish influence in the ruins. On August 10, he found that the east wall of Room 1 had a section constructed of adobe bricks, "apparently of the same vintage as those in the mission. This suggests that part of the east rooms section was built after the mission or that a doorway was filled in . . ." <sup>45</sup> By August 11, Hendron was certain that Kidder had not been here before him: "I am convinced that Dr. Kidder never excavated this portion of the east mound. Too much pottery and too many artifacts are coming to light and he would undoubtedly have taken all of this into consideration;" that is, Kidder would probably have removed most of these items before refilling the rooms.<sup>46</sup>

Hendron spent five days on Room 1, while Tichy and Corbett later would empty a room in half a day or less. Presumably Hendron was being much more meticulous than his successors; however, he left no room plans or section drawings on record.

The excavation of Room 2 began on August 14. "We began the excavation of room #2. . . . Great amounts of fragmentary charcoal and disintegrated wood came to light along with much broken pottery." On August 16, the excavators reached what they considered to be the floor of the room at its north end under about five feet of fill, most of it fallen masonry.<sup>47</sup>

At this point, Hendron stopped work on South Pueblo and concentrated full-time on the construction of the roof of Kiva 16. The work on Room 2 ended with only about the north half excavated; according to Tichy's notes, this hole was apparently refilled with backdirt.<sup>48</sup> Hendron continued work on the construction of Kiva 16 until September 18, and then left the project.

#### Marjorie F. Tichy and Bill Witkind

Marjorie Tichy (later Lambert) was assigned to continue the excavation of South Pueblo. Tichy left no daily notes, but William Witkind mentioned the progress of the work in his daily journal. On September 20, 1939, Bill Witkind began cleanup work on South Pueblo in

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<sup>44</sup>Hendron Notes, August 8, 9, 1939; Hendron Excavation Record Sheet, Room 1, LA 625, folder 8.

<sup>45</sup>Hendron Notes, August 10, 1939; Hendron Excavation Record Sheet, Room 1, LA 625, folder 8.

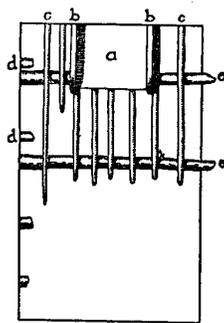
<sup>46</sup>Hendron Notes, August 11, 1939.

<sup>47</sup>Hendron Notes, August 14, 16, 1939; Tichy Excavation Record, Room 2, September 26, 1939, LA 625, folder 8.

<sup>48</sup>Tichy Excavation Record, Room 2, September 26, 1939.

preparation for the continuation of the project under Tichy, expected on Monday, September 25.<sup>49</sup> The cleanup continued through the 21st and 22nd.<sup>50</sup>

Tichy began supervision of the excavation promptly on September 25, and she and the crew continued the archeology where Hendron had left off on August 16. Her crew began the reexcavation of Room 2 and opened new excavations in Rooms 4 and 5 on September 25. They finished Room 2 the next morning, Tuesday the 26th,<sup>51</sup> and began on Room 3. By the end of the day, Rooms 3, 4, and 5 had been completed, and Room 6 begun.<sup>52</sup>



**Figure 4.10.** Bandelier's drawing of a stone firebox on the second floor of South Pueblo Room 29.

Tichy worked on South Pueblo apparently only for a week, through September 29, and then was transferred. At the time she left, the excavation was still working on Room 6, and had begun Rooms 7 and 8. John Corbett of the Museum of New Mexico came to Pecos a week later, starting probably on Monday, October 9, as the new project supervisor.<sup>53</sup>

Comparing Tichy's room notes with notes from the subsequent reexcavation of portions of South Pueblo in 1974 shows some of the problems encountered by the excavation. In Room #3, Tichy found a fire box of stone slabs and mud mortar set into the floor at the south side of the room near the east wall.<sup>54</sup> However, in 1974, Keith Anderson, Supervisor of Archeological Studies at the Arizona Archeological Center, described the room as having "many floor artifacts (as Gary[ Matlock]'s drawing shows). . . . Corbett's [actually Hendron's and Tichy's] excavations stopped at the roof fill, and didn't get to the floor."<sup>55</sup> It appears that Tichy's fire box was actually built into the second floor surface, like a second floor firebox described by Bandelier in Room 29;<sup>56</sup> however, Tichy's

<sup>49</sup>Witkind journal, "The Excavation, Stabilization, and Reconstruction of Cicuye;" (hereafter cited as Witkind, "Journal,"), September 20, 1939, "The C.C.C. boys have been cleaning all the loose rock off the south mound so as to be all ready to start in excavation work on Monday [September 25]."

<sup>50</sup>Witkind, "Journal," September 21, 22, 1939.

<sup>51</sup>Witkind, "Journal," September 25, 1939.

<sup>52</sup>Tichy Excavation Record, Room 2, September 26, 1939; Room 3, September 26, 1939; Room 4, undated; Room 5, undated; Witkind, "Journal," September 26, 1939: "C.C.C. boys cleared rooms #4 and #5 and started on Room #6 in north [actually south] mound."

<sup>53</sup>Witkind, "Journal," week of October 9-13, 1939; John Corbett, "Excavations at Pecos," p. 1.

<sup>54</sup>Tichy Excavation Record, Room 3, September 26, 1939.

<sup>55</sup>Keith Anderson, Supervisor of Archeological Studies and Regional Research Archeologist, Arizona Archeological Center, to Archeologist, Southwest Regional Office, December 18, 1974, Pecos Files.

<sup>56</sup>Bandelier, "Visit," p. 59 and Plate II, Plate III, Fig. IV.

floor had collapsed onto the first floor. Finding the clay surface of the upper floor and the fire box set into it, Tichy assumed she was at the ground floor surface, which was where she was required to stop.

John W. Corbett:

Corbett, like Tichy, Hendron and Witkind, followed the same general rules the C.C.C. observed at all the missions excavated during the 1930s. Corbett, however, summarized these rules in his field notes: "Excavation of the rooms proceeded to a depth at which a floor level was determinable, or in case no floors were found, excavations continued to a point at which it was clear the floor level had been passed."<sup>57</sup> The methodology was straightforward. "A C.C.C. crew of twenty-five to thirty-five men was used. Work progressed by uncovering rooms in succession to each other, dumping the debris to both the east and west sides of the mound. All sherds were gathered in sacks, then scanned carefully for restorable material. Artifacts of all kinds were catalogued, numbered, and labeled according to room number and depth at which they were found."<sup>58</sup> However, no known field records including this artifact information are available for the South Pueblo excavations.

As his crew emptied the rooms of South Pueblo, Corbett could see clear evidence for a second story. "In excavating the South Mound, many rooms were uncovered in which could be seen the old beam holes for the vigas forming the second floor. (See notably south wall of room #8 and east wall of room #89)." He felt that the fallen rubble in the rooms was enough to have come from a three, or even four story structure. He considered the rooms along the center line of the pueblo to have been the highest.<sup>59</sup>

Although the majority of the building had been built of unshaped stone, Corbett saw adobe bricks in the walls of two rooms at the north end: "Rooms six and four . . . are built of adobe bricks (a feature not introduced to Puebloan architecture until after the Spanish advent). Both rooms # six and four, according to the survey, approach the greatest geometric symmetry of any of the rooms; and it is reasonable on this basis and that of the adobe bricks, to ascribe their erection to Spanish times."<sup>60</sup>

Corbett's crew selected rooms to excavate with no apparent pattern, assuming that the room numbers continue to reflect the order in which the rooms were begun. Bill Witkind continued to give some assistance to Corbett's work, and in the process of noting this, left the only record of the chronological progress of the excavations. Rooms apparently continued to be numbered as they were excavated, but the Corbett-Carr map was not made until February or March of 1940. According to Witkind's observations, from the week of October 9-13 until

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<sup>57</sup>John Corbett, "Excavations at Pecos," files of PNHP, pp. 1-2. No daily notes from Corbett's work are available, but his undated Excavation Record sheets for Rooms 7, 9, 10, 14, 15, and 23 are in the LA 625 files, folder 8.

<sup>58</sup>John Corbett, "Excavations at Pecos," p. 1.

<sup>59</sup>John Corbett, "Excavations at Pecos," p. 2.

<sup>60</sup>John Corbett, "Excavations at Pecos," p. 3.

December 1, 1939, Corbett's crew excavated about 40 rooms, from Room 6 to Room 45; this was averaging roughly a room per day. On December 1, for example, Rooms 41, 45, 46, 47, and 48 were being excavated, and by December 4, Rooms 41 and 47 had been completed.<sup>61</sup>

Witkind noticed that there was a general rule to the distribution of artifact material in the ruins: "Pueblo crew finished another room this afternoon and started on another. Fill seems a bit sterile. Probably because of inside rooms — we seem to find the most cultural material on the outside line of rooms. Offhand we haven't gotten over 30 artifacts since John left." Corbett was gone from perhaps Sunday, Nov. 19, when he got married, through Tuesday, December 5. Witkind remarked that he "saved out restorable stuff and threw away rest," the usual practice in the C. C. C. excavations.<sup>62</sup>

The last day of actual excavation was January 18, 1940; all subsequent work was shallow backfilling, plastering, and capping.<sup>63</sup> During the last of the winter cold, which had to ease before stabilization work could start, Witkind made an unsuccessful effort to map the South Pueblo: on February 8, 1940, "John [Corbett] hasn't done much 'shooting' on the ruin so I believe I shall do a bit tomorrow if the wind isn't blowing too much. I've got two chain men, and a rodman fairly well trained by this time. If I can just remember to read the right end of the compass like I did not last time I should do fairly well." However: February 9, 1940, "Did no surveying today — somewhat windy . . ." The Carr-Corbett map must have been made soon after this date, most likely during the period from February 10 to March 9, 1940, when stabilization began.

Corbett worked with George Carr to map the South Pueblo excavations (Figure 4.9). Carr, of the Forest Service, had previously helped Witkind map the church and convento. Corbett kept the original, and presumably only, copy of the South Pueblo map in his possession until he sent it to Jean Pinkley upon her request in 1966: "Under separate cover, I am sending you the other half of the Pecos map which I finally found." The two halves of the original Carr/Corbett map, with the anchor screw holes on the edges, are in the Pecos flat files. Corbett reminisced to Jean Pinkley about working with Carr on the mapping of South Pueblo: "G. Carr was a pro at surveying — I acted as his rod man and picked the points I thought most important archeologically. It may be of some help to you in restoring walls in the South Mound, for the map is accurate and the difference in wall thicknesses is real and could be scaled off the map."<sup>64</sup>

Stabilization of South Pueblo had to wait until the worst of the winter had passed. Some preparatory steps began in early March, 1940. Corbett says "No restoration, except that necessitated by repair, was attempted. The rooms, in all cases, were slightly filled in with rock, covered by earth, to protect the lower parts of the walls. Where it was deemed advisable, the

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<sup>61</sup>Witkind, "Journal," October 9 - December 4, 1939.

<sup>62</sup>Witkind, "Journal," November 28, 1939.

<sup>63</sup>Witkind, "Journal," January 18, 1940.

<sup>64</sup>John M. Corbett to Jean Pinkley, Memorandum, June 2, 1966, Pecos Files.

upper parts of wall were removed to prevent their collapse, and a coating of adobe, as a protective covering, was laid on them."<sup>65</sup>

Again, Witkind's notes give us the chronology of the progress of the backfilling and stabilization work. The work was carried out from March 9 through August 15, 1940, when he made his last reference to the South Pueblo work: "I'll be done with Pueblo by Monday or Tuesday [August 19 or 20] at the latest." Witkind's daily notes end on August 16, 1940. There are no notes for the week of August 19-23, and his last entry is a summary of work carried out during the week of August 26-30, 1940. None of these mention any further work on South Pueblo.

In addition to the few individual room notes and their simple sketch plans, there are some photographs of the Corbett excavation of South Pueblo, and Corbett did assemble a list of artifacts he found during the work. However, few of these artifacts have any provenance.

Corbett afterwards kept a special interest in Pecos, his first major excavation. He later joined the National Park Service and, as Chief Archeologist, was in the Washington office during the 1960s. He influenced policy decisions concerning Pecos during these critical years.<sup>66</sup>

Although the cultural and structural information collected by the C.C.C. excavations fell badly short of the level we might have wished for, none the less the project added some additional details to the picture of South Pueblo. Hendron noted in Room 1 that there was a doorway in the middle of the east wall that had been sealed with adobe bricks. The floor showed what appeared to be episodes of reflooring. Tichy noted in Room 2 that an old trash dump apparently underlay the floor; she saw Glaze V and Tewa Polychrome sherds in the fill of the room. Room 3 fill contained Glaze V and a few Glaze IV sherds, said Tichy. In Room 4, she noted that the west wall was built partly of adobe, and in Room 5, she saw the foundations of earlier walls at floor surface in the south and west portions of the room. Corbett stated that the walls of Room 6 contained a number of adobe bricks, and suggested that Rooms 4 and 6, at least, were of Spanish-like construction and therefore were probably built in "Spanish times." He saw traces of the beams for the second story floor in the south wall of Room 7 and the east wall of Room 89. Tichy's observation of earlier foundations under Room 5 suggests that some of the northernmost rooms had been rebuilt in Glaze V or later, in the same way as some of the 100-series rooms a little farther to the south. Additional excavation in these rooms in 1974 would demonstrate this more clearly.

#### Kidder, Stubbs and Ellis: Kidder's Return to South Pueblo

Meanwhile, Alfred Kidder spent several decades working in Guatemala.<sup>67</sup> He began thinking about writing a paper on the Pecos kivas in August, 1951; the *Pecos, New Mexico*:

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<sup>65</sup>Corbett, "Excavations at Pecos," p. 2.

<sup>66</sup>It was his decision that later stopped Jean Pinkley's excavations on the Pecos convento in 1967; see Chapter 9.

<sup>67</sup>Richard B. Woodbury, *Alfred v. Kidder* (New York: Columbia University Press, 1973), pp. 68, 83.

*Archaeological Notes* had its beginning in this preparation.<sup>68</sup> A few weeks later Kidder remarked in a letter to Stanley Stubbs at the Museum of New Mexico that "Pecos has to wait until I've cleared up the last of the Guatemala stuff."<sup>69</sup> Finally, in January, 1954, Kidder wrote to Stubbs: "At long last I seem really to be launched on the writing up of Forked Lightning and the Pecos Kivas."<sup>70</sup>

Kidder's evaluation of the evidence from his 1920 and 1925 excavations made it clear to him that the north end of South Pueblo had been built and abandoned again before the arrival of Coronado at Pecos in 1541, and that "during the late 16th or early 17th centuries . . . a new pueblo was constructed on the same ground."<sup>71</sup> The excavations gave him "the impression that the area had been sparsely occupied in the first two glaze periods and then abandoned until into the historic period when the present pueblo was built. . . . I thought, therefore, that most or all early dwellings of the South Pueblo had been given up and been robbed of much stone, so that by 1540 they had become no more than low mounds. . . . Thus, these now conspicuous mounds I considered to represent a structure that probably did not come into being until toward 1600"<sup>72</sup> "Everything seemed simple enough until 1935," said Kidder, "when I received from W.S. Stallings, Jr. his dendrodates from the north end rooms we had dug and from some adjacent quarters. . . . Surprisingly, they were all in the 15th century and varied only between 1433 and 1449, most of them having been cut in 1444. . . ."<sup>73</sup> The dates caused Kidder a great deal of uncertainty. He apparently worried that somehow the wrong beams had been collected, or something else had gone wrong in the recording of the rooms; the dendrodates implied a completely different period of construction than did the artifacts and stratigraphy. In an attempt to clear up this major inconsistency, Kidder wrote to the Museum of New Mexico, and enlisted the help of Stanley Stubbs and Bruce Ellis to give him a second opinion.

"[In 1956, Stanley] Stubbs . . . helped by his colleagues, Fred Wendorf and Bruce T. Ellis . . . made tests in previously undug southern rooms in the South Pueblo." Stubbs prepared a map showing their location on South Pueblo:

Under separate cover I am sending you some Pecos blueprints. One is the "lost" Pecos Church, the other is a copy of the 1936 Corbett map with an extension pasted on to show the location of the test digging of 1956 in the South Mound.

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<sup>68</sup>Kidder to Stubbs, August 17, 1951, folder 89CO5.048, "Stubbs-Kidder 1950s," Laboratory of Anthropology Archives.

<sup>69</sup>Kidder to Stubbs, September 17, 1951, in "Stubbs-Kidder 1950s."

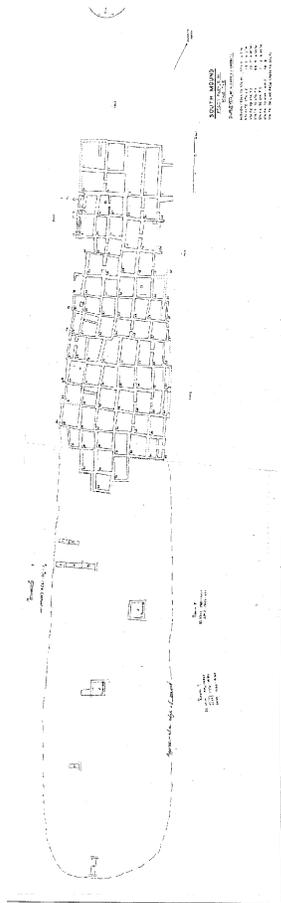
<sup>70</sup>Kidder to Stubbs, January 12, 1954, in "Stubbs-Kidder 1950s."

<sup>71</sup>Kidder, *Southwestern Archaeology*, p. 112.

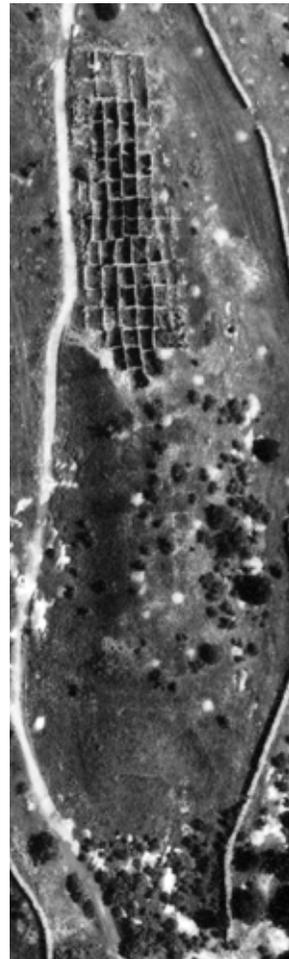
<sup>72</sup>Kidder, *Pecos*, p. 107.

<sup>73</sup>Kidder, *Pecos*, p. 107.

A copy will be sent to Smiley so any dates he may obtain from that area will carry the same room number.<sup>74</sup>



**Figure 4.11.** The Stubbs and Ellis map of their excavations on South Pueblo, attached to the south end of the Carr-Corbett map.



**Figure 4.12.** 1966 aerial photograph of South Pueblo.

The Laboratory of Anthropology copy of the Carr/Corbett map of South Pueblo with the Stubbs/Ellis addendum, possibly the one Stubbs sent to Kidder, was borrowed by Jean Pinkley in 1966, and apparently never returned. On the document entitled "Pecos Notes, Maps, Ground Plans," is a list of items "Taken from Laboratory of Anthropology to S.W. Regional Office of the National Park Service, 4/18/66, by Jean M. Pinkley, Supervisory Archeologist, National Park

<sup>74</sup>Stubbs to Kidder, July 7, 1956, LA 4444.

Service, Pecos Project," PNHP. Seventeen items are listed on this document. Among them are: "#5. South Mound Ground Plan, by G. Carr & J. Corbett. #6. South Mound Survey by Carr & Corbett 1936 & Ellis, 1956." Beside many of the items on this list are dates, all apparently July 17, 1966. However, five items have no return date; among them are the Carr, Corbett, Ellis map. Copies of all the others are available at the lab and at Pecos; it appears that Pinkley lost the Carr, Corbett, Ellis map. Fortunately, the Tree-Ring Laboratory still has the second copy of this map, that Stubbs sent to Smiley – Figure 4.11.<sup>75</sup>

Rather than making a single transverse cut across the South Pueblo, as Kidder did in 1920 and 1925, Stubbs selected rooms at scattered locations down the length of the unexcavated portion of the pueblo. Stubbs briefly describe the general location of the 1956 rooms in his correspondence: "Test pits were sunk at various points in the site in an attempt to locate burned rooms or beams from fallen roofs and ceilings," he said to Boaz Long, head of the Museum of New Mexico.<sup>76</sup>

Describing this work to Kidder, Stubbs said that the "South Mound digging was largely of a testing nature, trying to locate rooms which might have been burned."<sup>77</sup> Although Stubbs's color photographs of the work is missing, his captions for them are:

8. Fill, Room #7, Pecos South Mound - 1956.
9. Room #7. Trowel rests on portion of fallen upper story floor and on right leans against wall of this fallen room; roof viga below.
10. Room #7. Adobe brick floor laid over original mud floor.<sup>78</sup>

Beyond the summary in Stubbs's correspondence, none of the photographs or notes of the 1956 work on South Pueblo have been found. In general, then, most of the details of the excavation remain unrecorded and unknown.

Stubbs and Ellis carried out their excavations at Pecos in 1956 to help Kidder clarify some of his difficulties with Pecos. During this field season they had excavated the "Lost," or Ortiz Church, as discussed in Chapter Three. In their joint final report on the "Lost" Church, Stubbs and Ellis stated that the available evidence placed "the building-date of the 'lost' church not later than in the first two decades of the 1600s."<sup>79</sup> They argued that, based on the sparse

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<sup>75</sup>Stanley Stubbs, "#1 — #10: 1956 Excavation," in the Pecos files of the Laboratory of Tree-Ring Research, University of Arizona, Tucson.

<sup>76</sup>Stubbs to Boaz Long, June 28, 1956, LA 625, folder 3.

<sup>77</sup>Stubbs to Kidder, July 1, 1956, LA 4444.

<sup>78</sup>Stubbs to Kidder, September 4, 1956, LA 4444.

<sup>79</sup>Stanley A. Stubbs, Bruce T. Ellis, and Alfred E. Dittert, Jr. "'Lost' Pecos Church." *El Palacio* 64(1957)3, 4: 85.

ceramic evidence and the equally sparse documentary information, the church had to have been built after 1617, at which time there was no church at Pecos, but predated the church and convento begun by Ortega about 1621 and finished by Juárez before 1626.

The date of construction of "Lost" Church would seem to have little to do with South Pueblo; but when Stubbs and Ellis proceeded to excavations on the South Pueblo buildings in search of further dendrodates to confirm or deny Kidder's earlier dating information, the discovery of the same odd yellow adobe bricks and maroon mortar in the ruins of this building made the question of when the church was demolished and dismantled of great importance: it appeared that the bricks taken from the dismantled "Lost" Church were then used to build parts of the new South Pueblo.

In summary, Stubbs stated:

"We still do not have enough dates to make a room-by-room plan of the growth and additions to the South Mound at Pecos, and an exact relationship of pottery with these dates. The approximately one-dozen dates range roughly from 1444 to 1488. However, the greater percentage of pottery found in these rooms belongs to a much later date. My guess is that the dates would go with a Glaze II-III period of building, and occupation of the rooms continued on, at least in part, almost up to the time of abandonment. Late Glaze and Tewa Style sherds comprised the bulk of the decorated sherds from the tests in 1956. There was evidence of repair and remodeling in several of the rooms checked; the use of adobe bricks in upper walls; the use of adobe bricks to pave over an original mud floor. At the time of the first construction of the building comprising the South Mound (1450-1500), the houses were possibly only one story high, in part two, and not as extensive in ground plan as the present mound area; later (1600-1700) upper stories were added, three, possibly four, in height, and the lower levels largely abandoned and refuse-filled."<sup>80</sup>

The presence of yellow adobe bricks in the structure demonstrated to Stubbs that the reconstruction of South Pueblo began early in the seventeenth century. He found that "adobe bricks were evident in the fill of the ten rooms we checked. One room, #7 (1956), had been floored with adobe bricks . . . the same size and color as those from the 'lost church': they had been laid directly on a mud floor." He added that the adobe brick floor, in addition to being made of bricks of the same variety as those used in the "Lost" Church, was also set in mortar of the "Lost" Church texture and color, a hard purple-brown clay. On the floor of the room were several sherds of a Kapo Black jug, generally dated 1650 to present, but abundant 1700-1760.<sup>81</sup> It appeared to Stubbs that the construction of these rooms made use of materials scavenged from the abandoned "Lost" Church building; therefore, the reconstruction of the ruined South Pueblo

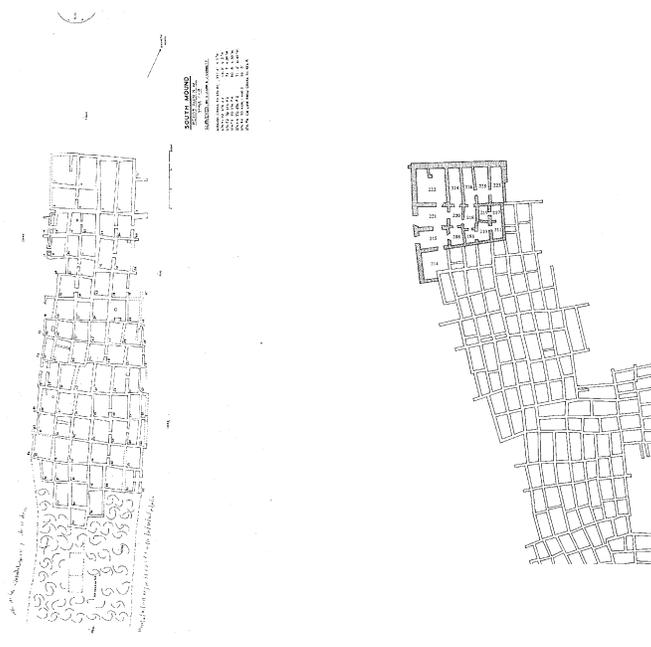
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<sup>80</sup>Stanley Stubbs to A. V. Kidder, September 4, 1956, New Mexico Laboratory of Anthropology, Site Files, LA 625.

<sup>81</sup>Stubbs to Kidder, July 10, 1956, LA 625 files, folder 3; Stubbs to Kidder, July 1, 1956, LA 4444.

building as a larger, higher version probably began about 1620, when construction on the little church was stopped and the Franciscans moved to the mesilla top.<sup>82</sup>

Kidder wrote back on September 10: "I believe that's exactly what happened . . . I excavated carefully one section of six rooms through and found that the end rooms on both east and west seemed to be added . . .," apparently referring to the S-series of rooms.<sup>83</sup> However, in spite of this agreement, when Kidder went to press with his final report on Pecos two years later, he had settled on an interpretation of the history of South Pueblo somewhat different from Stubbs's.



**Figures 4.13 and 4.14.** Figure 4.13, on the left, shows the plan of the north end of South Pueblo at Pecos. On the right, Figure 4.14 shows the plan of the Franciscan rooms at the west end of Mound 7 at Gran Quivira (Las Humanas). North is to the top for Figure 4.13, and to the right for Figure 4.14.

Although Kidder agreed with Stubbs's evaluation of the evidence to indicate that the South Pueblo had been built on the ruins of a Glaze III (1425-1490) building, he rejected Stubbs's and Ellis's dating of the demolition of the "Lost" Church to about 1620. Instead, he argued that the little church was the pre-Revolt church of Pecos; that it survived until the Pueblo Revolt of 1680, when it was demolished during the revolt, and that South Pueblo was largely built in 1680-

<sup>82</sup>Stanley Stubbs to Alfred Kidder, July 7, 1956. LA 4444.

<sup>83</sup>Kidder to Stubbs, September 10, 1956, LA 625, folder 3.

1692, making use of adobes salvaged by the Pecos from the "Lost" Church; he assumed that the use of these bricks was entirely through Native American salvage.<sup>84</sup>

However, the discovery in 1966 of the pre-Revolt church under the presently standing ruin of the eighteenth century church proved Kidder wrong in his assumption that the "Lost" Church was the only pre-Revolt church. All available evidence now indicates that Stubbs and Ellis were correct in their contention that the date of demolition of the "Lost" Church was ca. 1620.

Alden Hayes's insightful work on Mound 7 at the Gran Quivira unit of Salinas Pueblo Missions National Historical Park in 1965-68 gave the first archeologically documented look at how Franciscans moved into a pueblo.<sup>85</sup> At Las Humanas, the Franciscans acquired the use of a group of rooms on the west end of Mound 7, remodeled the doorways of these to suit their needs, and then added several other rooms of a larger size for storage space, a temporary church, a sacristy, and a larger living space for the friars.

The clear similarity between the plan of the Franciscan rooms at the west end of Mound 7 at Las Humanas and that of the post-1600 rooms at the north end of South Pueblo at Pecos indicates that these South Pueblo rooms were built by Franciscans to be their first, temporary convento and church (see Figures 4.13 and 4.14, and the discussion in Chapter 11). One result of Hayes's work at Gran Quivira is the demonstration that early 1400's dates are not particularly odd for room reuse situations in the early 1600s. In Mound 7, the new convento rooms reused timbers from pueblo rooms, so even though we know that they were built in 1630-32, cutting dates are in the 1550s or earlier. The Las Humanas Pueblo rooms that became the first convento rooms with only slight remodeling had all originally been built about 1545, and the timbers in these rooms, like the others in adjacent rooms, all date from that year or somewhat earlier, with even a few having cutting dates of the 1430s, probably representing reused beams from earlier, dismantled rooms. The adjacent series of rooms that Hayes decided were built by the Franciscans themselves about 1630 were of a different size and proportion than those built by the Puebloan people, but also used salvaged beams; the datable beams had cutting dates of 1533 and 1551.<sup>86</sup>

Furthermore, the work of Courtney White and myself on analyzing the periods of use of adobe bricks and mortar in the Pecos convento and other structures demonstrates that specific brick and mortar combinations were used only at specific times. Therefore, the use of yellow adobes and maroon mortar in South Pueblo had to be virtually contemporaneous with the use of the same brick and mortar combination in the Ortiz Church. Our analysis strongly suggested that

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<sup>84</sup>Note that this is the same reasoning that Alden Hayes used to date Kiva 23 in the convento yard of the Pecos mission. My evaluation of this kiva (James E. Ivey, "Convento Kivas in the Missions of New Mexico." *New Mexico Historical Review* 73, no. 2 [1998]:121-152) demonstrates that the idea did not work for Hayes, either.

<sup>85</sup>Alden C. Hayes *et al.*, *Excavation of Mound 7, Gran Quivira National Monument, New Mexico*, Publications in Archeology 16 (Washington: National Park Service, 1981), pp. 26-28, 36.

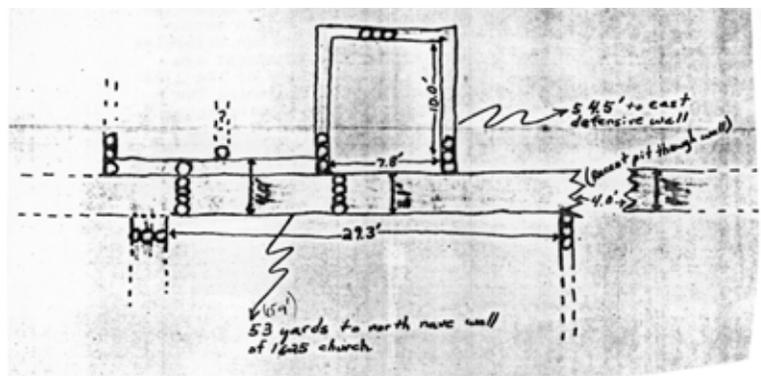
<sup>86</sup>Hayes, *Excavation of Mound 7*, pp. 26-28, 36.

adobe bricks were brought to South Pueblo about 1617 to 1620, directly from the Ortiz Church.<sup>87</sup> The evidence from the Las Humanas excavations permits the reasonable assumption that the large "Spanish" rooms at the northernmost end of the South Pueblo were the new, temporary Franciscan convento rooms built when they moved to the mesilla top about 1620 and began to prepare for the construction of the Great Church of Pecos.

#### South End of South Pueblo

On August 21, 1925, Kidder conducted a brief test at the south end of South Pueblo. "The trench in the ground S. of S. house produced several skeletons buried at length with heads E. Very shallow (10-12"). Skeletons obviously of the historic period but rather badly grass-rooted." The location and outline of this test and the plan of a section of wall it found are recorded on Kidder Drawing 625/44.<sup>88</sup> Other than the apparently historical burials (extended burials are rare until the arrival of the Franciscans), no dating information is mentioned in the notes. Kidder noted that he counted ". . . 3 sets of lower [rooms] at S. end . . ."<sup>89</sup> In his final report in 1958 Kidder rephrased this: "there were some larger, longer rooms at the north; at its southern end, were three apparently similar rooms."<sup>90</sup>

No further work was done on the south end of South Pueblo until Stubbs and Ellis worked on their Rooms 8 and 9 in 1956. The field notes for this excavation are missing, and none of the correspondence mentions anything about what was found in these rooms. Finally, in 1968, Friar Hans (Robert) Lentz conducted additional excavations in this area.



**Figure 4.15.** Brother Hans Lentz sketch of his excavations at the south end of South Pueblo in 1968.

Lentz found a massive stone wall crossing the south end of the South Pueblo and running at approximately a right angle to the defense wall. This thick wall, slightly more than three feet

<sup>87</sup>Hayes, *Excavation of Mound 7*, pp. 26-28, 36.

<sup>88</sup>Kidder Collection, map 625/44, LA flat files.

<sup>89</sup>"Kidder Notes, 1925," August 22, 1925, pp. 32, 34.

<sup>90</sup>Kidder, *Pecos*, pp. 108-09.

thick, appeared to have been built against the end of a pueblo building with a wall thickness of about one foot. At the west side of the excavation, running south at right angles to the thick east-west wall, was a second stone wall about three feet thick. In the pueblo room north of the east-west wall, Lentz found fragments of burned cedar that he considered to be from the roof, and a cup with a handle, "very much like a tea cup." The cup was red in color and decorated with three black crosses.<sup>91</sup> Pinkley felt that the odd structures on the south end of South Pueblo were Franciscan: "I have no doubt in my mind there were interim convento-type rooms in that section, just as there were in Mound 7 at Gran Quivira."<sup>92</sup> In fact, she suggested that these might be the rooms built by the Pecos for Fray Zeinos in 1694.<sup>93</sup> Hayes, on the other hand, thought the area contained the temporary convento of Fray Juárez, where he lived in the 1620s as he built the first rooms of the main convento.<sup>94</sup>

Lentz's locational information in the notes is not detailed enough to allow more than an approximate relocation of these walls. However, Lentz left the hole open after his 1968 excavation, and in 1969 Fred Mang took an oblique aerial photograph showing the general location of the walls he had uncovered, but no accurate replotting of the walls is possible based on this alone.<sup>95</sup> Lentz wrote the notes and made the sketch on June 15, 1971, when he, Alden Hayes, Al Schroeder, and possibly Angelico Chavez were all gathered at Pecos attempting to work out the probable plan and room use of the convento as it was described by Dominguez in 1776 (see Chapter 12). Apparently on the same day, a photograph was taken of the area of Lentz's excavation, possibly by Lentz himself. The camera was looking south towards the standing church ruin. Visible in the foreground is a section of Lentz's thick east-west wall, and portions of some thinner, north-south walls. Using this photo, it is possible to relocate the point from which the photograph was made, and again arrive at a general wall location. Although the three sets of information individually cannot allow the relocation of the wall, all three together have enough data to allow a fairly accurate plotting of the location of the Lentz walls on the map.

Piecing all the information together, we find that Kidder, Lentz, and Stubbs and Ellis were all digging within a few feet of each other on the same group of walls at the south end of the pueblo (see Figure 4.17). The information is not enough to work out anything other than a general plan of this end of the pueblo, but indicates that a massive wall three feet thick was built a little north of the site for the new large church. Later rooms of the South Pueblo were built against the north side of this building. South of this wall was some other narrow-walled structure, and a number of extended burials oriented east-west. The dates of this construction

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<sup>91</sup>Robert (Friar Hans) Lentz, "Notes on Minor Excavation Project at the South End of the South Pueblo, June-July, 1968," PNHP. This two page report and sketch plan was written by Lentz on June 15, 1971.

<sup>92</sup>Jean Pinkley to Friar Hans Lentz, Duns Scotus College, Southfield, Michigan, January 17, 1969, PNHP.

<sup>93</sup>Jean Pinkley to SWAC, July 2, 1968, "Monthly Report, Pecos Archeological Project, June 1968."

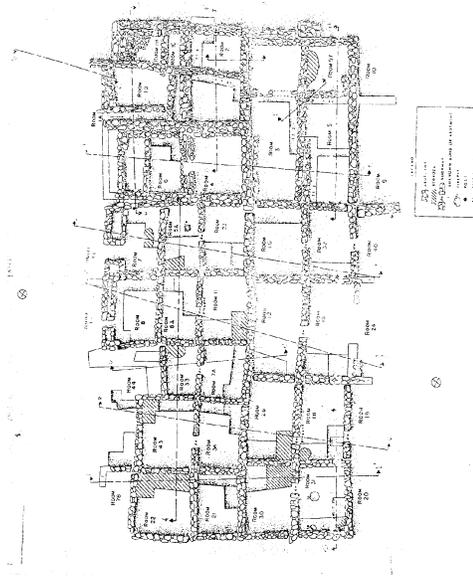
<sup>94</sup>Hayes, *Four Churches*, pp. 59, 61.

<sup>95</sup>Fred Mang Contact Sheet 69-542-4, Photograph Collection, PNHP.

and use are uncertain, but the general characteristics are certainly suggestive of extensive Spanish activity. None of the recorded information about the excavations support the idea that a temporary convento was located here, either in the 1620s, as Hayes suggested, or the 1690s, as Pinkley believed. However, the burials suggest that this was the site of the "jacal" church constructed by Ortega about 1620, and probably discontinued by Juárez upon completion of the Ortega/Juárez Church about the end of 1625.

#### 1972-1976 Re-excavation of the North End of South Pueblo

During 1972, Gary Matlock reexcavated six rooms on the north end of South Pueblo as part of a stabilization project in that area, when the National Park Service restabilized the walls of South Pueblo that had originally been stabilized by Hendron, Tichy, Corbett, and Witkind in 1939-40. The rooms were 1, 2, 3, 5, 9, and 10.<sup>96</sup> Larry Nordby, with the Division of Archeology of the Cultural Resource Center, Southwest Regional Office, continued the project, reexcavating twenty-nine additional rooms in 1976 (Figure 4.16).<sup>97</sup>



**Figure 4.16.** Plan of rooms re-excavated in 1972-1976 at the north end of South Pueblo.

In the process of cleaning out the rooms, some new excavation was conducted, and revealed a network of foundations below the floors of some of the rooms of the north end of the building. These foundations were located only under the northernmost row of rooms, most of which were anomalously large; the rooms that the C.C.C. excavators considered to be Spanish.

<sup>96</sup>Todd Metzger, "Draft Ruins Preservation Guidelines, Pecos National Monument, New Mexico," March, 1990, p. 5:15; Bruce Anderson, Archeologist, Southwest Regional Office, to Keith Anderson, December 18, 1974, PNHP.

<sup>97</sup>Metzger, "Guidelines," pp. 2:6, 5:13-5:15; untitled map of excavated rooms in South Pueblo, Flat Files, Prehistoric Sites drawer, South Pueblo folder, PNHP.

It was immediately clear that these large rooms had all been built over earlier, Glaze II rooms that were smaller. The longest rooms, 3 and 5, were built using approximately two rooms for each, while rooms 1 and 2 were also enlarged, but only by about half a room. Rooms 4 and 6 were rebuilt approximately on their original plan. The earlier versions of these rooms had been about the same size as the typical pueblo rooms further south.<sup>98</sup>

**Table 4.1.** Concordance of Room Numbers in South Pueblo  
– for rooms with more than one number

Carr and Corbett	Kidder	Bandelier
24	100	
15A	101	
12	102	
7A	103	
33	104	
44	105	
44	106	
43	107	
78	108	
22	109	
82	S-I	
79	S-II	
67	S-III	
66	S-IV	
63	S-V	
39	S-VI	
29		I
44		II
47		III

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<sup>98</sup>Larry Nordby, "Room-by-room Plans and Stabilization Information, 1976/1977," no date, PNHP.

This unmistakable evidence of rebuilding adds to the strong resemblance between the north end of South Pueblo and the Franciscan convento rooms built into and on the west end of Mound 7 at Gran Quivira. The remodeling of the original ruined South Pueblo rooms into a Spanish room pattern supports the idea that the northernmost rooms had been rebuilt in 1620 by the Franciscans to be used as their temporary convento while the main convento was under construction.

#### Tree Rings and Ceramics: Dates for South Pueblo

The decades of work on South Pueblo have resulted in a relatively large collection of tree-ring dates and artifact material from various locations along the line of the ruins. The tree-ring dates collected over the years from South Pueblo make an interesting pattern. Corbett and Witkind sent tree-ring samples for dating, but only one of these from the South Pueblo was datable, that from Room 52, discussed below. However, in 1973 Jeffrey Dean had a number of samples collected from the rooms excavated by Kidder, Hendron, Tichy, Corbett and Witkind over the previous thirty years.<sup>99</sup> Of these, 25 beams with good dates from the rooms excavated by Hendron, Corbett et al. have dates between 1433 and 1448. These form two clear date clusters, one around 1434, and the other around 1444, with the second cluster much more numerous. South of this group of rooms, one date is available from Room 52 about the midpoint of the mound, the next room north from Kidder's S-IV. This was sample GP-2399, dated as 1673vv.<sup>100</sup> Dendrochronological dates from rooms 5 and 7 of the Stubbs and Ellis excavations of 1956 in the south half of South Pueblo were published, without further identification of their locations, in *Tree-Ring Dates from New Mexico J-K, P, V; Santa Fe--Pecos--Lincoln Area*. These give dates of 1427vv and 1468vv for room 5, and 1476vv, 1487+vv, 1488vv, and 1613vv for room 7.<sup>101</sup> Kidder's final assessment of the construction date of South Pueblo in *Pecos, New Mexico: Archaeological Notes* did not offer any explanation for the dates of the wood found in the building.

In 1989 Kathleen Gilmore conducted an intensive reexamination of all known "non-aboriginal" artifacts from the South Pueblo.<sup>102</sup> Of these, the most useful for determining dates are the majolicas, made in Mexico and shipped to the provinces. Gilmore concluded that the 180 sherds of majolica found in the various excavations of the South Pueblo range in date from the early 1600s to the early 1800s. Twenty-three percent of these sherds were Puebla Polychrome, dating from 1650 to 1725. One sherd of Huejotzingo Blue Banded was present, dating about

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<sup>99</sup>Jeffrey S. Dean, Laboratory of Tree-Ring Research, University of Arizona, to Gary Matlock, Archeologist, Pecos National Monument, April 17, 1973, PNHP; Robinson, et al., *Tree Ring Dates*, pp. 27-29.

<sup>100</sup>William J. Robinson, Bruce G. Harrill, and Richard L. Warren, *Tree-Ring Dates from New Mexico J-K, P, V; Santa Fe--Pecos--Lincoln Area* (Tucson: Laboratory of Tree-Ring Research, University of Arizona, 1973), p. 26.

<sup>101</sup>William J. Robinson, Bruce G. Harrill, and Richard L. Warren, *Tree-Ring Dates from New Mexico J-K, P, V; Santa Fe--Pecos--Lincoln Area* (Tucson: Laboratory of Tree-Ring Research, University of Arizona, 1973), p. 26.

<sup>102</sup>Kathleen K. Gilmore, "Non-Aboriginal Artifacts from the South Pueblo and Vicinity, Pecos National Monument," April, 1989, LA 625, folder 24, "Reports."



1680 or very shortly thereafter,"<sup>106</sup> and therefore said little about the date of construction of South Pueblo. However, the discussion in chapter 3, "The 'Lost,' or Ortiz Church," demonstrates that, as of July, 1956, Stubbs thought it unlikely that the "Lost Church" had been destroyed as part of the Pueblo Revolt of 1680.

Kidder chose to ignore Stubbs and Ellis's final position about both the Ortiz Church and South Pueblo; the post-revolt interpretation of adobe use in North and South Pueblo, as presented in the *Pecos* report, was entirely Kidder's, and was in turn based on his first impression of Pecos as described by Bandelier. In spite of the evidence to the contrary offered by Stubbs's and Ellis's final evaluation, and the new insights allowed by the publication of the Dominguez description of 1776, Kidder could not break free of one of his fundamental presumptions, Bandelier's statement that the adobes had to be taken from the demolished church, apparently after the Revolt. As a result of his conviction that the truth about South Pueblo was not as Stubbs and Ellis saw it, but was instead still unclear, Kidder did not include a good plan or evaluation of the archeology of South Pueblo in his Notes. The scattered and fragmented discussion he did include gave the impression that he considered South Pueblo to have been largely built in 1680-1692, after the Pueblo Revolt, with some remodelling added later. However, comparing the artifact material with the tree ring dates, it becomes clear that the various suppositions of Bandelier and Kidder about South Pueblo were incorrect.

#### The Construction History of South Pueblo

The review of excavation of the South Pueblo presented above shows that the structure has been extensively tested archaeologically along its entire length, sufficient to arrive at general conclusions about the history of this building. Although the collection of archaeological data that has resulted from over a century of examination of South Pueblo, including two major excavations, is rather sparse, it clearly suggests a sequence of construction events at South Pueblo – in fact, the same sequence originally suggested by Karl Guthe in 1920, and Kidder himself before he became distracted by the tree-ring dates.<sup>107</sup>

The building began as a small pueblo about 1300, in Glaze I times (1315-1425). The limited information from the Guthe and Kidder notes suggests that the original building probably occupied the area of about the northern 100 feet or so of the later pueblo. This would have been about eight rows of rooms, each four to six rooms wide, and was one of several small pueblos scattered on the mesilla top.<sup>108</sup> The pueblo was abandoned about the beginning of Glaze III times (1425-1490), as the North Pueblo began to be built in the early and mid 1400s. Probably much of the woodwork, and even some of the masonry of the original structure of South Pueblo was robbed from the building and used in the initial construction of North Pueblo. The combined evidence of Stubbs, Ellis, and Kidder indicates that the small, first South Pueblo was abandoned through the Glaze IV period (1490-1515), and reoccupied in Glaze V (1515-1650 or 1700),

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<sup>106</sup>Kidder, *Pecos*, p. 108.

<sup>107</sup>Kidder, *Pecos*, p. 107; Room Series, Guthe notes, July 24-September 24, 1920, rooms 96, 101, 104, 107.

<sup>108</sup>Kidder, *Pecos*, pp. 59-62.

probably a few years after 1600.<sup>109</sup> Kidder thought that as of the visit of Coronado in 1541 the early version of the pueblo had been abandoned for some time, "for I have record of practically no Glaze IV burials there, nor of significant amounts of Glaze IV refuse in the midden below on the east." Al Schroeder later agreed with Kidder's assessment, indicating that the historical record of Castaño de Sosa's visit to Pecos in the 1590s demonstrated that no structure of significance stood on the site of South Pueblo then.<sup>110</sup>

Historical documents make it clear that about 1620 the Franciscans renegotiated their relationship with Pecos Pueblo, and achieved a much better position than they had held since their return to the town in 1617; as a result, they abandoned the unfinished "Lost" Church and moved to the mesilla top. The archeological evidence indicates that they were given the use of the largely collapsed ruin of the small, original South Pueblo. Kidder stated that the Stubbs and Ellis testing "indicated a late occupation with considerable repair and remodeling. Adobes, evidently from upper stories, occurred in the fill of all ten rooms tested, and in one, over an original mud floor, was a second floor of adobes, identical in size and color to ones found in the "Lost" church. . . . The sherds in these rooms also indicate lateness, being of Glazes V and VI and Tewa Polychrome."<sup>111</sup>

Presumably the Franciscans built the larger rooms at the north end of South Pueblo about 1620 at the same time that the "Lost Church" was abandoned. This assumption is no longer provable, because apparently all the archeological evidence has been destroyed by excavation and stabilization, without any significant record of what was found there. The Franciscans rebuilt the walls of the northern three or four rows of rooms, and reroofed the structure using beams probably collected from older abandoned rooms (constructed in the late 1400s) in the North Pueblo. During this reconstruction, the northernmost row of rooms was considerably redesigned in plan, making them much larger than they were originally and sealing the earlier foundations beneath the new floors. The archaeological evidence indicates that at least Room 3 of the northernmost rooms had a second story. At various points in the construction of these Franciscan rooms, adobe bricks from the dismantled "Lost" Church were used for sealing old doorways and building up walls. The beams from the "Lost" Church building were much too large to be used in this temporary convento. They were probably eventually used for roofing the first of the convento buildings on the new church site selected at the south end of the mesilla about this same time, although some may have been used in the reconstruction of several kivas in North Pueblo, where Kidder found the remains of large squared beams used as roof support posts.

The probable convento rooms at the north end of South Pueblo were similar to those built in the 1630s on the west end of Mound 7 at Las Humanas. At the same time, the missionaries

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<sup>109</sup>Kidder, *Pecos*, p. 108; "Kidder Notes," July 19, 1920, p. 20; July 22, 1920, pp. 24, 25; Room Series, Kidder notes, July 24, 1920, p. 91, rm. 101.

<sup>110</sup>Albert H. Schroeder and Dan S. Matson, editors, *A Colony on the Move: Gaspar Castaño de Sosa's Journal, 1590-1591* (Santa Fe: School of American Research, 1965), p. 93.

<sup>111</sup>Kidder, *Pecos*, p. 108.

built a new temporary church, called the “Jacal Church,” although it was built of stone, at the north edge of the new church site.<sup>112</sup>

Within two or three years, the completion of the first rooms of the convento at the new church site allowed the Franciscan establishment to move out of its South Pueblo rooms and into the convento. The old convento rooms on the northern row of South Pueblo were turned over to Indians or abandoned, and slowly collapsed into ruin.

South of the large Franciscan rooms, however, the South Pueblo rapidly grew in size. It appears that as a result of their successes, the Franciscans acquired a large number of followers, probably in the form of kinship groups who made alliances with them. Many of these groups moved to South Pueblo, rebuilding the few remaining, partly collapsed rooms of the original building, and, when these were used up, adding new rooms to the south end of the structure; certainly the pueblo structure grew abruptly from its original size of about 100 feet long to its final length of about 400 feet within a decade; yellow bricks from “Lost” Church were still being used among the construction materials of new rooms built in the south half of the new pueblo.

However, most of the new portions of the building were built of stone, and most of the roofing and flooring beams collected from it by archaeology were cut in the mid-1400s. Hayes found that in Mound 7 at Gran Quivira the new convento rooms reused timbers from pueblo rooms, so even though we know that they were built in 1630-32, cutting dates are in the 1550s or earlier. The adjacent series of rooms that Hayes decided were built by the Franciscans themselves about 1630 were of a different size and proportion than those built by the Puebloan people, but also used salvaged beams from the first half of the 1500s.<sup>113</sup>

At Pecos South Pueblo, the great majority of the building materials used in the new construction obviously could not have come from the original ruin; it was built at the wrong time, was far too small, and had been almost completely robbed of anything useful back in the 1400s. Any remaining stone and usable wood would have largely been used by the Franciscans in the first year or so of rebuilding the first hundred feet of the structure. The rest of the wall and roofing material must have come from somewhere else, and clearly from buildings originally built in the 1400s. At the same time, the sudden construction of an entire new pueblo indicates that a number of people moved from somewhere to South Pueblo. Where did the people and materials come from?

Since Pecos was a consolidated pueblo with no scattered associated pueblos in the valley available to supply the people to fill 300 new rooms, the only reasonable source for the population of South Pueblo is the North Pueblo, built in the 1400s. This being the case, it appears inescapable that these new families dismantled their rooms and brought the beams and even some of the masonry with them to help construct their new South Pueblo homes. We must suppose that by 1630 North Pueblo was considerably reduced in population, and some portion

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<sup>112</sup>“Jacal” can describe a construction material of vertical posts, but also meant simply “cheap construction,” or “an unimpressive building.”

<sup>113</sup>Hayes *et al.*, *Excavation of Mound 7*, pp. 26-28, 36.

of its physical structure was dismantled down to the mound of earlier versions forming the base of the pueblo; all of these people and materials had moved to South Pueblo.<sup>114</sup>

Over the next several decades, this shift of population continued; South Pueblo grew southward until it reached the walls of the abandoned “Jacal Church,” which by that time formed the north edge of the yard for the new church. Pecoseno family groups continued to be interested in moving to the Franciscan pueblo area, and a second line of structures, the West Pueblo, was begun. This group of structures is discussed in Chapter Five.

Based on the number of new rooms built in the South and West Pueblos, it seems likely that by the end of the 1660s, at least half of the North Pueblo population had moved to these Spanish-allied room blocks, taking the easily movable portions of their original homes with them; the North Pueblo probably looked half-empty and partly in ruins. Estimates for the number of rooms originally in North Pueblo range from three to five hundred, and perhaps 250 of these were apparently moved to South and West pueblos.

#### The Pueblo Revolt and Afterward

The success of the Franciscans faded in the 1660s and 1670s, and the Pecos were slowly alienated from these Spanish allies; ultimately the majority of the Pecos families joined the Pueblo Revolt, and helped to destroy the church and part of the convento. On the return of the Spanish in the 1690s, however, the Pecos seemed to be more strongly pro-Spanish than before the Revolt, suggesting that during the Interregnum, pro-Spanish kingroups regained control of the Pueblo. After the return of the Spanish, parts of the South Pueblo continued to be occupied through the 1700s; part of North Pueblo was also occupied. The population declined during these years, and the slowly emptying North Pueblo must have shown signs of decay and collapse.

As the population of Pecos declined, the South Pueblo was abandoned slowly, row by row, beginning with the southernmost rooms and progressing northward. The northernmost seven rows south of the old, collapsed Franciscan rooms were the last to be abandoned, perhaps in the early 1800s.

#### Conclusion

This analysis suggests that South Pueblo, rather than being a sort of poor, “Christian Pueblo” hanger-on at Pecos, nothing more than a suburb of North Pueblo, instead was the place of greatest power and influence on the mesilla during the seventeenth century, with North Pueblo a half-empty, slum-like backwater occupied by apparently “unconverted” Pecosenos – Pecos kin groups that refused to ally themselves with the Franciscans. With the limited archaeological and historical information presently available, the picture presented here seems reasonable. However, it clearly implies a set of social dynamics not previously suggested by research at Pecos.

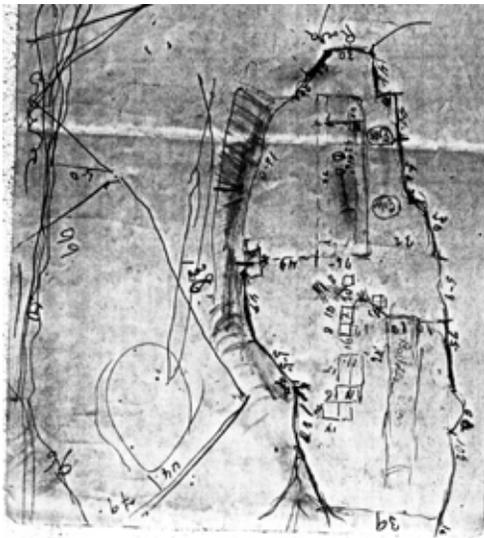
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<sup>114</sup>Whenever a detailed analysis of the results of Kidder’s excavations of North Pueblo is carried out, this hypothesis should be kept in mind.

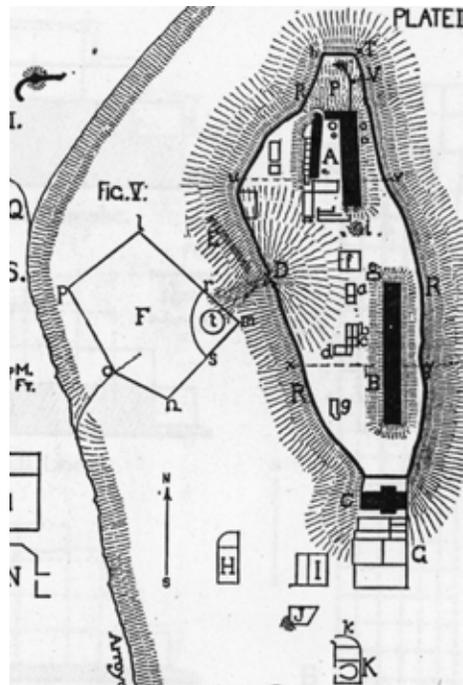


## Chapter Five The Western Buildings

Beyond the Ortiz Church, South Pueblo, and the main church and convento, several other structures strongly associated with the Spanish presence at Pecos have been located and tested by excavation. These are the West Pueblo,<sup>1</sup> the Enclosure,<sup>2</sup> the Square Ruin,<sup>3</sup> and the Estancia.<sup>4</sup> All of these buildings were first investigated by Adolph Bandelier, and have been reexamined by one or another of the subsequent investigators.



**Figure 5.1.** Bandelier field sketch plan of Pecos.



**Figure 5.2.** Bandelier plan of Pecos.

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<sup>1</sup>The West Pueblo structures have no earlier name.

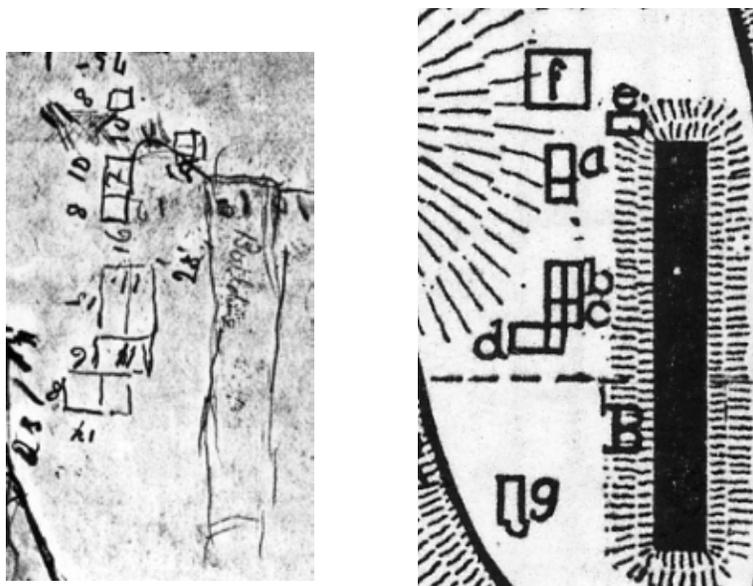
<sup>2</sup>This structure was originally called the "Ancient Walled Area," but will be called the "Enclosure" in this study.

<sup>3</sup>This structure has been called by this name since the 1970s.

<sup>4</sup>This group of structures has been called by several names: the western complex has been called the "Compound" and the "Presidio;" the eastern group has been called the "Convento Annex" and the "Casa Real." The combined group of structures is called the "Estancia" in this study, with the eastern buildings referred to as the "Casa," and the western group called the "Corrales."

### West Pueblo

West of South Pueblo, Bandelier saw a row of other structures at an average distance of about 90 feet to the west. He described them as "a row of detached buildings or structures, of which only the foundations and shapeless stone heaps indicating the corners remain."<sup>5</sup> They appeared to be built of stone, and the floors were "formed of a black or red loam."<sup>6</sup> Bandelier drew approximate plans for these structures on his Plate I (Figure 5.4). However, neither his description in the published report, nor the accompanying plan reveal much detail about these buildings. Fortunately, Bandelier recorded somewhat more detail about the plans of these buildings in his journal. The sketch plans include the major dimensions of the individual buildings, and the spacing between them, Figure 5.3.<sup>7</sup>



**Figures 5.3 and 5.4.** Bandelier's field sketch and published plan of South Pueblo and the West Pueblo. Structures b, c, and d on the published plan are Kidder's "West Building." The structures marked a and f are additional West Pueblo structures.

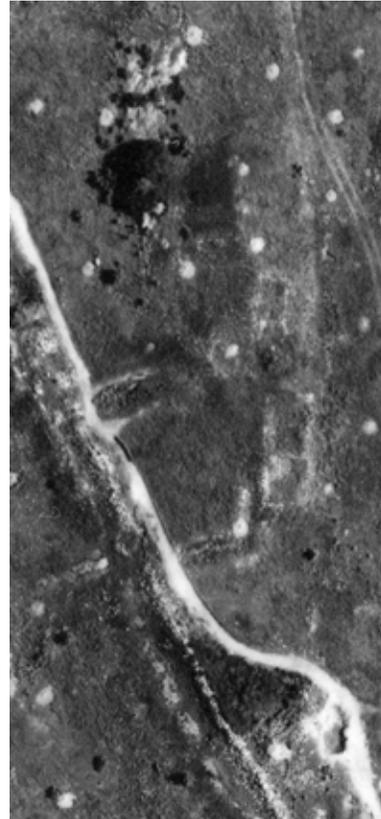
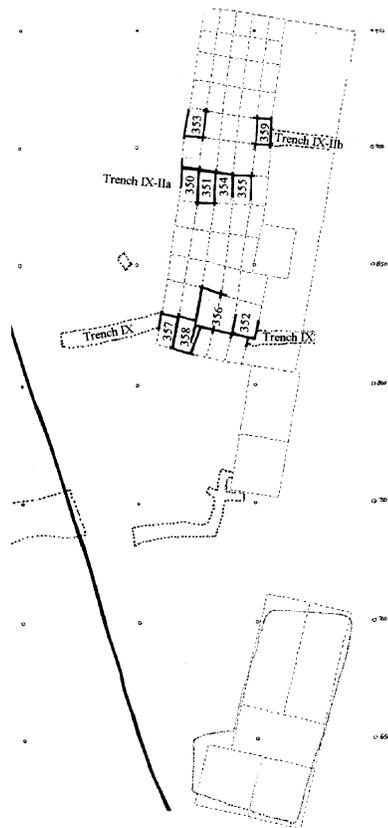
Examination of the Bandelier notes, the later Kidder test excavations of the area, aerial photographs, and the appearance of the surface today, indicates that there were three relatively separate structures in the row: an L-shaped building on the south marked with the letters "b," "c,"

<sup>5</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), p. 65.

<sup>6</sup>Bandelier, "Visit," p. 66.

<sup>7</sup>Adolph F. Bandelier, *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), p. 10.

and “d,” a small rectangular structure in the middle, marked “a,” and a large, complex structure on the north, perhaps with a walled courtyard on the east side, of which Bandelier saw only one, much smaller section, marked “f.”



**Figures 5.5 and 5.6.** Figure 5.5 shows Kidder’s trenching and Valliant’s excavation of rooms of the West Pueblo buildings, with apparent wall traces dotted in. Figure 5.6 is an aerial photograph made in 1966. The traces of the walls can be seen as pale lines, and the Kidder/Valliant trenches are still visible. The southernmost, L-shaped building is Kidder’s “West Building.” The visitor’s trail crosses this mound.

In 1925, Kidder assigned George C. Valliant to excavate several rooms of the northern building along the 900 and 825 lines of the Adams grid, and to cut a single trench into the southwest corner of the mound of the middle building along the 750 line; the traces of two of these excavation trenches are still visible today as shallow, broad ditch-like features at the western edges of the building mounds. In his general notes of 1925, Kidder evaluated these buildings: “West of the [south] house lay the open flat sandstone surface of the mesa, extending to the group of buildings that edged the mesa. This group was never apparently as important or

as integrated a pueblo as the S. House, although in full Glaze V [the mid-seventeenth century] it may well have stretched nearly the whole length of the S. House."<sup>8</sup>

However, when Kidder discussed the western buildings in his final report in 1958, he described them in a much different manner: "The only structures on that side between the South Pueblo and the western defense wall were some low mounds, the remains of small groups of rooms that must date from late times, as most of their walls were of mold-made adobes." Clearly, by 1958 Kidder had forgotten his impression of the western row of buildings excavated in the 1925 season, and recalled more vividly the presence of adobe-built structures in this western area. It was probably his testing of the southwestern building that left this impression. We will begin the detailed discussion of the West Pueblo with this southwestern adobe building.

### Southwestern Adobe Building

Kidder's awareness of the presence of adobe-brick buildings west of South Pueblo was the result of additional west-side excavations in 1925. On August 4, 1925, "In P.M. started Test Hole XVI to west of adobe structure that the motor road crosses between church and shack."<sup>9</sup> The road line and shack location have been determined by examining the photographs Kidder took during the excavations. Based on these locations, it is likely that the "adobe structure that the motor road crosses" is a reference to the southwestern adobe building, the "West Building" west of South Pueblo.

Later, on Saturday, August 22, Kidder "worked in small adobe & stone structure W. of S. house. Found I could get adobe walls by scratching in most places and spent afternoon locating lines & corners for mapping Monday." He returned to the building the next day: "Spent A.M. with M[adeleine] A[ppleton] K[idder] in adobe structure W. of S. house (see map to be made Monday) Some of the walls have their adobes laid in a crumbly black mortar unlike anything I have seen elsewhere at Pecos."<sup>10</sup> This building was clearly not the stone structures Valiant would test in the 350-series rooms in September; it is apparent that he was examining the southern building outlined on his map, centered at 650W50, the same structure as the southernmost building of Bandelier's west row. Apparently all that was done as a map of the structure was the plotting of the rough outline of the building; however, the outline corresponds well to the shape of the mound as it can be seen today, and matches the structure mapped by Bandelier, who plotted some of the interior walls as well as the outline of the structure.

Kidder took at least one photograph of the section of adobe wall. This photograph was published in his *Pecos, New Mexico: Archaeological Notes* as Figure 37c (see Figure 5.7).<sup>11</sup> The photograph is of a wall built of adobe bricks, captioned: "base of wall of adobe in low mound

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<sup>8</sup>Unknown date, but written on p. 2 in "Kidder Notes," "1925 Notes," pp. 1-3a, Kidder Collection, Pecos National Historical Park (PNHP); internal content indicates that these notes were written after the end of the 1925 season.

<sup>9</sup>"Kidder Notes, 1925" August 4, 1925, p. 24a.

<sup>10</sup>"Kidder Notes, 1925," August 22-23, 1925, pp. 34-34a.

<sup>11</sup>Kidder, *Pecos*, pp. 109, 111.

west of South Pueblo." The original photograph is available, and covers somewhat more area than the cropped version that was published in his *Notes*. In the full-sized photograph, a section of the defensive wall can be seen in the background, with what appears to be the terrace on the west side of the mesilla visible beyond it. The camera was therefore facing west, and the wall section extended east to west almost to the western defense wall. It is apparently one of the two walls extending westward from the southeastern corner of the building, forming the base of the "L".



**Figure 5.7.** Kidder's photograph of an adobe brick wall in the "low mound west of South Pueblo," the West Building.

Because Kidder apparently never had his intended detailed plan of the building drawn, all we know of its plan is the Bandelier sketch map superimposed on the Kidder outline of the structure. This is shown in Figure 5.5. Of the entire Western Pueblo complex, only the Southwestern Building is made of adobe bricks, making it more strongly associated with the Spanish presence than the other Western Pueblo buildings. Of all the Spanish colonial structures at Pecos, this building seems most likely to be the "casas reales" known to have been at Pecos in the eighteenth century, and probably present in the seventeenth century as well.<sup>12</sup>

#### Middle and North Buildings of the West Pueblo

Bandelier measured the outline of a part of the middle building of West Pueblo, showing a structure about 55 feet long, north to south, and 20 feet wide, east to west. It was divided into two enclosures by a middle wall, so that the south section was about 25 feet long and the north section about 30 feet. It is visible as a clear rectangle in the aerial photograph, and easily recognized on the ground as a rectangular outline of stone foundation standing a foot or so above the general rolling mounds of the West Buildings. The outline is so clear, in fact, that it may be more recent than surrounding structures; it may date to the eighteenth or nineteenth century,

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<sup>12</sup>"An alcalde . . . took the balusters [from the second story mirador] to put them in the *casas reales*," Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956), p. 212.

rather than the seventeenth. Kidder tested only the southwestern corner of the building, at the northeastern end of a trench extending from a point near the west fortification wall. Unfortunately, no artifacts or notes from Kidder's test are known; only a reexamination of the subsurface remains will allow it to be dated.

The Northwest Building was much larger. It was a residential building about 130 feet long north to south, and 35 feet wide, consisting of approximately ten rows of five rooms each; each room was approximately 7 feet wide, east to west, and 12 feet long, north to south. Adolph Bandelier recognized only a small rectangular structural outline in this area, about 20 feet north to south and 15 feet wide; again, this rectangle can easily be seen in the aerial photograph, Figure 5.6, with traces of the wall tops of adjacent rooms visible in the overgrowth against the west side of the outline. Bandelier's location for this outline agrees with the distances that can be estimated from the aerial, placing it against the east side of the Northwestern Building.<sup>13</sup>

From September 11 to September 15, 1925, Kidder had George C. Valliant excavate three transverse rows of rooms across the residential section of the building. On the 900 and 825 lines, Valliant excavated Rooms 350-359. His notes describe a series of stone-walled rooms with red clay floors; Valliant recorded no adobe brick construction in any of the rooms. All the datable material from the rooms indicate that they were built in late Glaze V times, probably in the early to mid-1600s; they were occupied into Glaze VI and "Modern" ceramic times, therefore at least up to the Pueblo Revolt. Kidder referred to the structure defined by these trenches as the "west 800 diggings," or the "800 house," after the general location of most of the rooms between eight hundred and nine hundred feet north of the zero point, west of the meridian line on the grid system of the mesa top, while Valliant referred to it as the "350 House," since most of the rooms in it were numbered in the 350s.<sup>14</sup> The trenches were intended to investigate the building which had been located by excavations in "the SW [angle] of square [N]900W100," apparently Room 353, at an unstated earlier date.<sup>15</sup> The southernmost of the trenches was the Room Series IX trench (Figure 5.5); it ran along the 820 line across the south end of the structure. The second trench, part of the Room Series IX-II trench (indicated as IX-IIa on Figure 5.5), was across about the center of the structure, at about the 885 line; and the third, also part of the Room Series IX-II trench (indicated as IX-IIb on Figure 5.5), was a little south of the north end of the building, and was placed along the 910 line. These three test cuts examined parts of eleven rooms; Valliant's notes and sketches of the structures are in the mislabeled 1924 Room Series Notes, Series IX and IX-II, and provide a good initial evaluation of the Northwestern Building.<sup>16</sup>

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<sup>13</sup>Bandelier, "Visit," plate I, figure V.

<sup>14</sup>"Kidder Notes. 1925—General Notes," pp. 42a-43a. "Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 359 (p. 70).

<sup>15</sup>In the room notes for Room 350, it was described as being "a room length s. of an enclosure or room opened up in the early days" in the southwestern corner of the N900/W100 square – this was Room 353; "Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 350 (p. 64).

<sup>16</sup>This Room Series was made in 1925, not 1924. Most of the cards were written by Madeleine Kidder.

The Series IX trench began at coordinates N820/W132, a point a little east of the west fortification wall. It ran eastward 42 feet to the west wall of the Northwestern Building, and across Rooms 357, 358, 356 (apparently actually two rooms), and 352, in that order from west to east. It continued beyond Room 352 another 26 feet to the east, to N820/W24. The southern section of the Series IX-II trench crossed Rooms 350, 351, 354, and 355, from west to east; the trench did not expose the easternmost room of this row. North of this, Room 353 was apparently the room excavated "in the early days," and Room 359 was exposed at the west end of a trench extending west from N900/W20; the rooms between 359 and 353 were not excavated.

The sequence of numbers indicates that both the IX and IX-II series of rooms were excavated at the same time. The IX-II rooms were excavated from west to east, and the IX rooms from east to west. In the trench east of Room 352, the eastern end of the trench was found to have only a few inches of fill above the bedrock of the mesilla top; this fill became deeper as the trench was cut westward. Sherds found in the fill were mostly late Glaze V, VI, and "modern". A few small chips of Glaze I, II and III sherds were seen.<sup>17</sup> Two feet of rubbish accumulated against the east face of the east wall of Room 352 before the rooms began to collapse; this fill contained all late V glaze. The abutment pattern for this room and for 359 several room-lengths to the north suggest that this easternmost row was built from north to south, with a little delay between each addition southward, so that some late fill built up against the wall before the next room to the south was added. The Northwestern Building in this area was clearly late Glaze V in date, built on an original surface of what Valliant called the "early middle periods", with a scattering of Glazes II and III on and under this surface at the time construction on the Northwestern Building began.

Room 352 had an earthen floor, not puddled adobe; in the fill on this floor was late V and VI glazed sherds, and "modern" ceramics. Glaze IV was absent, here and in the rest of the building; Valliant emphasized this as an important aspect of the dating of the structure.<sup>18</sup>

On the west side of Room 352, Room 356 had apparently been two rooms, with most of the dividing wall washed away or destroyed by pothunters. Stubs of this wall were found, however, on the north and south sides of the room; the eastern room will be called 356a, and the western room 356b. The floor was puddled red adobe, covered with what Valliant called "cellar" fill in the west half of the room, 356b. He used this term because the material resembled the fill in the "cellars," the low ground-level rooms of South Pueblo, each only about four feet high. Remarks in the notes for Room 357, below, indicate that Valliant considered 356b to have been a residence room, while 356a, east of it, was used as a garbage dump.<sup>19</sup>

West of Room 356, Room 358 was added after 356 and the room south of it had been built, since the south wall of 358 abuts the walls of 356 and its southern companion; in general, the abutment evidence suggests that the two western rows of rooms were added to the original building, originally only three rows wide. Valliant suggests that the additional rooms were

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<sup>17</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." "TR E of 352 + Room 352," (p. 65).

<sup>18</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 352 (p. 65).

<sup>19</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 356 (p. 66).

begun at the north end of the structure and added one at a time southward. The two western ground-level rooms of the original structure (the east and west halves of 356) were used as dwellings, while Room 352 to the east was used for trash and garbage disposal. Room 358 may have also been used as a residence; it had a red puddled adobe floor and a doorway through its west wall into Room 357, with its south edge five feet north of its southwest corner.<sup>20</sup>

At the west edge of the Northwestern Building was Room 357, just west of Room 358 and joined to it by the doorway. Like 358, this room had a red puddled adobe floor, and had no organic "cellar" refuse like that seen in the west half of 356. In the fill above the floor were found "late" sherds and animal bones, covered by the collapsed walls.<sup>21</sup>

West of Room 357, Valliant excavated a trench most of the way to the west defensive wall. He saw no evidence in this trench of a construction date earlier than mid-V for the house. Farther west, down the slope of the mesilla and closer to the defensive wall, nine burials were found, all dating from the periods of glaze II through IV.

Trench IX-II was begun after IX was well started, and was excavated from west to east, beginning with Room 350 on the western edge of the building. In Room 350, the fill had mostly washed out of the room, but the few remaining sherds were late glaze V and "modern". Some fragments of bone remained on the floor of the room; these were apparently animal bone.<sup>22</sup>

The next room to the east was Room 351. The fill of the room contained a large quantity of adobe mortar chunks from fallen roof and walls. Patches of a red puddled adobe floor survived in places, to smooth out the irregularities of the bedrock. The walls of the room were founded directly on the bedrock of the mesilla. Valliant noted an organic look to the fill; he indicated that it was the same fill that he had called "cellary" in Room 356. The excavators found the ruins of a fire box resting on the rubble of the south part of the east wall, apparently fallen from an above-grade floor, suggesting that some of these rooms were two stories high. The sherds seen in the fill were late Glaze V and "modern".<sup>23</sup>

In Room 354, the next room east, at the southwest corner of the room the walls survived to a height of 3½ feet high, while in northeast corner, they reached 4½ feet high. A floor of puddled yellow adobe lay directly on the bedrock. Remains of the upper floors had collapsed onto this floor, indicating that this room had been two stories tall, like Room 351. These ruined floors consisted mostly of the "slats", split, shingle-like boards; the roof beams seem to have been removed from the rubble. Sherds in the fill were late Glaze V and VI, and a few "modern".<sup>24</sup>

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<sup>20</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 358 (p. 67).

<sup>21</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 357 (p. 68).

<sup>22</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 350 (p. 64).

<sup>23</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 351 (p. 64).

<sup>24</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 354 (p. 68).

Room 355 survived to even greater wall height than Room 354: the walls stood 5'10" at the west side, and 6'3" at the east side of the room. The floor was packed earth over bedrock; the earth contained a few "blind corrugated" sherds. Two upper floors had fallen onto this floor, again indicating a two-story structure as in Rooms 354 and 351. Sherds in the room fill were all late Glaze V and "modern". Valliant remarked that "nowhere in the house are there any signs of chimney pots, either here or to the south, so I suppose the house must have been abandoned by 1690." The presumption behind Valliant's observation is that the use of chimney pots dated after the Reconquest, and that the lack of any use of chimney pots in the Northwestern Building suggests that it was not reused after the Pueblo Revolt.<sup>25</sup> It should be recalled that the use of chimney pots had been observed in the ruins of South Pueblo, specifically in Kidder's room S-V, the present Room 63. Since South Pueblo is known to have continued in use after the Revolt through the eighteenth century and into the nineteenth, Valliant's presumed period of use for chimney pots may well be correct.

The last room on the row of 350-355 was not excavated; however, the easternmost room one room length to the north, Room 359, was examined. Valliant considered this room to have been built onto the east side of the "350 house" after its completion. The south and east wall bases are higher than those for the west and north walls, and are cut into an underlying trash layer; however, the trash layer was apparently of the glaze II-III period, and therefore predated the construction of the "350 house". Valliant observed a post in the west wall of the room, with the wall built around it, and noted a hearth found on bedrock beneath the floor, with glaze III ceramics in the fill covering it.<sup>26</sup> Valliant's observations again suggest that the Northwest Building was constructed from north to south, with the later columns of rooms added on either side of the central core of the building.

East of Room 359, Valliant excavated the trench to determine if the structure extended any farther east. The trench located no additional walls; instead, four burials were found, one of which was associated with glaze V ceramics, while the other three were of the glaze II-III period.<sup>27</sup>

The sum of these investigations tells us that the West Pueblo buildings north of the southernmost "L"-shaped adobe structure were apparently built during the seventeenth century, more or less contemporaneously with South Pueblo, across an area that had a scattering of earlier deposits on it. A small fourteenth century pueblo ruin may have formed the seed of this development, again like South Pueblo, and similarly, the construction seems to have proceeded from north to south. Apparently the original structure was three rows wide, and later in the seventeenth century two more rows were added on the east and west sides of the new pueblo. The building was apparently abandoned at the time of the Pueblo Revolt and never reoccupied. Some of the wood and stone seems to have been robbed from the ruins after the Reconquest, but the buildings were left as ruins.

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<sup>25</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 355 (p. 69).

<sup>26</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 359 (p. 70).

<sup>27</sup>"Kidder Notes. Room Series. 1924 [1925]. 41/55b." Room 359 (p. 70).

This suggests that as the shift of population continued from North Pueblo to South Pueblo, space for additions to South Pueblo was quickly exhausted, and a second line of structures, the West Pueblo, was begun. It grew until by perhaps the 1660s it was almost the length of the South Pueblo.<sup>28</sup> At the southern end of this western row of buildings was a large structure built entirely of adobe bricks. All the datable material from the rooms indicate that they were built in late Glaze V times, probably in the early to mid-1600s; they were occupied into Glaze VI and "Modern" ceramic times, therefore up to and, in the case of the southern adobe building, perhaps after the Pueblo Revolt.<sup>29</sup>

### Buildings West of the Mesilla

#### The "Enclosure"

Bandelier described several other buildings west of the church and pueblos. On the terrace between the defensive wall and Glorieta Creek, he noted the large walled enclosure, his structure F. "F is an irregular lozenge, or trapeze,<sup>30</sup> enclosed by a heavy low stone or rubble wall which might in some places be called an embankment." In his text, Bandelier gave the measurements of this enclosure as 452 feet on the north, 398 feet on the east, 480 feet on the south side, and 330 feet on the west. In his field notes, the measurements were 453 feet on the north, 403 feet on the east, 315 feet on the eastern part of the south, 164 feet on the western part of the south, and 325 feet on the west. It is unclear why there are differences between these two sets of figures, but Bandelier seems to have reconsidered a number of his field conclusions while writing up his report. He described the curved ridge in the northeast corner as "an embankment of earth and stone" that formed "a slightly elevated platform, in the center of which is a pond . . . which, even at the present time, is filled with water." It was clear, said Bandelier, that the pond was filled by the runoff of rainwater from the mesilla through the main west gate in the defensive wall. The walled compound was broken down in several places; "Several gullies . . . have cut through the western and southern parts of the enclosure." His local informant, Mariano Ruiz, said that this was the *huerta de pueblo*, the garden for the inhabitants of the pueblo. Historical documents suggest that it was the convento garden in both the seventeenth and eighteenth centuries.

Bandelier noticed the curving foundation of the wall north of F; he labelled this "E." He described the structure as "a stone or rubble wall of undeterminable length running along the foot of the mesilla in a slight curve till near the 'wash-out' sallying from the gate."<sup>31</sup> The purpose of this wall is still uncertain.

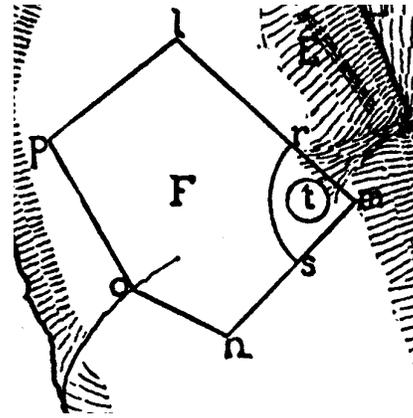
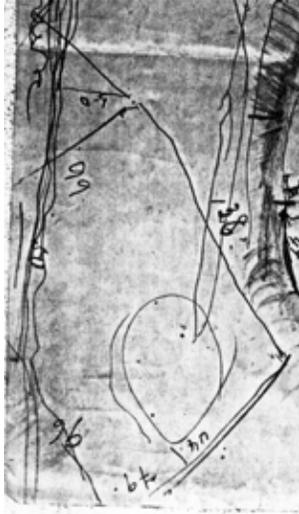
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<sup>28</sup>"Kidder Notes. 1925 – General Notes," pp. 42a-43a.

<sup>29</sup>"Kidder Notes. 1925 – General Notes," p. 2.

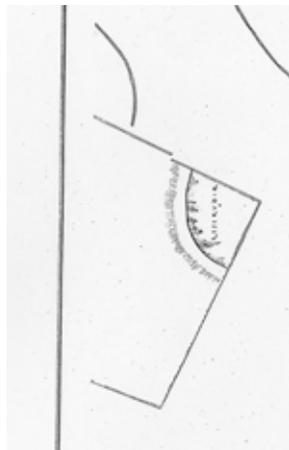
<sup>30</sup>Bandelier means "trapezium," an irregular four-sided figure with no two sides parallel.

<sup>31</sup>Bandelier, "Visit," pp. 88, 89.



**Figures 5.8 and 5.9.** Figure 5.8 is Bandelier’s field sketch of the “Enclosure,” and Figure 5.9 is his published redrafting of the field sketch.

In August, 1925, Kidder had Ted Amsden conduct a survey of the walled enclosure: "Ted surveying big corral below W. slope."<sup>32</sup> Amsden's map probably served as the basis of the plan of the “Enclosure” on the Kidder-era extended map of the entire hilltop, the “Academy” map (Figure 5.10).



**Figure 5.10.** Kidder’s plan of the “Enclosure.”

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<sup>32</sup>“Kidder Notes. 1925 – General Notes,” August 6, 1925, p. 25a.

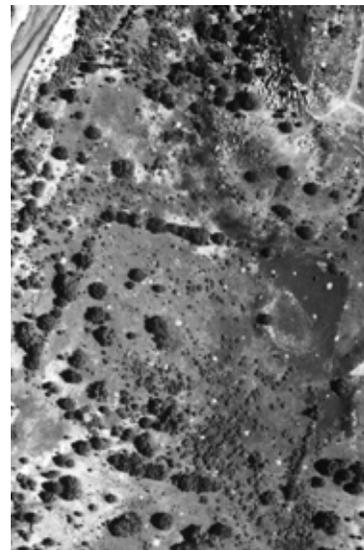
I conducted an examination and resurvey of this area in 1993. The actual measurements are 380 feet on the north, 370 feet on the east, about 460 feet (two sections of 320 and 140 feet each) on the south, and 260 feet on the west. The enclosure is presently outlined with a massive rubble wall, something like eight feet high at the southwest corner. There are indications that the wall was originally more neatly built; in the gully cut through it at the southwest corner, traces of a vertical stone retaining wall seem to be present. It is clear, looking at the structure on the ground and on the contour map, that the structure was built on a gently sloping part of the river terrace, and then filled with earth to make the interior almost level. This would have involved the moving of a large quantity of earth to the interior of the enclosure, but probably not much more than was hauled to the top of the mesa at Acoma to fill the campo santo enclosure.

When finished, the interior surface dropped about ten feet from the base of the pond embankment to the southwest corner. Traces of channeling suggest that the outlet for water from the pond was at its southeastern corner, near the retaining wall. Presumably this was distributed across the surface of the enclosure by a network of irrigation channels, and any excess flowed out of the enclosure at its southwest corner, where a gap presently exists in the outline of the retaining wall. It is likely that an outflow opening was built through the short north-south section of wall at the outflow point.

On the east side of the "Enclosure" are the remains of a second holding pond. A deep channel has been cut through the retaining embankment by something like a bulldozer. Most of the earth from the cut has been piled in a linear mound inside the pond. It is uncertain when this pond retaining wall was cut; Bandelier did not mention it, and no clear evidence demonstrating either its presence or absence can be seen in any of the early photographs, until the Lindbergh photos of 1929 show it as present but the embankment still uncut.



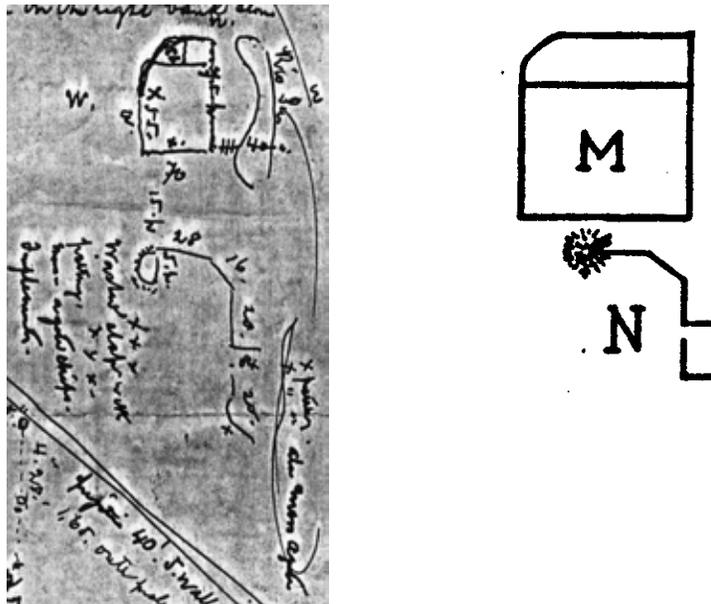
**Figure 5.11.** Measured drawing of the "Enclosure."



**Figure 5.12.** 1966 aerial photograph of the structure.

Artifacts found distributed across the "Enclosure" by Genevieve Head's survey in 1995-1997 suggests the date of its construction. No significant quantity of artifacts were visible at the surface on the earth fill within the "Enclosure," while along the walls and the embankment forming the pond, a fair number of artifacts could be seen. The count gave an average rate of about 2.5 artifacts per square meter, about the same rate as that seen along the walls of the "Square Ruin," discussed below, and similar to the rates found on the middens along the sides of the mesilla. This suggests that the main enclosing walls were built using midden soil as its mortar, and that the pond embankment was also constructed from midden soil. If we assume that the use of midden soil as the source for *any* construction material stopped about 1645, then the artifacts suggest that the "Enclosure" was built in the period from 1620 to 1645.<sup>33</sup>

### The "Square Ruin"



**Figures 5.13 and 5.14.** Figure 5.13 is Bandelier's field sketch of the "Square Ruin," and Figure 5.14 is his published plan of the structure.

Bandelier said that the dimensions of his structure M, now called "Square Ruin," were 246 feet on the east, 230 feet on the south, and 180 feet on the west up to the corner of the angled wall. His measurements of the east and west sides were fairly accurate, but the south side is

<sup>33</sup>We know from archaeomagnetic dating that construction in the convento changed from black brick made from midden material to red brick using clean clay sources about 1640-1645. Genevieve Head suggests that this changeover in brick source material may have been the result of the Pecos formally objecting to the use of their middens (sacred areas where their ancestors were buried) to supply the dark earth used to make the black bricks; Genevieve Head, personal communication, September 9, 1998.

actually only 159 feet long. Bandelier's field notes indicate a partition wall running north to south across about the center of the narrow northern division of the structure, and showed that the two east-west walls of this division were 43 feet apart; the present measurement is about the same. Mariano Ruiz said that this was the corral of the pueblo, the enclosure where they kept their herds. "It was at all events but an enclosure, and no building," added Bandelier. "Still, why were their herds, their most valuable property, kept on the opposite side of the creek, so far from the dwellings themselves?"<sup>34</sup>

Alfred Kidder did not test or map the "Square Ruin," and neither Bill Witkind nor Jean Pinkley mention it. Alden Hayes examined the enclosure briefly on July 10, 1970: "Tom [Giles] took me across wash to another compound - looks like a large corral of masonry."<sup>35</sup> He carried out no archeology on the structure, however.

No known investigation of this structure occurred until the excavation by Bill Creutz and Larry Nordby in 1982-83.<sup>36</sup> Nordby approached Square Ruin with the intent to find evidence that would allow him to select one of a series of possible alternative explanations for the structure as its most likely purpose. The alternatives were:

1. The structure was built to be used as a defense against Comanche depredations in the period from 1746 to 1786;
2. The structure served as a temporary quarters for the settlers of San Miguel del Bado during the construction of their new settlement, 1794-1798;
3. The structure was built as a fort to protect New Mexico against a feared invasion of U.S. forces during the period of 1806-1819;
4. The enclosure was constructed as a shelter for Santa Fe Trail travellers, 1821-1850 or later;
5. The enclosure was built to be a corral at an undetermined time in the eighteenth century;
6. The compound was built as a reservoir at an undetermined time, presumably in the eighteenth century.

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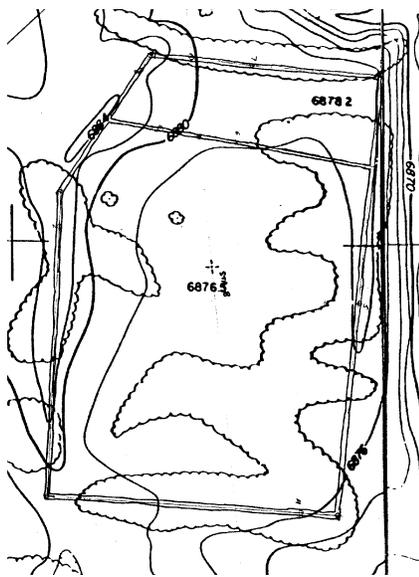
<sup>34</sup>Bandelier, "Visit," p. 90. The records of other ranching areas indicates that herds were kept away from the fields, where they would graze if not prevented. The Pecos fields were on the east side of the creek.

<sup>35</sup>Alden Hayes field journal, "Log -- Pecos -- Hayes -- July-Aug 70," July 10, 1970, PNHP.

<sup>36</sup>Larry V. Nordby and A. William Cruetz, "Test Excavations at Square Ruin, Pecos National Historical Park, 1982," 1993, PNHP.

It is curious that *only* an eighteenth-century or later construction period was even considered as the explanation for this feature. This is a symptom of a peculiar trait of thinking about the past of New Mexico that was common before 1980. This was the “primitive frontier” view, where seventeenth-century New Mexico was considered to be poorer and more primitive than eighteenth century New Mexico, a view that was exactly opposite the truth. This evaluation of seventeenth-century New Mexico colors the expectations and interpretations of many archaeological, anthropological, and historical writings of the twentieth century.

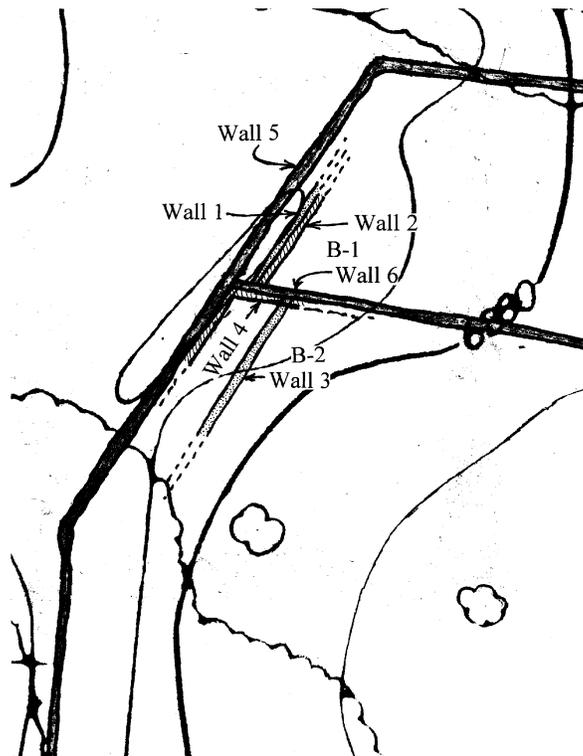
The results of the fieldwork by Creutz and Nordby did not fit any of these possible alternatives. No artifacts indicative of the eighteenth or nineteenth century were found, only a few seventeenth-century ceramics and a great quantity of fourteenth-century material associated with Square Ruin and a small ruin of that period just south of Square Ruin. Certainly there was no indication of fortifications or reservoir deposits. Since the artifact associations indicated fourteenth- and seventeenth-century periods of use, and none of the hypotheses included any seventeenth century activity, all of them had to be rejected.



**Figures 5.15 and 5.16.** Figure 5.15 is the 1993 surveyed plan of the “Square Ruin.” Figure 5.16 is a 1966 aerial photograph of the structure.

Instead, Nordby found himself arguing, in an indirect way, that the evidence found by his test excavations supported the idea that the Square Ruin was built of black adobe bricks in the early 1600s. Nordby found fragments of black brick, all of them broken, so that the fragments were smaller along one or another dimension than the black brick used in the Ortega/Juárez Church and its early convento, but in general they appeared to have been originally of the same size. Nordby considered some of these bricks to have been put down as floor paving, and all to have been rejects from the adobe manufacturing industry at Pecos. The bricks were associated with fragments and dissolved traces of the same purple mortar used in the construction of the

convento; Nordby suggested that "the same mortar source would more likely have been used if the bricks were emplaced at the same time as the church was built;" but because the same mortar and brick combination was used in the construction of Kiva 23 considered at the time to have been built in 1680-1692, Nordby felt he had to accept that the appropriate mortar was used in association with the black brick at some later date than the period of construction of the convento. However, analysis of the construction sequence of the convento indicates that a particular mortar and brick combination was used only in a specific time period, as Nordby suggested – the use of black brick and purple mortar at Square Ruin therefore dates its construction to the period of 1620-1640, based on the dates of use determined in the convento.<sup>37</sup>



**Figure 5.17.** The northwest corner of "Square Ruin," showing the multiple episodes of wall construction here. The dotted walls are earliest, the hatched walls were built later, and the gray walls were the final construction of the enclosure.

In spite of the then-accepted construction date of 1680-1692 for Kiva 23, Nordby nonetheless concluded that if Square Ruin was built with black adobe bricks, probably "the event dates to between AD 1621 and 1625. This date conforms to the ceramic evidence, and helps to explain the scarcity of Euroamerican material culture at the site."<sup>38</sup> In the limited testing, Nordby found some Glaze V ceramics, a number of plain red sherds without the later glaze paint, and

<sup>37</sup>Nordby and Cruetz, "Square Ruin," p. 63.

<sup>38</sup>Nordby and Cruetz, "Square Ruin," pp. 63-64.

a few Kapo black sherds; "the absence of either the Kotyiti glazeware types or more definitive Tewa complex ceramics suggests that construction of Square Ruin probably predates A.D. 1640 or 1650."<sup>39</sup> The only items of European manufacture were one small sherd of majolica (no colors mentioned) and one small fragment of sheet metal (whether iron or copper is not stated). It is notable that the selection of latest ceramics found in the testing resembles the selection found during the backhoe excavation of Kiva 23.<sup>40</sup>

The majority of the sherds associated with Square Ruin, however, date to the period from 1300 to perhaps 1350. Nordby suggested that "adobe bricks surmounted what we now see as stone footings, that those bricks were made of trash from the Puebloan structures, and that they have now deteriorated, depositing sherds and other Puebloan material culture artifacts across the compound;"<sup>41</sup> that is, they were typical black bricks. Later, in reassessing his original hypotheses, Nordby again suggested that: "adobe brick walls surmounted these stone footings, but the bricks have now deteriorated; these adobe brick walls were made from cultural deposits containing artifacts from the period prior to AD 1350, which were then naturally deposited as fill in the Square Ruin compound."<sup>42</sup>

Reexamining the north end of Nordby's test unit B, it appeared to Courtney White and me that the layers of debris deposited on the inner face of the wall sloped up to the wall, that they contained a number of fragments of black adobe brick, and that the surfaces that Nordby considered to be brick-paved floor were actually areas littered with black brick fragments and brick and mortar residues deposited from the decay of adobe walls standing on the stone foundations. If the floors were not occupation floors, but rather weathering surfaces composed of the decay products of adobe brick walls, then these surfaces post-dated the abandonment of Square Ruin, and the various wall changes within it, sealed beneath these dissolution layers, become indeterminate in date. Clearly, some of the spaces Nordby described as "rooms" were not (see Figure 5.17); the "room" in B-1, between the outer wall, Wall 5, and the two inner walls was only two feet wide when Wall 1 was standing, or three feet wide when Wall 2 was in use. These are the widths of average doorways, not of rooms. The spatial and stratigraphic relationships of the walls makes it more likely that Walls 1 and 2 predated Wall 5, and were therefore earlier versions of the enclosing wall. The abutment pattern is not clear: for example, some of the apparent abutments, such as the south end of Wall 2 and the north end of Wall 3, are disturbed and may be the result of digging foundation trenches through earlier walls, and then filling these trenches with new stonework. It seems reasonable to interpret the wall sequence, depths, and abutments as follows: Walls 1 and 4 were the earliest in the B-1 and 2 area, with Wall 3 added shortly afterward; then Wall 5 was built to smooth out an irregular corner, and Wall 6 was subsequently built above and against Wall 4, replacing it and cutting through the

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<sup>39</sup>Nordby and Cruetz, "Square Ruin," pp. 64-65.

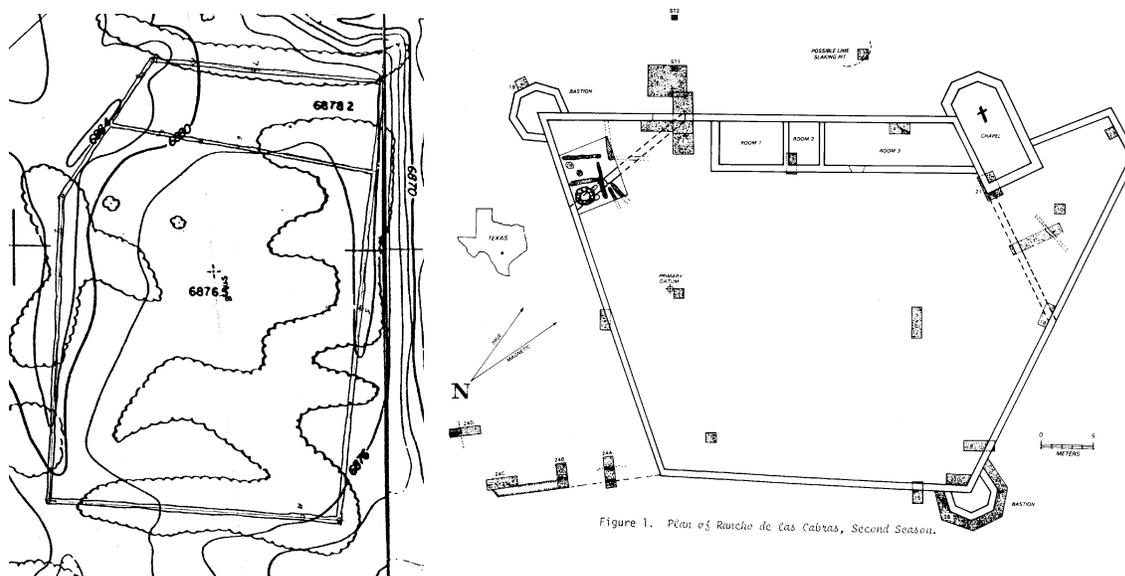
<sup>40</sup>Nordby and Cruetz, "Square Ruin," p. 62.

<sup>41</sup>Nordby and Cruetz, "Square Ruin," p. 62.

<sup>42</sup>Nordby and Cruetz, "Square Ruin," p. 66.

buried remains of Walls 1 and 2. Wall 3, enclosing a space eight feet wide with a hearth and several post-holes, was probably built as the front of a pen or shed along the northwest face of the larger corral.

Geochemical analysis of the bricks in Square Ruin indicate conclusively that they are identical in makeup to the black brick used in the convento, and therefore in all likelihood were part of the same manufacturing process taking place in 1622-1635.<sup>43</sup> In general, Nordby's work at Square Ruin, and Courtney White's subsequent brick analysis, viewed within the context of the reevaluation of the periods of use of adobe bricks and mortar in the third church and early convento, indicates that the date of construction of Square Ruin is in the period from 1620 to perhaps 1635 when black brick and purple mortar was in use, as Nordby's reasoning had insisted all along.



**Figure 5.18.** Square Ruin as compared to Rancho de las Cabras, an eighteenth-century mission ranch in Texas. They are shown to approximately the same scale.

The supposition that this enclosure was used as a cattle and sheep corral is made somewhat uncertain by the lack of any recognizable deposit of manure within the structure. Manure actually contemporaneous with the seventeenth century has been found only in the convento corrals of the mission, as a thin layer in the south part of Area B within the possible shed or barn in B-2.<sup>44</sup> Examination of a similar corral structure used for both sheep and cattle in Spanish colonial Texas, however, has shown that manure deposits in these structures are not

<sup>43</sup>Maury Morgenstein, *Petrographic, Geochemical, and X-Ray Diffraction Analysis of Adobe and Mortar Samples, Pecos National Historical Park, Pecos, New Mexico*, (Boulder City, NV: Geosciences Management Institute, Inc., 1995); copy in PNHP.

<sup>44</sup>Nordby and Cruetz, "Square Ruin," pp. 24, 29, 67.

evenly distributed across the corral. The Rancho de Las Cabras, 25 miles south of San Antonio, near Floresville, Texas, was used as a corral in the late eighteenth and early nineteenth centuries; excavations there in the 1970s found that thick manure deposits had been left by the animals kept within the walls, but only along the south and east sides, the lowest parts of the interior. As a result of these tests, we suspected that the animals were kept only in certain areas of the corral, even though there were no visible traces of interior fences or walls, or that the manure was washed to the lower end of the corral by rainfall, or that the animals themselves preferred the south and east areas of the corral for their own reasons.<sup>45</sup> The results of the Las Cabras investigations suggests that manure deposits may await discovery at Square Ruin, perhaps in the smaller northern enclosure or along the southern and eastern parts of the larger corral. A series of small shovel tests across the open areas of the corral could easily determine if manure is or is not present within it; until then, the obvious similarities between Square Ruin and Spanish corrals elsewhere at Pecos and on the wider northern Spanish frontier indicates that this was indeed a corral complex, used during the seventeenth century, probably as a holding pen, shearing corral, and lambing enclosure for the sheep of the mission of Pecos.

To summarize: this reappraisal of Square Ruin within the context of the structural history of the Pecos convento indicates that the enclosure was built as a corral about 1620-1630 as part of the establishment of the economic foundation of the mission.<sup>46</sup> The Franciscans had this large corral built in the same general manner as the “Estancia” buildings discussed below, and the convento itself, of solid stone footings coated with adobe plaster, rising perhaps about one to three feet above the grade of construction, and topped with black brick and maroon mortar walls rising to a total height of probably five feet or more, if it was to keep sheep inside. Analysis has shown that these bricks were from the same brick-making operation that produced the brick used in Third Church and the early convento. The mortar was sufficiently different from that used in the convento in 1620-1640 to suggest that it may have been produced in the immediate area of Square Ruin.

The Square Ruin compound went through a series of changes and alterations. Apparently the large corral was the first built, and the smaller northern corral was added later. In the northwest corner of the main compound, the Franciscans had a ramada or other shelter roof built. Later, the entire northwestern face was rebuilt to include the new, northern corral within a continuous wall, smoothing out the various corners and jogs in the wall at this point. Some of this construction could have been in red brick, but no samples of such brick have been seen in the very limited testing of the structure. The lack of any substantial quantities of seventeenth-century cultural materials in the limited testing strongly suggests that there were no permanent residents in the area during its use. Therefore, it was probably used only for transient activities like round-ups and brandings or sheep-shearing and holding pens during the middle decades of

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<sup>45</sup>James E. Ivey, *Archaeological Survey and Testing at Rancho de las Cabras, Wilson County, Texas*, Center for Archaeological Research, Survey Report no. 104 (San Antonio: University of Texas at San Antonio, 1981), p. 42.

<sup>46</sup>For a discussion of the economic system suggested by the extensive ruins of the Pecos mission, see Chapter 11, “The Seventeenth-Century Construction at Pecos.”

the seventeenth century, 1630-1680. The most recent ceramics on the site indicate that the use of Square Ruin ended with the Pueblo Revolt of 1680.

The place was apparently never put back into use after the Pueblo Revolt. Because Square Ruin was built of black brick and never saw much use as an occupation area, the ceramics found there can be used to form a general guideline of the range of ceramic types left by the dissolution of a large number of black bricks. Nordby describes it as "Santa Fe B/W and slightly later ceramic materials predominate at all levels, never comprising less than 50% of the total ceramic assemblage. This material should be no later in date than AD 1325/1350. This is followed by a complete dearth of ceramic materials . . . followed by a post 1500 occupation . . ."47 This is distinct from the virtual absence of ceramics left in the dissolved remains of the relatively clean clay of the later red bricks. Such a pattern of sherd distribution in clearly Spanish structures tells us, not that the walls in the area were built in the fourteenth century, but that they were built of black adobes in 1620-1640. In this same context, when we find an area of walls with red-brown dissolution materials mounded around them and only ceramics of the later 1600s found during surveys or excavations, as we will in the examination of other structures discussed below, such evidence indicates a construction of red brick in the period from 1640 to 1680. Such a pattern becomes useful, for example, when we evaluate the construction history of the "Estancia," 900 feet to the east.

Very few artifacts were seen on the surface within the enclosure away from the walls. Genevieve Head, who directed a survey of the cultural resources of Pecos National Historical Park in 1995-1997, found that along the base of the west side of the west wall, artifact counts gave a rate of about 1.7 artifacts per square meter at the surface. This is quite low, and supports the suggestion that the Square Ruin was not used as an occupation area.

### The "Estancia"

Southwest of the church the various investigations of Pecos over the years had noted a group of buildings which are neither puebloan nor conventual. Because of the strong resemblance of their plan to the remains of a pre-Revolt estancia excavated in the early 1990s at LA 20,000, near La Cienega south of Santa Fe, I will call this group of structures collectively the "Estancia." It is composed of two components: a series of large enclosures on the west called the "Corrales," and a smaller, more complex building on the east called the "Casa."

Bandelier mapped this group of buildings southwest of the church, and labeled them as structures H, I and J in his published report, Figure 5.20. The published plans differ considerably from Bandelier's field notes, Figure 5.19; apparently he distrusted or misread his own numbers and diagrams when, a few weeks later in Santa Fe, he prepared the final drafts of the maps for the published report. Building H is apparently the north part of the Corrales, correspond to Al Hayes's "Compound," as he called it in his field notes, or "Presidio," as he named it in *Four*

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<sup>47</sup>Nordby and Cruetz, "Square Ruin," pp. 38-39.

*Churches*, and as it has been called since 1970.<sup>48</sup> Bandelier described Building H as a "corral-like structure, very plain [flat], about . . . 163 ft. X 65 ft. I understood Sr. Ruiz to say that it was



Figure 5.19. Bandelier's field sketch of the Casa and Corrales structures.

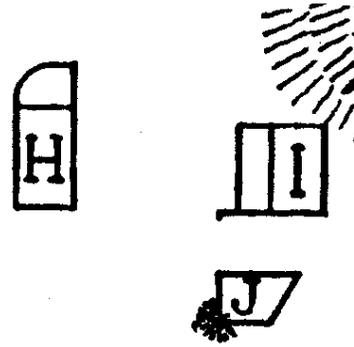


Figure 5.20. Bandelier's published map of the Casa and Corrales structures.

the garden of the church ('la huerta de la iglesia')" — Bandelier later decided that this was a misunderstanding, and that Ruiz was actually talking about the stone-fenced areas on the south side of the convento.<sup>49</sup> Building J, with the mound on the southwest corner, is apparently taken from the south part of the Corral structure in Bandelier's field notes. Building I is apparently the eastern building of the complex, the Casa. In the published report, Bandelier described structure I as a "rectangle of foundation lines . . . 98 ft. X 100 ft. — divided into two compartments, the western one . . . 30 ft. X 98 ft." South of this was J, 60 feet by 70 feet.<sup>50</sup>

Bandelier's field sketch and measurements, however, closely match our recent plans of the "Corrales" quite well, but have little resemblance to the published plans. He showed a large mound or ruined structure in the southwest corner of the Corrales. This mound is still present, and was apparently a small building on the west side of the southernmost corral.

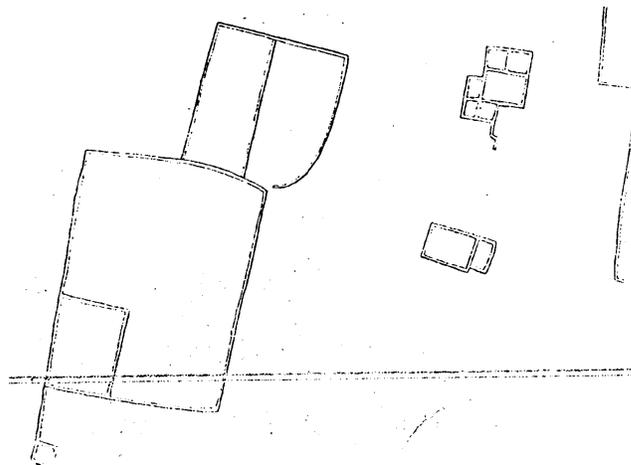
East of the Corrales, in his field sketch Bandelier drew three sides of a rectangle with accompanying measurements. He apparently later thought that this was supposed to be the convento south of the church and left it off his final map, but the field notes indicate that the west wall of the convento was another 19 meters, or about sixty feet to the east, with a rectangle at its north end marked "Church." This long, rectangular building, the Casa, corresponds to Hayes's "Convento Annex" in his field notes, and the "Casas Reales" in *Four Churches*. Bandelier showed no internal details of the plan of the Casa, but did indicate that it was joined to the

<sup>48</sup>Alden C. Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), pp. 53-55 and figs. 16 and 17.

<sup>49</sup>Bandelier, "Visit," p. 91.

<sup>50</sup>Bandelier, "Visit," p. 91.

Corrales by two walls, each about 98 feet long and about 98 feet apart. He also indicated that it appeared to extend about 33 feet east to west, and 171 feet from north to south; this is the generally correct width of the building, but Bandelier's estimated length is about 25 feet longer than the wall foundations located by Hayes's limited testing, and suggests that the structure extends that much farther to the north under the area that has been used by the National Park Service for adobe making for decades.



**Figure 5.21.** Kidder's plan of the Corrales, on the left, and the rooms he tested of the Casa, in the center. On the right are the west walls of the convento.

Although Alfred Kidder ignored the Square Ruin, he conducted tests in several rooms of the Casa buildings in 1925 to 1929, and had the Corrales mapped. Hayes, in *Four Churches*, said that “no record of this later work [by Kidder] has come to light,” apparently because he did not notice or recognize the very brief reference to it in Kidder's notes: on August 24, 1925, Kidder mentions that he has two men excavating in “structure S. W. of church.”<sup>51</sup> In 1929 the excavation of at least one room of the Casa is visible southwest of the church in aerial photographs of the ruins taken by Charles Lindbergh.<sup>52</sup> The picture shows two excavations still open, one a room outlined with excavation trenches, the other a trench apparently running up to a wall somewhat west of the first room. Plotting the location of these from the Lindbergh photos indicate that the room was the northeastern room of the “Casa” structure as shown by the final version of the Kidder map, Room 15 on Figure 5.24. The unit to the west appears to be a trench from west to east up to the west wall of the “Casa,” Room 14. Kidder had two portions of the

<sup>51</sup>“Kidder Notes. 1925 – General Notes,” August 24, 1925.

<sup>52</sup>RSU neg. no. 203, “copied from 8x10 print provided by Museum of New Mexico,” School of American Research Photo Collection in Museum of New Mexico, neg. # 130325, 130328, 130366, 130367. See Erik Berg, “The Eagle and the Anasazi: The Lindbergh's 1929 Aerial Survey of Prehistoric Sites in Arizona and New Mexico,” *Journal of Arizona History* 45(Spring 2004)1:14, 16.

Casa mapped, probably by Ted Amsden, from surface indications and a few shovel pits, and the entire Corrales, apparently using only surface wall traces. The southernmost walls of the northern group of rooms on Kidder's map are the north walls of Hayes's rooms 1 and 2, the northern rooms he excavated in 1970. In the southern group of rooms, the easternmost identified by Kidder and shown on his map was later excavated by Hayes and called "Convento Annex Room 3." The Kidder map, then, indicates that Rooms 1-6 and 10-15, and patios P1, P2, and P3 may have been trenched or tested in some manner by his investigations. Other than being entered on the overall map, these rooms made little impression on Kidder — he never discussed them or his work in the area in any of his notes or publications, beyond the brief passing reference mentioned above.

#### Archeological Testing in the Casa

On July 6, Hayes began trench 70-1 "across suspected prehistoric structure west of Area G."<sup>53</sup> The trench was "cut by hand across an area 70 feet west of the southwest corner of the convento to intersect walls of an outlying structure," and reached the walls of the "Casa" on July 7.<sup>54</sup> The first room was excavated from July 7 to July 9: "room at end of TT 70-1 has well-laid heavy walls ca. 1.0 foot high, probably stone footing for adobe. Floor is cobbled crudely and a slab-lined drainage ditch - covered with small stick and slabs - crossing room NS near west wall."<sup>55</sup> Clearly the room was not "prehistoric." On July 9, Hayes labeled this room the "Convento Annex, Room 1," and began to outline the walls of Room 2, next to it on the west.<sup>56</sup> During July 10-13, Hayes traced the walls enclosing the room, and found that the stone foundation was missing in the northwest corner.<sup>57</sup> When Alden Hayes excavated several rooms of this building in 1970, he found distinct indications that someone had cleared out his "Convento Annex Room 2" before him, and considered Kidder and Nusbaum to be those responsible. In *Four Churches* he says that the room "had been partly excavated earlier — probably by Kidder as it shows on Lindbergh's 1929 aerial photograph."<sup>58</sup> In his room notes, Hayes said that the "[f]loor of adobe bricks set in apparent herring-bone with whitish mortar. 1.75 by 0.85' in northwest corner of room only. Only 1/2 inch thick. Tops shaved down when

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<sup>53</sup>Alden Hayes, "Log--Pecos," July 6, 1970.

<sup>54</sup>Alden Hayes, "Log--Pecos," July 7, 1970.

<sup>55</sup>Alden Hayes, "Log--Pecos," July 8, 1970.

<sup>56</sup>Alden Hayes, "Log--Pecos," July 9, 1970.

<sup>57</sup>Alden Hayes, "Log--Pecos," July 10-13, 1970.

<sup>58</sup>Hayes, *Four Churches*, p. 56.

room dug before — probably Nusbaum in '17. Rotted piece of paper above floor in fill."<sup>59</sup> It is uncertain why Hayes thought that Nusbaum had done the excavation in these rooms, or that the work had been done in 1917. No Kidder work was conducted at Pecos in 1917, 1918, or 1919, and Nusbaum worked on the excavations at Pecos only in 1915. In Hayes's original field notes, he said only: "Completed Room 2. It had a floor of adobe brick but mostly missing. Piece of paper near floor. Probably tested by Kidder. Corner fogon [fireplace] in good condition."<sup>60</sup> Kidder's final map shows the east wall of this room, and the northeast corner, indicating that Kidder's investigation may have done some testing in the room. On July 14 and 15, Hayes drew a plan of the two rooms, later reproduced in *Four Churches*.<sup>61</sup>

In his summary at the end of July, Hayes described the work here: "Two rooms of an estimated eight to ten were excavated. They were Spanish and secular, built of adobe brick on wide masonry footings." It is unclear whether he actually saw adobe bricks on these wall foundations, or if this was just an inference. "The first had a cobble-stone floor, a raised cooking platform along one wall, and a slab-lined, subfloor drainage ditch. The second room was floored with adobe bricks laid in a herringbone pattern and was equipped with a hooded, corner fireplace,"<sup>62</sup> although he does not indicate the color of the adobe bricks.

On July 28, Hayes began excavation on a third room, located at the southeast corner of the "Casa" fifty feet to the south. The examination of this room continued until August 3 and 4, when the last details of the complex wall pattern was worked out and the room was surveyed for Hayes's map of the building.<sup>63</sup> On the 3rd, Hayes said that "Confusing layout of walls beginning to make more sense. Believe original small room was razed and another larger one laid out immediately above."<sup>64</sup> In his final description of this room in *Four Churches*, Hayes considered the gap in the foundations of the east wall of the room to have been a fireplace, and stated that "there was rebuilding here at least two times."<sup>65</sup>

On August 4, Hayes returned to the north end of the building. He cut an additional trench north of rooms 1 and 2 in an attempt to find its north wall. He relocated the north wall shown

<sup>59</sup>Larry Nordby, Gary Matlock, and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," PNHP, p. 223; also Al Hayes and Robert Lentz, "Room Notes, Pecos 1969-1970," Convento Annex, Room 2 (xerox of the original at PNHP). The original of these typed notes with Lentz's additional handwritten comments is unlocated, but may be in the files of the Western Archeological Conservation Center of the National Park Service in Tucson, Arizona.

<sup>60</sup>Alden Hayes, "Log--Pecos," July 13, 1970..

<sup>61</sup>Alden Hayes, "Log--Pecos," July 14-15, 1970.

<sup>62</sup>Al Hayes, Supervisory Archeologist, Pecos Project, to Chief, Southwest Archeological Center, "Report for the Month of July, 1970," July 30, 1970.

<sup>63</sup>Alden Hayes, "Log--Pecos," July 28-31, August 3-4, 1970.

<sup>64</sup>Alden Hayes, "Log--Pecos," August 3, 1970.

<sup>65</sup>Hayes, *Four Churches*, p. 56.

on the Kidder map, and found that the "area immediately outside this wall and for at least 25 feet north of it contains a great deal of ashes, charcoal, black adobe fragments, burnt adobe and much garbage (sherds and bone.)"<sup>66</sup> As I said above, Bandelier saw indications that the structure extended 25 feet to the north of the north wall mapped by Kidder and Hayes, suggesting that there are other rooms or an enclosing wall still to be found here.

During the first week of September, 1970, Hayes and the crew stabilized Rooms 1 and 2 of the Casa as a "permanent exhibit."<sup>67</sup> Finally, in 1994 the weeds were cleared from this group of rooms, a trail built to it, and a wayside interpretive sign erected, describing the probable appearance and possible uses of the building to visitors.

At the end of the fieldwork on the Casa, Hayes said that "I believe it to be non-ecclesiastic and probably the 'Casas Reales' referred to by Father Dominguez in 1775."<sup>68</sup> A few months later, in December, 1970, Hayes had changed his mind, and suspected that the Casa may have been "possibly connected with a small garrison established [at Pecos] in 1751."<sup>69</sup> By the time he wrote *Four Churches*, however, Hayes had come back to the idea that the Casa was the Casas Reales mentioned in the 1776 Dominguez report, and associated the military establishment at Pecos entirely with the Corrales, his "Presidio."<sup>70</sup>

Finally, after *Four Churches* went to press, Hayes again changed his mind, and again rejected the idea that the Casa was the eighteenth-century "casas reales." This rejection resulted from archeomagnetic tests Hayes had had made on a sample taken from the baked clay hearth in the southeast corner of room 2 on August 20, 1970. To Hayes's surprise, Robert DuBois, director of the Earth Sciences Observatory of the University of Oklahoma, eventually dated the use of the hearth to 1670±12. When he reported this result to the Park, Hayes said that the date was "75 or 80 years earlier than I had guessed, and it indicates a pre-rebellion construction. Too late to change my text . . ."<sup>71</sup> During a re-evaluation of the "Casa" in 1993, Courtney White and I arranged with Tom Windes to take a new archeomagnetic sample from the fireplace in room 2 of the "Casa." This sample gave a date of approximately 1650±28 for the fire that baked in the magnetic orientation, supporting Dubois's original date and confirming that the structure was

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<sup>66</sup>Hayes, "Log--Pecos," August 4-5, 1970.

<sup>67</sup>Alden Hayes, "Log--Pecos," September 1-3, 10, 1970; Al Hayes, Supervisory Archeologist, Pecos Project, to Chief, Southwest Archeological Center, "Report for the Month of September 1970," September 31, 1970, PNHP.

<sup>68</sup>Al Hayes, Supervisory Archeologist, Pecos Project, to Chief, Southwest Archeological Center, "Report for the Month of August, 1970," August 31, 1970, PNHP.

<sup>69</sup>Al Hayes to William J. Robinson, December 22, 1970, in the files of the Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona.

<sup>70</sup>Hayes, *Four Churches*, p. 58.

<sup>71</sup>Robert L. DuBois to Douglass Scovill, April 30, 1974, PNHP; Hayes to Matlock, May 6, 1974, memorandum, PNHP.

built and used in the seventeenth century.<sup>72</sup> If further support for the seventeenth century date was needed, Maury Morgenstern's adobe brick analysis and Hayes's own field work gave it. Morgenstern's examination indicated that the bricks of the fireplace were probably black, altered by the heat of the fireplace, while Hayes's test trench in the rubble of the north end of the building found that this area, at least, had been built of black bricks, as well.<sup>73</sup>

The physical evidence, then, indicates that the northern section of the Casa, from Rooms 1 and 2 north, was constructed of black brick sometime in the period from 1622 to 1645. The general pattern of development of the convento suggests that the building was probably established as part of the development of the economic base of the mission about 1630. The structure south of Rooms 1 and 2 was apparently built of red brick after 1645: during Genevieve Head's intensive survey of the enlarged and renamed Pecos National Historical Park in 1995-96, her crew remapped the area of the "Corrales" and made representative sherd counts across the "Corrales" and the "Casa." The sherd counts on the "Casa" were made south of Hayes's Rooms 1 and 2. They demonstrated that the sherds scattered thickly across the area were made up almost entirely of Glaze V and a few Glaze IV sherds. The later ceramics of this deposition must be the result of the occupation of these buildings; the earlier are probably a scattering on the surface at the time of the construction of the Casa, or represents a few ceramic items still in use from Glaze IV times. The survey found no significant presence of the Glaze I-III sherds typically found in the midden clay of black adobe bricks used in the period from 1620 to 1635. The absence of these sherds strongly suggests that the southern half of the Casa was not built of black bricks, before 1645, and therefore that it was built of red bricks, after 1645.

Hayes described the Casa as a group of rooms (he originally estimated eight to ten rooms, but the final count indicates fifteen to seventeen rooms) forming a block about 30 to 40 feet wide and about 145 feet from north to south. He considered Room 1 to be a kitchen, and the banco fireplace along its east wall clearly supports this identification. He thought that the drainage channel through the room was part of the attributes of this kitchen space.

The rubble found by Hayes's excavations along the north side of the building, and the lack of any artifactual evidence for a use of the building after the late seventeenth century, shows that the building was destroyed by fire during the Pueblo Revolt in 1680, and never reused afterwards. The archeomagnetic dates, the mass of burned rubble around the north end of the structure, and the black brick fragments found in this rubble by Hayes, all leave no doubt that the Casa was built and occupied during the pre-Revolt period at Pecos, probably from about 1630 when black bricks were still being used for construction, to its destruction by fire in 1680. Most of the building remains relatively undisturbed, although at present the adobe brick making area covers its north end and a truck road from the adobe-making area runs across parts of the structure. It is likely that a great deal of archeological information about life at the Pecos mission remains preserved in the buried rooms of this building.

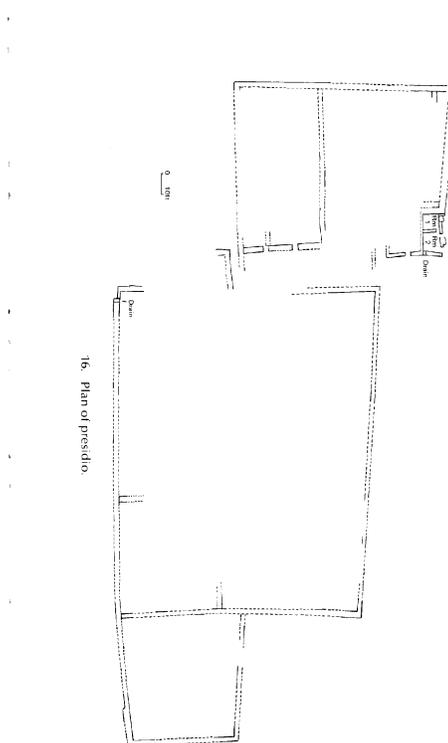
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<sup>72</sup>Jeffrey Eighmy to Todd Metzger, Park Archeologist, November 30, 1993, PNHP.

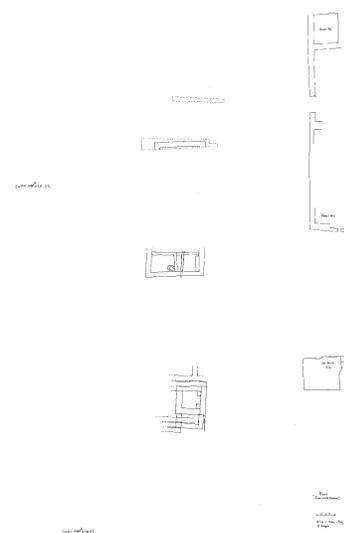
<sup>73</sup>Maury Morgenstern, *Petrographic, Geochemical, and X-Ray Diffraction Analysis of Adobe and Mortar Samples, Pecos National Historical Park, Pecos, New Mexico*, (Boulder City, NV: Geosciences Management Institute, Inc., 1995), copy in PNHP.

### Archeological Testing in the Corrales

Alden Hayes began planning excavations of the "Corrales," which he called the "Compound" (in *Four Churches* this is called the "Presidio") at the beginning of his investigations at Pecos on July 1, 1970.<sup>74</sup> It had been the topic of some debate since surface collections the previous year suggested that it might have Apache associations.<sup>75</sup> However, Hayes did not begin work on the "Compound" until August 6, when he began "prospecting" for the corners of the structure through a series of shovel tests.<sup>76</sup>



**Figure 5.22.** Hayes's plan of the "Corrales."



**Figure 5.23.** Hayes's plan of his excavations on the "Casa."

In the period of August 7-11, he began to see traces of the stone footings of the walls, located the alignment of the eastern wall of the main corral, and finally located the northeastern wall and one of the two rooms on the northeastern side of the structure.<sup>77</sup> It was quickly obvious that once again what had been originally thought to be an Indian structure was instead Spanish. On August 12, the crew located the northeastern and northwestern corners of the "Compound."

<sup>74</sup>Alden Hayes, "Log--Pecos," July 1, 1970.

<sup>75</sup>Roland Richert to Alden Hayes, September 12, 1969, pp. 1-2.

<sup>76</sup>Alden Hayes, "Log--Pecos," August 6, 1970.

<sup>77</sup>Alden Hayes, "Log--Pecos," August 7-11, 1970.

At this point, Hayes could see that the mounded southern part of the northern block of the compound was probably one or two rows of rooms like the two rooms he outlined at the east end, and began a series of tests looking for the "junction of rooms and corral" at the west end of the block of rooms.<sup>78</sup> This search continued through August 14th, by which time he was sure he had located the west end of the block of rooms.<sup>79</sup>

Hayes moved the excavation crew to the south side of the compound, and began searching for the southern corners. From August 17 to August 19, the probing and trenching continued, until the corners were defined and the presence of "a fallen stone structure at SW corner" was confirmed.<sup>80</sup> In the process of examining this structure, Hayes removed "a buried post from a demolished room . . . I believe it was a door jamb."<sup>81</sup> On August 31 and September 1, the excavation of the two rooms at the east end of the northern block of rooms was completed.<sup>82</sup> During September, Hayes mapped the Compound and the crew backfilled the test pits and trenches.<sup>83</sup>

In his monthly report for August, Hayes described the general results of his examination of the Compound: "The corners of a large complex 300 feet long was located. It consists of a large corral, and two smaller pens and a small block of rooms. This . . . is probably a civil, military, or commercial structure."<sup>84</sup>

The fieldwork indicated that the compound was "a large complex with a big corral partly surrounded with rooms."<sup>85</sup> The association of the "compound" with a possible plains Indian connection (although Apache rather than Comanche) had been first mentioned by Roland Richert in September, 1969: "I believe also that Apache sherds show density around the large rectangular structure to the west-southwest of the contact station, which, tho giving superficial appearance as of Spanish motivation, could well have been a warehouse or large utility structure 'leased' by

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<sup>78</sup>Alden Hayes, "Log--Pecos," August 12, 1970.

<sup>79</sup>Alden Hayes, "Log--Pecos," August 13-14, 1970.

<sup>80</sup>Alden Hayes, "Log--Pecos," August 17 - August 19, 1970.

<sup>81</sup>Al Hayes to William J. Robinson, December 22, 1970, in the files of the Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona.

<sup>82</sup>Alden Hayes, "Log--Pecos," August 31, September 1, 1970.

<sup>83</sup>Alden Hayes, "Log--Pecos," September 1, 3, 8, 9, 1970; Al Hayes, Supervisory Archeologist, Pecos Project, to Chief, Southwest Archeological Center, "Report for the Month of September 1970," September 31, 1970, copy in PNHP.

<sup>84</sup>Al Hayes, Supervisory Archeologist, Pecos Project, to Chief, Southwest Archeological Center, "Report for the Month of August, 1970," August 31, 1970, copy in PNHP.

<sup>85</sup>Al Hayes to William J. Robinson, December 22, 1970, in the files of the Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona.

the Apaches."<sup>86</sup> The context makes it likely that Richert's "Apache" connection for the Corrales was first suggested by James H. Gunnerson, who conducting a survey of the park during the summer of 1969, and who subsequently excavated an "Apache" structure east of the convento. In an article published in 1970, Gunnerson presented a review of his survey of the area around the church and convento in 1969. Here, he said that the 1969 work had found "some of the thin, grey ware that we have tentatively assigned to the Faraon Apaches . . ." in the area of the "low wall remnants that form a hollow square," the Corrales. "It seems most unlikely that this structure was built by Apaches, but it may have been built by Spaniards in connection with the Apache trade that the Spanish carried on at Pecos, or to house visiting Apaches."<sup>87</sup> Hayes thought it reasonable that this was "a mercantile establishment used in the Comanche trade;" why he made the shift from Apache to Comanche is unexplained.<sup>88</sup> Later, he moved this possible association to the Square Ruin west of Glorieta Creek: "Excavation of the large corral across the arroyo may reveal something about the Comanchero trade of the eighteenth century . . ."<sup>89</sup>

Hayes excavated two rooms in the residential or storage area of the "Corrales" at the end of August and the first of September. Here, as at the Casa, he found substantial stone foundations, but insufficient fallen stone to carry these foundations above another two courses of stone; from this he concluded that the entire *Estancia* complex was built of adobe brick on the surviving stone foundations.<sup>90</sup> This supposition is supported by the massive mounds of earth outlining the Corrales wall lines, undoubtedly mounds of adobe melt. No adobe brick was found in place on top of the foundations in any of the test areas, but only a small amount of the total wall length was examined. Hopefully, traces of adobe brick still in place on the wall tops await discovery on some of the more deeply-buried foundations; brick fragments also undoubtedly will be found in the rubble along the wall bases. Note that Hayes only examined the easternmost two rooms of this area of sheds, barns, or bunkhouses, and that his drawings of the plans of these two rooms leave us uncertain as to their uses. Probably four or five other rooms remain to be explored in this area.

In 1997, Genevieve Head's cultural resources survey of the park prepared a contour map of the Corrales as part of the archeological survey and collection program for the park. The plan shows the same general layout of the corrals and other enclosures, and confirms that a massive mound covers the area of the block of rooms between the north and south corrals. It is likely that adobe bricks survive in place on the walls in some areas of this mound, and certainly brick

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<sup>86</sup>Roland Richert to Al Hayes, September 12, 1969, PNHP.

<sup>87</sup>James H. and Dolores A. Gunnerson, "Evidence of Apaches at Pecos," *El Palacio*, 76(June, 1970)3:6; James H. Gunnerson, "Preliminary Report of 1970 Archaeological Investigations by Northern Illinois University," p. 4, PNHP.

<sup>88</sup>Al Hayes to William J. Robinson, December 22, 1970, in the files of the Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona.

<sup>89</sup>Hayes, *Four Churches*, p. 59.

<sup>90</sup>Hayes, "Log," August 31-September 1, 1970; Hayes, *Four Churches*, p. 53.

fragments and mortar compose some part of the rubble forming the mound. Until excavation looks more closely at these structures, however, we have to depend on more indirect methods to estimate the dates of construction of the complex. Fortunately, the results of these are rather unambiguous: sherd counts across the corrals and room blocks found only Glazes IV, V, and VI, as well as plain black and undecorated redwares, and a fragment of a redware candle holder. Had quantities of Black/White and 1300-1350 ceramics been brought to the site in the form of black bricks, they would have left a significant deposition across the area; the lack of these ceramics indicates that the corrals, sheds, barns, and roomblocks were all built of red brick, after 1645. The absence of any specifically eighteenth-century ceramics indicates that the corrales were used only in the period before the Pueblo Revolt.

### A Reappraisal of the Estancia

In 1993, I mapped the entire group of Estancia buildings, as part of the relocation of these buildings on an accurate plan of the colonial structures. At the same time, the plans of the pre-Revolt estancia complex of the Sanchez Site, LA 20,000, at La Cienega, became available from David Snow, one of the two supervisory archeologists working on the excavation of this site. The striking similiarity between the plans of the Pecos Estancia and the buildings at LA 20,000 made it fairly likely that these two groups of structures probably had similar purposes. Since LA 20,000 was a farming and ranching estancia with a large corrals and barns complex, built about 1630 and destroyed during the Pueblo Revolt, it seemed reasonable to assume that the structures at Pecos served the same purpose during the same period. As a result, I have renamed the entire complex at Pecos the "*Pecos Estancia*," with the eastern structure obviously the main house (the *Casa*) and the western structure the corrals, barns, sheds, pens, stables, and perhaps bunkhouses (the *Corrales*). In the structural history section, I propose that this Estancia complex was used for the management of the herds and fields of the Pecos convento, probably under the supervision of a Hispanic or mestizo *mayordomo*, or foreman.

The remapping of the Estancia buildings in 1993 plotted all the available structural plans and information onto the base contour map of the general area of the pueblo and church produced in 1966 (Figure 5.24).<sup>91</sup> The plans included the Bandelier measurements as best they could be fitted to the ground, the "Academy" plan of these structures west of the convento, and the Hayes plans of his "Compound" or "Presidio" and "Convento Annex" or "Casas Reales." In the process, it became clear that in addition to Hayes's rooms and the Kidder rooms associated with them in the "Casa," several other foundation lines could be detected as ridges on the ground and lines of stone foundation visible where the dirt road to the Park Service adobe-making yard crossed them. When these were surveyed and plotted on the plan of the Casa, they joined the north and south groups of rooms together into a single structure arranged around a series of plazas.

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<sup>91</sup>United Aerial Mapping, San Antonio, Texas; photography flown on July 31, 1966. Map of twenty-five sheets on file at Pecos National Historical Park.

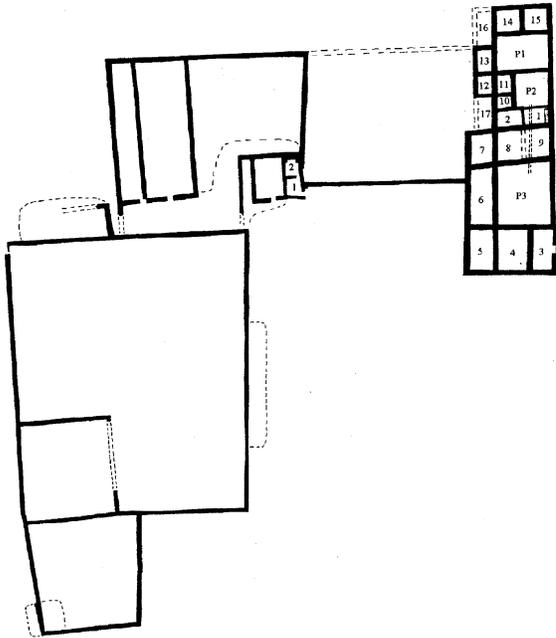


Figure 5.24. The Estancia complex in 1993.



Figure 5.25. An aerial photograph of the Casa, on the east of the north-south road, and the Corrales, to its west just south of the curving east-west road.

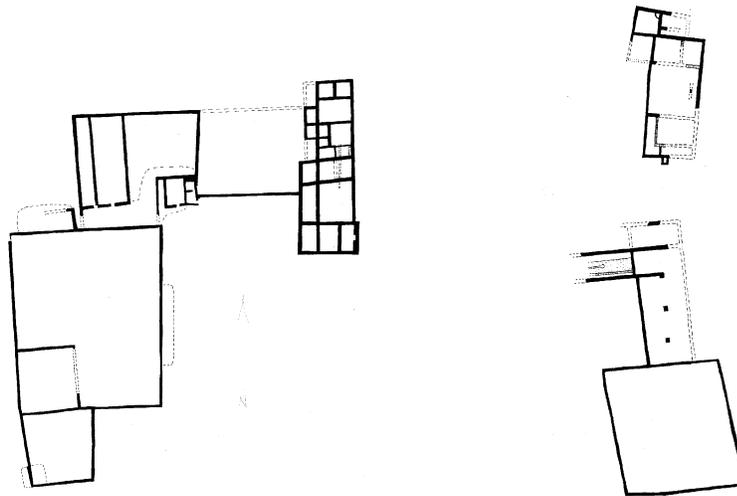
This plan shows that the area to the north of Room 1 was a patio, P-2, open to the weather but enclosed by walls. The drain across Room 1 found by Hayes removed rainfall from this space. The north part of the building, Rooms 1, 2, 10-17 was the original structure, built of black brick on stone foundations in the period of about 1630-1645. It was a series of rooms around two small patios, P-1 and P-2, and probably housed the mayordomo of the mission estancia and his family, as well as a small staff. Hayes's testing in room 3 that found multiple foundations in the southeastern room of the Casa indicates that, like the Square Ruin, the Casa was remodeled at least twice during its period of use from the 1630s to 1680, while the indications of brick color makes it likely that the larger rooms on the south were added after 1645. The plan suggests that the new, larger southern rooms, 3-9, were to be a new residential area for the mayordomo and his family around the large patio here, P-3, while the smaller rooms on the north probably became the residential area for the household staff and workshops.

At the same time, what appeared to be a line of foundation stones was noted extending westward from the "Casa" to the "Corrales," tying the two buildings together into a single unified complex. While examining Bandelier's notes, it became clear that he had seen and measured the same wall, as well as a second one parallel to it 98 feet to the north. This wall cannot be detected on the ground, but the aerial photographs seem to confirm its presence. In addition, a remark by Hayes in 1970 indicates a possible wall running from the south wall of Room 1 in the Casa to the west wall of Area G, linking the convento to the Estancia complex.<sup>92</sup> Traces of this wall seem to be visible in the 1966 aerial photographs of the park, and Bandelier seems to indicate

<sup>92</sup>Hayes, Room Notes, 1970, Area G.

some trace of a similar wall connecting the Casa with the convento. This wall, if it existed in the pre-Revolt period, probably served as part of a generalized stock-control wall network between and around the Convento and its associated structures.

A final assessment of the Estancia and Square Ruin as part of the economic support system for the mission will be included in Chapter 11, The Seventeenth-Century Construction at Pecos.



**Figure 5.26.** The Pecos “Estancia” on the left compared to the estancia buildings at LA 20,000, on the right, at approximately the same scale. North is to the top on the Pecos “Estancia,” and to the right for LA 20,000. At LA 20,000, the main corral is at the bottom, to the east, and a barn and sheds structure is adjoined to its west end, making a structural group like the “Corrales” at Pecos, on the west side of the “Estancia.” The casa for the LA 20,000 estancia is at the top, and is similar in size and plan to the Pecos “Casa.”

PART III  
THE ARCHEOLOGY OF SPANISH COLONIAL PECOS:  
THE CHURCH AND CONVENTO



Chapter Six  
**Early Investigation in the Church and Convento, 1880-1929:  
Bandelier, Kidder and Nusbaum**

Adolph Bandelier's Investigation of the Church and Convento

Adolph Bandelier examined the convento and church during his first visit to the site in 1880, and entered his observations into his journal and on a sketch plan of the building.<sup>1</sup> The convento notes were fairly brief and uninformative; Bandelier clearly did not yet have enough experience with New Mexico mission sites to be able to see the level of detail he achieved at sites visited later. In his published account, he expanded on these notes:



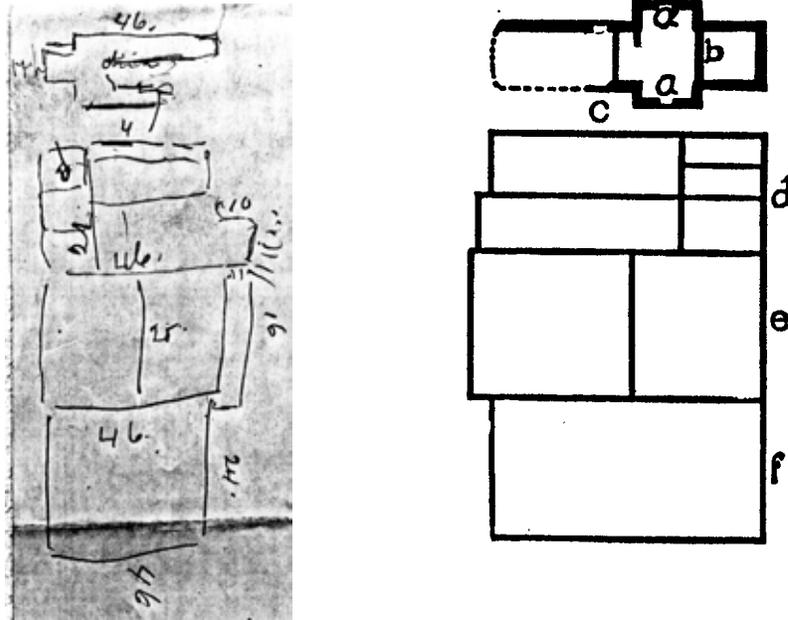
**Figure 6.1.** Adolph Bandelier at Pecos in September, 1880, standing just south of the south wall of the post-Revolt convento. Photograph by George C. Bennett, 1880, MNM #6503 courtesy of the Museum of New Mexico.

"To the south of the old church, at a distance of 4 m. - 13 ft. - there is another adobe wall, rising in places a few meters above the soil; which wall, with that of the church, seems to have formed a covered passage-way. Adjoining it is a rectangular terrace of red earth, extending out to the west as far as the church front. A valuable record of the manner in which this terrace was occupied is preserved to us in the drawing of the Pecos church given by Lieutenant W. H. Emory in 1846. It appears that south of the church there was a convent; and this is stated also by Sr. Ruiz. In fact, the walls, whether enclosures or buildings, which appear to have adjoined the church, extend south from it 74 m. - 250 ft. Plate I, Fig. 2, gives an idea of their relative position, etc.: c is 4 m. - 13 ft. -

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<sup>1</sup>Adolph Bandelier, *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), pp. 74-83.

wide; d is 21 m. x 46 m. - 70 ft. x 156 ft.; e is 25 m. x 46 m. - 82 ft. x 150 ft.; f is 24 m. x 46 m. - 78 ft. x 150 ft."<sup>2</sup>



**Figures 6.2 and 6.3.** Figure 6.2 is Bandelier's field sketch of the ruins of the church and convento, made while at Pecos. The measurements are in meters, based on Bandelier's paces. Figure 6.3, the plan on the right, is his published version of the field sketch. Note that Bandelier reversed the entire sketch plan left to right.

As with the other Spanish structures on and around the mesilla, Bandelier's journal contains a rough sketch of the convento with a number of details not shown on his final drawing. Most importantly, he appears to have drawn the plan reversed from the published map; that is, as drawn, what appears to be the apse of the church and the small rooms of the convento were on the left side of the plan, and the irregular edge was on the right. As a result, we are left uncertain whether any given detail of the field sketch was located on the east or west side of the convento. Bandelier also left off several measurements that would have allowed a better plan, and included the measurements and details of several features not shown on the final plan included in his published report.<sup>3</sup> The end result is that the published plan cannot be replicated with the measurements given on his field sketch; it is open to question how much the published

<sup>2</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), p. 44.

<sup>3</sup>Bandelier, "Visit," plate I; Bandelier, Journal, 1880, in MNM, Manuscript Collection, Box 71, "Bandelier Collection, M73-5/9 box 7," p. 10 reverse.

plan resembles what Bandelier saw in the field. The lines are located based on guesswork by the engraver about the general location of lines on the field sketch, not on field measurements noted on the sketch.

However, comparing the original field sketch of the convento with later surveys, a fairly direct correspondence with the Nusbaum/Adams plan and the Witkind drawing emerge. Assuming that west was indeed on the right side of the field sketch, as he indicated on his published drawing, Bandelier showed by hatching that a large mound existed at the southwest corner of the main convento, at the south edge of his division "d". This was his indication of the high southwest corner of the convento main rooms at this location, corresponding to the high point of the convento as surveyed by J. P. Adams in 1915. Some, at least, of the sheep-corral wall appears to have already been standing, although none of the available photographs look in the right direction to show them.



**Figure 6.4.** A. V. Kidder standing at the arched pulpit doorway through the south nave wall of the Pecos church during his 1911 visit to the site. Photograph by Jesse Nusbaum, 1911, MNM #6631 courtesy Museum of New Mexico.

#### Kidder and Nusbaum Visit Pecos in 1911

In his journal for the first season of excavations at Pecos, Kidder said: "Sunday, June 7th [6th] In the afternoon . . . to the ruin for our first visit since 1911."<sup>4</sup> The previous visit occurred sometime in the summer of 1911; Kidder was accompanied by several persons, including Jesse Nusbaum, who took a number of photographs during this inspection of the pueblo and mission ruins.<sup>5</sup>

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<sup>4</sup>"Kidder Notes, 1915-Daily Record," June 7[6], 1915, p. 1, PNHP.

<sup>5</sup>MNM # 6518, 6630, 6631, 6632, 6639, 12919, 139545, PECO 1015, sometime in May-August, 1911. Kidder and Chapman also visited Pecos in 1910; Alfred Kidder, *An Introduction to the Study of Southwestern Archaeology; With a Preliminary Account of the Excavations at Pecos*, (New Haven: Yale University Press, 1924), p. 89.

The photographs by Nusbaum show the condition of the church and convento just prior to the Kidder-Nusbaum excavations of 1915. MNM # 6518, looking east at the front of the church, shows that the south nave wall and arched pulpit doorway were still standing in 1911, and 6630, 6631, and PECO 1015 are various views and closeups of this doorway and the nave wall around it. Photograph 6632 looks south at the church, with the large mound of the southwest corner of convento visible just south of it; this photograph shows that the "Priest's Garden" mound is clearly not present. Photographs 6639, 12919, and 139545 are various views of the ruined church, with Kidder and his companions examining the structure or posing for the camera. Among other things, the 1911 photographs show that the mound of rocks with a large cross set into it had not yet been built at the front of the church as of that year.

Between Kidder's 1911 visit and his return to Pecos to begin his excavations in 1915, a major portion of the church wall collapsed: the south nave wall and the arched pulpit doorway were destroyed in this fall. Kidder remarked, "I am impressed by the decay of the church since that time, a large piece of the SW wall where the Nave & Transept join, having fallen away."<sup>6</sup> A photograph taken by Kidder a few days later shows the collapsed south nave wall section; many bricks are visible, still sharp-edged, indicating that the wall section had fallen only within the last few months, probably during the spring thaw and rains, ca. April, 1915 (Figure 6.5).



**Figure 6.5.** The church in 1915, just before excavation began. The south-west corner of the transept and the last of the south nave wall had fallen probably only a few months before this photograph was taken. Photograph by Alfred Kidder, 1915, MNM #6597, courtesy Museum of New Mexico.

#### Kidder's Excavations Begin

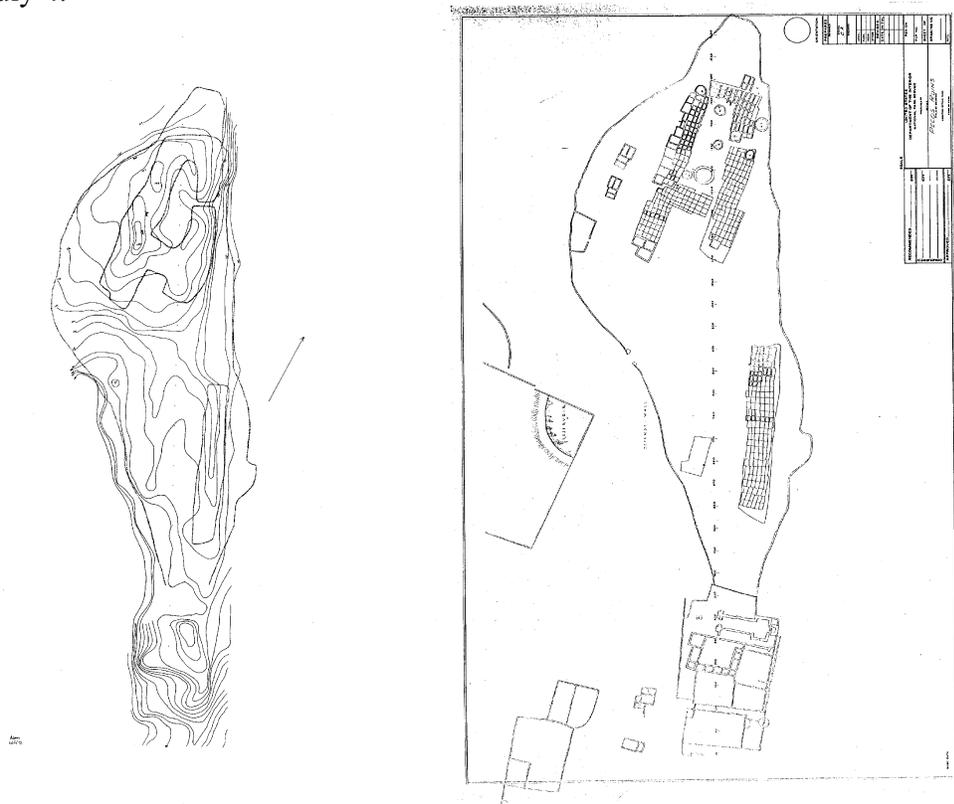
Kidder arrived at Pecos on Saturday, June 6, 1915. J. P. Adams came to the site a week later, on June 13, and he, Kidder, and a representative of Gross-Kelly and Co. worked out the boundaries of the land to be donated to the Museum.<sup>7</sup> Excavation began on Monday, June 14, but was stopped for three weeks beginning June 18, perhaps to give Adams time to survey the boundary of the site and lay out a fifty-foot grid across the mesilla top.

Adams began the survey of the tract boundaries for the deed of gift, and then went on to place the grid stakes and take their altitudes for the contour map of the site he would prepare for Kidder. In Kidder's papers are a set of survey notes in

<sup>6</sup>"Kidder Notes, 1915-Daily Record," June 7 [6], 1915, p. 1.

<sup>7</sup>"Kidder Notes, 1915-Daily Record," June 7 [6], 1915, pp. 1, 3.

both rough and final form, giving the elevations of each of the stakes marking the corners of a 50' X 50' square of the grid; the notes are dated July, 1915, and a pencil notation on the final draft states that the elevations are "To stakes at Pecos by Adams." The survey was probably almost completed by Friday, July 2, when Kidder again began excavation on the pueblo of Pecos. There were several references to Adam's ongoing survey on July 2 and 3; the reference on July 3 indicated that the grid survey had been going on since at least June 28. There was no reference to surveying in Kidder's notes after July 3, 1915, indicating that the survey had been completed by Sunday, July 4.<sup>8</sup>

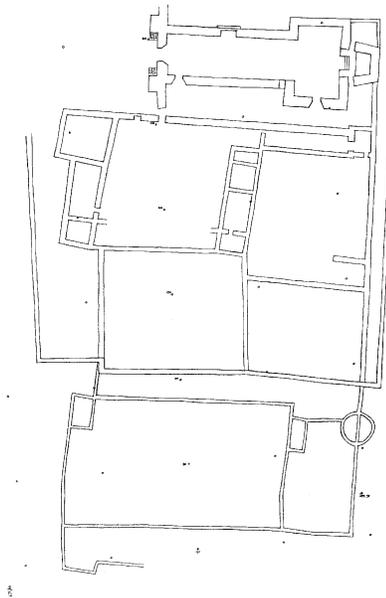


**Figures 6.6 and 6.7.** Figure 6.6 on the left is the original Adams survey of the Pecos mesilla. Figure 6.7, on the right, is the Arquerro tracing of the later Academy map, drawn about 1925.

<sup>8</sup>Kidder, *Southwestern Archaeology*, p. 91 n. 4; Adams, "Elevations," Kidder Notes, Miscellaneous Notes, LA 625/41/28b. "Kidder Notes, 1915-Daily Record," July 2-3, 1915, pp. 14-15. The only subsequent reference was in Hewett's correspondence, when he asked for a copy of the field notes and plat of the Pecos tract on July 17: "Will you kindly send me a description of the tract. If possible, I should like to have it with a tracing of the survey made by Mr. Adams," Edgar L. Hewett, Panama-California Exposition, San Diego, California, to Paul A. F. Walter, Santa Fe, New Mexico, July 17, 1915, Archives, Governor's Palace, Santa Fe, New Mexico. The phrasing indicates that the field notes and plat were complete and available as of July 17.

Based on this survey, Adams drew two plans. One of these was a contour map based on the height measurements, with one-foot contours in the area of the church and convento, and five-foot contours across the rest of the mesilla. The zero point of the grid was set 2.5 feet north of the north edge of what is today the south wall of Area A, 64.5 feet west of the east end of the wall; Adam's arbitrary altitude of 100 feet assigned to this zero point is the equivalent of elevation 6917.84. Grid north is N14°40'W.<sup>9</sup>

The second plan, a composite map that will be called the Academy map in this study, incorporates information from the mapping efforts and excavations of Adams, Kidder and his crew, and Jesse Nusbaum. It shows the visible structural traces of the church, convento, outlying buildings, and the various pueblo room blocks. Kidder used this as his base map for the general plan of the mesilla, and added details to it over the next several years.<sup>10</sup> The original Kidder plan is missing. A copy of it, from which Arquero made a tracing about 1966, was apparently the "General Plan of Pecos," checked out from the Laboratory of Anthropology files by Jean Pinkley in 1966 and apparently never returned. However, several original plans that were later incorporated into Kidder's "General Plan of Pecos" are in the files of the Laboratory of Anthropology.<sup>11</sup>



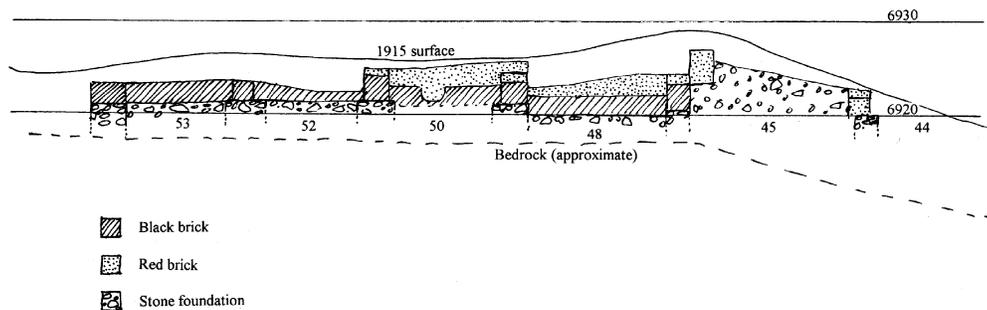
**Figure 6.8.** The Adams/Nusbaum plan of the Pecos church and convento, drawn late in the 1915 excavation season. It depicts the plan of the post-Revolt convento, with an overlay of later sheepherder walls.

<sup>9</sup>Museum of New Mexico, Laboratory of Anthropology, Map Files, LA 625, no. 32.

<sup>10</sup>"Pecos Ruins," PNHP, traced by Clyde Arquero, Division of Engineering, Southwest Regional Office, ca. 1966.

<sup>11</sup>See for example LA 625/48.

For example, the convento plan included on the map (Figure 6.8) was based on Jesse Nusbaum's work, and was a detailed survey of the church and convento as they appeared after much of Nusbaum's restoration of the church had been completed. Nusbaum traced the tops of the adobe walls of the convento after a rainstorm had dampened the mounds of melted adobe, making the tops of the adobe walls visible; the damp bricks showed up clearly as different from the surrounding soil (Figure 6.22).<sup>12</sup> Working with Nusbaum, Adams surveyed these walls – Adams's plan of the convento will be called the Nusbaum/Adams map in this study.

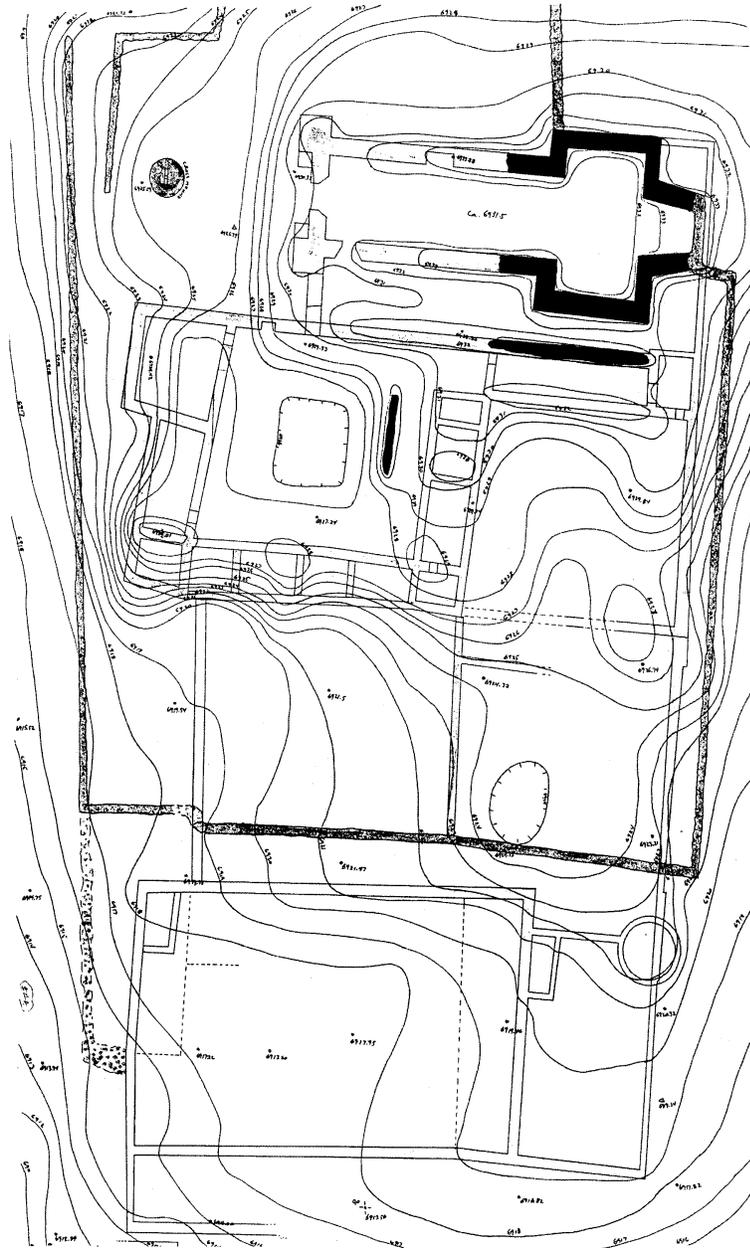


**Figure 6.9.** Cross-section drawing of the convento as shown on the Adams contour map superimposed on Hayes's 1970 cross-section of the excavated convento, looking east.

A comparison of the Nusbaum/Adams map with aerial photographs taken at the time and with more recent surveys of the convento made after excavation shows a virtually exact correspondence. The composite plan produced by overlaying the Nusbaum/Adams map with the height data from Adams's survey of the convento gives a good depiction of the visible walls and contours at one-foot intervals. This plan is discussed in more detail below; produced from survey information collected prior to any excavation, it forms our base knowledge of the convento, the beginning point for any suggestion of the construction sequence of the buildings. The Nusbaum/Adams map recorded much of the last plan of the church and convento at the time of its abandonment. The contours indicate where masses of fallen wall material lay on the plan, and since the actual height of the mounds relative to the ground surfaces of today can be determined to within a foot, an estimate can be made of the heights of the surviving walls within the rubble and fill before any excavation (Figure 6.9).

Adams, Kidder, and Nusbaum did their best; it was not their fault that virtually everyone ignored the Nusbaum/Adams map during the ensuing decades of straining to fit the pre-Revolt convento plans to Dominguez's relatively straightforward post-Revolt discussion. The attempt to make the Dominguez description fit the early plan of the convento confused the structural sequence beyond any recognition.

<sup>12</sup>Jesse Nusbaum, handwritten note on back of photograph MNM #139550.



**Figure 6.10.** A reconstruction of the appearance and surface contours of the Pecos mission about 1915, before any excavations had taken place.

### The Reconstructed Contour Map

A close examination of Adam's contour map shows that it was intended to be only an approximation of the very general form of the ground around the pueblo and church. For example, Adams dropped the numbers after the decimal point when drawing the map, even when it was within a few hundredths of the next whole foot. Additionally, the contour lines necessary to indicate high points, such as that at the southwest corner of the convento, were left off the plan. Finally, the contour map was drawn strictly from the numbers, making no attempt to indicate the smaller variations of room mounds and wall lines. With greater attention to the small details of the survey, it may be considerably improved. Since the Adams survey data is our only record of the shape of the mounds of melted adobe that formed the ruins of the convento before any archeological work had occurred on these buildings, clearly some attempt to refine this information into an approximate plan of the surface of the ruins had to be made (Figure 6.10).



**Figures 6.11 and 6.12.** The first known aerial photographs of the ruins of the Pecos mission. Both photographs look generally east, and were taken in 1929. Figure 6.11, on the left, is one of the Charles Lindbergh photographs, and Figure 6.12 is the Three-Hawks photograph. In both, the church is visible in its stabilized form after Nusbaum's work of 1915. The mounds of the collapsed convento rooms can be made out to the right of the church. The visible wall with brush growing along it, running around the convento area is a sheep-herder's wall of the late 1800s. Faintly visible on the right in each picture are the collapsed stone foundations of the corrals at the south side of the convento. At the bottom center of Figure 6.11 is one of the test units Kidder excavated on the Casa structure of the Estancia. The same unit is just visible at the right edge of Figure 6.12. MNM #130326 on the left, and MNM #6500 on the right.

Looking at photographs made between 1880 and 1930 (Figures 6.11 and 6.12), it was clear that ruined rooms and walls left clear traces across the site, and that large mounds stood in areas with no such indication on the contour map because they fell between the 50-foot intervals of the grid points. Using Adam's survey data, information from photographs showing the mounds and some wall traces of the convento, and the surveys of wall lines made from Jesse Nusbaum's tracing of the convento later in 1915 and the survey carried out in 1966, I prepared

a revised version of the Adams contour map. An additional source of contour information was a contour map I made of the surveyed heights of the tops of the convento walls as recorded on the Arquero map of the mission in 1967.<sup>13</sup> In general, the walls at the time of the Adams mapping of 1915 are at least 2 feet higher than the wall tops in 1967 (see Figures 6.9 and 6.10). The variations in the shape of the contour lines between Adams's measured points are based on the assumption that the last walls, mapped by Nusbaum, most strongly affected the surface form, and the deeper walls, mapped in 1966-67, influenced the general shape of the ground. It is, of course, somewhat conjectural away from Adams's measured points, but is the best that can be reconstructed using the available information. This revised contour map is used throughout this report to illustrate the general appearance of the ground at given times, and to show the progress of the series of excavations that removed the higher layers of rubble and melted adobe.

#### Jesse Nusbaum and the First Excavations

In June, 1915, Jesse Nusbaum "was rehired by the Museum of New Mexico as Superintendent of Construction, and in this capacity was given the task of stabilizing the associated Spanish mission church at Pecos."<sup>14</sup> About the first of July, he began work on the stabilization and repair of the ruins of the Pecos church. Jesse apparently left no notes; we only have Kidder's references and the photographic sequence, which cannot be specifically dated except for a few major events like the wall falling.

On June 13, Kidder said that he went "to the ruin in the afternoon to meet Nussbaum and make plans for the work on the church which he is to undertake. He did not come so I spent the afternoon taking Kodak pictures and walking over the site."<sup>15</sup> At least one picture taken during this period is available, showing the nave of the church looking east (Figure 6.5).<sup>16</sup>

Nusbaum and Kidder eventually managed to have their planning meeting—this was difficult for Nusbaum, since he was still working at the Fred Harvey Hotel in Albuquerque and could only get away on weekends. Apparently the two agreed that Nusbaum would start the cleaning and stabilization of the church in the last week of June, perhaps Monday the 28th.

As mentioned above, although Kidder indicates in his journal that the first day of work on the Pecos project was June 14, he appears to have halted work almost immediately for about two weeks; there is no reference in his journal to excavations beginning again until July 2. However, Nusbaum and his crew began the stabilization of the church sometime during the week

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<sup>13</sup>Clyde Arquero, "Pecos Mission Complex," NM PEC/2304-A and 2304-B, September 26, 1967, PNHP.

<sup>14</sup>Lynn Adkins, "Jesse L. Nusbaum: A Transitional Period Archaeological Photographer in the Maya Region of Guatemala, Honduras and Mexico," Master's Thesis, University of New Mexico, 1985, pp. 9, 114.

<sup>15</sup>"Kidder Notes, 1915-Daily Record," June 13, 1915, p. 5.

<sup>16</sup>MNM #6597; this photo is misdated June 11, 1915.

of Monday, June 28 to Saturday, July 3; the first reference to the work in Kidder's notes was on July 2, 1915, "To ruin to see work started. Nussbaum with full force on church . . ." <sup>17</sup>

Nusbaum began by trenching along the inner edges of the nave walls and along the walls of the two sacristies on the north and south of the sanctuary. This soon led to the discovery of a number of burials outside the north wall of the church; on July 3, Kidder said that he "found that Nussbaum [*sic*] had done a good bit of clearing in the interior of the church & had also run into a nest of Mexican burials on the outside of the junction of the Nave and the Transept on the N. side. These consisted chiefly of children, some 25 of them, all very young; and two adults in coffins . . . Today was at the church all the morning clearing and photographing the coffin burials." <sup>18</sup> The photographs taken on this day show two coffins opened to allow the photographing of the bodies inside (PECO 19, Kidder #14). Kidder's phrasing indicates that the burials were found west of the transept, but other photographs suggest that some of the burials were located east of the transept, in the northeastern sacristy; Kidder's photograph #66, taken when the Civil War pensioner Samuel Adams was visiting the site about this time, also shows a large pile of backdirt in the northeastern sacristy, suggesting that the coffins were found in the sacristy, and that perhaps some of the other twenty-five or so child burials were also found here. This is the same place where Witkind found several child burials while excavating the northeastern sacristy in 1939. Nusbaum later said that he had found "over two hundred [burials] ... in a restricted area of the Pecos mission." He added that the "apse of the Pecos church was used as a cemetery long after the church was in ruins, and many burials were made in the debris above the main floor." <sup>19</sup>

During the first week of July the workmen trenched down the inner faces of the nave walls and along the transept and sanctuary walls, determining their actual outline. They apparently did not trench along the outside of the nave walls, except in the area of the "confessional," the deep alcove in the north wall of the nave. <sup>20</sup> Here, the outside face of the nave wall was trenched for a short distance so that a concrete supporting foundation could be placed in the area.

Nusbaum later wrote to Bill Witkind about the level of the floor in the church. Witkind quotes Nusbaum as saying "I reestablished the floor level at the original level." Witkind added, "from what he stated later he seems to mean more or less somewhere around the base of the cement - he states also that 'floor was in very poor condition'." Witkind said that the level as indicated by Nusbaum "would bring the level of the Mission floor at same grade (approximately) with floor found in passageway [the main sacristy and Area I, the Zeinos Chapel]; with the general floor level of the convent some 2½ [feet] below the grade of the passageway and

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<sup>17</sup>"Kidder Notes, 1915-Daily Record," July 2, 1915, p. 10.

<sup>18</sup>"Kidder Notes, 1915-Daily Record," July 3, 1915, p. 10.

<sup>19</sup>Nusbaum, *Hawikuh*, "Burials Within the Church," p. 201.

<sup>20</sup>Witkind called this alcove the "Reredos Niche," William Witkind daily journal, "The Excavation, Stabilization, and Reconstruction of Cicuye" (hereafter cited as Witkind, "Journal,"), February 10 and 13, 1940.

mission."<sup>21</sup> The photographs and this discussion between Nusbaum and Witkind indicates that the floor level was within a few inches of 6926.4 feet altitude. The Adams map had one of its data points in the center of the interior of the church, and indicates that with the fill of collapsed walls, the surface here was at the height of 6931.5, seven feet higher before excavation.



**Figures 6.13 and 6.14.** Nusbaum's crew trenching along the inner faces of the nave of the church at Pecos, 1915. In figure 6.13, on the left, a horse-drawn grading blade is being used to remove fill from the interior of the church. Jesse Nusbaum photographs, MNM #6514 on the left and MNM #41015 on the right.

The crew found that at the west end of the nave, the walls survived to a height of almost six feet above the floor level, although the floor surface itself was a little difficult for Nusbaum to see; Kidder said that "the old floor level is rather difficult to locate as it seems to have been much softened & rotted away by moisture. The floor, of course, was of adobe, mixed with straw & packed down hard."<sup>22</sup> Large fragments of wooden beams and corbels were found along the walls buried in the fill of the nave; Kidder remarked that he "found in the earth inside the church a fairly well preserved bracket [corbel] in the 'Old Santa Fé' style showing fine carving and traces of paint. Nussbaum thinks that he can restore the whole decorative scheme of the supports."<sup>23</sup>

<sup>21</sup>Witkind, "Journal," July 18, 1939.

<sup>22</sup>"Kidder Notes, 1915-Daily Record," July 3, 1915, p. 10.

<sup>23</sup>In 1916 and 1917, when Nusbaum built the Fine Arts Museum in Santa Fe, he based the carved decoration for the corbels in the auditorium on the designs carved into the corbels he had found at Pecos: "The magnificent large beams with the three rolls on them are exactly the way we found them at Pecos. I did not have enough money to make the color edged, zig-zag line on these and this was left off to my deep regret . . ." Rosemary Nusbaum, *Tierra*

In the second week of July, the workmen began to open the door in the south transept wall and clear the rubble left by the collapse of the south nave wall; in the sanctuary, the two arched doorways to the northeast and southeast sacristies were opened by excavation as part of the tracing of the walls and foundations of the sacristies and sanctuary. Adobes were salvaged from the rubble of the south nave wall when possible. The doorway to the Zeinos Chapel that had been under the choir loft was found, with clear traces of white wall plaster still adhering to the splayed doorway; about the same time, Nusbaum began the outlining of the main west entrance into the church, and began the construction of the concrete foundation for the east end wall of the sanctuary.<sup>24</sup>



**Figures 6.15 and 6.16.** Figure 6.15, on the left, shows the northwestern transept corner sagging and being braced up. Figure 6.16, on the right, shows the mounds of adobe bricks across Nusbaum's excavations after the collapse of the northwestern corner about July 15, 1915. Photographs by Jesse Nusbaum, 1915, MNM #41033 on the left and MNM #41023 on the right.

During the third week, Nusbaum began using a horse-drawn blade to remove the fill from the church nave and transept. This task proceeded from the east and west ends of the building,

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*Dulce: Reminiscences from the Jesse Nusbaum Papers* (Santa Fe: the Sunstone Press, 1980), p. 62; Adkins, "Nusbaum," p. 10. The detailed full-sized plan drawings of the Pecos corbel in the Kidder collection flat files of the Laboratory of Anthropology (LA 625) are probably Nusbaum's work, produced from studying this and other fragments found in the excavations, as well as the surviving corbels in the walls.

<sup>24</sup>Photographs by Jesse Nusbaum, MNM #41035, MNM #112927, #139549, #139550. Judging by the details of tool placement and the locations of other objects, the last three photographs were taken on the same day, probably between July 5 and July 10.

emptying the western part of the nave and the sanctuary on the east as the first step.<sup>25</sup> As the fill was removed from the bases of the walls, they began showing signs of settling. Major cracks began to form in the north nave/transept wall about July 20, and Nusbaum constructed several massive wooden braces in an attempt to keep the wall section from collapsing (Figure 6.15).<sup>26</sup>

A series of rainstorms interrupted the work from July 20 to July 26. This rainstorm had a severe consequence: the softening of the earth floor and the adobe walls allowed the northern nave/transept section to fall about July 25, crushing the braces and supports Nusbaum had built in the attempt to keep this section standing. Kidder wrote that work resumed at Pecos on Tuesday, July 27: "Clearing weather after a week's steady rain. . . . Everything soaked & much damage done by water to the nave walls of the church that we had cleared. They have fallen away in several places & will have to be rebuilt. Water standing everywhere & the 'reservoir' at the upper end of the 'corral' [the Enclosure] full. Ground soaked to 2'6" or more. Work impossible at church. . . ." <sup>27</sup>

The ground remained too wet for work to resume in the church until Thursday, July 30: "Work on church with full force all day except three men for the moving our earth from N. building [9 men on church]. . . . The work at the church consisted in clearing the fallen parts of walls brought down by the recent heavy rains and in starting the concrete underpinnings for the main walls."<sup>28</sup> The photographs taken about July 30 show Nusbaum's crew removing useable brick from the collapsed pile of the north nave/transept wall.<sup>29</sup>

Based on Kidder's statements, construction of the concrete supports of the nave and transept walls started on July 30. He made a drawing of a cross-section of a representative adobe wall to show how the concrete reinforcement would be built into it. The drawing shows that the concrete reinforcement was set into the wall about ten inches, and extended another ten inches out from the face of the wall line at the top of the reinforcement. Therefore, the original line of the face of the adobe wall of the standing church should be considered to have been ten inches in from the edge of the top of the reinforcement. The concrete reinforcement was twenty-four inches high, and Kidder shows it as set about seven inches into the "floor," resting on a stone footing built into a trench below the ground surface.<sup>30</sup>

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<sup>25</sup>Jesse Nusbaum, MNM #139548, #41036 (Kidder #12), #41038 (Kidder #15), #42015 (Kidder #13), #12907, #12918, all taken about the same day, ca. July 15-20.

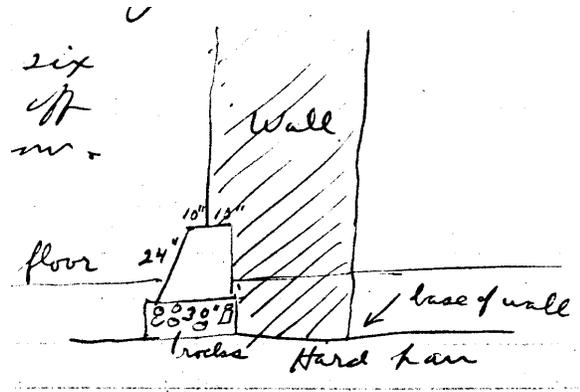
<sup>26</sup>Jesse Nusbaum, MNM # 41033 (Kidder # 21) MNM # 41035, # 12908, and # 6510, the last two taken within minutes of each other, all about July 20.

<sup>27</sup>"Kidder Notes, 1915-Daily Record," July 27, 1915, p. 13.

<sup>28</sup>"Kidder Notes, 1915-Daily Record," July 30, 1915, pp. 16, 17.

<sup>29</sup>Jesse Nusbaum, MNM #41023 (Kidder #20), #41024 (Kidder #22), #139547, taken within minutes of each other; #12940, #139558, also taken within minutes of each other, all probably on July 30.

<sup>30</sup>"Kidder Notes, 1915-Daily Record," July 30, 1915, pp. 16, 17.

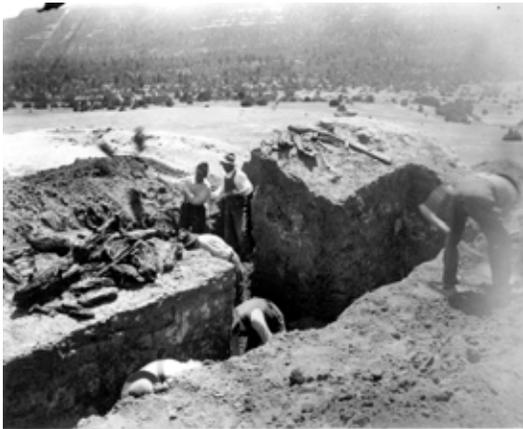


**Figure 6.17.** Kidder's sketch of Nusbaum's concrete supports added to the bases of the church walls beginning July 30, 1915.

As the six or seven feet of fill was removed from within the church, Nusbaum used the horse-drawn blade to level and spread the mounds of backdirt. On the east, much of the fill was used to make adobe bricks for the reconstruction. On the west, the vast majority of the fill was pushed out and down the slope of the west terrace, burying one of the colonial terrace walls. It slowly built up until a large platform resulted; in 1966-70 this backdirt mound was taken to be the outlines of the collapsed walls of the "Priest's Garden," and was remodeled into its present walled enclosure. The best before-and-after photographs showing the development of the west mound is Jesse Nusbaum's MNM #6632, taken in mid-1911, and #12944 and #12917, taken within a few minutes of each other in August or September, 1915, showing the fresh dirt of the new mound west of the church (see also MNM # 30, Figure 6.20). In #12944, the horse or mule team can be seen on top of the mound. The 1929 aerial photographs (Figures 6.11 and 6.12) show the new western mound clearly.

From July 31 to October 1, 1915, Nusbaum completed the removal of fill from the nave, transept and sanctuary, faced the walls of the nave and sanctuary with new adobes, and completed the reinforcement of the wall bases with concrete. The area of the sanctuary and altar stairs was cleared, and a massive concrete platform built across the back of the sanctuary in the area of the altar. Several courses of new adobes were placed on top of the concrete foundation for the east wall of the sanctuary, raising the east wall by perhaps five feet. This period of work is illustrated by Nusbaum's photographs. In approximate chronological order, photos MNM #139552, #139559, and #41001 (Kidder #49) show the first steps of putting the concrete supports into the south transept doorway. The stabilization of the altar stairs and the reconstruction of the east wall of the apse are shown in #41010 (Kidder #48), #139557, and #139564, all taken within a few minutes of each other. Work on the outside of the northeast corner of the north transept can be seen in #12909. A general view of the south side of the church after the east concrete support had been built into the south transept doorway, PECO 1015 (Kidder #88), shows the east wall of the transept had been built up perhaps five or six feet, but before any other repairs had been done to the sacristy doors or the south face of the south transept wall. The support for the

reconstruction of the southeast sacristy doorway in place can be seen in MNM 37900; as can be seen in the foreground of this same photograph, the "confessional" wall section apparently had been rebuilt by this time, including the short segment of concrete facing on its north side. This concrete foundation is clearly visible in MNM # 75038, taken about 1916. Jean Pinkley was greatly irritated by this section of concrete abutment. She thought it was intended to show a "jog" in the wall, and wrote with glee that her excavations in the area showed that "the offset in the north wall was solely an interior feature. The exterior wall was straight rather than jogged as originally reconstructed."<sup>31</sup> Photographs MNM 12917, 12944, and 139544 all show construction at this same time. No absolute dates are available for the work carried out during the two months of August and September, so only this general sequence of work can be worked out from the pictures.



**Figures 6.18 and 6.19.** In Figure 6.18, on the left, Nusbaum's crew empties the doorway from the nave into Area I. Traces of plaster survive on the walls and doorway. Figure 6.19, on the right, shows the completed repair of the doorway from the transept into the sacristy. Photographs by Jesse Nusbaum, 1915, MNM #41036 on the left and MNM #41011 on the right.

However, a few aspects of Nusbaum's reconstruction work on the church were mentioned in Kidder's notes. Nusbaum had planned for the partial reconstruction of the church walls from the beginning. As early as July 3, Kidder said, "inside the church N[usbaum] is making adobe of the fallen wall material, hauling water from the arroyo in a wagon. When it is properly wet he will cast bricks & use them in mending the holes in the lower walls."<sup>32</sup> The manufacture of adobes out of the fill removed from the church continued through the stabilization of the church in 1915. For example, on Thursday, September 23, Kidder remarked that "9 [men] & team on

<sup>31</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966

<sup>32</sup>"Kidder Notes, 1915-Daily Record," July 3, 1915, p. 10.

church 3 [men on] adobe [making] full day."<sup>33</sup> During the next two days, "625 adobes made at church . . . & some of them tipped on edge." Rain during the night Friday damaged some of these new bricks, and on Saturday Kidder "laid [them] all flat again as a precaution against further rain."<sup>34</sup>

On September 16, Nusbaum was absent in the morning, "having gone to Panchuela to see Don Johnson the head forest ranger . . ." He returned in the afternoon: "Worked till 11.30 when rain halted us till 12.30. N[usbaum] took whole force on church as trenches were wet."<sup>35</sup> It is likely that Nusbaum went to see Ranger Johnson in order to arrange for the acquisition of more large beams from the forest to place as support elements in the church. As the beams were cut, they were placed above the south transept door, where only perhaps two of the six original beams remained (Figure 6.19). He also placed beams above the baptistry door when the walls were raised high enough around it, and several large beams were reset into the south face of the south transept wall to support the main sacristy corbels.

As Nusbaum's work on the church approached completion, the last adobe bricks were set in place along the tops of the nave walls, and the interior of the church given a final cleaning. This work is illustrated by a series of photographs, again in approximate chronological order. The reconstruction of the arched top of the south sacristy doorway can be seen in PECO #9 (Kidder #72). Photograph #6616 looks at the south face of the church, with the rebuilt sanctuary wall visible on the east. The south transept doorway is visible from the south in #41003 (Kidder #36), with the west concrete support already built and two large squared beams waiting to be put in place, apparently to replace the two missing south outer lintel beams of the doorway. The final phase of earth removal is illustrated by several pictures. MNM #41011 shows that the sill of the south transept doorway was levelled after the west concrete support had been built, new beams added to the lintel where they had fallen out or been removed, and adobe bricks built up above the lintel on the north face of the wall. The replacement of the large beams beneath the corbels on the south face of the south transept can be seen in #41005 (Kidder #40); the repair of the south nave wall above the new lintel beams with new adobes in #139556—the north wall is still unfaced in this photo; #139554 and #41002, taken a few minutes apart, show the refacing of the north wall of the nave and the establishment of a seat for the beams to be placed over the baptistry doorway; #139555 shows the front of the church after the refacing of the north nave wall, but before the refacing of the main entranceway; in #6636 the construction of the lintel over the baptistry doorway can be seen, after the refacing of the main entrance—the south nave wall was refaced only on its west three-quarters. Finally, #6524, #12939, #12910, and PECO #30 (Kidder #56) show the last cleanup of the nave floor after completion of the restoration—curiously, #12939 shows that no square masonry bases had been added to the facade as of the completion of the work in 1915; and PECO #4 (Kidder #42) shows the altar and

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<sup>33</sup>"Kidder Notes, 1915-Daily Record," September 23, 1915, p. 33.

<sup>34</sup>"Kidder Notes, 1915-Daily Record," September 25 [Saturday], 1915, p. 34.

<sup>35</sup>"Kidder Notes, 1915-Daily Record," September 16, 1915, p. 31.

sanctuary in its final form. Nusbaum completed the project by October 1, the last day of the 1915 season.



**Figure 6.20.** The nave of the church after the completion of Nusbaum's excavation and stabilization, looking west. The confessional niche in the north wall is on the right. The weathered original surviving brick of the walls can be seen as irregular ridges on the wall tops. The mound of fresh earth and broken brick emptied from the nave of the church, later made into the "Priest's Garden," can be seen west of the cross and its stone mound at the front of the church. Jesse Nusbaum photograph, 1915, MNM #30.

Nusbaum worked at Pecos only in the 1915 season.<sup>36</sup> A photograph taken perhaps a year later, in 1916, shows the nave looking west (#65943), with the facing of the south nave wall still unfinished in the area of the pulpit doorway. When this work and the construction of the stone pillar bases on the facade of the church were carried out is unknown.

#### Nusbaum in the Convento

As discussed above, during the fieldwork of 1915, Nusbaum and Adams made a detailed map of the church and convento (Figure 6.8). Probably about September, 1915, J. P. Adams plotted specific details of the church, including the altar platform and its stairs, the front doorway and the indent in the facade with stone construction in it, and the doorway from the area under the choir loft into the room along the south side of the nave, none of which were visible until Nusbaum's excavations had been carried out. The stone pillars on the facade of the church were recognized by Nusbaum and plotted on the Nusbaum/Adams plan, but his work did not rebuild these two square columns. The plan of the church showed the concrete buttresses on the outside north face of the north nave wall, reinforcing the thin wall of the confessional. During the same

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<sup>36</sup>Adkins, "Nusbaum," pp. 9, 114.

period, Nusbaum worked out a detailed plan of the convento. Nusbaum said that "after a rain - as the soil dried - the adobe dries more slowly and I was able to practically work out major portion of plan of convento by this method. Was a very large and massive bldg. with towers to south of church - 2 stories - resembling same on New Mex. bldg. in general characteristics."<sup>37</sup> Kidder echoed the statement that the tops of the adobe walls of the convento could be seen, and even included a photograph of some of these adobes in his final report: "walls of convent at Mission, plan rendered temporarily visible by adobes briefly holding moisture after rain."<sup>38</sup> The photograph showed a wall line at the top of its dissolution mound, with its brick pattern quite clear.<sup>39</sup> Comparing the photograph with the Adams plan suggests that the wall section shown was the north wall of the convento at the west end—what seems to be the niche in the north wall of Room 14 is apparent in the brick pattern, and is also shown on the Adams plan. Nusbaum and Adams surveyed the visible walls of the convento. The rough field plan available as LA 625/48 is missing the partition walls and main wall along the south ambulatory – these details were approximately worked out later, and included as dashed lines on the final plan added to the Academy map.



**Figure 6.21.** Nusbaum's photograph of his work on the Pecos church. He has penciled in the fallen south nave wall and arched pulpit doorway. On the back of this photograph he wrote his description of mapping the convento. Jesse Nusbaum photograph, 1915, MNM #139550.



**Figure 6.22.** Nusbaum's photograph of a wall of the convento after a rain, when the adobe bricks were visible.

<sup>37</sup>Jesse Nusbaum, handwritten note on back of MNM #139550. The image on this photograph has been altered by pencil to show the outline of the south nave wall and the arched pulpit doorway through it near the transept, visible in many photographs taken before this wall section fell about 1914-1915.

<sup>38</sup>Kidder, *Archaeological Notes*, pp. 110-111, Fig. 37a.

<sup>39</sup>This same effect is commonly used in the field for mapping adobe structures. For example, the walls of Presidio San Vicente just south of Big Bend National Park were mapped in this way; James E. Ivey, *Presidios of the Big Bend Area*, Southwest Cultural Resources Center, Professional Paper No. 31 (Santa Fe: Southwest Regional Office, National Park Service, 1990).

Overlaying the Nusbaum/Adams map over the Arquero “Pecos Mission Complex” plan, made as a survey of the excavated walls of the convento in 1966-67, shows that the Academy map was quite accurate, and did indeed trace most of the walls where they were found by later archeology. Somewhat incorrect wall angles and locations were shown in only two restricted areas, both south of the main convento rooms.

There were several peculiarities about the adobe wall locations in the area of the main convento. Although many of them matched the walls later found by archeology, several of them did not. Comparing the Nusbaum/Adams walls with those mapped by Adolph Bandelier in 1880, and Bill Witkind in 1938-41, it became obvious that the Nusbaum/Adams map had recorded the plan of the last version of the convento, as rebuilt after the Pueblo Revolt and described in some detail by Anastacio Dominguez in 1776. Subsequent archeological work paid little attention to these last, uppermost walls of the buildings, but instead trenched several feet deep at the outset and immediately became entangled in pre-Revolt structures. Several of the walls forming the outline of the south side of the eighteenth century convento were destroyed by these excavations and can only be retrieved from the Nusbaum/Adams plan.

The available Charles Lindbergh and 3-Hawks aerial photographs (Figures 6.11 and 6.12), made in 1929-30, allow the physical attributes of the various wall lines to be determined.<sup>40</sup> Some of the stone walls, for example, were sharp-edged and still stood to two or three feet above their mounds of collapse rubble, indicating that they were considerably more recent than the other wall traces, and obviously dated from the use of the convento area as a set of corrals and pens. The available photographs indicate that the stone enclosure was built after Bandelier's visit in 1880, but before about 1911; the photographs of the Bandelier visit in 1880 seem to indicate that these walls had not yet been built as of that date. The amount of collapse suggests that the walls were built in the early 1880s, used for a few years until perhaps the early 1890s, and then allowed to decay for at least a decade before the first pictures of them were taken. The aerials show that a second set of stone wall lines were visible at the surface, but had collapsed entirely; these were older corrals and enclosures, some of which began as mission structures.

The Nusbaum/Adams map is the only plan that can be shown to fit with the Dominguez description of the convento as it stood in 1776, and serves as a bridge connecting the complex plans resulting from the excavation of deeper, earlier structures and the building described by Dominguez. It is the key to deciphering the entangled mass of multiple layers of use and reuse of walls and rooms, as revealed by excavation; without it, the attempt to determine the process of excavation of the convento ruins and to make a reasonable evaluation of what appears to have been found would not have been possible. The importance of Adam's work to this study cannot be overemphasized.

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<sup>40</sup>MNM # 6500, "3-Hawks #459," Paul Quinn and Paul Milner of St. Paul, Minnesota. Charles Lindbergh photographs, RSU neg. no. 203, "copied from 8x10 print provided by Museum of New Mexico," School of American Research Photo Collection in Museum of New Mexico, neg. # 130325, 130326, 130328, 130366, 130367. Kidder, *Notes*, mentions that Lindbergh took aerial photographs of the Pecos ruins while flying from the Phillips Academy camp in 1929, p. 10 and fig. 3. See Erik Berg, "The Eagle and the Anasazi: The Lindbergh's 1929 Aerial Survey of Prehistoric Sites in Arizona and New Mexico," *Journal of Arizona History* 45(Spring 2004):14, 16.

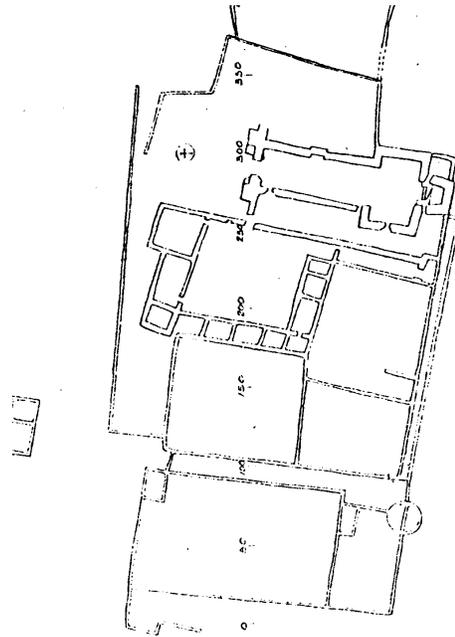


Figure 6.23. The Nusbaum/Adams map as drawn on the Academy Plan.

After completing the stabilization of the church at Pecos in 1915, Nusbaum went on to other projects. In 1916 and 1917, he built the Fine Arts Museum in Santa Fe.<sup>41</sup> Beginning in 1917 he joined Frederick W. Hodge on the excavations at Hawikuh, where during the summers of 1917, 1919, and 1920, Nusbaum directed the excavation of the church and convento.<sup>42</sup> Unfortunately, this excavation was not published until the 1960s. As a result, the major investigations of mission churches and conventos across the southwest in the 1930s were left without a detailed example of a typical mission layout on which to base their planning.

#### Kidder Excavates Around the Church, 1925

Nusbaum completed his work on the church during the 1915 season, and never returned to do any more work on the site. Kidder, however, conducted a few additional excavations in the area of the church and convento in 1925. In August of that year, he had a trench excavated just north of the cross mound, inside the eighteenth-century *campo santo* near its northwest corner, that actually uncovered the plastered northwest corner of the pre-Revolt church. Unfortunately, Kidder did not recognize it as such. On August 19 Kidder had a trench opened

<sup>41</sup>Rosemary Nusbaum, *Tierra Dulce*, p. 62; Adkins, "Nusbaum," p. 10.

<sup>42</sup>Adkins, "Nusbaum," p. 114, Elliot, *Great Excavations*, pp. 83, 86-87.

about 12 feet north of the cross on its stone mound<sup>43</sup> in front of the standing church ruins; the excavations were conducted by Constance Valliant. Tourists had reported seeing what appeared to be human bones appearing in a washout at the edge of the earthen platform here.



**Figures 6.24 and 6.25.** On the left, Constance Valiant excavates the west end of the Juarez-Ortega church in 1925. On the right, the face of the stone wall can be seen in the excavation hole. MNM #46543 on the left, and MNM #6514 on the right.

Valliant excavated an east-west trench, enlarging the washout, and found six burials, all extended on their backs, and all but one with their heads west. At the east end of the trench, she found a massive stone wall running north and south, on a line that passed under the cross mound. Fifteen feet to the east of this, Kidder dug a small testpit that "hit a mass of rock 10 [inches] below surface that may mark a paved floor," extending to the west from the front of the standing church.<sup>44</sup> On August 20, Kidder examined the stone wall further. "It is of big, heavy stones comparable to those used in 700 series old B & W walls but set wider apart (interlined: "i.e. vertically") in more adobe. Runs from 10" below surface down 5'10" & is founded on red clay. It is plastered on W. side with yellow, thick plaster. It thus once stood clear &, indeed, there is

<sup>43</sup>This mound and its cross were put in place between the visit by Kidder and Nusbaum in the summer of 1911, and the beginning of their fieldwork in the summer of 1915.

<sup>44</sup>Photographs PECO 1015 (Kidder #838, MNM 41-446, MNM #46545), 1925 "Test pit west of church - by Constance Valliant," PECO #31 (MNM #46584), PECO #37 (MNM #46543), and PECO #35, showing the west face of the foundation of the seventeenth-century church, were all taken during this work. Hayes, *Four Churches*, p. xii, says of this work: "More work was done in the church in 1925 when Susanna B. Valliant, under Kidder's direction, trenched the cemetery west of the church. Here she found more burials and uncovered a north-south wall forty to fifty feet in front of the facade." The difference in names is unexplained.

no sign of a foundation trench." Kidder described the stratigraphy found against the wall: "First 2' from bottom is soft [melted] adobe, evidently fill — running horizontally, then 2' of banded clay, dipping slightly west, then about 2' of surface washing adobe dipping west a little less. . . . Rock pavement seems to run E. off top of wall. — Yes — this is the case . . ."

This indicates that Valliant and Kidder did not see any adobe bricks on the top of the stone foundation — not surprising, since this was a washout area. The top of the stone foundation, called the "pavement" by Kidder, was "of rough building stones & was probably covered with an adobe coat. Rocks extend down 2' at least, solid where digging stopped — probably a fill from old surface up." Kidder did not realize that this was the footing for an earlier church. Instead, he decided that he had found the wall of the campo santo in front of the post-Revolt church: "Imagine wall once bounded church area, then outer wall built to E. & an extended terrace made. Finally, skel.s buried from just under present surface."<sup>45</sup>

During the same period, Kidder conducted tests through the floor of the nave of the standing church. On August 19, he "put down a test in center of church floor which went through 2' of adobe earth with floating human bones & then encountered a skel. at length on back."<sup>46</sup> On August 21, Kidder assigned four of his crew to work in the church nave, and on August 22, two crewmembers were assigned to the church.<sup>47</sup> Photos of two coffin burials under the restored altar stairs were probably taken about this time, PECO #12 (Kidder #25), and Kidder #26.<sup>48</sup> At the same time, Kidder conducted a test in the flat area just north of the standing church: "Put a trench into the enclosed grassy space N. of church - found ground [to be] rocky adobe with bottom at about 18"-2' - No rubbish. Ground slants up to N. wall of nave - the deposit against church being obviously slump from walls."<sup>49</sup> This "rocky adobe" may have been the foundation of the north wall of the pre-Revolt church.



Figure 6.26. Kidder's cross-section drawing of the west wall of the Juarez-Ortega church.

<sup>45</sup>Kidder, "Field Notes, 1925," in Kidder Collection, Pecos National Historical Park (PNHP), pp. 29a-31, August 19-20, 1925.

<sup>46</sup>Kidder, "Field Notes, 1925," pp. 29a, 30, August 19, 1925, PNHP.

<sup>47</sup>Kidder, "Field Notes, 1925," pp. 29a, 31, 31a, 32, August 19-22, 1925, PNHP.

<sup>48</sup>Hayes, *Four Churches*, p. xii, "Twenty-five burials were removed from the nave of the church at this time."

<sup>49</sup>Kidder, "Field Notes, 1925," p. 31, August 21, 1925, PNHP.



Figure 6.27.

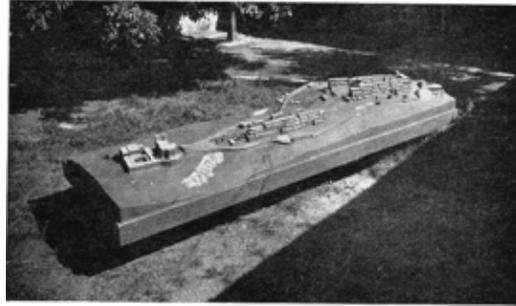


Figure 6.28.

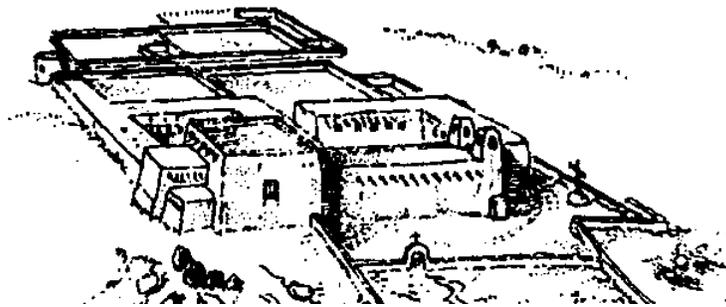


Figure 6.29.

**Figures 6.27, 6.28, and 6.29.** Interpretations of the appearance of the mission at Pecos. Figures 6.27 and 6.28 are photographs of J. P. Adams's model made about 1913, of Pecos as it might have looked about 1700. Figure 6.29 is Singleton Peabody Moorehead's impression of the mission about 1700 for Kidder's final report on Pecos. Moorehead followed the Nusbaum/Adams map, and included the corrals to the south of the main convento enclosure, as well as a torreon on the southeast side of the corrals. Figure 6.27 is from the Karl Belser Collection, Box 6, Misc. folder 4, #8788, State Records Center and Archives, Santa Fe, New Mexico.

### Kidder in the Convento

While this work was going on, Kidder assigned two men to conduct some tests in the "corral-like structure S. of church." Kidder said nothing else about this work, but both Witkind and Pinkley later were convinced that they found test pits at various places in the convento.<sup>50</sup> Pinkley, for example, was certain that under Kidder's direction some excavation was conducted "in the southwest end of the convento."<sup>51</sup> In the southeastern corner of the main convento, Victor Ortiz, who worked on Pinkley's crew, says that during the excavation of the deep section of Room 36, Pinkley became certain that someone had at least partly excavated the subterranean

<sup>50</sup>Kidder, "Field Notes, 1925," August 22, 1925, p. 32, PNHP.

<sup>51</sup>Jean Pinkley, Monthly Report, August 5, 1966, p. 1, PNHP.

section before her.<sup>52</sup> It is possible that either Nusbaum or Bill Witkind excavated some part of this room. Tests in 1994 revealed a large pit excavated into the adobe stairs of the room, but this excavation took place before the last thick layer of manure was laid across the Room 36 area, and was therefore probably dug about 1880, since the manure was apparently the deposition of the last use of the convento as a corral in the early 1880s to mid-1890s.

#### Kidder and the Convento in the 1950s

Kidder eventually decided that the general evidence from his test excavations in the convento, South Pueblo, and the "Lost" Church, and subsequent work at his request by Stubbs and Ellis, indicated that the mission had been located at "Lost" Church up to the Pueblo Revolt, and had had no convento.<sup>53</sup> Stubbs was unwilling to accept this position, and wrote to Kidder that "what we really need now that all these problems have been touched off by our small amount of digging [at the "Lost" Church] is a complete excavation of the 'lost church,' and a reexcavation of the convento area of the main church previously dug by the Museum in 1935 [1938-1940]. None of their excavations went down below floor level, so it is very likely that we could pick up old wall foundations and alignments."<sup>54</sup>

Kidder thought this was a reasonable proposition. He answered Stubbs: "You're of course quite right about the need of further excavation both at the 'lost' church and the convent at the big one. If one could make even a relatively small excavation in the latter, one could find out whether or not the 'old' church [the Zeinos Chapel] had been burned, as Vetancurt says."<sup>55</sup> Kidder was referring here to the "old church" mentioned by Anastacio Dominguez, whose visita report had just been published by Eleanor Adams and Angelico Chavez.<sup>56</sup> Kidder's final assessment of the Zeinos chapel, in his statements on the relationship between the various churches, suggested that "the 'Old' church described by Dominguez was built after de Vargas' return, being used while the great mission was in course of construction."<sup>57</sup>

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<sup>52</sup>See the discussion in the summary of Jean Pinkley's excavations, Chapter 9.

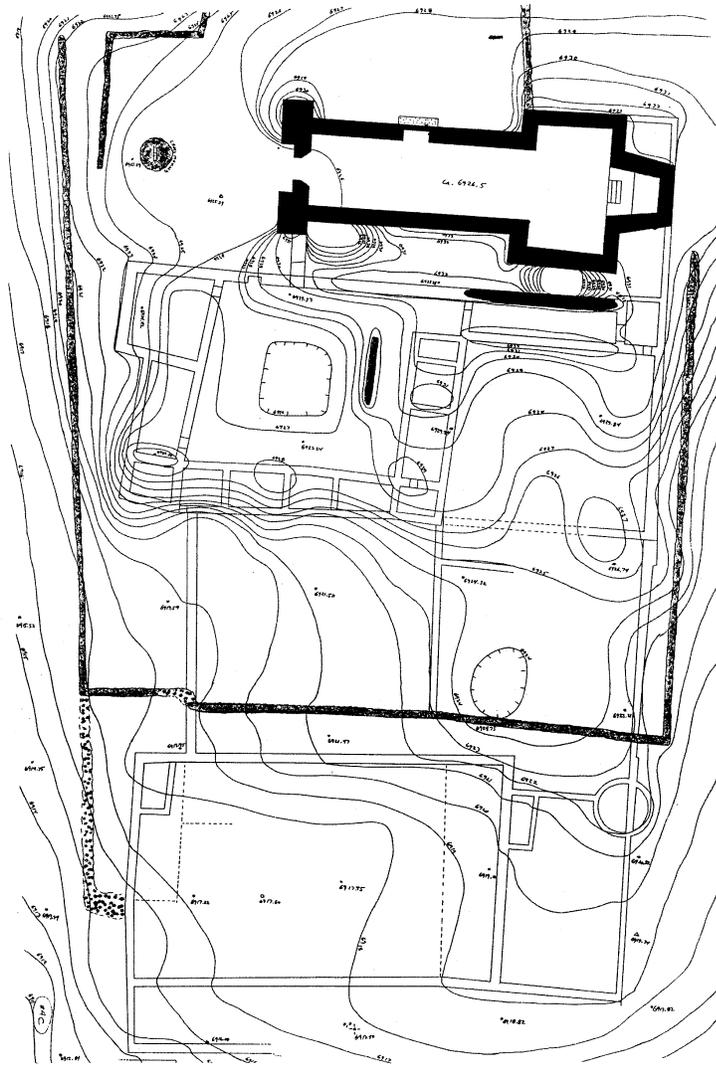
<sup>53</sup>It is to these statements about the lack of a convento at Pecos that Jean Pinkley later refers in her monthly letter report of November 4, 1966, PNHP, discussed in Chapter 9.

<sup>54</sup>Stubbs to Kidder, December 11, 1956, LA 625, folder 3.

<sup>55</sup>Kidder to Stubbs, December 17, 1956, LA 4444.

<sup>56</sup>Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956).

<sup>57</sup>Kidder, *Notes*, p. 330.



**Figure 6.30.** The Pecos mission after Nusbaum's excavation and stabilization of the church in 1915.

Kidder pursued the idea of additional excavations in the convento for the next year. He wrote to Stubbs in 1957 (sounding very much like Jean Pinkley ten years later – see Chapter 9), "I do wish that we had funds and personnel to do a real job not only of excavation but of stabilization of the remains of the convento. I can't understand Witkind's plan, which seems to differ so much from that of Dominguez." Kidder suggested that the convento was not

maintained after the Dominguez visit, and fell into ruin, resulting in the difference between the Dominguez description and the Witkind plan. This, of course, is what happened, although not until the 1840s rather than the 1780s.<sup>58</sup> Kidder's, and Stubbs's, wish for further excavations in the convento was granted, but unfortunately not until 1966, after their deaths. Stubbs died in 1959, and Kidder in 1963.

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<sup>58</sup>Kidder to Stubbs, May 7, 1957, Laboratory of Anthropology Archives, Folder 89CO5.048, "Stubbs-Kidder, 1950s."



Chapter Seven  
**Bill Witkind's Excavations of the Convento, 1939-1940**

The Development of Pecos State Monument

From 1935, when Pecos became a state monument, until 1940, the principal intent of the State of New Mexico was the preparation of Pecos as one of the tourist attractions for the Coronado Cuarto Centennial to be celebrated in 1940. This meant that the state's first emphasis was on developing visible, stabilized ruins attractive to visitors. Not until after the end of the Cuarto Centennial did the state turn its attention to other aspects of development such as a custodian's residence and marked trails with trail guides. Further excavation and stabilization beyond that necessary for the Cuarto Centennial was not carried out.<sup>1</sup>

The work to prepare Pecos for the Cuarto Centennial did not begin until three years after it was made a state monument. On September 20, 1938, the University of New Mexico reached an agreement with the School of American Research on a two-year project for the "excavation, repair, and preservation" of Pecos, one of the "archaic group of New Mexico missions, all founded from 1617 to 1630." The Civilian Conservation Corps would aid in the project, and it was expected that by the beginning of 1940, Pecos would "be in order, under resident custodians, and open to receive the tourist travel" expected as a result of the Coronado Cuarto Centennial celebration.<sup>2</sup> In late October the state began the process of putting together the project staff and crew. The School of American Research administered the excavation and stabilization, with Edwin N. Ferdon as the field supervisor. Labor was supplied by one of the Work Projects Administration organizations, the Civilian Conservation Corps (C.C.C.) crews.<sup>3</sup>

The goals of the project, as summarized in *El Palacio*, were to concentrate on uncovering and stabilizing the mission convento: "the walls will be laid bare, shored up where necessary, capped and drained to prevent further erosion. The road from the ruin to the highway will be improved and the tract will be landscaped."<sup>4</sup> The work began on November 14, 1938.<sup>5</sup> A few months later, Albert Ely of the Museum described the intended work in more detail,

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<sup>1</sup>Frank Wilson, "Administrative History of Pecos National Monument," 1969, PNHP, pp. 6-9.

<sup>2</sup>*Santa Fe New Mexican*, September 20, 1938.

<sup>3</sup>"Pecos Repairs Begun," *El Palacio*, 45(October 12, 19, 26, 1938):82-83; Alden Hayes, in *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), p. xiii, says that work at the church and convento began "in the fall of 1938 by Edwin N. Ferdon." William Witkind mentions Ferdon several times in his journal, usually in reference to disturbances in the convento that occurred before his excavations started.

<sup>4</sup>"Pecos Repairs Begun," *El Palacio*, 45(October 12, 19, 26, 1938):82-83.

<sup>5</sup>"Repairs on Pecos Ruins Started," *Santa Fe New Mexican*, November 15, 1938. This article is the same, word for word, as the article "Pecos Repairs Begun" in *El Palacio*, pp. 82-83, except that where the *El Palacio* article of October 26 says the project was "now in progress," the newspaper article of November 15 says "begun yesterday."

distinguishing between the tasks to be accomplished by the CCC and the National Youth Administration (NYA): "The work outlined for the C.C.C. calls for, (1) reconstruction of the fence around the monument, (2) construction of an all-weather road from the highway to the ruin, and (3) landscaping of the monument. The program for the N.Y.A. consists of the following: (1) Excavation of the monastery, (2) clearing the debris from the church, (3) repairing walls of the Mission, (4) stabilization of the walls of the church and monastery, and (6) preparation of Museum exhibits."<sup>6</sup> For the first month, Ferdon and his crew concentrated on the reconstruction of the defensive wall around the top of the mesa. Ferdon apparently dug one or two test pits in the north cloister, possibly at the edge of areas excavated by Jesse Nusbaum in 1915, but otherwise left the convento alone.<sup>7</sup> No report, field notes, plans, or artifacts survive from Ferdon's work. He left the project probably in December, 1938.

#### William Witkind Begins Work at Pecos

In December, 1938, Hewett hired William Witkind to take over the direction of the excavations at Pecos. Witkind was from Colorado Springs, Colorado, and received a Bachelor's degree in anthropology from the University of New Mexico in 1938. He was a classmate of such illustrious contributors to the historical archeology of the Spanish Southwest as Al Hayes and Joseph Toulouse. Witkind studied under Edgar Hewett, Florence Hawley, Donald Brand, and Leslie Spier.<sup>8</sup>

As Witkind directed the WPA and CCC excavations and repairs at the Pecos mission, he had to operate within specific rules laid down by the WPA. These required that he was to clear out the fill from the principal convento building – he was not conducting a research excavation, but rather the preparation of the site for display. This was a difficult proposition: the basic assumption behind the requirements was that there would be a single principal building, with a single main floor surface, and Witkind was simply to empty the rubble out of the building down to this floor.

The plan of Witkind's work shows that he made a valiant attempt to do this. He stayed essentially within the visible adobe brick foundations of the convento as they could be seen at

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<sup>6</sup>Albert Grim Ely, "Field Work at Pecos," *El Palacio*, 46(June 1939):124-26.

<sup>7</sup>William Witkind daily journal, "The Excavation, Stabilization, and Reconstruction of Cicuye;" (hereafter cited as Witkind, "Journal,") May 3, 1939. The original typescript is in the Museum of New Mexico, and a xerox is on file at Pecos National Historical Park; the original handwritten ms. from which the typescript was made is missing. The journal covers the period from January 30, 1939 to August 30, 1940. Witkind's excavation and stabilization work probably began sometime earlier than January 30, 1939; stabilization work on the church and excavations in the convento continued beyond August 30 until at least mid-December, 1940; see "Supplementary Report on Pecos State Monument, New Mexico," by Eric Reed, December, 1940, with photographs taken November 27, 1940, and W. J. Mead photographs taken on December 4, 1940, showing work still in progress, MNM 6509. However, no daily journal or other notes from the periods before January 30, 1939, or from September 1 to ca. December 15, 1940, are presently available.

<sup>8</sup>Alden Hayes to James Ivey, personal communication, May 30, 1995. Al Hayes was one of the few subsequent researchers at Pecos who were able to make enough sense out of Witkind's notes to put them to use.

ground surface, and only occasionally did he follow substantial foundations away from this visible outline, principally in the area of the late baptistry (Figure 7.22). For a site with a complex construction history like the Pecos convento, with a multiplicity of room changes and floor levels ranging in date from the early 1600s to shepherd reuse in the middle to late 1800s, the requirement to stop at the principal floor was essentially impossible to fulfill without sufficient research excavation to determine which floor that might be. Jean Pinkley, who was unrelentingly critical of what she perceived as Witkind's failure to excavate the rooms to their lowest floors, and to follow out the entire outline of the convento walls, clearly had no understanding of the WPA's constraints on Witkind's conduct of the work.

Witkind began the available portion of his daily journal on January 30. The journal and the work it describes has been considered virtually worthless by most subsequent researchers at Pecos, especially Jean Pinkley.<sup>9</sup> Because Witkind was unable to prepare a final report, the evaluation of his excavation at Pecos has focused on his journal, his other records in the Museum of New Mexico, and his photographs. The problems derived from three things:

1) Only one of Witkind's plans of the convento, made early in the project, was available, although he frequently mentioned working on detailed plans and drawings in his daily journal.

2) Very few photographs of his work were known, even though in his journal he often discussed the photographs he was taking.

3) Witkind changed his room numbering several times, so that a given room was assigned two or three (or more) different numbers over the period of excavation, but the changes were never discussed in the notes. As a result, room 8 on one day could be called room 12 on the next, with no indication that the same room was meant. This makes it difficult to associate discussions in Witkind's daily journal entries with particular locations in the convento. In fact, many readers of the journal, including Jean Pinkley, were aware of only a few of the changes and assumed that, say, room 7 referred to the same space throughout the notes, and that this space was the one marked room 7 on the only available Witkind map.

Through an intensive study of the journal, other documents, and the available (now much-expanded) photographic collections, these problems have largely been corrected. The maps and plans are still missing, but have been reconstructed for this study.

The Witkind photographs were scattered among the collections of the Museum of New Mexico Photograph Collection and the Pecos National Historical Park Photograph Collection, and usually unlabeled so that their connections with Witkind were lost.<sup>10</sup> Once organized into chronological order and associated with dates and excavation episodes, they allow many of the detailed excavation descriptions to be associated with specific rooms or church locations. Additional pictures made by Eric Reed and a few other visitors to the site during the project give

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<sup>9</sup>Pinkley was quite clear about her contempt for Witkind's work; if nothing else, her comments written on the margins of the available typescript of his journal make this obvious. Many of Pinkley's remarks concerned spelling errors in the typescript; most of these appear to be either typographical errors or a result of the typist's misreading of Witkind's difficult script.

<sup>10</sup>As it happened, Pinkley herself was responsible for the finding and at least some of the subsequent misplacing of the pictures.

further information, and a comparison of these pictures with the Nusbaum/Adams map made in 1915, aerial photographs taken in the 1950s and 1960s, and information from later investigations have allowed the assembly of a fairly clear view of Witkind's work. A number of his burial forms and room excavation record forms were also relocated.<sup>11</sup> The total amounts to a fairly detailed record of the excavation of the Pecos convento in 1939 and the first half of 1940.

The evidence reveals that Witkind did not deserve Pinkley's contempt. The details available in his notes and photographs are better, for example, than what can be gotten from Pinkley's records about her own work. A fairly detailed summary of his findings at Pecos from January, 1939, through the end of the project in December, 1940, will be presented here. This will be the first time such an appraisal of Witkind's results has been made available to researchers. The summary is extensive because this is the only way to make the evidence from Witkind's excavation available for the structural history of the Pecos buildings. Even a transcript of his notes printed with his photographs would not allow a reader to follow the excavation without extensive annotation. The renumbering of the rooms alone renders the notes almost incomprehensible, and many of the references to specific details of excavation cannot be understood without comparison to the notes of Jean Pinkley and Alden Hayes. What follows, then, is an interpreted version of Witkind's excavation.

#### Excavations in the Church

Witkind began his fieldwork with the assumption that the final church of Pecos was not entirely the original, but a heavily-repaired version of the building after it was largely destroyed during the Pueblo Revolt of 1680. He approached the excavation of the church with the expectation that he would see evidence that it had been built, used, modified, damaged, rebuilt, and remodified over time. In this prior assumption, he was ahead of Pinkley, who seemed to think that everything in the church and convento would be the same top to bottom, with no significant change through time and no significant depth below the surface.

Witkind and his compatriots investigating the other major missions of New Mexico had to work without any detailed information from earlier excavations in mission structures; as a result, they had little knowledge of what could be expected in a mission excavation. By 1938, the two major mission excavations, of Hawikuh in the Zuñi area and Awatovi in Hopi territory had been carried out, but neither of these excavations were to be published for decades.<sup>12</sup> However, Witkind had undoubtedly visited missions still in existence, and some information about Awatovi and Hawikuh was probably available from those who had visited the sites during

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<sup>11</sup>Thanks to Fran Levine for finding these documents. Still lacking, and probably sitting somewhere in WPA files, are Witkind's notes, maps and photos for September through December, 1940.

<sup>12</sup>Ross Gordon Montgomery, Watson Smith, and John Otis Brew, *Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Established at a Hopi Indian Town in Northeastern Arizona*, vol. 36, *Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University (Cambridge: Peabody Museum, 1949); 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*, vol. 20, *Contribution from the Museum of the American Indian* (New York: Heye Foundation, 1966).

excavation or who had worked there. He and the other WPA excavators, at the Salinas missions and Giusewa at Jemez Springs, probably exchanged information about what they were seeing during the work. As a result, Witkind had some idea of what to expect during the excavations. His project, however, began when the Archaic Missions idea – that is, that Pecos was one of the five surviving largely-intact pre-Revolt mission churches – was strongest. Witkind had no way of knowing which information from other "Archaic" missions would be useful and which misleading for Pecos.<sup>13</sup>

#### Witkind and the Pre-Revolt Church

Like Kidder before him, Witkind found numerous traces of the pre-Revolt church; unlike Kidder, however, he recognized many of these traces for what they were. The worst problem Witkind had with the pre-Revolt building was its vast size; when such a structure is stumbled over here and there in limited excavations, there is little reason to consider the various pieces to be part of a single building.

Witkind had no doubt that at least *some* of what he was seeing was an earlier church. He did not, however, give up on the idea that the Pecos church was one of the "Archaic" missions: he considered the church to have been built in 1617, badly damaged during the Revolt, and restored in 1694 using the footings and surviving walls of the original building, now buried several feet deep in debris.<sup>14</sup> As a result, any traces of the earlier structure he found outside the walls of the standing structure he judged to be part of early rooms attached to the building. Jean Pinkley followed the same pattern, but had the good fortune to excavate virtually the entire circumference of the standing church ruin. In the process, she finally hit enough sections of the outline of the earlier building that she was left little choice but to accept that they all went together and formed the outline of an earlier church (see Chapter 9).

Witkind's most extensive contact with the early church came as a result of his efforts to clean windblown dirt and rubble from the standing building. The work of clearing the floor of the present church began on March 21, 1939, and continued intermittently until May 17; during this period Witkind became perturbed because he could find no trace of the floor of the standing building. On May 17, he decided to make a final determination concerning the floor level, and assigned two crewmen to trench inside the church, looking for evidence for the original floor of the building.<sup>15</sup> This began a search that lasted for two months, until the middle of July.

From May 18 through June 5, Witkind sought indications of a floor only a little deeper than the surface left by Nusbaum. On May 18 he found traces of a possible floor in the doorway from the south transept into the sacristy, about four inches below Nusbaum's surface; he described this as a hard-packed adobe surface, six or eight inches thick.<sup>16</sup> On the 22nd, he saw

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<sup>13</sup>James E. Ivey, "George Kubler and the Prime Object at Pecos." Thesis, University of New Mexico, 2003.

<sup>14</sup>Witkind, "Journal," June 19, 1939.

<sup>15</sup>Witkind, "Journal," March 21, March 23, April 4, May 17, 1939.

<sup>16</sup>Witkind, "Journal," May 18, June 6, 1939.

clear traces of a similar floor at about the same level in the northwest corner of the transept,<sup>17</sup> but by June 2 was still unable to find traces of such a floor in the nave: "Haven't found a floor on the Nave yet - either it was totally destroyed or it's still deeper than the depth I've gone."<sup>18</sup> On June 5 he returned to the transept, and attempted to find traces of the floor in the southwest corner, without success. "Most discouraging – 2 weeks ago I found a floor in the northwest corner of transept, but now can't find a trace of same in southwest corner."<sup>19</sup>

On June 6, Witkind excavated a trench in the center of the nave of the standing church, running north to south at right angles to the nave walls. The earth filling the central area of the nave was "very sterile;" in addition to burials, which he mentions only in passing, Witkind found "almost no potsherds (no Spanish ware) – some charcoal and bits of plaster, no ash or wood fragments." At a depth of three and a half feet, he reached "what 'looks like' a rock floor— at least the rocks are morticed with adobe mud and don't appear to 'just be there' or to have fallen."<sup>20</sup>

Witkind discussed his reasoning behind the identification of this lower surface as the original church floor: "This floor I'm on may be the floor of the first Mission built in 1617 because considering 100 years absence (1838 to 1938) 3 ft. is a lot of fill considering fact that nave was more or less sheltered by walls— very little wall material seems present as fill is not full of lumpy material of broken up brick. However except for possible adobe floor in transept (N.W. corner) there is no other indication of floor [above the stone "floor"]. The floor of 1694 may have been destroyed. Considering the vandalism displayed on this site. However, again if the floor level was say approximately ground level now it would make the doorways awfully low. In the door of the south transept I can't pass thru without ducking my head. I'm 6'1" tall, and I've taken out four inches of windblown fill as it is." He extended the trench to the nave walls "to be sure it is a floor— when I reach both walls I'm digging another trench at right angles to the first and crossing it to make doubly sure." At least one of these right-angled trenches was excavated along the inside face of the south wall of the nave.<sup>21</sup>

Witkind returned to the investigation of the lower floor on June 19 and 20. His journal gives more details about the appearance of the floor he had found. "Have spent the day trowelling the last 6" to the floor - only on the south side next to the nave transept corner does it look like 'laid' floor. All the rest of the area looks like virgin rock, soft sandstone— badly worn and pitted and hollowed out in spots. It looks to be as if the padres took advantage of the Mesa caprock, which at the time of the building of the Mission was probably bare at this point

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<sup>17</sup>Witkind, "Journal," June 5, 1939. The week of May 22-26, 1939, is missing from the typescript of Witkind's journal; this reference to what he had found during that week was made a week later.

<sup>18</sup>Witkind, "Journal," June 2, 1939.

<sup>19</sup>Witkind, "Journal," June 5, 1939.

<sup>20</sup>Witkind, "Journal," June 6, 1939.

<sup>21</sup>Witkind, "Journal," June 6, 1939.

and used same for foundation. Close to the walls where wearing is not so pronounced the floor is flat and even with an overlay of white clay. . . . what I thought was flagstone is in reality the virgin or natural rock foundation, with a sufficient overlay of adobe to make a floor— in some spots the adobe is not over 2" thick, but in hollowed out places in the rock and in pockets it runs sometimes as high as 6" to 8"— looks puddled— quite a bit of coarse sand, potsherds and charcoal— for a base between floor and cap rock is a thin layer of red sand."<sup>22</sup>

The fill in this area of the nave was full of structural artifacts: "There were bones, bits of wood, charcoal and lumps (large and small) of white plaster clear to the rock level. . . . The potsherds at this level are quite mixed— Stage IV Cienega yellow— Puerco B/R, P.I. etc. However a copper button came up in the fill also a badly oxidized buckle, which looks like iron which has been under enough heat to commence oxidizing it." He observed that the south nave wall of the standing mission was "rock clear up to surface level, where I find adobes being used."<sup>23</sup> This suggests that the standing church had stone footings under its walls extending all the way to the bedrock. Hayes's cross section drawing of the church at this point shows no footing under the adobe wall; the stone foundation of the early church is shown on Pinkley's map as offset to the south almost the full thickness of the standing church walls – but Hayes's drawing may be an interpretation of how the lower foundation is shown on the plans made for Jean Pinkley, rather than based on Hayes's having actually looked at these foundations. For this report, I will accept Witkind's direct observations over a set of sketches by Hayes without known supporting information. That is, the north face of the south wall of the standing church is apparently built directly above the north face of the south wall of the earlier church, rather than offset perhaps two feet to the north, as shown on the Pinkley plans.

Witkind again returned to the question of when the deep floor was built. "What bothers me now is the floor question— is the rock floor the 1617 model or or the 1694 model . . .?"<sup>24</sup> There was no other floor in this area than the deep floor on the bedrock of the mesa, Witkind said flatly: "from the base of the concrete cap to the rock floor there has been nothing found which even faintly resembles a floor— if there was a second floor above the level of the rock floor it has been totally destroyed."<sup>25</sup>

On July 6, Witkind accepted that the deep floor was associated with the pre-Revolt church, and went back to looking for the floor of the standing church up at the level that Nusbaum had left the church floor. "I looked along walls for floor where ground was highest but still didn't find any trace; however, in as much Dr. Nusbaum dug trenches for his adobe cap all around inside edges of floor, what little remained might have been destroyed . . ."<sup>26</sup> Finally, on

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<sup>22</sup>Witkind, "Journal," June 19, 20, 1939.

<sup>23</sup>Witkind, "Journal," June 19, 1939.

<sup>24</sup>Witkind, "Journal," June 19, 1939.

<sup>25</sup>Witkind, "Journal," June 19, 1939.

<sup>26</sup>Witkind, "Journal," July 6, 1939.

July 18 Nusbaum responded to a letter of enquiry sent by Witkind, and explained that he had based his concrete footings at the height of the floor that he had seen in the church. The level as indicated by Nusbaum "would bring the level of the Mission floor at same grade (approximately) with floor found in passageway [the main sacristy and Area I]; with the general floor level of the convent some 2½ [feet] below the grade of the passageway and mission."<sup>27</sup>

In August, 1939, Witkind found further traces of the pre-Revolt church under the Baptistry. On August 8, he wrote: "Cleaned floor on room #8 [baptistry] . . . About midway in room have uncovered two low walls running from the north and south walls and extending about ¾ of way across room"<sup>28</sup> These two walls were the north and south halves of the east wall of the pre-Revolt sacristy, separated by its doorway eastward into a smaller room largely under the south bell tower and east baptistry wall of the post-Revolt church (Figure 7.22). A week later, on August 16, "Traced out two walls to west of Baptistry. From the way the walls are piled on top of each other (also floor levels) it looks as if I'll have to make a complete X-section of the whole west side of the monastery."<sup>29</sup> These two walls are probably the west wall of Room 53 and the terrace wall a few feet west of it.



**Figure 7.1.** Bill Witkind standing in front of the eighteenth-century church, looking at his excavations that uncovered the southwestern corner of the seventeenth-century church. W. J. Mead photograph MNM #6508, December 4, 1940.

In late 1940, Witkind again returned to the area of the Baptistry to carry out the cross-section he had planned. The Mead photos of December 4, 1940 show the excavations underway. In the Mead pictures, the walls of the pre-Revolt sacristy and Room 53 can be made out, as well as the east wall of the post-Revolt Baptistry. Had Witkind had a little more time, he might well

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<sup>27</sup>Witkind, "Journal," July 18, 1939.

<sup>28</sup>Witkind, "Journal," August 8, 1939.

<sup>29</sup>Witkind, "Journal," August 16, 1940.

have outlined the massive masonry of the west end of the pre-Revolt church, and recognized the earlier building as different from the post-Revolt standing structure. Unfortunately, the project came to a stop about mid-December, 1940, and the chance was lost.

#### The Nave of the Post-Revolt Church

Witkind removed the concrete buttressing from the wall bases in the nave as part of his stabilization work. In the process, he observed some pertinent details about the plan of the standing church. On January 10, 1940, for example, Witkind wrote: "At the facade the cement is from 1 foot to almost 20 inches thick and harder than hard. If Dr. Nusbaum added the cement capping on to the original wall surfaces the Mission as is now would be considerably bigger than it originally was . . . ;" that is, the face of the concrete was twelve to twenty inches out from the line of the original wall face. Information from Kidder's notes indicate that the top edge of the concrete was ten inches out from the wall face, and twenty inches deep from front to back edge;<sup>30</sup> since the buttressing sloped outward, the base could be another ten inches out, depending on the angle of slope. Witkind continued, "with the cement still on, the entrance at the Facade was 12'3" [wide] — with cement off it is almost 15 ft. or 14'10½" to be exact." The last measurement matches that of the space between the stone footings at the front of the mission, not the width of the opening of the doorway. These observations and the determination of the relationship between Nusbaum's concrete reinforcement and the original church walls became critical in 1967, when Pinkley decided that Nusbaum and Witkind had rebuilt the entire front half of the building without following the original plan; because of this, she argued for the demolition of the nave outline and its complete reconstruction according to her own plan.<sup>31</sup>

#### The Sanctuary of the Post-Revolt Church

On December 5, 1939, Witkind investigated the area of the apse of the post-Revolt church: "Started digging out fill dirt in Altar. Very sterile, few miscellaneous potsherds, several stray, small human bones. I'll see what tomorrow brings, but I don't think I'll find any stray priests . . ." <sup>32</sup> The region of the altar and stairs had already been more or less completely excavated by Nusbaum and Kidder in 1915, finding several coffin burials under the stairs. There was little else to be found here. In May, 1940, Witkind and the crew built a new altar platform and altar steps, as well as the "bases for north and south side altars in sanctuary."<sup>33</sup> Pinkley did

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<sup>30</sup>"Kidder Notes, 1915-Daily Record," July 30, 1915, pp. 16, 17.

<sup>31</sup>Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966; Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

<sup>32</sup>Witkind, "Journal," December 5, 1939. In the margin, Pinkley wrote: "If you only knew."

<sup>33</sup>Witkind, "Journal," May 24, 1940.

not like the appearance of this reconstruction and in 1968 rebuilt the stairs to a plan "following Kidder's photographs."<sup>34</sup>

#### The Northeastern Sub-sacristy

Witkind examined the northeastern sub-sacristy in early April, 1939, while landscaping the ground along the north side of the church. In the process, he noticed "several large beams" buried in the fill of the room.<sup>35</sup> These beams had apparently fallen from the roof structure of the room since Nusbaum's excavation here in July, 1915.

In mid- February, 1940, Witkind returned to the northeastern sub-sacristy: "There should be a room on north side of apse because corbels are still in place; one beam is still in place; and what looks like the remains of roof boards high up on the transept wall." One consideration that had prompted him to put this excavation off for almost a year was the certainty that he would find a number of burials in this corner space: "If I dig looking for wall foundations I'll most certainly hit more burials. I found several above base of cement last spring; child burials in very poor condition, not worth saving which I reburied."<sup>36</sup> This and other references earlier to burials above the base of the cement footings added by Nusbaum in 1915 indicate that the church and sacristy rooms continued to be used for burials after the Kidder/Nusbaum work. Witkind himself considered that the burials were "probably quite recent."<sup>37</sup>

On February 19, Witkind began excavations to trace the walls outlining the northeastern sub-sacristy, digging a trench two feet deep along the outside face of the wall. "We found a wall 30" wide and about 8" below surface of present ground level. Lower part is laid rock and adobe mud, upper part of six inches or so is laid brick . . ." The fill inside the room was the usual mixture of broken adobes, ash and charcoal. The crew trenched along the inner face of the north wall in the afternoon, confirming that in this area it had an average width of "about 30 [inches] or perhaps 2 ft — 3 courses of brick with a rock footing wall below."<sup>38</sup>

The work in the sub-sacristy continued on February 20. He found an adobe brick floor in the room during the day, although it had been disturbed in places by the graves for the later

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<sup>34</sup>Pinkley "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP: "The 1915 restoration [of the sanctuary] was inaccurate in all respects"; the "Sanctuary was not rebuilt as a plan for reconstruction will have to be drawn based on our findings and Dominguez' description." Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP: "The sanctuary of the 1700 church has been cut back preparatory to replacing the steps and altar section following Kidder's photographs."

<sup>35</sup>Witkind, "Journal," April 6, 1939.

<sup>36</sup>Witkind, "Journal," February 13, 1940.

<sup>37</sup>Witkind, "Journal," February 19, 1940.

<sup>38</sup>Witkind, "Journal," February 19, 1940. Nusbaum had been able to see the traces of the north sacristy walls, and plotted them on his map of the church and convento in 1915.

burials. He added that he "mapped in sacristy room today."<sup>39</sup> February 20, 1940, was the first date that Witkind used the number 9 in association with the northeast sacristy. Note that this sacristy is marked on the available map. This indicates either that Witkind could see the outline of the walls of the sub-sacristy as early as May 12, 1939, when the first map was drawn (Figures 7.10, 7.11), or that he added information to the map after it was drawn. The next day, February 21, 1940, Witkind stabilized the enclosing wall of the sub-sacristy: "Laid up wall in Room #9 to two courses above ground level so if and when I lay more brick the wall will be comparatively easy to find."<sup>40</sup>

Sometime during these days, Witkind filled out a room excavation report for the northeastern sub-sacristy.<sup>41</sup> The notes are dated "Winter-1940": this is the period of January, February, and March, 1940. The general content of the notes suggests that they were filled out before stabilization of the room began, indicating that they were probably written on February 20. Witkind remarked in these notes that he saw traces of a fireplace in the northeastern corner of the room, as indicated by a burned area on the floor "in general shape of fireplace and apron." He mentioned patches of white plaster on the walls of the room, and said that the walls were built of "old type brick," with dimensions of 22 by 11 by 4½ inches.

#### Southeastern Sacristy

Witkind and his crew began to clear fill from the southeastern sub-sacristy, on July 24, 1939: "working at floor in room directly to south of altar thru arch door (Sacristy?) — floor level here at 8" below present ground level, 2'1" below top of wall (at corner of Room #2 and Room #3) . . ."<sup>42</sup> However, the apparent floor turned out to be less certain as time passed. Only one day of work was mentioned in the daily journal for this period.

On November 16, 1939, Witkind returned to the area, and this time had his crew dig to a new floor level for his "Sacristy to south of Apse," to which he assigned the number 12 about that date. He made the floor of the room "about 6" deeper to establish an arbitrary floor level which corresponds in depth to floor level in passageway. Did this so as to have everything on as much as same level as possible."<sup>43</sup> The crew finished the excavation of the room to this new arbitrary level the next day, November 17, 1939.<sup>44</sup> In the first two weeks of March, 1940, the room was renumbered W-11.

#### Area I (Zeinos Chapel and Main Sacristy)

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<sup>39</sup>Witkind, "Journal," February 20, 1940.

<sup>40</sup>Witkind, "Journal," February 21, 1940.

<sup>41</sup>Room notes Winter-1940, Room 9, in the Laboratory of Anthropology, site files, LA 625.

<sup>42</sup>Witkind, "Journal," July 24, 1939.

<sup>43</sup>Witkind, "Journal," November 16, 1939.

<sup>44</sup>Witkind, "Journal," November 17, 1939.

Because the Dominguez report was not available to Witkind, with its references to an “old church” just south of the nave of the standing church, he saw nothing unusual about the room south of the church, between it and the convento. He referred to this space as the “passageway,” “covered passageway,” or “ramada.” His first excavations in the area were on March 21, 1939: “opened up door from Room #5 into ‘covered’ passageway or Ramada just to south of main mission.”<sup>45</sup> At this time, Witkind's Room 5 was the eastern three-quarters of the north cloister; it had just been given that number the night before (Figure 7.5). The “door” mentioned here is the large opening from the cloister into Area I, and apparently dates to the pre-Revolt plan of the convento.



**Figure 7.2.** Area I and Witkind rooms 4, 5, and 6 on May 5, 1940. Photograph by Bill Witkind, Pecos neg. #3336.

In the process of clearing fill from Area I, Witkind found traces of what he called “murals” on the walls. On April 6, he mentioned these in passing: “The weather has been too unsettled and wet the last ten days to do much with the wall murals in the passageway, till things get good and dry I’m leaving them covered because it would take just one good rain to really mess them up . . .” The context of these remarks indicate that the painted plaster was in either the last sacristy or the Zeinos Chapel.<sup>46</sup> Finally, on April 12, Witkind was able to examine the painted areas of the wall more closely, and made it clear that they were in the “Passageway,” Area I. He “started a little exploratory work on the murals in the passageway between Mission and Monastery — it’s a ticklish job — the wall is in several layers — #1 layer-mud; #2, 3, 4, successive layers of white plaster; murals are on #4 layer, or rather 3rd layer of plaster — over the murals is another layer of white plaster and over this is a thin coating or patina of thin red mud — the paint seems quite gummy as tho perhaps containing some vegetable base; perhaps

<sup>45</sup>Witkind, “Journal,” March 21, 1939. Note that Witkind followed the California style of using the word “mission” to mean the church specifically, and he called the convento the “monastery.”

<sup>46</sup>Witkind, “Journal,” April 6, 1939.

like the black devils claw — chipping doesn't seem to do much good for the paint sticks to the plaster and the plaster seems to stick to the paint."<sup>47</sup> It is possible that the layers of white and red over the painting were also part of the same decoration. Witkind made no further reference to these painted walls in his notes, and there is no indication of his seeing any pattern or design in the painting. No photographs of the wall paintings have been found, and all the plastered surfaces fell from the walls of Area I over the next few years. It is likely, however, that Witkind was seeing traces of a painted dado around the walls of the Zeinos Chapel, dating from 1694-1715.

From May 18 to July 18, 1939, Witkind traced a floor in Area I as part of his effort during this period to determine the height of the floor in the standing church: "think I've found a floor in the door in south transept — anyhow it's extremely hard packed adobe from 6" to 8" thick — am having the boys clear out a fairly wide area in the "covered" passageway to try and see what the extent of the flooring is."<sup>48</sup> On July 5, he removed the adobes that sealed the doorway in the north wall of Room W-3 (the present Room 3). At the level of the doorsill, he found an adobe floor in the main sacristy along the sides of the room, as well as along the sides and west end of the Zeinos Chapel to the west.<sup>49</sup> Several days later, on July 11, Witkind found the traces of three steps up from Room 3 to the main sacristy on the floor of the unsealed doorway. He described these steps: "height 6½ inches each from floor of room #3 thru sealed doorway into north wall thru to passageway — I say three steps advisedly due to fact that in passageway I have only about 2 sq.ft. uncovered due to lack of space — (space taken up by scaffolding and brace supports on south transept wall) top step may be a step and it may be a floor level — if a floor level it is at practically same level as the small piece of floor found in west end of passageway."<sup>50</sup> The next week he was able to clear out more of the main sacristy and Zeinos Chapel to check on this probable floor, "just to make absolutely certain it was a floor — it was and is altho it is in rather poor condition."<sup>51</sup> Finally, Witkind received the letter from Jesse Nusbaum that cleared up the question of the floor levels in the church and passageway. The church floor and passageway floor were at the same level, and about 2.5 feet above the floor of the convento.<sup>52</sup>

On August 8, 1939, Witkind located the doorway that opened from the Zeinos Chapel into the convento: "Cleaned floor on room #8 [west quarter of North Cloister] today . . . Think tho there is a sealed door in the northeast corner up next to the southwest corner of the Mission

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<sup>47</sup>Witkind, "Journal," April 12, 1939

<sup>48</sup>Witkind, "Journal," May 18, 1939.

<sup>49</sup>Witkind, "Journal," July 5, 1939.

<sup>50</sup>Witkind, "Journal," July 11, 1939.

<sup>51</sup>Witkind, "Journal," July 17, 1939.

<sup>52</sup>Witkind, "Journal," July 18, 1939.

and connecting with the passageway."<sup>53</sup> This was a doorway four feet wide on the south side of the wall, but only about two feet wide on the north side; Witkind said the plan of the opening was L-shaped, which matches the plan on the map of May 12, 1939. There was a raised step or steps, eighteen inches high, into Area I. Photograph PECO 841 shows a closeup view of this doorway, with the steps and the variations in wall structure clearly visible.<sup>54</sup> The photograph and Witkind's plan show that the opening from his Room W-8, later Room W-7 and now the west quarter of the north cloister, was associated with the doorway from Area I (the Zeinos Chapel) into the Baptistry. The same overlapping doorway was mapped by Nusbaum and Adams in 1915 (Figure 6.8), and more information about it was recorded by Pinkley in October, 1966 (see Chapter 9).<sup>55</sup>

### Excavations in the Convento

Although historians had been wrong about the church and its continuous use from the 1620s, with occasional major reconstructions, this concept would apply quite well to the convento. Witkind assumed that the convento would have been repaired, remodeled, and rebuilt, although since he did not work out most of the plan of the structure until late 1940, he was never sure which walls could be considered one or another of these activities.

Witkind's rather disastrous numbering technique was to assign room numbers to general areas as the excavations progressed, and if it became clear that a given space was not a room or was more than one room, the numbers would be changed. Sometimes he rearranged the numbers simply so that they followed a better sequence from right to left across the plan. It should be recalled that Witkind was just out of school, and had very little field experience. The experienced excavator knows that this sort of renumbering should never be done, because the change in number has to be carried through to every room note, photographic record, artifact and burial sheet, and the daily journal, and all references to the renumbered room in the discussion of other rooms must also be changed. It is better to leave numbers as they are first assigned, even if subdesignations like "Room 3a" or "Room 12(2)" result. Even renumbering as part of the final preparation of the report should be done only as a last resort, because this would make a difficult job for people trying to go back through the field notes.

But Witkind hated to waste numbers; he constantly fiddled with his room numbers. On a few occasions, he moved several numbers at the same time, but more often he moved only one or two numbers around, occasionally switching numbers back and forth between two rooms. A room was always given the lowest possible number; when a lower number came free, all rooms with higher numbers were renumbered. The original numbers were apparently never changed in any notes made before the renumbering. Witkind would call a room by its old number in one

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<sup>53</sup>Witkind, "Journal," August 8, 1939.

<sup>54</sup>Witkind Room Notes, prepared in June, July or August, 1939, Room 7, PNHP; PECO 841, Eric Reed, ca. May 15, 1939, PNHP.

<sup>55</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

entry, change the numbers that night or over the weekend, and identify the room by its new number in the notes for the next workday without any comment on the change. The renumberings apparently took place on his sketch plans of the rooms he was excavating; since these plans are unlocated, this makes it very difficult to be sure which space Witkind was describing when he spoke of a particular room number. However, an intensive comparison of his references to the spatial locations of rooms, and to what he saw as he dug into the rooms, allowed many of the changes to be sorted out. The photographic evidence cleared up most of the remaining questions. Of course, these remain guesses, and until the rest of Witkind's notes and plans are found, there will always be some uncertainties.

In the following, all rooms are referred to by their room number as assigned at that time by Witkind, with the present room number in parenthesis. This complex notation is needed to form a link between Witkind's daily journal discussions of his room work, and the probable room in which it occurred as presented in this report. When a Witkind room number is mentioned in the discussion, it will be identified by the letter "W." For example, "Room W-5" means the room Witkind is calling number 5 at this point in his notes. When Witkind's sequence of excavation is being discussed, the room number will look like this: W-8 (14), meaning his room 8, today numbered 14. In some cases, there is a Witkind room number for a space that has no number at present; for these rooms, a descriptive phrase will be used in place of the present number. For example, Witkind originally assigned the number W-4 (7) to the room between W-3 (3) and W-5 (east 3/4 of north cloister). When Witkind decided W-4 (7) was two rooms, he made one of the two W-4 (7), the other W-5 (passageway north of 7), made the original W-5 (east 3/4 of north cloister) into room W-6 (east 3/4 of north cloister), and made W-6 (4, 5, 6) into W-10 (4, 5, 6). Later, he made W-10 (4, 5, 6) into W-8 (4, 5, 6) and assigned W-10 (no present number) to the area he called the Baptistry. This may sound complicated and confusing, because it is. The plan of the rooms must be consulted constantly to make sense out of the discussion. Only Witkind's numbers are shown on these plans. Compare them to the final room numbers shown on Figure 10.1

### Wall Tracing and Testing of Rooms

Witkind used the "metric" method of stratigraphic excavation, usually removing the earth in six-inch layers regardless of the thickness of the natural stratigraphy. He also trenched along wall lines in order to outline rooms, and showed no awareness of the possibility of tying room stratigraphy to wall construction. His wall tracing trenches were usually about two feet deep, and in some cases he had the crew excavate the entire room to the same depth of two feet, "taking topsoil off," as he called it.<sup>56</sup>

Witkind could see some indication of a plan of the rooms on the surface, although not as well as Nusbaum. He marked out and numbered the first several rooms before any wall tracing had been conducted. These were rooms W-1 (2), W-2 (1), and W-3 (3), roughed out on the ground by February 13, and on that date he began test excavations in room W-3 (3). Fallen

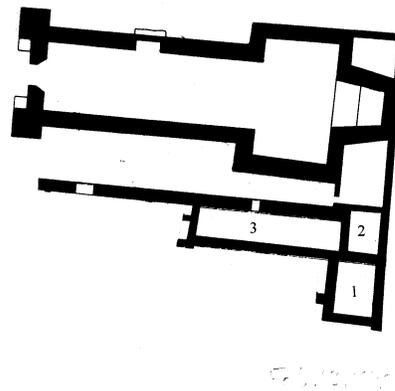
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<sup>56</sup>Witkind, "Journal," February 13, 1939.

roof beams began to be visible immediately. Witkind carried out an initial survey of the rooms the same day, using only a measuring tape.<sup>57</sup>

During February 14, Witkind traced more walls, hampered by the frozen ground and the difficulty in distinguishing between the adobe walls and the fill dirt, composed largely of melted adobe of the same color. He found several more beams lying within 6" of the surface but "have merely staked position and left them in situ. Will not attempt removal until regular excavation of rooms begin." By the end of February 15, Witkind had found several more good-sized logs.

While the walls of new rooms were being followed during the 14th, Witkind had two men dig a test pit three feet square and three feet deep, apparently in room W-3. He found few artifacts in this area in the top three feet, a good indication that he was digging through melted red brick.<sup>58</sup> Room W-4 (7) was probably marked out on this day, west of room W-3 (3).



**Figure 7.3.** The extent of Witkind's excavations as of February 13, 1939.

On February 15, he trenched rooms W-3 (3) and W-4 (7) to a depth of two feet. Even at two feet below the ground surface, he remarked, he was still three feet above the level of the floor of the church. Based on this, it is clear that when Witkind began excavation the ground surface at rooms W-3 (3) and W-4 (7) was about 5 feet above the floor of the church as left by the Nusbaum excavations in 1915, approximately equivalent to the bases of the concrete reinforcements built by Nusbaum; these reinforcement bases are at an elevation of 6926.28 feet, indicating that prior to excavation the ground surface across rooms W-3 (3) and W-4 (7) were at an elevation of approximately 6931 feet.<sup>59</sup>

<sup>57</sup>Witkind, "Journal," February 13, 1939. Witkind did not specifically refer to the use of a tape, but his description of his actions indicate that this was the way it was done.

<sup>58</sup>Witkind, "Journal," February 14, 1939. Red brick, made from clean red clay not associated with trash midden dumps, has few, if any, artifacts.

<sup>59</sup>Witkind, "Journal," February 15, 1939.

On February 16 Witkind tried to stake the outlines of and measure rooms W-3 (3) and W-4 (7); the trenches and heaps of back-dirt prevented a clear layout of these rooms. However, Witkind had his crew excavate in the approximate area of room W-3 (3) to a depth of four feet, and was dismayed to find that he still had not reached the floor at that depth. The number of beams found in the rooms continued to increase: "Quite a number of large beams to measure and take out — will do so if and when I get some dope [wood preservative]."

The presence of these large beams, probably roofing vigas, across the area of rooms W-3 (3) and W-4 (7) indicates that this area of the convento collapsed over time after abandonment, rather than being burned out or extensively robbed of all its usable wood. Some wood robbing may have occurred, as well as the removal of adobes from the ruin, but still most of a two story structure of adobe and wood had melted and collapsed here; even with some robbing, many vigas and adobes would be left over or discarded as useless.

Witkind noticed the major characteristic of the early walls in which he was working: "Walls on monastery different from those on Mission as to color - bricks were of grayish black material while courses were of dark red clay giving a two tone effect — very pretty but hard to trace — bricks seem to have charcoal in them . . ." This description would apply to both W-3 (3) and W-4 (7), both of which had black brick walls extending east and west.<sup>60</sup>

By February 20, Witkind had given up on attempting to salvage the numerous large beams he was finding in the ground: "took out several large logs, but they were in too poor condition to save. Unless I find any carved specimens or specialized forms such as corbels etc. will not attempt to preserve . . ." The complexity of the plan of the building was already becoming apparent: "the crew found 5 corners this afternoon — I don't think this place was anything but a maze."<sup>61</sup>

As of February 23, Witkind had roughed out the general outline of rooms W-1 (2) through W-4 (7), and had begun on room W-5 (4, 5, 6), established that day.<sup>62</sup> In the room notes for W-3, dated "Winter, 1939," (January-March, 1939) the room south of room W-3 is indicated as room W-5, and on the photographs of (4, 5, 6) later, it is also referred to as room W-5. Although marked out among the first three rooms, rooms W-1 (2) and W-2 (1) had received no attention during this initial outlining and trenching. Finally, on February 24, Witkind began work on the outlining of these rooms. Room W-1 (2) was not among those mapped by Nusbaum and Adams, and therefore probably had not been used after the destruction of the Revolt; the difference in the period of use was reflected by a difference in the level of the floor: "from test trenches dug I am of opinion that floor levels [in the area of room W-1 (2)] were not at same level, giving a sort of stepped ground plan."<sup>63</sup> Witkind was unaware of this probable time

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<sup>60</sup>Witkind, "Journal," February 16, 1939.

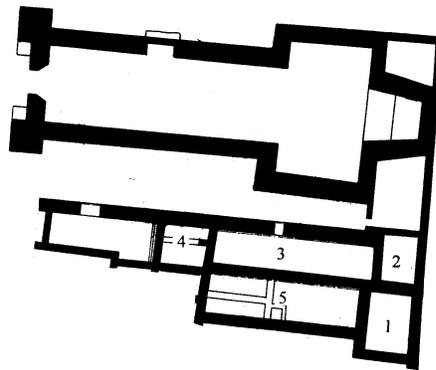
<sup>61</sup>Witkind, "Journal," February 20, 1939.

<sup>62</sup>Witkind, "Journal," February 23, 1939.

<sup>63</sup>Witkind, "Journal," February 24, 1939.

difference – his method of excavations was not going to spot it, either. Only a trench across the middle of the room from wall to wall and a close inspection of the full profile would see this.

Work on outlining room W-2 (1) continued for the next two days. Room W-2 (1) had been built late in the pre-Revolt period, and then repaired and put back into use after the reoccupation. This sequence of events was apparently reflected by the presence of two distinct floor levels, found by Witkind on February 27.<sup>64</sup> Work on outlining room W-2 (1) was finished on February 28, and the next several days were devoted to laying rock on the defensive wall. Two days were lost to snow.<sup>65</sup>



**Figure 7.4.** February 24, 1939.

Finally, on March 6, the weather improved enough to resume testing and trenching in the convento. The crew returned to the area of room W-3 (3), digging along the walls and testing in the main area of the room.<sup>66</sup> By the next day, Witkind had identified the benches that extended along the north and south walls of room W-3 (3), and located two floor levels.<sup>67</sup> This work continued on March 8. At the same time, a few crew members continued trenching the walls of room W-4 (7). Part of the fill in this room was left as a wheelbarrow ramp for a few weeks.<sup>68</sup>

<sup>64</sup>Witkind, "Journal," February 27, 1939.

<sup>65</sup>Witkind, "Journal," February 28, 1939.

<sup>66</sup>Witkind, "Journal," March 6, 1939.

<sup>67</sup>Witkind, "Journal," March 7, 1939.

<sup>68</sup>Witkind, "Journal," March 8, 1939; see March 20 for mention of wheelbarrow ramp.

After digging tests through several floors in room W-3 (3), on March 9 Witkind had decided which floor was the one he would leave in place. Witkind was very concerned with floors because the rules of excavation imposed by the CCC required that he excavate only down to the floor of the structure. At Pecos, with its long period of use and at least one known, major episode of destruction, this rule made for a difficult choice for Witkind: at which floor was he to stop? He apparently decided that, as a rule, he would stop at the floor last used while the building was still a mission, rather than a higher floor used by squatters or herdsman. He therefore had to penetrate the floors, and try to decide which surface was associated with the last period of the mission, and which was post-abandonment; for example, on April 26 he stated that he had "found from 3 to 4 floor levels at 3 different places now — am using top floor as present depth level until later excavation."<sup>69</sup> Floors from earlier periods of mission construction were to remain buried, except when he had to dig more than usual to determine at which floor to stop.<sup>70</sup>

George Carr of the National Forest Service, who would later help Corbett map the South Pueblo, made his surveying skills available to Witkind beginning on March 15. Carr made his own plane table, and began two days of surveying of the pueblo, church, and convento ruins, and locating them relative to known Land Office markers and section corners.

The "level and plane table" method of surveying involves using a small, light range-finding telescope with a built-in bubble level mounted on a flat, smooth base with a straight-edge and scale, called a "level." The plane table is set up so that its surface is level, a piece of paper is fastened to the table, a pin is pushed through the paper into the board to mark the instrument location, and the level is placed on the paper, resting on its straight-edge base. A crewmember with a range pole moves from point to point on the area to be surveyed, and the draftsman reads the distance to the point through the telescope of the level; this requires a certain amount of estimation for the last one or two decimal places of the reading. The straight-edge and scale allows the direction and distance to the point from the instrument location to be plotted on the paper. For building surveys, critical points are plotted in this manner, and a hand-held tape is then used to measure other components of the ruin, allowing them to be plotted between the known points. The possibilities for error are numerous; the most common is the misreading or misestimation of distances while reading the range pole through the level, allowing errors of one to ten feet for smaller surveys. When surveying structures with some relief, the surviving walls and the mounds of ruins obscure many shots, usually requiring that the table be moved to a different location in order to map different sections of a large structure. Each time the table is moved, errors can easily occur. Most of all, keeping the table level is a critical part of the survey, and for a makeshift table, this is almost impossible to do. As a result, the Carr survey would have been only an approximation, reasonably accurate over twenty or thirty feet, but with increasing errors of relationship between the various parts of the plan beyond that distance.<sup>71</sup>

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<sup>69</sup>Witkind, "Journal," April 26, 1939.

<sup>70</sup>Witkind, "Journal," March 9, 1939.

<sup>71</sup>Witkind, "Journal," March 15, 1939.

Carr's survey continued through March 16. Witkind was surprised at the apparent irregularity of the plan of the church and convento: "The mission survey is most interesting — I had an idea the walls were uneven, but I didn't know how uneven — I believe that Mr. Carr has only found 1 right angle so far." These two days of work, with additional surveying carried out later, formed the basis for a more detailed plan including only the church and convento that Carr and Witkind prepared in May.<sup>72</sup>

Comparing the Witkind/Carr map of May 12, 1939, to the more precise survey carried out in 1966-68, it is clear that several major distortions occurred. In general, the corner locations are skewed clockwise, indicating that measurements to the northeast were regularly a little short, while those to the southwest were a little long. This suggests, in turn, that the makeshift plane table was set up off-level, sloping down to the northeast.

Between March 16 and March 20, Witkind set up a new room west of W-4, and moved the number W-5 from (4, 5, 6) to this room; room (4, 5, 6) became W-6. On March 20, Witkind began excavation in room W-5 (east 3/4 of north cloister). On the same day, Witkind returned to excavation in room W-6 (4, 5, 6) just south of room W-3 (3). At the same time, the excavators continued their exploration for the limits of the convento, trenching for the outermost walls and following these in search of outside corners of the convento compound.<sup>73</sup>

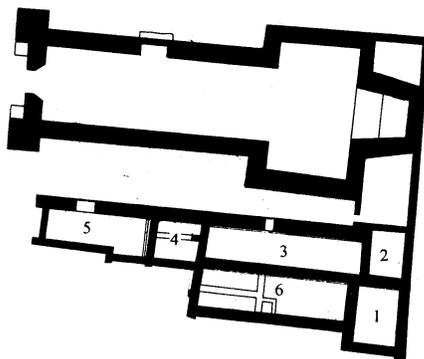


Figure 7.5. March 20, 1939.

Room W-4 (7), "a small room . . . between 3 [3] and 5 [east 3/4 of north cloister]," had been left partly unexcavated, because "wheelbarrows need some place to run on," through March 20. On March 21, Witkind's crew "cleaned out room 4 [7] to floor level." During the same day, the excavators cleared out the sealed door found on March 9 on the south wall of room W-3 (3),

<sup>72</sup>Witkind, "Journal," March 16, 1939.

<sup>73</sup>Witkind, "Journal," March 20, 1939.

between rooms W-3 (3) and W-6 (4, 5, 6), and continued the trenching of the walls of room W-6 (4, 5, 6). They also found and unsealed a door from room W-5 northward into Area I, the Zeinos Chapel, as described above in the section on Area I. Other members of the crew continued to look for additional wall corners in the convento. Meanwhile, Witkind had two trenches excavated southward from rooms W-3 (3), W-4 (7), and W-5 (east 3/4 of north cloister), each two feet deep and thirty feet long, looking for additional rooms south of his northern row. "Doubt if there are any more structures to south . . . no indication of walls — tomorrow if it does not rain will dig two more trenches 4 ft deep — same distance and see if I can find anything." Witkind had already designated room W-6 (4, 5, and 6), and his shallow testing found no other rooms south of this. Excavation in 1966-68 confirmed that the area south of Witkind's room W-6 (4, 5, 6) was an open courtyard through the life of the mission. South of rooms W-4 (7) and W-5 (east 3/4 of north cloister), however, were the remains of the rest of the convento, and his exploratory trenches would soon find indications of this.<sup>74</sup>

On March 23, Witkind began planning for a more detailed base map of the church and convento. The work, directed by George Carr, did not begin until March 30, and continued through April 5. Carr staked out the convento in a ten-foot grid for Witkind to use "to give a more accurate idea of positions of walls, artifacts etc. when I write my field notes. . . ." <sup>75</sup> Unfortunately, we do not have the locations of the corners of this grid, nor did Witkind ever refer to it again. This gridding of the convento may have been inspired by the work of Joseph Toulouse at Abó. In 1938 he had set up a similar grid, and actually used it for some of his mapping.<sup>76</sup> On April 25, Witkind and Carr added a few more walls to the growing plan of the convento.<sup>77</sup> As of early April, the area marked out as the "monastery" measured 158 east to west, and 58 feet from the southwest corner of the "Mission Facade" south.<sup>78</sup> This was what Witkind eventually called "Quadrangle #1." The results were rather like Bandelier's measurements; Bandelier saw quadrangle #1 as 151 feet east to west, and 82 feet north to south. Not until almost a year later, on February 28 and 29, 1940, would Witkind measure his quadrangles #2 and #3 south of this.

From March 31 to April 28, 1939, most of Witkind's time was spent excavating wall-tracing trenches along many of the walls of the main convento in the north quadrangle. On April 4, he began tracing along the north side of the convento next to room W-3 (3), and along the

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<sup>74</sup>Witkind, "Journal," March 21, 1939.

<sup>75</sup>Witkind, "Journal," March 23, 24, 30, 31, April 3, 5, 1939.

<sup>76</sup>James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, Southwest Cultural Resources Center, Professional Papers (Santa Fe: National Park Service, 1988), pp. 303, 305; Joseph H. Toulouse, Jr., *The Mission of San Gregorio de Abo: A Report on the Excavation and Repair of a Seventeenth-Century New Mexico Mission*, vol. 13, Monographs of the School of American Research (Albuquerque: University of New Mexico Press, 1949), p. 8 fig. 3.

<sup>77</sup>Witkind, "Journal," April 25, 1939.

<sup>78</sup>Witkind, "Journal," April 5, 1939.

"southwest corner."<sup>79</sup> Based on Witkind's remarks the next day, this referred to the southwest corner of the church. Here he found the east and west walls of another room, which he would eventually call the "baptistry," correctly, as it turned out. He found the floor level at only one and a half feet below the surface. The "south wall of this room," he remarked, "is W[est] continuation of broad wall separating passage next to mission [the present Area I, the Zeinos Chapel] from northern series rooms in monastery."<sup>80</sup> Witkind was never able to find a clear outline of the north wall of the baptistry; it had apparently been damaged by Nusbaum's excavations of 1915, when he cleared the rubble from the facade of the church. On April 6, excavation in front of the church located the remains of a beam and corbel: "On the facade (south side) I recovered what looks like the end of a large beam (carved) and what appears to be a tip of a corbel, also carved . . ."<sup>81</sup> This may have been a baptistry roofing beam buried in the room fill, or part of the support structure for the choir balcony on the front of the church.

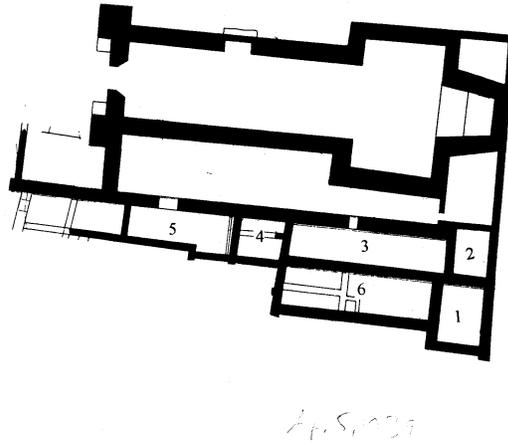


Figure 7.6. April 5, 1939.

On April 5 and 6, Witkind's crew traced the eastern side of the north quadrangle. He found that the eastern face of the east wall was "faced with stone." He suggested that this may have been a later addition to the original structure – this is undoubtedly the high stone foundations of the late eastern wall, added to the earlier, pre-revolt structure of the wall. He found that this "facing" extended more or less to the southeastern corner of the northern

<sup>79</sup>Witkind, "Journal," April 3, 1939.

<sup>80</sup>Witkind, "Journal," April 5, 1939.

<sup>81</sup>Witkind, "Journal," April 6, 1939.

quadrangle, and that the base of the wall foundation on the east side was from one and a half to two and a half feet below the floor level he had stopped at on the inside of the wall.<sup>82</sup>

By April 18, he was trenching along the south side of the main convento, the "low" side, as he called it, where "the walls are not so high."<sup>83</sup> Based on later description on April 19, 1939, and February 26, 1940, these trenches were along the general line of the south side of present rooms 18-24 at the bottom of the slope of the mound of the rooms of the main convento.

Witkind had some idea of what he should expect as the components of a convento plan. He had found the benches along the north and south walls of room (3) on March 7, 1939; this construction looked significant to him, but "till I get whole room excavated and see where I am at I believe I shall not try to write notes on it . . ." Witkind soon decided that this was the refectory, or dining hall, of the convento, one of the standard rooms of a monastery.<sup>84</sup> By the middle of April he had arrived at a hypothetical layout of how the convento rooms and central patio might be within the tangle of walls he was finding. His hypothetical layout is unknown, since he did not discuss it in the available information, and his sketch plans are missing. As of April 19, though, the pattern of walls apparently were not fitting his hypothetical plan particularly well: "from the number of corners I've been hitting on the west side I'm not so certain where patio is now — reckon I'll stop making surmises till such a time when I do find it."<sup>85</sup> However, he apparently never backed very far off from his original ideas; for example, he continued to call room (3) the refectory through at least June 3, 1940. It appears that by December of 1940, Witkind had correctly determined where the patio was, and had excavated a portion of it and many of its surrounding rooms and cloisters.

By April 20, Witkind was expecting to begin full-scale excavations the following week; in reality, he was delayed a week, and did not begin until Monday, May 1. On the 24th his crew was tracing walls on the north and west sides of the convento, and on April 27 he was digging along the outside face of the western walls.<sup>86</sup> However, the wall tracing on the north and west sides was limited, and large sections of these walls were not followed out until late in 1939 and early in 1940.

The various descriptions of wall tracing clearly indicate that Witkind was trenching along all the walls of the convento that he could see or that he located during such trenching. This approach put ditches up to two feet deep along both sides of all walls visible at the surface or within two feet of it. He considered this "tracing," rather than "excavating," which involved emptying dirt from the outlined rooms down to some recognizable floor level. The trenching also stopped at floor level; for example, on April 19 he remarked: "I've been able to trace the

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<sup>82</sup>Witkind, "Journal," April 5, 6, 1939.

<sup>83</sup>Witkind, "Journal," April 18, 1939.

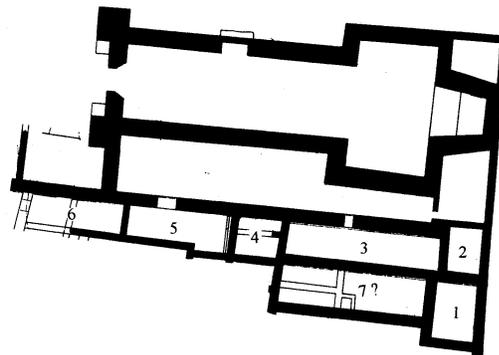
<sup>84</sup>*Santa Fe New Mexican*, May 19, 1939.

<sup>85</sup>Witkind, "Journal," April 19, 1939.

<sup>86</sup>Witkind, "Journal," April 20, 24, 27, 1939.

walls at an average depth of two feet all over except on the extreme inner edge of the south side where I strike floor level at 11 inches."<sup>87</sup> As always, however, it was difficult for Witkind to decide which of the floors was the correct one where his excavation should stop. The WPA required that he stop at the floor of the mission rooms, but in a case like Pecos, where every room had floors dating from several different period, Witkind was put in the position of trying to decide, on very little evidence, which floor was *the* floor, in circumstances where the question was meaningless.

During this period devoted largely to wall tracing, Witkind occasionally would look a little closer at one area or another. For example, on April 18, "I've found one thing to be true of all the doorways so far found [in the southern part of the main convento area]: they're always filled up with rocks – also the goat manure is quite a bit thicker on this side than on other. Walls all have stone foundation from 6" to 18" in height."<sup>88</sup> These filled doorways and thick layers of goat manure in the south areas of the convento clearly show that the place was turned into a goat/sheep corral after it was abandoned. Later, on April 27, he photographed two doorways with different types of fill. One of these was the doorway between rooms W-3 (3) and W-4 (7), sealed with adobe.<sup>89</sup> Photograph PECO 829 is apparently the picture he took of the doorway between rooms W-3 (3) and W-4 (7).



Apr. 26, 1939

**Figure 7.7.** April 26, 1939.

<sup>87</sup>Witkind, "Journal," April 19, 1939.

<sup>88</sup>Witkind, "Journal," April 18, 1939.

<sup>89</sup>Witkind, "Journal," April 27, 1939.

Witkind returned to further testing in room W-5 (east 3/4 of north cloister) on April 26. He "uncovered two long beams both imbedded in wall on each side of room."<sup>90</sup> This was his first sight of the large beams of the stairway at the east end of the north cloister. Photos MNM 44-351 and MNM 44-907 show these beams being uncovered. Apparently Witkind decided to continue westward from W-5 (east 3/4 of north cloister) rather than south of room W-3 (3), and renumbered the rooms about April 26 to allow for this. He shifted the number W-6 from the southern room (4, 5, 6) to the western room, (west 1/4 of north cloister). Room (4, 5, 6) was apparently numbered W-7 from April 26 to May 3; the renumbering about noon on May 3 may have given Room (4, 5, 6) the number W-11 from May 3 to May 9, until it was made W-10 on May 9, 1939.

This brief period of room W-7 (west 1/4 of north cloister) having the number W-6 is strongly suggested by the description of an adobe brick floor found in the room called W-6. Certainly such a floor was found on May 17, 1939, in the room that had been W-6 (4, 5, 6) until the renumbering of April 26, 1939, later W-10 (4, 5, 6). This, however, came as a surprise to Witkind, and no exposure of such a brick floor is seen in the photographs taken of the room when the "criss-cross" timbers were found on May 11. Therefore, this earlier brick floor must be in some other version of W-6, and the most logical location from the discussion is that the later W-7 (west 1/4 of north cloister) (eventually the east part of W-8 [room 14 and west 1/4 of north cloister]) was this space, since it had such an adobe brick floor. Such a first use of the number W-6 (west 1/4 of north cloister) in the later room W-7 would explain why later Witkind thought that the pictures he mistook to be of room W-5 (east 3/4 of north cloister) would show an opening westward into room W-6 (west 1/4 of north cloister).

On April 28, Witkind saw traces of paint in room W-5 (east 3/4 of north cloister), on the north wall a little west of the stairway. "Red Vigil and I worked on the (what I thought) murals in Room W-5 — was sadly disappointed — only a single black line 18" from floor."<sup>91</sup> As with the wall painting he saw in Area I, he made no further mention of this painting in the notes or in the room notes he prepared somewhat later.

### Excavation Begins

By the end of April, 1939, Witkind felt he had outlined enough rooms of the main quadrangle of the convento that he could begin in-depth excavation. This first period of excavation lasted only two and a half weeks, from May 1 to May 19. During this interval, he excavated in Rooms (4, 5, 6), the east 3/4 of the north cloister, the west 1/4 of the north cloister, (8), part of (9), (14), (15), (16), and part of (17), opening an L-shaped pattern of rooms across the convento ruins.

Witkind began May 3 looking for a wall at the west end of room W-6. Although he had not found one by noon, he decided to designate the western end of W-6 as a new room. This triggered a renumbering of all rooms above W-3 (3), resulting in old room W-4 (7) being split

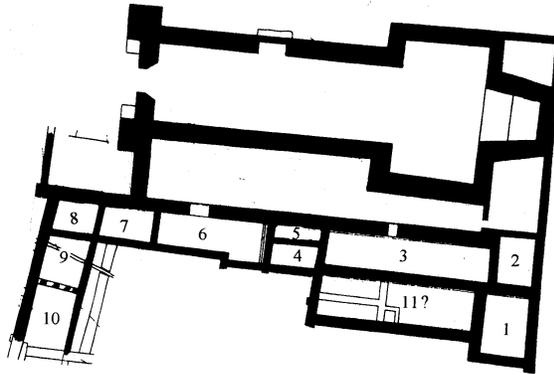
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<sup>90</sup>Witkind, "Journal," April 26, 1939.

<sup>91</sup>Witkind, "Journal," April 28, 1939.

into two spaces, numbered W-4 (south half of Room 7) and W-5 (north half of Room 7), old room W-5 becoming room W-6 (eastern 3/4 of North Cloister), old room W-6 becoming room W-7 (west 1/4 of North Cloister, moving W-7 from Room 4-5-6). He added new numbers W-8 (Room 14), W-9 (Room 15), and W-10 (Room 16) around the patio area. Witkind may have recognized this central area as the patio that he had been expecting since April 19. The number W-11 may have been assigned to Room (4, 5, 6) as part of the rearrangement.

It is not certain that Witkind designated rooms W-9 and W-10 on May 3, although the available evidence makes it likely. The numeral 9 is written faintly on his plan in the western cloister (possibly by Pinkley);<sup>92</sup> presumably W-10 was set up to be the southern part of this space, as Witkind had done earlier on W-7 (west 1/4 of north cloister) and W-8 (room 14).



*Plan 7.8*  
**Figure 7.8.** May 3, 1939.

Witkind carried out a second renumbering six days later, on May 9. This time, he moved W-10 from the area of Room (16) to Room (4, 5, 6), which had been W-6, perhaps W-7, and perhaps W-11 during the previous two weeks. There can be no doubt that Room 4-5-6 received the number W-10 by this date, and that it was different from the space that had been W-10 only a few days before: on May 9, Witkind stated specifically: "NYA boys trenching room 10 directly south of room 3 . . ." He repeated the phrase almost word for word two days later, on May 11.<sup>93</sup> Since W-3 never moved from Room 3, and since there are no other rooms south of Room 3, this location of W-10 can only refer to Room (4, 5, 6).

In Room W-10, Witkind began excavation on May 11 by dividing the room into an east and west half with a line south from the doorway into room W-3 (Room 3). In the southwestern

<sup>92</sup>W-8 and W-9 were both added to Witkind's map in pencil, and never inked in. It is possible that these pencil additions were placed on the map by Pinkley, who, on her sketch plan of (4, 5, 6) added "Witkind's Map Room 8?" - There are 11 numbered rooms. No. 8 is missing; as this room shows as excavated it has been assigned the No. 8."

<sup>93</sup>Witkind, "Journal," May 9, 1939.

corner of the room the crew began to find a "criss-cross formation of logs (fallen)," and Witkind left an unexcavated column of earth in the northeastern corner of the room, to show the stratified layers of fill that had been removed from the room; such a column of earth is called a "stratification column."<sup>94</sup> By May 17, it had become clear that some sort of complex structure had filled the western half of W-10. The "criss-cross" logs had fallen onto the top of an adobe floor that was higher in the west half of the room than the eastern half, the two levels divided by a flight of steps at the present location of the north-south crosswall between Room 4 and Rooms 5 and 6. Witkind summed up the entangled ruins simply: "— don't understand this . . ."<sup>95</sup>

The evidence from the historical documents describing the arrest of Fray Posadas in 1663 makes it likely that this area was the location of the main stairway to the second floor of the pre-Revolt convento, buried beneath the collapsed stairwell walls. This is discussed in Chapter 11, "The Seventeenth-Century Construction at Pecos."

On May 15, National Park Service archeologist Eric Reed visited the excavation. This was one of a series of visits he made. The visit of April, 1938 produced a report of the progress of the WPA work at Pecos as of that date, and a visit on November 27, 1940, produced a second report.<sup>96</sup> During the visit on May 15, 1939, and a later visit on June 27, Reed took a series of photographs showing progress on the excavation and stabilization of the mission. This was an important set of pictures, looking at portions of the excavated convento for which no Witkind images have survived. Reed took PECO 840, looking eastward down the nave toward the area of the sanctuary and altar; an unnumbered photograph looking eastward across Area I toward the south transept; Reed's photograph #7 (apparently without a Pecos number), eastward toward the stairs in the North Cloister; PECO 1355 looking the same direction closer to the stairs; PECO 1354 looking northeast down into Room 7, with the north banco in Room 3 just visible over the top of the east wall of Room 7 in the background; PECO 3086, looking to the west from above the stairs down the length of the North Cloister toward at least two cross-walls visible at the east end of the cloister space; PECO 841, looking north from the patio across the west end of the North Cloister, toward the unsealed doorway from Area I into the North Cloister, with the east wall of the post-Revolt baptistry and the doorway through the south nave wall into the church in the background; PECO 1317 looking north from Room (17) across the areas of (16), (15) and (14); and possibly PECO 3085, also looking eastward at the stairs in the North Cloister. These overview photographs, taken on a known date, are of great value for aiding in the dating of

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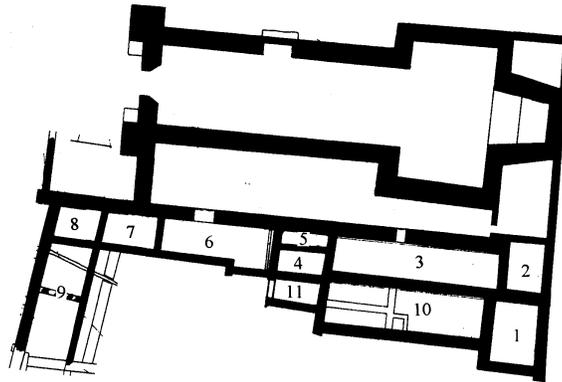
<sup>94</sup>Witkind, "Journal," May 11, 1939. In this journal entry he confused the northeastern and southwestern corners. This is made clear by his description of the stratification column he left in the corner diagonally opposite the fallen logs; the stratification column is visible in the northeastern corner in photo MNM 44-901, and the "criss-cross formation of logs" can be seen in MNM 44-875 and 44-887, looking to the west across the right-angled jog of the wall dividing Room 4 from Rooms 5 and 6.

<sup>95</sup>Witkind, "Journal," May 17, 1939.

<sup>96</sup>Only the 1940 report is presently available: Eric K. Reed, "Supplementary Report on Pecos State Monument, New Mexico," Santa Fe, December, 1940, PNHP.

Witkind's photographs, and for sorting out which of Witkind's room numbers must apply to which room.

On May 17, the excavation crew began work on room W-11 (Room 8). It is clear from photograph MNM 6566 that room W-11 (8) and the doorway between it and W-10 (Rooms 4, 5, 6) had been at least trenched by May 9; however, enough of the fill in the area of the doorway survived for Witkind to note that the opening had been sealed. He considered this room to extend into the East Cloister area, and mentioned two other doorways from it, one through the south wall, filled with stone, possibly a wall built across the East Cloister to extend this room to the west,<sup>97</sup> and a second plugged opening, possibly on the north side, that may have been the juncture between the East Cloister and the North Cloister. He saw two floor levels in room W-11, one about five inches lower than the other. After two days of work in W-11, Witkind stopped work in this area for almost a year, returning in March, 1940.



*May 17, 1939*  
**Figure 7.9.** May 17, 1939.

Witkind mentioned on May 1, 1939, that he had found a large opening in the south wall of the North Cloister, and that this made two openings through this wall. The larger was probably the sealed opening of the East Cloister, and the second, smaller opening was probably a doorway or window into the patio.<sup>98</sup>

On May 2, Witkind had decided that the plan and appearance of the stairway in W-5 suggested that it was a "small chapel," where the stairs at the east end rose to an altar built into the room late in its life. His various descriptions of the space over the next few days never make it clear how he imagined the various walls to fit into such a use; when he said "altar," he was referring principally to the set of stairs up to where he assumed would be an altar platform, not

<sup>97</sup>Witkind, "Journal," May 18, 1939.

<sup>98</sup>Witkind, "Journal," May 1, 1939.

to a specific rectangular altar itself on this platform.<sup>99</sup> Presumably he considered this to have been destroyed, along with the uppermost step and the top of the platform. Such a construction would make all of room W-5 into a late chapel built into the convento, much like the last church built into the convento at Awatovi, found during the excavation of the mission in 1937 and 1938.<sup>100</sup> It is possible that Witkind had either visited these excavations himself, or had heard of the details of the convento excavation at Awatovi, through conversations with those who had. However, the Dominguez description makes it clear that, rather than being part of a chapel, this was the staircase giving access to the second floor of the convento.

Witkind saw extensive structural remains of this stairway, but no specific plan of it as he found it survives. It is surprisingly difficult to work out the actual plan of the four (or five) steps of the stairway actually found by Witkind. The entire area has been modified, and most or all of the stairway was above the level mapped by Arquero in 1966, during Pinkley's excavations. Examining the photographs Witkind took at the time the beams were uncovered, and combining this with a sketch plan of the area made by Pinkley in 1966, allows an approximate reconstruction of the plan of the first few steps of the staircase.

Hayes considered that the stairway ran up through Room 7 to the roof of Room 3, allowing access to the tribune balcony in the church, and it is probable that this stairway did so in the earliest version of the rooms. An examination of Witkind's notes about the stairway indicates that although the stairs began with this conformation, they were later changed to a different plan. The first three steps of the stairs extended the full width of the stairwell, and were in the cloister walk itself. After the third step, the stairs narrowed to half their width. Witkind's notes indicate that the south half of the stairway in the south half of Room 7, his room W-5, had remained open up to the time that the convento was used as a sheep-pen. He found a layer of manure across the remains of the stairs in this area. The north half of the room, however, was full of earth and wall rubble. This probably indicates that the south half of the space was a first, or lower, flight of stairs up to an earthen landing at the east side of the room; from this landing a second, or upper, flight of earthen stairs appears to have turned back to the west along the north side of the stairwell. The change was effected by removing the upper seven steps across the landing area and through the wall, then building the landing at the east end of the room, and then building a new set of seven steps in the north half of the stairwell above the already-existing stairs. The north halves of the lower level of wooden risers of the stairs, extending across the full width of Room 7, were buried in the fill beneath the second flight of stairs in the north half of the room. This fill covered and protected the wood of the risers, preserving them to be found later by Witkind, while the south halves of the risers apparently were open to the air and decayed before and during the use of the area as sheep pens.

The stairs were apparently originally built as a single flight that was the access to the roof above Room 3 and thence to the sacristy roof and through the window/doorway high in the south transept to the tribune in the church, but when the second floor of the convento was built again

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<sup>99</sup>Witkind, "Journal," May 1-2, 1939.

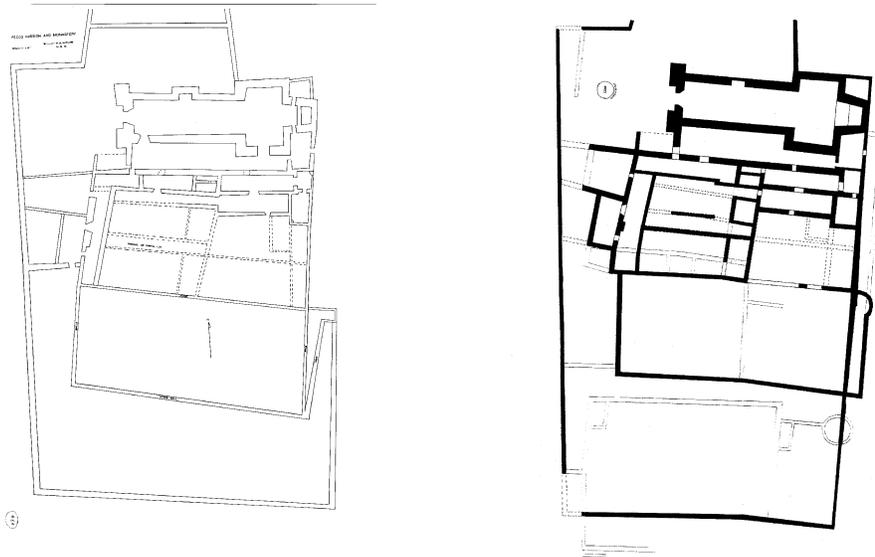
<sup>100</sup>Montgomery, Smith and Brew, *Awatovi*, p. 88.

sometime in the eighteenth century, the stairway was changed to give access to the new floor level, from which the roof of Room 3 and the sacristy could then be reached by a hallway above the south half of W-5 (7).

It is unfortunate that no measurements of the sizes of the beams or the treads and risers of the stairs were made, but the photographs suggest that each step was typical of Spanish colonial stairways on the northern frontier, about one foot across the tread, and a rise of about eight or nine inches. It is clear that the stairs originally continued up across Room W-5 (7), a distance of 21.5 feet to the west face of the west wall of Room 3. The stairs would reach a height of about fifteen feet in this distance, which would take one to the roof of Room 3. If the staircase rose to a landing at the east wall of Room W-5 (7), about ten steps and a rise of a little more than six and a half feet, then a second flight of seven steps over the north half of W-5 (7) rising to the west would take one to the second floor of the convento.

The excavation of the convento ended on Friday, May 19. Two days later, on Monday, May 22, 1939, excavation on the church began, discussed in the first part of this chapter.

#### Drawing the Map of the Convento



**Figures 7.10 and 7.11.** Figure 7.10, on the left, is the Witkind/Carr plan drawn on May 12, 1939. Figure 7.11, on the right, shows the plan corrected.

On May 12, 1939, Witkind wrote in his journal: "Mr. Carr and I mapped all the rooms up to Room W-10 and quite a few existing wall structures." This is the map we have. It is the result of a series of mapping episodes beginning with the drawing of early versions of the plan by George Carr on March 15 and 16, 1939, further surveying on March 30-31 and April 3, the layout of the grid on April 5, further surveying on April 25, and the final mapping on May 12.

The later wall tracings and mapping of February 27-29, 1940, include details of courtyard size and torreon outline that are mentioned in the journal, but not on the available map. The details of the map, and the absence of other details, demonstrate that the map we have dates from the May, 1939, mapping. There are actually two copies of the map in the Museum of New Mexico files. On the original plan (pencilled first, then inked over those lines) he 1) drew in the benches on the north and south sides of Room W-3 (3); 2) inked only the south side bench and forgot to ink in the north side; and 3) did not ink *either* of the two benches on the more finished drawing. Subsequently, 4) someone wrote "8" in pencil into Rooms 4, 5, and 6; and 5) wrote "9" in pencil twice along the western ambulatorio, then marked it out. It should be noted that the room numbers are those of about March 14, 1940, and are those used on Witkind's "Excavation Record" forms on file with the Museum of New Mexico.<sup>101</sup> This indicates that the numbers could have been added to the map by anyone after early 1940. It is likely that Witkind used tracings of this base map for detailed notations and room number changes, but these interim maps have not been found.

At this point, Witkind turned to testing in the church, in preparation for stabilization of its walls. This work occupied the crew for most of the rest of 1939 and the first two months of 1940. However, Witkind assigned some crew members to a few days of testing and one brief period of excavation during this nine-month interval.

#### Testing and Wall Tracing Again

In July, 1939, while preparing for the stabilizing the church and adjacent walls, Witkind excavated most of the room that is presently called Area I – the Zeinos Chapel and the main sacristy for the last church. While he carried out this work, he observed several details of floor level and doorways that pertain to the convento.

As part of the work in Area I, Witkind wanted to establish the level of the floor here. Because of a great deal of disturbance in this area, some of it the result of Nusbaum's work when he emptied a portion of the sacristy as part of his clearing and restoration of the doorway in the south transept (see Figure 6.18), the relocation of the floor was particularly difficult.<sup>102</sup> In the process, Witkind decided to take out the adobes sealing the doorway from room W-3 into Area I, beginning on July 5. While removing the seal, he found "an adobe floor in passageway along edge of passageway on both north and south sides and a small portion along west end." When Witkind uses the word "adobe" in this context, it is uncertain whether he means puddled adobe or laid adobe brick floors, but puddled adobe seems most likely.<sup>103</sup> Continuing the removal of

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<sup>101</sup>William Witkind, "Excavation Record," rooms 1-11, Museum of New Mexico, Laboratory of Anthropology, LA 625.

<sup>102</sup>Nusbaum's work here probably destroyed some of the details of the earlier wall of the first version of the sacristy, beneath the later sacristy floor.

<sup>103</sup>Witkind, "Journal," July 5, 1939.

the door seal when he could spare crewmembers, he found three steps in the doorway on July 11.<sup>104</sup>

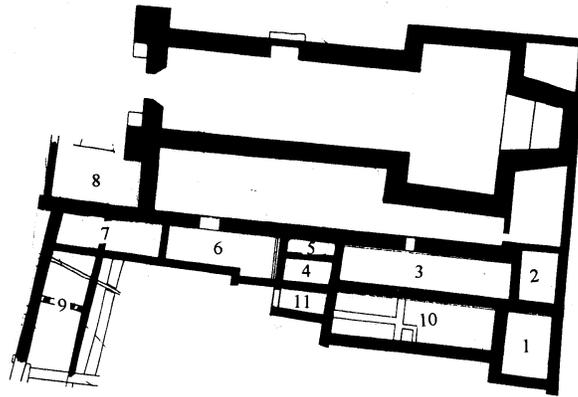


Figure 7.12. August 3, 1939.

During the same period of church stabilization, Witkind explored the room on the southwest corner of the church on July 24, 1939; this was the baptistry, to which Witkind eventually assigned the room number W-10. He had found this room on April 5, and conducted some further excavation on May 15. Witkind had a wall-tracing trench excavated along the inside of the wall, and noted that the floor was "in bad condition and rather badly broken up. Slopes decidedly down from edge of wall. South side of room is 26' long E-W. . . . depth of floor (at SW corner of room) at corner from ground level 1'10" — good plaster on walls." He added, "don't know length of north wall because I have not found corner . . ."<sup>105</sup> One of the two north corners would have been against the facade of the church, and the other would have been somewhere west of the facade, probably about 26 feet from it; however, Witkind was never able to locate such a corner, and could never be sure of the location of the north wall of the room. In his final description in the room notes he described the room as twenty-one feet east to west, and guessed the possible north-south dimension to be nine feet. He added that "perhaps this room had only 3 walls - open to N. and roofed by portion or portal of Facade." This casual remark had a strong effect on future excavators, who saw a direct connection between Witkind's offhand suggestion and the Dominguez description of the *portería* of the convento, which was located

<sup>104</sup>Witkind, "Journal," July 11, 1939. Photograph MNM 44-918 probably made on this day or soon afterwards, showing the doorway partially open with the steps clearly visible.

<sup>105</sup>Witkind, "Journal," July 24, 1939.

in this general area and had approximately this description.<sup>106</sup> This will be discussed in more detail in Chapter 12, “The Eighteenth-Century Reconstruction and Nineteenth-Century Decay of the Pecos Mission.”

### Second Period of Excavation in 1939

After a period of work on the church, concentrating mostly on wall stabilization, Witkind spent August 3-8 excavating Room W-8 (14), and shuffled his room numbers several times during this period. This would be the last excavation he would conduct until February of 1940.

About August 3, the number 8 was assigned to the baptistry, and Rooms W-7 and old W-8 combined into W-7.<sup>107</sup> This number setup lasted until about the end of August, when another shift of numbers occurred: the baptistry was made W-10, Room 14 and the western one-quarter of the North Cloister remained W-7, while Room (4, 5, 6) was apparently made W-8, as the numbers appear on Witkind's map and in his room notes.<sup>108</sup> The recognition of this short assignment of W-8 to the Baptistry depends on a close assessment of Witkind's descriptions of his work in the first week of August. On August 4, Witkind mentioned that the room he was excavating and calling W-8 had four burials, 52, 53, 54, 55. However, the room notes for W-7, the final number for room W-8, had no burials listed for it. The room notes for room W-10, the final number for the Baptistry, however, listed four: 55, 56, 57, and 58. Unfortunately, in the notes for Room W-9, the northeast sacristy, the burials were listed as 57 and 58, making it apparent that Witkind renumbered the burials as well as the rooms, again without completely changing all references to a given burial number. Therefore, it seems likely that the four burials listed in the Room W-10 notes were the burials listed on August 4 as from Room W-8. The room dimensions given on July 24, 25, and August 4 do not fit any of the rooms on the Witkind map, but resemble those given W-10 in the room notes: July 24, 26 feet east to west, no north wall yet; July 25, 25 by 20 feet, long axis east to west;<sup>109</sup> August 4, 25½ by 14½ feet; the room notes for W-10 give the dimensions as 21 by 9 feet, with a question mark typed beside this entry.<sup>110</sup> Apparently Witkind overestimated the size, and slowly adjusted the dimensions as he worked on the room and defined its outline better. Wall heights do not match the wall heights

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<sup>106</sup>Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, With Other Contemporary Documents*, translated by Eleanor B. Adams and Fray Angelico Chavez (Albuquerque: University of New Mexico Press, 1956), p. 212.

<sup>107</sup>Witkind, “Journal,” August 3, 1939.

<sup>108</sup>Witkind, “Excavation Record, Room No. 10,” Spring-Summer 1939 (April-September, 1939). The room notes for room W-10, the baptistry, were prepared sometime in late August or early September, by which time the number 10 had been assigned to the space.

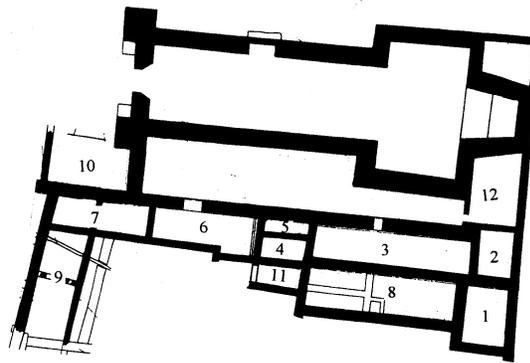
<sup>109</sup>At this point in his notes, Witkind twice referred to the room as the “sacristy” – at the same time he was conducting work here, he was also excavating the southeastern sacristy, Room 57, and apparently confused “sacristy” and “baptistry” in his mind, or in the mind of whoever typed the notes.

<sup>110</sup>The actual size of the room was probably about 21 feet east to west, and 19 feet north to south.

for the room notes of W-7, the later number for the combined W-7 and W-8 south of the Baptistry. Here the walls were indicated as being an average of 6½ feet high. Wall heights for Room W-10 in the room notes were given as an average 18 inches, "except on south side which stood up to 4½ feet." Finally, if the W-8 described on August 3 through August 8 was the room in the area of present room 14, the north wall of the room would not be that hard to find, nor would it be described as less than 4 inches high, as it was on August 7: the north wall of this room was the large wall along the north side of the convento, and stood over four feet high and almost four feet thick, according to the final notes for the baptistry. It appears, therefore, that the room called W-8 in early August was the baptistry (Figure 7.12).

#### More Testing and Wall Tracing

From August, 1939, through the end of February, 1940, Witkind spent most of his time making adobes and working on the stabilization of the church. During this period he assigned room number 12 to the southeastern sacristy about November 16, 1939, and moved room number 9 from Rooms (15) and (16) (and possibly 17) to the northeastern sacristy about February 20, 1940. This may have made the area that had been W-9 into W-13.



Nov. 16, 1939

Figure 7.13. November 16, 1939.

On February 23, Witkind again began the program of testing and wall tracing with which he had begun the excavation season the year before. He started off with instructions to his new crew, most of the old crew having been transferred out earlier. "Got my crew together in the afternoon and gave them a short lecture on how to trace adobe walls and the technique used in trowelling, the probable plan of the Monastery and what they'd have to start watching for on Monday [February 26] when we began tracing walls in earnest."<sup>111</sup> Again, no record is available of what Witkind thought was the "probable plan of the monastery."

<sup>111</sup>Witkind, "Journal," February 23, 1940.

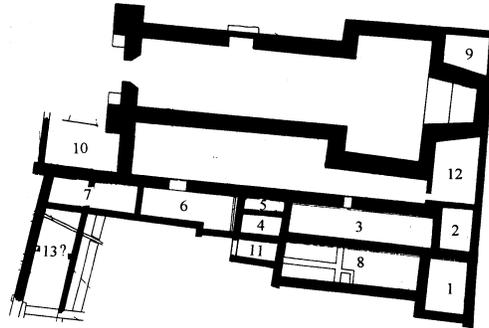


Figure 7.14. February 20, 1940.

The Preparation of the Second Map.

The new crew began tracing walls on February 26, working on the western side of the main convento area. About half the crew was assigned to trace the main outside wall; from Witkind's description, it is clear that this was the enclosure wall. He found that its thickness ranged from eighteen inches to twenty-eight inches. It was laid with adobe mortar, plastered on the outside, probably with adobe, and tied into the northwest corner of the wall that ran along the north side of the convento. Witkind stated that the wall was "laid much better and is in much better condition than defense wall [around the pueblo] ever was."<sup>112</sup>

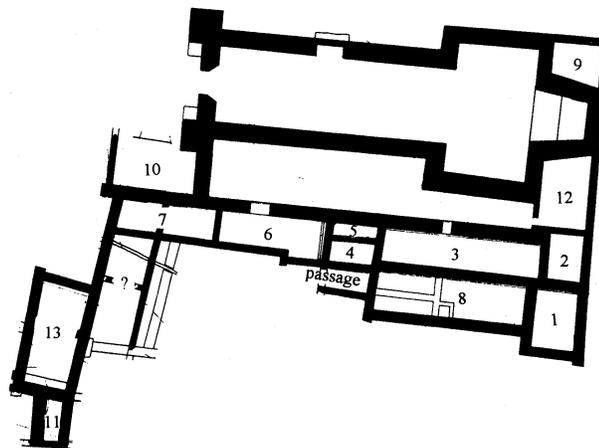


Figure 7.15. February 26, 1940.

<sup>112</sup>Witkind, "Journal," February 26, 1940.

February 27 was spent tracing the outlines of the southern two quadrangles of the convento. "Am now doing the stone walls clear to south of Monastery and the stone and adobe wall encircling the whole structure. The walls foundation is never very deep, seldom more than 18" below the surface . . ." He noted that most of the wall had fallen and was level with the surrounding surface, but "some of [the stone wall] is standing up to 2 and 3 ft. However, I think this is recent (within the last 30 to 50 years) and have not bothered to trace it with any great care. I plan to show it on my ground plan but don't believe it's old." Aerial photographs taken in the 1920s (see Figures 6.11 and 6.12) show these walls, indicating that Witkind was correct in this assumption – the walls still standing in the 1920s and 1930s were the last sheep fences erected in the late nineteenth century, some of which had been built no more than fifty years before. In his tracing trenches, from one and a half to two feet deep, Witkind found "no pottery, artifacts or any other cultural material" in the southern two quadrangles. He suggested that "either stratification is much deeper or the walls represented corrals and pens." As it turned out, both these suggestions were correct.<sup>113</sup> He remarked the next day that the walls along the south side were "in good shape below ground surface, nicely laid and quite straight in most places. On the surface, stone is pretty well spread all over the place."<sup>114</sup> Again this is visible in the aerial photographs. The walls that still stood above ground were built after the abandonment of the mission, although in some cases on earlier mission walls, while the walls that were visible above ground but spread out on the surface, and in good shape below ground surface, were mission-period walls.

On February 28, Witkind finished tracing the walls of the southernmost quadrangle of the convento, and put his men back on the seemingly endless task of following the walls inside the main convento. He was satisfied that he had found all the walls of the southern areas, and prepared to map the newly-exposed walls the next day, using the Forest Service surveyor's compass.<sup>115</sup> However, when he began the mapping effort on February 27, he decided that there were more wall lines to trace, and pulled the tracing crew off the main convento, putting them back on the job of relocating the walls within the southern quadrangle.

As he traced the walls of the south side of the convento on February 27-28, and the corrals of various ages farther south on February 29, Witkind noticed "on the extreme S.E. corner of the Monastery" was "a structure which might be a Torreón. It's 12½ ft at its widest and is bisected twice by 2 walls giving a sort of pie shaped effect. At present I've only lined out the walls, have not dug in it at all."<sup>116</sup> This is the torreón at the southeastern corner of the main convento enclosure, which extends about twelve feet east of the east wall of the compound. This torreón seems to be older than the more southern one: it was harder to see, and more slumped down to ground level.

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<sup>113</sup>Witkind, "Journal," February 27, 1940.

<sup>114</sup>Witkind, "Journal," February 28, 1940.

<sup>115</sup>Witkind, "Journal," February 28, 1940.

<sup>116</sup>Witkind, "Journal," February 27, 1940.

Two days later he noted that the "2nd or middle quadrangle is . . . 165 ft (east and west) and approximately as wide [as the third quadrangle, or 87 feet north to south] . . . This quadrangle has . . . [a] circular structure which might have been (the walls are down badly and it's hard to trace) 18 ft to 20 ft wide *Torreón* or possibly Kiva I don't know and won't till I've dug more." This was apparently the same *torreón* mentioned on the 27th, but measured to the south from the corner of the compound, rather than to the east. Witkind's second quadrangle was the equivalent of Bandelier's second quadrangle – Bandelier measured it to be about 185 feet east to west and about 82 feet north to south.<sup>117</sup>

On the same day, the crew mapped the "3rd or most southermost quadrangle of the Monastery. The last quadrangle measures 167 ft (east and west) x 87 ft north and south. A roundish structure on the SE corner [actually the northeast corner of this quadrangle], 16 ft in diameter looks as if it might be a *Torreón*. However, if it was it's about 9/10 gone for the rock walls only go down 18". In fact that is the approximate depth of all the walls in this quadrangle, with exceptions up or down 6 inches according to slope of ground. No cross walls in evidence except at *Torreón* and 1/2 of it lies clear to east and outside of farthest wall. Nothing found at 18 inches along whole scope except quantities of manure (sheep and goat) and several scattered patches of charcoal." This is the *torreón* outline near the southeast corner as shown on the Nusbaum/Adams map of 1915, and visible in several aerial photographs. Pinkley destroyed the southern *torreón* by excavation in 1966-1967 without ever seeing it, leaving no present trace. The third quadrangle is the equivalent of Bandelier's third, or southernmost quadrangle, about 151 feet east to west and 79 feet north to south.<sup>118</sup>

With this series of measurements on February 29, Witkind was preparing to produce a new map of the church, convento, and southern corrals at a scale of one inch to ten feet. "John and I mapped in the 2nd and third quadrangle and the boundary walls running clear around Mission and tying in with defense walls on the west. All to scale at 1 in — 10 ft. same as the mission and 1st Monastery quadrangle;" that is, the plan finalized on May 12, 1939. Witkind must have completed the fieldwork by March 3 or March 4; on March 6, 1940, he completed the final draft of the map and sent it to Santa Fe.<sup>119</sup> This map is missing. The earlier map, made the previous year, showed an approximation of the southern quadrangles as Witkind guessed at their general plan from the scattered stone on the surface. The May 12, 1939 map showed them with only roughly the dimensions he described above, and did not show the *torreones*; it was purely schematic south of the first quadrangle. Witkind's map of March 6, 1940, must have looked much like the Nusbaum/Adams map of 1915, but with his excavated rooms shown. Figure 7.22 is a reconstruction of this map as of December, 1940.

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<sup>117</sup>Witkind, "Journal, February 29, 1940.

<sup>118</sup>Witkind, "Journal," February 29, 1940.

<sup>119</sup>Witkind, "Journal," February 29, March 6, 1940.

### The West Side of the Convento

Probably while preparing the new map of 1940 on March 6, Witkind changed a few of his room numbers. The changes did not become apparent until he again began excavation in the convento on March 9. Before these changes, W-12 had been applied to the southeast sub-sacristy about November 16, 1939, and W-9 moved to the northeast sub-sacristy on February 20, 1940.

On February 26, half of the crew had begun tracing interior walls at the southwest corner of the main convento, in the general area of present rooms 46 and 48: "Traced interior walls in SW corner of section of Monastery – good plaster found also floor levels."<sup>120</sup> Witkind marked two rooms with stakes, to be emptied of fill when room excavation began. One of them was given the number W-11, moved from (8), the room west of (4, 5, 6). The other was probably made W-13, since W-12 had already been used on the southeastern sub-sacristy. The assignment of W-11 to a room on the southwest corner was the beginning of the excavation of the west side of the main convento. Unlike the excavation of the north side, the west side is not shown on the available map of May 12, 1939, in any detail, nor does it show the locations of any of the room numbers assigned at this time. No room notes for these rooms are available, nor do they appear in any of the photographs taken at the time of the work (except one or two photographs that may be pictures of Room W-13). In the daily journal notes, there are fewer details of the excavation of these rooms as compared to those of the north side, and fewer references to room locations relative to each other. As a result, the locations of the rooms are somewhat more uncertain than for those Witkind excavated in earlier work. However, it is possible to make strong suggestions about these locations. Later photographs show various distant views of the areas excavated, so it can be determined where this group of rooms must have been. Some details of what was seen during the excavation of the rooms can be linked to similar details recorded for specific spaces in excavation notes of the 1960s and 1970s. This, with the few locational remarks in the daily journal, allows a reasonable reconstruction of the room locations. The evidence for this will be reviewed here.

The limited evidence indicates that W-11 was located near the southwestern corner, below the high point of the convento, probably on the present location of Room 46. The other room, probably numbered W-13, was apparently on top of the high mound of the southwest corner, probably the present Room 48. Room W-11 was not east of the southwest corner, because "the wall is very well defined on the south side of Monastery, so I'm not tracing it there, am only digging where the wall is down level with the ground and the outlines and corners are not so clearly defined."<sup>121</sup> The erosion and collapse of walls on the steep slope of the southwestern corner fits this description. Witkind says that the "floor levels are very shallow on Rm. #11 no more than an average 5" below surface – in SW section [the floors were] up to 3 ft below surface level. However the mound level is twice as high on this section than on any other part of the Monastery."<sup>122</sup> Witkind is explaining the great difference in the shallow floor depth

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<sup>120</sup>Witkind, "Journal," February 26, 1940.

<sup>121</sup>Witkind, "Journal," February 26, 1940.

<sup>122</sup>Witkind, "Journal," Feb 26, 1940.

of W-11 and the deep floor in the "southwest section" of the southwest corner of the convento by making it clear that the ground level in the southwest corner rooms is so much higher. The statement about the shallow depth of the floor in W-11 resembles Witkind's description of other rooms along the south side of the convento on April 19, 1939: "I've been able to trace the walls at an average depth of two feet all over except on the extreme inner edge of the south side where I strike floor level at 11 inches." The south side at the time was the south edge of the main convento, along the line of Rooms 18-24. This makes it likely that Room W-11 was in the immediate area of the southwest corner, but on lower ground adjacent to it. These statements makes it reasonable to suppose that W-11 was on the south side of the highest point of the convento ruin, about the location of Room (46). The aerial photographs and Fred Mang's pre-excavation pictures of 1966 show that Witkind excavated this room; evidence in other journal entries allow specific excavations to be assigned to Room (45) just west of this space, and Room (48) just to the north, on the highest point of the convento; therefore, a process of elimination indicates that W-11 must have been located here, on Room (46).

At this point Witkind had already seen some evidence that there were great differences in floor levels in this area: "From the way the floor levels are running now it looks as tho the Monastery interior had a terraced floor level of the type found in modern houses."<sup>123</sup> He was seeing the striking change in height between the levels of floors inside the main convento at its southwest corner, and the floors just outside this corner to the south and west. At the south edge of Room 46 the first, or pre-Revolt floor, would have been only a foot or so below grade. At the north edge of this room, traces of the post-Revolt floor were found at two and a half to three feet below the top of the highest wall, and four feet above the lower floor.

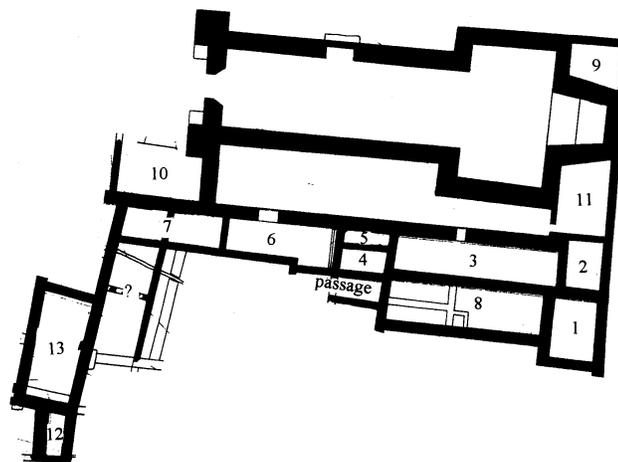


Figure 7.16. March 6, 1940.

<sup>123</sup>Witkind, "Journal," February 26, 1940.

From February 29 through March 8, Witkind's crew traced more walls in the main convento, slowed by rain and the dampness of the ground. Finally, Witkind felt that he had enough information about the layout of the main convento rooms that he could begin excavation again on March 9.<sup>124</sup> In the meantime, about March 6, W-11 and W-12 were swapped, W-11 going to the southeast sub-sacristy and W-12 going to the southwest corner of the convento.

#### Excavations of 1940 Begin

Witkind began excavations again on March 9, 1940; this initial period of work in 1940 lasted only six days, until March 15. During this period, he excavated a series of trenches east of the present church, just east of its apse wall, in the same general location that Alden Hayes would trench thirty years later, in 1970. The trenching began on March 12: "6 [men] are putting in two trenches on the east side of the Mission [church] and running straight west looking for any outside walls that might be found." Witkind described the trenches as three feet wide, about twenty feet long, and expected to be about eight feet deep when the trenches approached the east wall of the church through what he refers to as the "built up fill on east side of Mission" – by "mission," he meant church. He considered carrying the trenches up to the base of the east face of the sanctuary wall: "I may even dig straight thru up to edge of Mission to see if there are any outlying structures."<sup>125</sup>

The results of these first trenches surprised Witkind. The next day, March 13, he wrote that "about 60% of the pottery is Pecos Glaze, Gl. V, and Tewa and Tia polychrome. A few stray Maidua [the typist's misreading of Maiolica written in Witkind's difficult handwriting] sherds and some iron work-nails, indiscriminate pieces of metal and a bridle tinkler of the type found on the snaffle chain or bar of the Spanish type of ring bit." Test Trench #1 found "an ash and small charcoal level . . . about 20" below surface. Layer is not over 4" thick (average) but it seems to run from top to bottom of slope." Considering the stratigraphy and the quantity of artifacts, Witkind decided to excavate two more trenches in the same area, Test Trench #3 and #4. He called Dr. Fisher and received his permission to excavate the additional trenches. At this point in the typescript of Witkind's notes, Al Hayes has written: "Layer associated with burning of 17th Century church."<sup>126</sup>

Witkind started the two new trenches in the afternoon of March 13. "Took off 1½ ft of windblown and man-laid fill with shovels and then started working the ash level as per test trench methods. I find remains of quite a thick adobe wall, badly broken down that seems to run around east side of mission, when I get through testing I'll take a better look at said wall." In the margin Hayes wrote "old church?"<sup>127</sup> Witkind was apparently finding the mound of fallen adobe bricks left by the collapse of the east wall of the pre-Revolt church during the fire that destroyed

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<sup>124</sup>Witkind, "Journal," March 8, 1940.

<sup>125</sup>Witkind, "Journal," March 12, 1940.

<sup>126</sup>Witkind, "Journal," March 13, 1940.

<sup>127</sup>Witkind, "Journal," March 13, 1940.

the building in 1680; this mass of adobes and burned material was relocated by Alden Hayes in 1970.

On March 14, Witkind began to lose interest in the trenches as the Spanish material began to thin out and no clear structure was found. "T.T.#3 still yielding a good amount of late Indian pottery, but no more maiolica."<sup>128</sup> The following day, he returned the crewmembers who had been working in the trenches to excavation on the convento. "I have done no work at all today on strat trenches to east of apse, as they are sheltered from the wind I'll save them for some good cold day when it's too unpleasant to work on the Monastery."<sup>129</sup> So far as his available notes go, Witkind never returned to these trenches; they were apparently backfilled sometime in the 1940s, after his project ended.

In the convento, from March 9 to March 15 Witkind excavated Rooms W-12 (just changed from W-11), W-13, and W-14. He then stopped excavation for over two months to continue with stabilization of the church, returning to excavation in these rooms of the convento on May 27. This second period of excavation extended from May 27 to June 5, 1940. Witkind made fairly detailed remarks about the excavation of room W-13 until its completion on June 4. Excavation stopped for a month while Witkind concentrated again on the stabilization of the church. During the rest of July and August, Witkind mentioned excavation in the convento only briefly and perhaps once a week. During this period he referred to excavation in Rooms W-16, W-19 and W-20; only in Room W-16 is the work described in some detail. The physical evidence in the descriptions of W-13 and W-16 allow them to be located with reasonable certainty as Rooms 48 and 50, and 45, respectively.

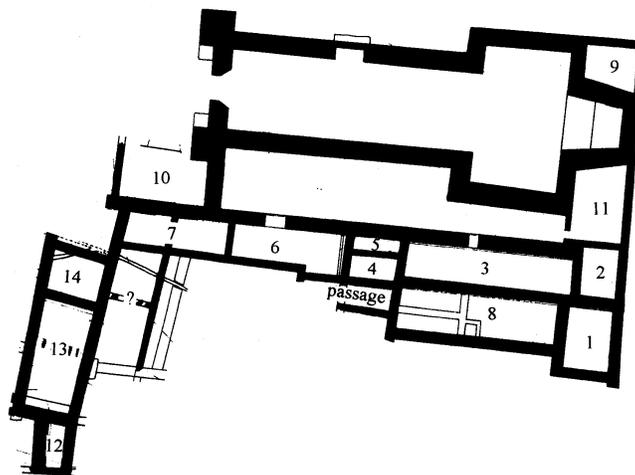


Figure 7.17. March 15, 1940.

<sup>128</sup>Witkind, "Journal," March 14, 1940.

<sup>129</sup>Witkind, "Journal," March 15, 1940.

### The Location of Rooms W-13 and W-14

As I said above, it is likely that Witkind established Room W-13 on February 26, at the same time that W-11 (later W-12) was set up. He began the excavation of W-13 on March 14. The discussion of Room W-11/W-12 above indicated that the probable location of W-13 was on the top of the highest point of the ruins of the southwest corner of the convento. Other evidence in Witkind's statements about W-13 support this — for example, he repeatedly mentions the "west side" of the convento in association with W-13 and W-14: May 27, "Rm #13 of the west side of the monastery;" May 28, "digging on the west side of the monastery in Rm #13." Later work makes it clear that W-13 and W-14 were not the westernmost row of rooms; W-16 and W-19 were both in the next row west, and internal evidence discussed below shows that they were in the westernmost row. Therefore, W-13 and W-14 were in the middle row of the west section of the convento. W-14 was apparently near W-20 : on July 31, "Dug some more on Rm #10 — Still looking for floor. Fancy it will be about as deep as Rm #14."<sup>130</sup> "Rm #10" in this context is clearly a typographic error for "Rm #20."<sup>131</sup> The reference to the floor of W-20 relative to the floor of W-14 suggests that the two were adjacent rooms, as was the case for many similar estimates by Witkind during his excavations. The repeated mention of "highest point of the convento" associated with W-13 is most striking at the time Witkind marked out the room on February 26, in direct association with such a statement, as discussed above — but again on March 15, speaking about floor depths in room W-13, Witkind added "note: highest part of monastery mound was on SW corner." He could have meant either the southwest corner of the room, or of the convento. The statement was included as an explanation of why the floor levels were so much deeper in W-13 than those to the east, north, or south.

The internal evidence, then, indicates that Rooms W-13, W-14, and W-20 occupy Rooms (48), (50), (52), and (53). Comparison of the details of excavation with later information about these rooms will allow a specific assignment of Witkind numbers to present room spaces.

The most difficult problem with this group of rooms is the question of the extent of Room W-13. On March 15, Witkind found that the room was divided in half by an adobe crosswall: "In the center [of the room], running east and west is a line of adobe brick which so far seems to be three courses thick on north side." The top of the wall was flush with the "floor level on the south half . . . at 2½ ft. below top of existing wall." During his discussion of the north half of the room and its possible floor depths, he specifically mentioned "Rm #14, adjacent to north," making it clear that the partition did *not* divide Room W-13 from Room W-14, but divided Room W-13 itself into a north and south half. In the south half, the crew uncovered "evidences of two fireplaces at each end both on west side in SW and NW corners respectively."<sup>132</sup> A fireplace remains in place in the southwest corner of Room (48), on top of

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<sup>130</sup>Witkind, "Journal," July 31, 1940.

<sup>131</sup>To summarize the evidence: Room W-10 had long since been completed by this date; it was referred to as the Baptistry; and had a fairly distinct floor, only a little over a foot deep below the surface.

<sup>132</sup>Witkind, "Journal," March 15, 1940.

the early south wall of this room and about two feet below the surviving top of the later south wall.

The discovery of the dividing wall across room W-13 apparently lead him to renumber the space soon afterward – the south half of the room continued as room W-13 (48), while the north half was renumbered W-14 (50), and the old W-14 (52) was renumbered W-15 (52). This renumbering happened between March 15 and May 27, 1940. After that date his descriptions of this space usually say something like “Rm #13 (and #14).”<sup>133</sup> He sometimes used an odd singular in talking about the two rooms – for example, on May 29, he says “Hit floor level at 7¼ ft. below top of existing wall level in north end of Rm #13 and #14.”

Room W-15 was probably originally both Room 52 and Room 53, and was later subdivided into room W-15 in Room 52, and Room W-20 in Room 53. He mentioned no room numbers higher than 14 until July 17, 1940, when he indicated that he was “digging out Room #16 on monastery [45].” He first mentioned room W-20 (53) on July 30, 1940, and said it was “directly SW of baptistry.”<sup>134</sup>

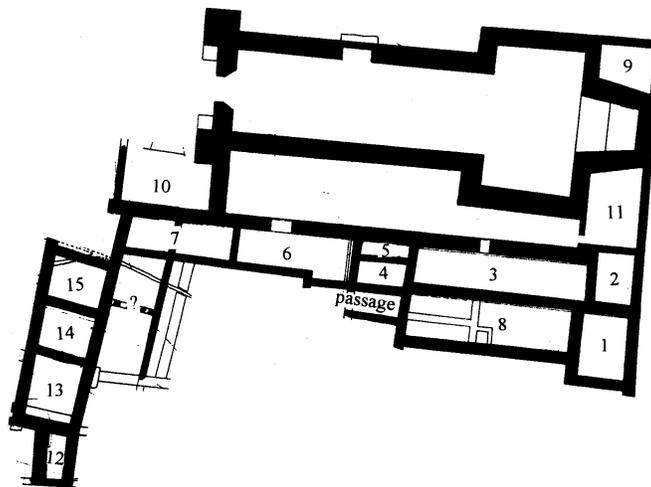


Figure 7.18. May 27, 1940.

On May 29, Witkind noted that the floor of W-13/14 (48, 50) was of white puddled adobe on top of a laid brick surface, like many of the other floors seen in the north row of rooms he had excavated earlier.<sup>135</sup> He specified that this floor was in the "south side of other half (south) of room;" that is, he did not find it across the entire south half, but only near the south wall. Some

<sup>133</sup>See, for example, Witkind, Journal, May 27 and May 28, 1940.

<sup>134</sup>Witkind, "Journal," July 17, July 30, 1940.

<sup>135</sup>It appears that all these adobe brick floors are gone, destroyed by Jean Pinkley's and Al Hayes's excavations in these rooms; however, some may survive beneath recent surface fill.

part of this floor was probably the top of the adobe wall that was just below the floor in the south part of Room 48.

Witkind found the remains of a complex construction of wood with multiple levels in the north half of his Room W-13/14 (48, 50).<sup>136</sup> He saw clear indications of two stories of roofing collapsed into the fill of the room, apparently as the result of a fire: "I'm finding quite a bit of charred and uncharred timber which looks like roofing. From the quantities and from the alternate layers of big and little timbers it appears to be enough for at least two stories. Between the layers of timber there is about 18" of mixed refuse, mainly broken brick and plaster. The average size of the big stuff (considering rotted and charred condition) is about 6" x 6" — tried to save some but it's in such bad condition that I'm not having any luck so far. . . ."<sup>137</sup> Witkind decided that the north half of W-13/14 (48, 50) had apparently been badly disturbed by treasure hunters who destroyed the wall between the two spaces.

In the levels below the post-Revolt convento, the crew began uncovering "three very large pieces of wood in vertical position in and adjacent to east wall about midway in the room. . . . The longest of the three looks like *pinus ponderosa*, the other two which are smaller look like pinon." These large vertical beams set into and against the east wall of Room W-14 (50) further suggest that the north half of the room had a wooden floor supported on the vertical beams. Witkind mentioned in passing that the fill of this deep space was "a conglomerate mess;" when he used the word "conglomerate," he usually meant the presence of broken brick, wall plaster, and similar wall rubble.<sup>138</sup> The beams mentioned here may be those in the photograph MNM 40985.<sup>139</sup> This picture shows a white-plastered wall running diagonally across the view, with a corner to the left and another wall top visible to the right. In the face of the plastered wall two beams can be seen; the left beam, a large log that extended above the top of the surviving wall, leans out of a slot in the wall, while the right one is smaller and clearly had been mortared into the wall. These wooden beams may have been associated with a pre-Revolt stairway in Room W-14 (50) The wall plaster apparently ran across the surfaces of the two slots into which these beams had been placed. The photograph looks northeast; another wall is visible beyond the east wall of the room, but the high walls of the church cannot be seen, out of the picture to the left. The north wall of the room shows no traces of wall plaster. The Dominguez report suggests that Witkind's multiple wooden flooring layers were the remains of stable partitions with a straw-loft above, and the second floor and its roof above that.<sup>140</sup>

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<sup>136</sup>Hayes proposed that Witkind's room 13 was fairly likely to have been a stairwell, but thought that Witkind's room 13 was only in the present Room 50.

<sup>137</sup>Witkind, "Journal," March 14, 1940.

<sup>138</sup>Witkind, "Journal," May 27, 1940.

<sup>139</sup>Also numbered 42-673, and taken about May 27-31, 1940.

<sup>140</sup>Dominguez, *Missions of New Mexico*, p. 212.

On May 27, Witkind again mentioned the northwestern fireplace, and apparently saw some indication of a disturbed floor around it. Unlike the southwestern fireplace, this northwestern hearth was apparently not inset into the wall or placed on top of an earlier wall, and Witkind eventually removed it along with the rest of the room fill; it is likely that this fireplace was a late structure built on a floor destroyed by pothunters.<sup>141</sup>

By May 28, the crew had excavated to a depth of 6.5 feet in the north half of the room. Witkind mentioned that the crosswall dividing the room in half had plaster on at least the north face for the entire depth to which it had been uncovered, while the north wall of the room had no plaster on the wall face. The east wall of the room had five feet of adobe brick from the wall top down to a stone footing, and 1.5 feet of the footing had been uncovered by this date. Witkind noted that "the wall type is of the old style (blackish brick and red mud)." This refers to the east wall of the middle row of rooms, which is black brick from its top to the stone foundation at the bottom. The fill of the room consisted of "quantities of varying sizes of broken brick throughout." The heights of foundation and adobe wall, and the brick and mortar color, all indicate that his combined W-13 and 14 must have been Rooms 48 and 50 – these were the only rooms in the convento with anything like this height of stone foundation or so much surviving black adobe brick wall.<sup>142</sup>

Witkind hit what he considered to be floor level in the north half of Room W-13/14 (48, 50) on May 29. At this point he was 7.25 feet below the top of the east wall; with the depths given on May 28, this means that by the 28th the east wall consisted of five feet of black adobes with red mortar resting on 2.25 feet of stone foundation — at the time of the mapping in 1966-67, the east wall of Rooms 48 and 50 were still about seven feet high, with 4.3 feet of black brick on top of a visible 2.7 feet of stone foundation – and this is the only area in the western part of the convento where such a height of black brick wall survived. During the day on May 29, Witkind decided to take out the "whole room" – that is, all the fill in both Rooms 48 and 50. In spite of finding an apparent floor level at 7.25 feet, Witkind continued to excavate into the wall rubble filling the room. He remarked that by the end of the day: "Wall continues to go down in east side at 9½ ft. Will continue a trench on that side until I find something." The fill continued to be "ash, charcoal, plaster, broken brick."<sup>143</sup> This set of statements indicates that Witkind was cutting a deep trench along the east side of Room W-13/14. In the process, he cut through the crosswall he had seen early in the excavation: his statements make it fairly clear that as of the 29th he was removing fill from the south half of the room, south of the crosswall, as well as from the north half. Later photographs show that both Room 48 and Room 50 had been excavated by Witkind, and the east end of the wall between them had been cut by a trench. Today, the wall dividing Room 48 and Room 50 is lower than the other walls of these two rooms, and has clearly been trenched through on its east end, leaving the ragged remains of the joint between this crosswall and the east wall.

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<sup>141</sup>Witkind, "Journal," May 27, 1940.

<sup>142</sup>Witkind, "Journal," May 28, 1940.

<sup>143</sup>Witkind, "Journal," May 29, 1940.

On May 31, Witkind said that he was "about through with south half [of #13/14] north half calls for several more days work." He removed the fill from "one sealed door . . . in south wall of Rm #13. Another sealed door left in place in east wall of same room." This apparently refers to the cut through the east end of the later south wall of Room 48, and the sealed doorway with a stone sill in the east wall of 48. The fill of this doorway was later removed, whether by Witkind, Pinkley, or Hayes is unknown.

Witkind was almost finished with W-13 and W-14 by June 3. He remarked that "from the fill and wall structures Rms #13 and #14 look as if they had been superimposed over one large room."

This series of descriptive statements in Witkind's journal, taken in conjunction with the Nusbaum/Adams map, later photographs, and notes made in the 1970s, indicates with little doubt that Witkind's Rooms W-13 and W-14 were Rooms 48 and 50. The pre-Revolt floor appears to have been the surface in the northern half of the room, 7.25 feet below the wall tops at 6918.25 feet; the post-Revolt floor was at the level of the fireplace and early wall top on the south side of Room 48, 6923.44 feet.

#### The Location of Room W-16

On June 4, Witkind began excavations into the rooms next to W-13 (48) and W-14 (50) on their west side. This work continued through the next day, June 5, and then came to a halt for a one-month break for church stabilization and adobe manufacture.<sup>144</sup> Excavations resumed on July 8, and continued through August 16, when the available journal ends.



**Figure 7.19.** The high stone wall between Rooms 45 and 46 as it was left by Witkind in December, 1940. This photograph was taken in 1966, before any excavation by Pinkley. This shows that the whole area of the southwest corner of the main convento was excavated by Witkind. His Room W-16 was probably the space in the foreground, west of the wall, and his Room W-12 was east of the wall. Photograph by Fred Mang, April 26, 1966, Pecos neg. #4175.

<sup>144</sup>Witkind, "Journal," June 4, 5, 1940.

W-16 through W-19 appear to have been the numbers Witkind assigned to the rooms forming the westernmost row in the main convento, probably about the middle of July. Witkind had outlined the western edge of these rooms during various periods of wall tracing in 1939 and 1940, and he was fairly sure there was nothing west of them. The work on June 4 and 5 defined some of the walls subdividing this space, but the final numbering probably took place between July 8 and July 17, 1940. Witkind stated that on July 8th he outlined the walls "running into west wall of rooms #13 [48] and #14 [50]."<sup>145</sup> Soon after this, he must have arrived at a reasonable idea of the plan of these rooms, and assigned numbers to them.

The few pieces of internal evidence indicate that Room W-16 was at the southwest corner of the convento, W-19 was north of it somewhere along the west side of the convento, and W-20 was in Room 53. The reasoning behind this depends on the few sparse clues in Witkind's manuscript and in photographs. First of all, he did some excavation in all these rooms, as shown by several different photographs (see especially Figure 9.1 and compare with Figure 9.2).<sup>146</sup> Room W-20 has one of the few unequivocal location references in this period of notes: Witkind stated that Room W-20 was at the southwest corner of the baptistry, W-10; therefore, W-20 must have been the present Room 53, to the north of W-13 (48) and W-14 (50), and at the southwest corner of the baptistry.<sup>147</sup>

Witkind discussed the removal of fill from W-16 and W-19 on August 15, 1940. Since, in general, you do not dump removed fill on an area you think you may be excavating later, these movements tell us something about the relationship between the rooms from which the dirt was removed and other areas already excavated or awaiting excavation: Witkind says, "continued moving dump west of #19 and south #16." Because Rooms W-16 and W-19 were assigned after the outlining of the rooms west of W-13 (48) and W-14 (50), and neither was Room 53 (W-20), clearly these rooms were in the westernmost row; Room W-16 was on the southern end of this row, as shown by Witkind's statement that he moved backdirt to the south of it, while W-19 was at some more intermediate location on the west side, where Witkind thought he might have rooms on both its north and south sides: he moved backdirt to the west from this space, rather than north or south.<sup>148</sup> Furthermore, on July 29 Witkind dug a trench south from Room W-16, and found no other rooms or walls, making it clear that W-16 was at the outermost point of the southwest corner of the convento.<sup>149</sup> Therefore, the internal locational evidence in the daily journal indicates that W-16 was Room 45 (Figure 7.19).

This conjecture is supported by a number of details about the contents of the room recorded in his daily journal notes after Witkind began working on Room W-16 on July 17. On

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<sup>145</sup>Witkind, "Journal," July 8, 1940.

<sup>146</sup>J. W. Mead, December 4, 1940, MNM 6508, 6509.

<sup>147</sup>Witkind, "Journal," July 30, 1940: "started in on Rm #20 directly SW of baptistry . . ."

<sup>148</sup>Witkind, "Journal," August 15, 1940.

<sup>149</sup>Witkind, "Journal," July 29, 1940.

July 29 and 30, he described characteristics of the fill in the room and of the walls surrounding it that very strongly resemble the Hanz Lentz and Alden Hayes description of the fill in room 45.<sup>150</sup> The uppermost floor was a "perfectly good mud floor" with a five-inch-thick layer of decayed wood fragments lying on it, including several stick-like pieces he took to be latilla remains. Below this floor was a "filled in dump of broken brick." The "dump" contained a large quantity of broken adobe bricks, and had "all the glazes represented in it." The fill of the "dump" looked as though someone had dug through it before: "The fill looks disturbed as the devil yet I don't see how or why it should be with a perfectly good mud floor directly on top." Since Witkind never understood the implications of the destruction of much of the convento in the Pueblo Revolt, he was unable to realize that the stratigraphy he was seeing was the direct result of that event: construction, destruction and wall collapse, followed by leveling and reconstruction. The disturbance he was seeing occurred before the "perfectly good mud floor directly on top" was put there.

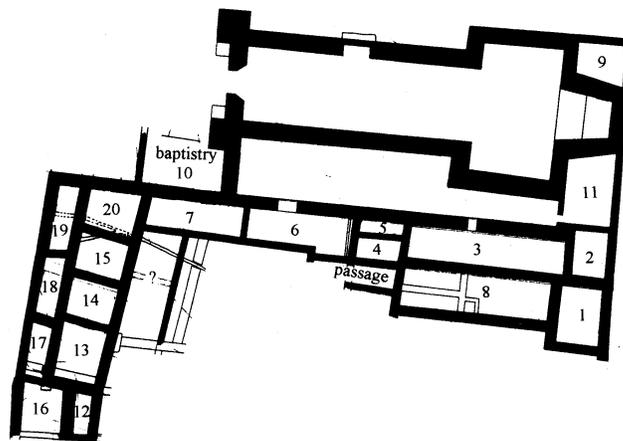


Figure 7.20. July 30, 1940.

The highest wall, running east and west, had white plaster on its face, and continued down below the mud floor and well into the level of the dump. At three feet below the top of the wall "the adobe wall stops and rock wall starts this also with plaster. At present I'm still looking for base of rock wall."<sup>151</sup> This describes a wall with a stone foundation supporting adobe construction, with the top of the stone footing three feet below the top of the surviving adobe; the stone footing had originally been above grade on its south side, so that it was finished in a white coat just like the adobe wall above it.

<sup>150</sup>Witkind, "Journal," July 29, 30, 1940; Al Hayes and Robert Lentz, "Room Notes, Pecos 1969-1970," PNHP, room 45.

<sup>151</sup>Witkind, "Journal," July 29, 30, 1940 .

This strongly resembles the Lentz/Hayes description of the north side of Room 45, where Witkind and, later, Pinkley had left a portion of the original fill of the room in the small alcove in the north side, supporting the post-Revolt south wall of Room 48. The floor at the base of the most recent portion of the north wall rested on Revolt fill; the uppermost floor in this room was apparently at this level. The fill was 4.1 feet deep, dark brown at the bottom and red at the top. Within the upper red fill were "black brick fragments w[ith] coats of plaster (3 coats on one fragment studied). . . . First 1.1 feet, light colored fill with the fragments of black brick. Then 1.2 feet of purple fill and small stones. The rest is large chunks of red brick and bits of plaster." In other words, the red bricks were in the lower layers of the fill, while the black bricks were on top; that is, the first building components to fall in this area, and therefore probably the highest, were made of red brick. "Masonry footing for west half [of north wall] 1.3 feet high, total (incl. red brick) for west half, 5.3 feet," giving a brick height of four feet at the east end of the west half of the wall; the top of the surviving wall segment sloped downward toward the west, until at the west end only the top of the stone footing survived.<sup>152</sup> The clear resemblance between the fill seen by Witkind and that seen by Hayes and Lentz, and the location of W-16 as indicated by the internal evidence of Witkind's journal notes, makes it likely that Room 45 was W-16. Witkind continued excavation on the westernmost rooms through at least August 16, the last day of his available daily notes. By this date he was finishing W-16 and W-19, and well along on W-20.

#### The Probable Location of Witkind Room Numbers W-15, 17, 18, and 19

Given the room numbers that can be assigned to specific rooms, reviewed above; the actual plan of the structures; the locational information, room fill, and wall structures mentioned in Witkind's notes; and the numbers available to work with, and assigning them in an orderly fashion, one arrives at the designations shown on the plan (Figure 7.20) and mentioned above as the simplest layout. Rooms W-12, W-13, W-14, W-16, and W-20 may be assigned to locations with little doubt. Remaining unassigned are W-15, W-17, and W-18, never mentioned by Witkind, and W-19, about which Witkind recorded no excavation details. Room W-15 was apparently assigned to Rooms 52 and 53, as mentioned above, and then when the partition wall between these two spaces was found, Witkind left W-15 assigned to the south half of the space, Room 52, and assigned room W-20 to Room 53, the north half of the space. This leaves us three rooms on the west, 47, 49, and 51, and the three numbers W-17, W-18, and W-19 to be applied to them. The simplest layout is to arrange these in order to the north from W-16 at the southwestern corner, a likely pattern since Witkind frequently rearranged numbers so as to get them in some apparent order. Therefore, W-17 was probably in present Room 47, W-18 in Room 49, and W-19 at the northwest corner, in Room 51; Witkind knew that some sort of structural traces were north of Room 51, and later in the year conducted more excavations in that area. Any other pattern of number assignment requires additional assumptions; however, these four number locations are still nothing more than informed guessing.

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<sup>152</sup>Al Hayes and Robert Lentz, "Room Notes, Pecos 1969-1970," PNHP, room 45; Larry Nordby, Gary Matlock, and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," PNHP, pp. 155-56.

### Third Period of Excavation in 1940

The last entry in Witkind's available daily log was a summary of the week of August 26-30, 1940. This was devoted mostly to stabilization work on the church and South Pueblo. After this date, our information about Witkind's excavations comes only from photographs taken by visitors to the site.

Work on the stabilization of the church continued for some time in late 1940. Witkind continued some capping of the transept walls and mud-plastering of the wall surfaces through at least the end of November, 1940. Erik Reed's photographs in his "Supplementary Report on Pecos State Monument, New Mexico," taken November 27, show the scaffolding still up on the north side of the north transept at that date.<sup>153</sup> It looks as though there was little plastering left to be done at that time. During perhaps October and November, Witkind's crew returned to excavations in the convento, and began wall tracing and room excavation along the south and east sides of the patio. This work continued through at least December 4, 1940, when the last photographs of Witkind's work show full-scale excavations still going on (Figure 7.21). The available references in *El Palacio* make it clear that the project ended in 1940, probably about the middle of December.<sup>154</sup>



**Figure 7.21.** Witkind's excavation of the convento in December, 1940, looking northeast from Room 54. The wide extent of the excavation is apparent; see Figure 7.22. W. J. Mead photograph MNM #6509, courtesy Museum of New Mexico.

W. J. Mead's photographs of December 4, 1940, show Witkind staring into trenches and his crew hard at work; MNM 6508 (Figure 7.1) records the maze of foundations in and around

<sup>153</sup>Reed, "Supplementary Report," December, 1940.

<sup>154</sup>See, for example, "Archeologists in the Army," *El Palacio*, 50(February, 1943):44, and *El Palacio*, 51(June, 1944):108. Alden Hayes, in *Four Churches*, p. xiii, says erroneously that Witkind finished in September, 1940.

the baptistry at the southwest corner of the church, and 6509 (Figure 7.21) is an overview of the entire eastern half of the main convento looking from about the northeast corner of room 54. In order to get the angles visible in the photograph, the camera had to be about ten feet in the air, indicating that Mead was standing on top of a stepladder, truck bed, or car.

The photographs show that Witkind entered, in some form or another, most of the rooms of the convento and many of the areas immediately adjacent between August 16 and December 4, 1940. MNM 6509 shows that Rooms 12, 13, 17, 18, 19, 20, and 21 are visibly excavated to at least two or three feet; 9 and 10 have trenches along the walls (room 9 had had trenches excavated along at least its east wall as early as January 15, 1940, as can be seen in MNM 42-665).<sup>155</sup> Room 10 appears to have some excavation at its northeast corner in Mead's photograph. Passage 1 appears to be a single, solid wall, and the cross-walls dividing rooms 18 through 21 are not visible. Part of the present south cloister was being excavated at the time of the photograph, and what appears to be the south wall of the last patio is apparently visible here. The southwestern buttress, A, is visible in the foreground with a trace of a later wall crossing it toward the south.

The 1958 and 1966 photographs indicate that only a small amount of additional excavation took place after Mead's photographs of December 4, 1940. All of Room 24 was excavated to a depth of at least two or three feet; the west end of Passage 1 was emptied, and Rooms 18 through 21 were taken deep enough that cross-walls were seen here. Rooms 22 and 11 were left filled and used as a wheelbarrow ramp; this usage destroyed much of the south wall of Room 22, which was based high on the sloping fill of the south side of the convento. During this last period of excavations, visible wall notches, streaks on the ground, and evidence in Mang's pictures of 1966-68 indicate that Witkind found and traced the slab-lined drain extending to the west from the center of the last patio.<sup>156</sup>

### Witkind's Results

Comparing the plan of his excavated rooms with the rooms visible at the surface mapped on the then-unknown 1915 Nusbaum/Adams map of the convento and the results of the rather intense evaluation of Witkind's notes as presented in this chapter, in the context of later archeology and the adobe brick analysis of the early 1990s, makes it clear that much of what Witkind saw during his excavations was the post-Revolt convento (Figure 7.22). Only in a few places did he cut through the higher floors and delve into the pre-Revolt structure, and this

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<sup>155</sup>MNM 42-665, William Witkind, taken about January 15, 1940. The print in the Museum of New Mexico photography collection is reversed.

<sup>156</sup>When Pinkley cleaned out the weeds and melted adobe from the patio and surrounding rooms in 1967, she found this drain and a lower one, draining two different versions of the patio. Pinkley originally thought that the western drain was colonial, but later appears to have decided that it was built by Witkind, apparently because its upper end was a foot above the flagstone patio, which she considered to have been the only patio of the convento. When Hayes mentioned this drain in his room notes, he accepted Pinkley's conclusion. It is, however, unlikely that Witkind built the drain; he would have built such a drain of ceramic sewer pipe, much easier to lay than a stonelined drain. It is more likely that Witkind found the drain and repaired it; it was probably originally built as the drain for the last version of the convento and patio – see Chapter 12.

usually with a note in his journal that he had to do so in an attempt to determine which was the final *mission* floor, rather than some of the later reuse floors.

The WPA mandate to stay within the principal structure and clear it to the main floor at Pecos could only mean that Witkind was to empty the post-Revolt building – the pre-Revolt structure would have to remain uninvestigated below the final building, awaiting future archaeology with a more research-oriented approach. Witkind's notes and photographs show that he did exactly this, and generally avoided going deeper into the fill of the building or following walls encountered deep in his excavations. There can be little doubt that Witkind was fully aware that there was much more to the convento than he had uncovered, but by the requirements of the rules under which he was conducting the work, he could not follow this evidence of earlier structures away from the final building. Jean Pinkley's criticisms of Witkind's work, that he left so much of the building uninvestigated, ignored the fact that he was doing as he was required to do.

The most revealing area of his investigation was the uncovering of the southwest corner rooms. Here, the excavation of W-13 and 14 (Rooms 48 and 50) cut deep into the pre-Revolt deposits, but Witkind recorded enough observations that much of what he saw can be sorted out into probable structure and probable period. The general impression left by all Witkind's observations in this area indicates that the actual southwest corner room of the post-Revolt convento, still visible in 1915, had slipped and eroded away down the face of the mound after that year. Only the north wall, parts of the east wall, and a small piece of the west wall of the post-Revolt room above Room 46 were seen by Witkind; but these walls remain in about the same general condition today that he left them in. As a result, we can confidently assign the upper strata and walls of Room 46 to the post-Revolt southwestern corner room.

Witkind observed or uncovered a number of details of the history of the last convento, and he recorded a great deal of evidence for the conversion of the half-ruined convento to a sheep and goat pen, when the local herdsman closed up doorways and hallways to make smaller enclosures. He clearly described the sealed doorways, walled-off cloisters, and layers of animal manure. For our understanding of the relationship between the post-Revolt church and the late convento, the stairway in the northeastern corner of the cloister was a critical discovery. His determination that an earlier church lay beneath the standing building would have been of great importance, if it had ever become public knowledge; Witkind was probably within a few weeks of actually defining the outline of the earlier building when the project was stopped.

The onset of World War II played a strong part in Witkind's failure to present any of his conclusions and suspicions to the archaeological community and the public, as did his remaining in the military afterwards. It is not particularly surprising that he was never able to prepare a final archeological report. However, given the nature of his findings at Pecos, combined with the intense interest in the site both at the Museum of New Mexico and among the citizens of the state as a whole, one would have expected a few archeological notes in *El Palacio*, summarizing his work. The fairly clear indications of an earlier church beneath the standing structure was itself worthy of a note of some sort. Certainly, by the time he finished at Pecos in December, 1940, Witkind had a fairly clear plan of the rooms he had excavated, and some idea of the implications of this plan and its associated stratigraphy – that is, he surely had no doubt that the

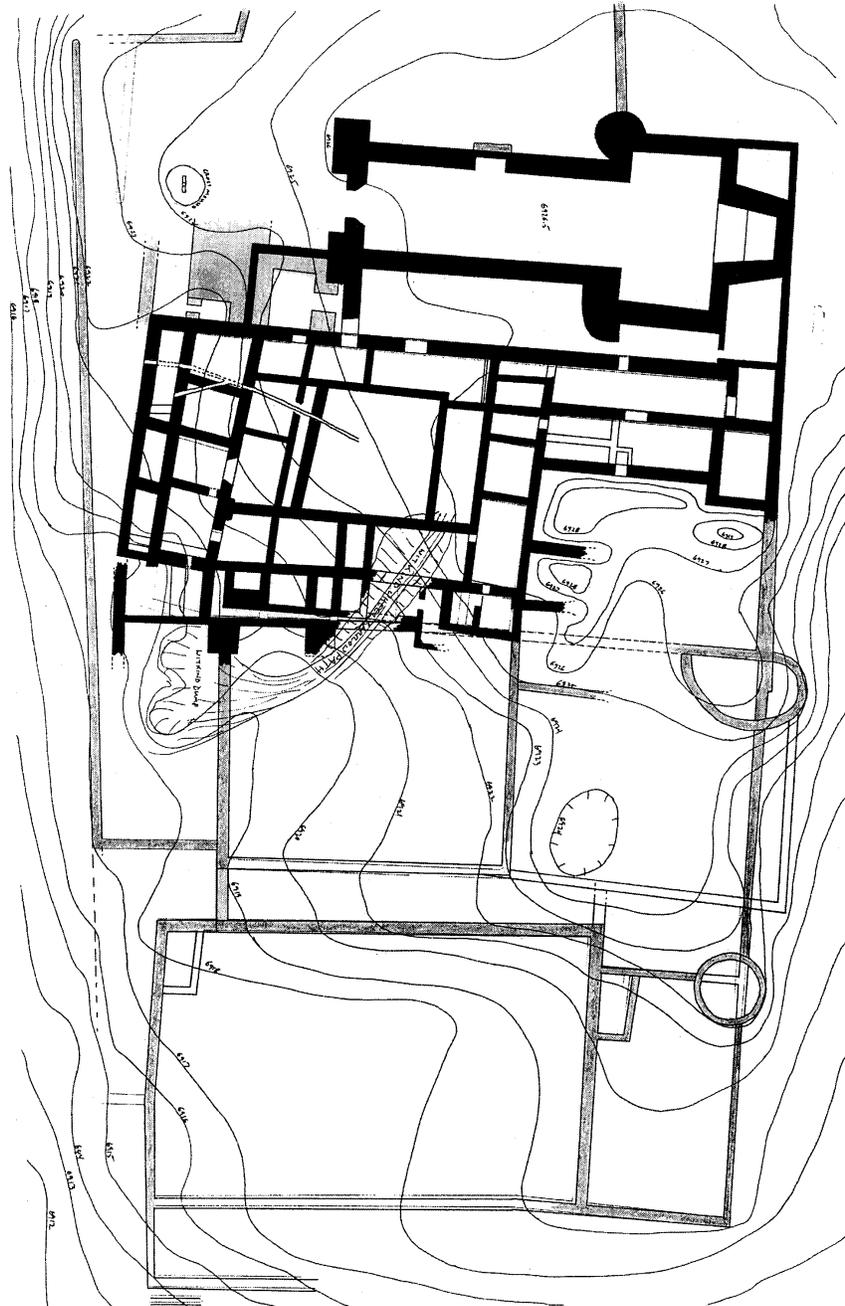


Figure 7.22. The extent of Witkind's excavations at the time work stopped in December, 1940.

convento ruins extended much more deeply into the ground, and much farther in extent, than the last convento that he had uncovered. Had any or all of these topics been discussed in a short article with an accompanying plan, the work of Jean Pinkley in the 1960s might well have been conducted completely differently, and the funding made available to her might have been somewhat closer to a reasonable amount.

However, it is easy to be judgmental, forgetting the tensions of those days. The collapse of Europe in 1940, happening even as Witkind carried out the last months of his excavations at Pecos, the increasing tension in the United States during 1941 over whether this country would become involved in the conflict, and finally the attack on Pearl Harbor at the end of 1941 and Witkind's call-up into the military, all within a year of the closing of the excavations, probably prevented work on any articles he might have been preparing, and once he was gone from Santa Fe, it was never possible to return to such a study.

Because Witkind published no summary notes, the National Park Service planners had no reason to think that there was more to be found at Pecos. Instead, they believed, based on the general impression left by Witkind among his peers at the Museum, that the main convento had been entirely excavated.

This impression was summarized by Edgar Hewett gave what he called an “abridged” version of Witkind’s assessment to him of the results of his excavations at Pecos. According to Hewett, Witkind said that the convento consisted of three parts: 1) “the quarters of the resident friars and lay brothers, refectory, chapel, and living quarters;” 2) “the quarters of the neophytes, Indian servants, storage rooms, etc;” and 3) “Detached to the south, are the lines of fallen stone and adobe walls of the old corrals and pens for stock.” Hewett said that the first section, the resident friars’ quarters, had the plan of “a hollow square of rooms and passages built around a patio in the west end of the quadrangle with the main gate to the east facing the [Pecos] river.” Witkind mentioned that there were two floors found in the church, one by Nusbaum and the other three feet two inches lower.<sup>157</sup> Hewett, though, was still committed to the idea that Pecos was one of the five “Archaic” churches of New Mexico and was not going to support any suggestion that the standing church at Pecos was a post-Revolt structure. The general tone of the statement suggests that the no-longer-available summary being “abridged” by Hewett was written in late 1939. For example, Witkind stated that he had excavated nine rooms, several corridors and passages, and some “indeterminate areas.” This count indicates that he considered most of the rooms on the west, south, and east sides to have been “traced,” but not excavated. He mentioned having found only two fireplaces, in Rooms W-1 and W-2. In other words, much of the excavation of rooms on the west side of the convento had not happened at the time this statement was prepared.<sup>158</sup> He describes the three quadrangles surveyed in March, 1940, but in terms suggesting that he was not seeing them as three distinct quadrangles yet. Nonetheless, it

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<sup>157</sup>Edgar L. Hewett and Reginald Fisher, *Mission Monuments of New Mexico* (Albuquerque: University of New Mexico Press, 1943), pp. 224-26.

<sup>158</sup>Hewett, *Monuments*, pp. 226-230.

is apparent that in these few excerpts we are getting a glimpse of Witkind's ideas about the overall plan of the convento, only hinted at in his daily journal.

Hewett, in his summary of the work at Pecos, stated that "the church has been repaired and the monastery uncovered."<sup>159</sup> Within the constraints given by the WPA, of course, this was true. But because of this unequivocal statement, readers of Hewett's assessment of the excavation of the Pecos mission were left with the conviction that the convento had been completely excavated. As a result, when National Park Service planners prepared estimates for the work needed at Pecos to bring it back to a good condition of preservation, and for interpretation to the public, they severely underestimated the cost of final excavation and stabilization of the mission, and Jean Pinkley was handed an impossible task and completely insufficient funding.

The test trenches in and around the church, especially those revealing the walls of the west end of the earlier church, much too large for it to be accepted as the building it was, were all filled. By 1945 the buildings looked much as they did two decades later, when Jean Pinkley arrived to begin the work again.

#### After Pecos: Witkind in the Military

Witkind joined the National Guard during the tense days of 1940 as Hitler overran Europe. His unit was activated apparently in December, 1941, or January, 1942, soon after the attack on Pearl Harbor put the United States into World War II. By 1943 he was a second lieutenant serving as a cryptographic security officer with the Air Transport Command, stationed at Miami, Florida.<sup>160</sup> In 1944, he was a full lieutenant, still in cryptographic security, and stationed in India.<sup>161</sup> Later during the war he served as an Intelligence officer with the Flying Tigers, operating out of China. Although he had intended to go back to archeology after the war, his Intelligence activities put him in a special high-security category, and he remained in the military.<sup>162</sup> In February, 1946, he was stationed in San Antonio, Texas, as a captain in the Air Force, probably at Security Service headquarters at Kelly Air Force Base.<sup>163</sup> He died on February 8, 1956, of a gunshot wound, possibly suicide, at his house in San Antonio. He was buried in his home town of Colorado Springs, Colorado, with services by a military chaplain.<sup>164</sup>

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<sup>159</sup>Hewett, *Monuments*, p. 142.

<sup>160</sup>"Archeologists in the Army," *El Palacio*, 50(February, 1943):44.

<sup>161</sup>*El Palacio*, 51(June, 1944):108.

<sup>162</sup>W. Max Witkind to James Ivey, personal communication, December 19, 1994.

<sup>163</sup>"Bill Witkind, now a captain in the Army Air Corps, visited Santa Fe and Coronado State Monument last month on his way to San Antonio." *El Palacio*, 53(March, 1946):74.

<sup>164</sup>Death Notices, *Colorado Springs Gazette*, Colorado Springs, Colorado, February 9, 1956. W. Max Witkind to James Ivey, personal communication, December 19, 1994. Max thinks suicide was quite unlikely, and suggests that his father's death was murder, made to look like suicide.



## Chapter Eight After Witkind: Pecos Becomes a National Monument

In spite of his efforts, after Witkind left Pecos his excavated and partly stabilized convento gradually returned to a ruined appearance. By the 1960s it was difficult to distinguish between those portions of the convento and pueblo that had been excavated and stabilized, and those portions which had been abandoned and untouched since 1838.

With the end of the Cuarto Centennial celebration and the intensification of the war in Europe, activity at Pecos declined sharply. In June 1941, the state began construction on a caretaker's house as a joint project between the Works Progress Administration and the Museum of New Mexico. The project ran out of money after completion of the house but before the well had reached water. Because of the lack of water, no caretaker could be assigned. The absence of supervision left the ruins subject to vandalism and theft.

The economic constraints caused by the Second World War prevented all but minimum development until the late 1940s. In 1950, the Museum finally raised enough funds to complete the administrative structures. The well was finished, the caretaker's house enlarged, and electricity installed.

The possibility that some money would be left over after completion of the caretaker's buildings prompted the Museum staff to consider some possible stabilization or restoration projects. Even Alfred Kidder became involved in the planning. He suggested to Director Boaz Long of the Museum of New Mexico that some rooms at the north end of the South Pueblo should be restored, since here the walls survived to several stories and evidence for ceiling heights and construction methods was well-defined. Michael Tishy of the Museum staff agreed with Kidder's recommendations, but suggested that more stabilization work on the church should have equal or higher priority than restoration of the South Pueblo rooms.<sup>1</sup>

In 1951, with the completion of the residence and utilities, the state assigned a custodian to the monument. Budgetary limitations were still severe, however, and a marked trail and trail guide were not available until the following year.<sup>2</sup> The state never made Pecos an attractive post for a professional historian or interpreter. Through the decade of the 1950s, the salary for the custodian was \$100 to \$150 per month. Not until 1958, with the hiring of Vivian O'Neal, who had an independent income, did the state get a long-term custodian who was both competent and happy with the job. O'Neal remained at Pecos through the early 1960s, even after the state cut off all funding for the monument in 1961. Mrs. O'Neal continued as caretaker without pay from July, 1961, until she turned Pecos over to the National Park Service when it officially activated the National Monument on January 1, 1966.

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<sup>1</sup>Alfred V. Kidder to Boaz Long, June 23, 1950, files of New Mexico State Monuments, Museum of New Mexico. Attached to Kidder's letter is the note from Tishey, dated June 30.

<sup>2</sup>"The Pecos State Monument," trail guide prepared by the Museum of New Mexico, 1952, files of the New Mexico Laboratory of Anthropology.

### Pecos Is Offered to the National Park Service

As early as 1947 the State of New Mexico made the first offer of donation of Pecos to the National Park Service.<sup>3</sup> The offer was undoubtedly prompted by the lack of funds to properly develop the site and the obvious deterioration of the exposed walls of the pueblo and church. The Park Service declined the state's offer. Finally, in early 1960 Dr. K. Ross Toole, Boaz Long's successor as Director of the Museum of New Mexico, unofficially opened new negotiations with the National Park Service for the transfer of Pecos to Federal ownership. His efforts met with little success and the stresses of the work eventually affected his health. However, Toole's energetic campaign to interest the National Park Service in Pecos was an important factor in the eventual creation of Pecos National Monument.<sup>4</sup>

In early 1958 Robert M. Utley, Staff Historian in the Region Three Office, prepared a study on the significance of Pecos for the National Survey of Historic Sites and Buildings. On July 7, 1958, in a letter to the Director of the National Park Service, Utley summarized his report and recommended Pecos as an "outstanding candidate for inclusion in the National Park System." In this summary, Utley listed both the archaeological and the historical significance of Pecos, without indicating a dominant theme.<sup>5</sup>

For the submission to the Advisory Board on National Parks, however, Utley clearly stated his conclusions about where the significance of Pecos lay. "It is of exceptional historical importance," he said, "because of its close association with many early Spanish explorers of the Southwest, because its missionary activity spanned nearly the entire period of Spanish settlement, because of its major role in the Rebellion and Reconquest, because it vividly exemplifies in its hostility to the Spanish and its extermination by epidemic the impact of Spanish rule on the native population, and because, finally, it exhibits fine surviving remains to illustrate all of these values." Utley relegated the prehistorical and archaeological aspects of the significance of Pecos to a simple one-word listing in the "Contact with the Indians" theme study.<sup>6</sup>

The Advisory Board met in April, 1959. Based on Utley's evaluation, the Board recommended Pecos as a site of national significance because of its importance to the history of Spanish exploration and Settlement. On December 8, 1960, Director Wirth notified Governor John Burroughs of New Mexico that because of the action of the Advisory Board, the Secretary

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<sup>3</sup>Norman B. Herkenham, *Pecos State Monument: an Area Investigation Report* (Santa Fe: Region 3 Office, National Park Service, March, 1962), p. 7.

<sup>4</sup>See Museum of New Mexico Director K. Ross Toole to Director of the New Mexico Department of Development Merle H. Tucker, files of the New Mexico State Monuments, Museum of New Mexico, May 3, 1961.

<sup>5</sup>Herkenham, *Pecos State Monument*, p. iii; Robert Utley to Director, National Park Service, files of the Chief Historian (CH), National Park Service, Washington, D. C., July 7, 1958, copy at PNHP.

<sup>6</sup>*The National Survey of Historic Sites and Buildings*, Theme IV, Spanish Exploration and Settlement (Washington, D. C.: National Park Service, Department of the Interior, April 1959), pp. 94-6; *The National Survey of Historic Sites and Buildings*, Theme VIII, Contact with the Indians, (Washington, D. C.: National Park Service, Department of the Interior, September 1963), p. 162.

of the Interior had approved Pecos as eligible for Registered National Historic Landmark status.<sup>7</sup> The actions of the Advisory Board and the Secretary of the Interior indicate their concurrence with Utley's evaluation of the national significance of Pecos. Such approval encouraged the progress of negotiations between Dr. Toole of the Museum of New Mexico and the National Park Service.

Unfortunately, at about the same time the planners for the State of New Mexico heard of Dr. Toole's quiet negotiations with the National Park Service. Presuming that the negotiations would soon result in the transfer of Pecos to federal responsibility, the state chopped all funding to the state monument, effective June 30, 1961. No funds for stabilization of ruins or for keeping a custodian at Pecos were available from the state after that date.<sup>8</sup>

In desperation, Dr. Toole wrote to Director Wirth officially proposing the transfer of Pecos State Monument to the National Park Service as part of the Mission-66 Program.<sup>9</sup> Because of the positive evaluations Pecos had received from the Park Service over the preceding years, Director Wirth reacted favorably. He immediately requested a suitability-feasibility study of Pecos by the Region Three National Park Service System Planning Branch. The Advisory Board would consider the report at the Spring meeting of 1962.<sup>10</sup> As a follow-up, Acting Assistant Director Jackson E. Price of the National Park Service replied to Dr. Toole. He expressed interest in Toole's proposal, and discussed the suitability, feasibility, and cost of operation studies as well as historical and archaeological evaluations that would have to be made, and the evaluations that had to be undertaken, before the National Park Service could accept Pecos.<sup>11</sup>

#### The Park Service Evaluates Pecos

Acting Regional Director George W. Miller had little liking for historical parks and little sensitivity for cultural resources. He preferred natural parks and resources. Miller did not like the idea of taking the problem-ridden Pecos State Monument off the hands of the Museum of New Mexico. He wrote to the Director acknowledging the request to prepare a detailed study of Pecos for consideration at the spring meeting of the Advisory Board, but voiced his objections. "The main reason of the State in offering these areas to the Service is simply to avoid the expense of maintenance and operation," he said, and added prophetically that "stabilization

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<sup>7</sup>Director Conrad Wirth to Governor John Burroughs, files of the New Mexico State Monuments, Museum of New Mexico, December 8, 1960.

<sup>8</sup>Dr. K. Ross Toole to the Editor of *Museum News*, newsletter of the American Association of Museums, files of New Mexico State Monuments, Museum of New Mexico, March 8, 1962.

<sup>9</sup>Dr. K. Ross Toole to Director Wirth, files of the Office of the Director of the Museum of New Mexico, July 10, 1961.

<sup>10</sup>Herkenham, *Pecos State Monument*, p. 7; see also Acting Regional Director George W. Miller to Director Wirth, OCH, August 15, 1961, PNHP.

<sup>11</sup>Frank Wilson, "Administrative History of Pecos National Monument," 1969, PNHP, pp. 6-9.

will be a sizeable recurring expense." With these objections, Miller became the only person on record who opposed the acquisition of Pecos. Even in Miller's letter the brilliant and influential Erik Reed, an archaeologist of high reputation serving as Regional Chief of Interpretation, managed to get his own strongly pro-acquisition statement included.<sup>12</sup>

In spite of the reservations of some staff in Santa Fe, the Park Service expedited the effort to make Pecos part of the National Park System. Director Conrad L. Wirth had infused new life into the National Park Service with his MISSION 66 program for upgrading the parks by 1966. He favored acquisition of any and every new park that could be justified. George Miller's objections received no sympathy in the Washington office, which took the appropriate steps to get consideration of Pecos on the agenda of the Advisory Board for early 1962. At the same time the Region Three office built the necessary studies into its semi-annual work plan for September 1961 to March 1962. Finally, in January 1962, Norman B. Herkenham, Chief of Planning for Region Three, began the collection of data for the Area Investigation Report on Pecos State Monument. Assisting him was Archaeologist Albert Schroeder.

The two men played a critical role in shaping the future of Pecos National Monument. Herkenham was a quiet, moderate, competent planner who attempted to incorporate the many elements of the significance of Pecos into a single, coherent proposal, starting from the evaluations presented by Robert Utley four years before. Schroeder was an able, highly respected professional who had made many contributions to the study of both the archaeology and the history of the Southwest. He was also a determined, stubborn, and skilled bureaucrat who did not give in readily in a dispute. As an archaeologist, he tended to evaluate cultural resources from a strongly anthropological viewpoint and to regard the historical side as of lesser importance. Utley, of course, being a historian, had a similar bias in the other direction. Schroeder was convinced that Pecos should have a much stronger archaeological emphasis than Utley was willing to grant, and attempted to ensure that this theme received proper discussion in the area investigation report. Herkenham, however, used most of Utley's notes and suggestions, with the result that the final report had a clearly historical focus.

After an intensive effort, Herkenham issued *Pecos State Monument: An Area Investigation Report* at the end of March, 1962. This document was critical to the history of planning for Pecos. It set the general outline for the National Park Service's plans for development and interpretation of the future Pecos National Monument. *Pecos State Monument* was reproduced virtually word-for-word in 1963 as the official National Park Service proposal for the National Monument and used during Congressional hearings as the key document for briefing the congressmen on the various committees. The position taken by the National Park Service on the development concepts for Pecos in *Pecos State Monument* became the plan presented to and accepted by Congress when it approved the acquisition of Pecos for the National Park System. In other words, Herkenham's statements and conclusions, hastily put together under a close deadline during three months in early 1962, determined the shape of

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<sup>12</sup>Acting Regional Director George W. Miller to Director Wirth, OCH, August 15, 1961, PNHP.

development planning, both Park Service and Congressional, for Pecos National Monument from that time to the present.<sup>13</sup>

The report discussed "factors relating to the suitability and feasibility of accepting Pecos State Monument into the National Park System." The evaluation specified that the purpose of the park would be to:

1. Reveal to its visitors "the way of life of an ancient Indian people" and "develop an appreciation of the Spanish missionaries' struggles to civilize and Christianize the Pecos Indians during a period of colonization that imposed a lasting influence on the land."
2. Interpret the relationship of the Pueblo and Mission to the "full pageant of Spanish exploration and settlement of the Southwest, beginning with its eventful association with the Coronado expedition."
3. Manage the site to preserve its character and promote the fulfillment of the above missions effectively and permanently.

The language used in the report implied that some portions of the pueblo should be excavated and stabilized. It specifically recommended as its first guideline that the National Park Service should "increase the scope of stabilization of the Pecos ruins and excavate some additional ones." Further, the section entitled "Significance and Need for Conservation" stated that "additional excavation of some of the ruins, both pueblo and convento, undoubtedly would enrich the historian's knowledge and the story which Pecos promises its visitors."

In addition, the report mentioned the long-term interests of Colonel E. E. "Buddy" Fogelson and his wife, Greer Garson Fogelson, in the monument's purposes and its archaeological and historic resources. Buddy Fogelson had purchased the Forked Lightning Ranch, occupying most of the southern two-thirds of the Pecos grant, from Tex Austin in the late 1930s. The ranch surrounded the tract containing the ruins of the pueblo, church and convento, that had been donated to the Museum of New Mexico by Gross, Kelly and Company in 1921. The *Pecos State Monument* report suggested that the Fogelsons might be willing to cooperate with National Park Service if expansion of the boundaries of the proposed park was necessary.<sup>14</sup>

The report made only a brief mention of the Santa Fe Trail: "The ruins became a well-known landmark to traders using the Santa Fe Trail which passed nearby." It should be noted that the boundaries of the State Monument, the only property being directly evaluated, did not include any portion of the Trail. However, later plans did not increase the level of interpretation

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<sup>13</sup>Experienced Park Service personnel will recognize that this was not an isolated series of events peculiar to Pecos. The first round of planning documents always exerts tremendous leverage on future planning. Planners should be aware of how pervasive the effects can be.

<sup>14</sup>Herkenham, *Pecos State Monument*, pp. 1, 5, 13, 16. The Fogelsons consistently supported the efforts of the Park Service to develop Pecos by means of donated land and financial support for construction and development projects.

intended for the Santa Fe Trail, and Pecos remained nothing more than a landmark as far as the Trail was concerned.

On April 26, Assistant Director Ben H. Thompson recommended to the Director of the National Park Service that based on the *Pecos State Monument* report, Pecos should be submitted to the Advisory Board and recommended as an addition to the National Park System as a National Monument. The Director approved, and the Board received the Area Investigation Report for consideration. In May, the Board recommended that Pecos be accepted as a donation to the System. Finally, on August 9, 1962, the Secretary of the Interior approved the Advisory Board's recommendation.<sup>15</sup>

A week after the Secretary of the Interior had approved the proposal to accept Pecos National Monument into the National Park System, the Acting Director of the National Park Service, Hillory A. Tolson, recommended initiating planning studies as soon as possible in order that the National Park Service could make a determination of the final land requirements for administering the Monument.<sup>16</sup> By September 12, 1962, Region Three Director Thomas J. Allen reported to the Director that arrangements for beginning the preparation of a proposal had been made both with Museum of New Mexico experts and personnel in the Washington office of the National Park Service.<sup>17</sup>

As part of the ongoing planning process, in September of 1963 the Southwest Region of the National Park Service (previously Region Three)<sup>18</sup> published *Pecos National Monument, New Mexico: A Proposal*. This report was virtually identical to the Area Investigation Report of March 1962, but received wider and more critical review. For example, on March 11, 1964, Herbert E. Kahler, Chief of the Division of History and Archaeology in Washington, sent a memo to the Acting Chief of the Division of National Park System Studies criticizing the *Pecos National Monument* proposal. This critique was almost certainly written by John Corbett, a veteran of archaeology at Pecos, as described in Chapter 4, "South Pueblo." Corbett had gone on to become the Chief Archaeologist of the National Park Service by 1964, and was Kahler's subordinate. The critique indicated that the majority of the proposal emphasized the Spanish presence at Pecos. It gave far too little space to the significance of the prehistory of the site or to the importance of the site to the development of archaeology in this country.<sup>19</sup>

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<sup>15</sup>Herkenham, *Pecos National Monument*, p. 5; Assistant Director Ben H. Thompson to Director Wirth, OCH, April 26, 1962, PNHP.

<sup>16</sup>Acting Director Hillory A. Tolson to Region Three Director, OCH, August 16, 1962, PNHP.

<sup>17</sup>Region Three Director Thomas J. Allen to Director, OCH, September 12, 1962, PNHP.

<sup>18</sup>Region Three was changed to the Southwest Region during 1963.

<sup>19</sup>Herbert E. Kahler, Chief of the Division of History and Archaeology, to Acting Chief of the Division of National Park System Studies, OCH, March 11, 1964, PNHP. There are strong similarities between the critique probably written by Corbett and signed by Kahler and the criticisms by Reed and Schroeder of Utley's interpretive prospectus later in the year. This suggests that Reed and Schroeder had communicated with Corbett their concerns about what they considered the over-strong emphasis on Spanish colonial history in the various planning documents being

Meanwhile, discussion between the state and the National Park Service continued. On June 1, 1964, members of the Regional Office staff of the Southwest Region met with Albert Ely of the Museum of New Mexico to develop interpretive goals for Pecos as a National Monument, and to anticipate potential problems. Notes taken at that meeting discuss such details as access, land needs, water supply, and various interpretive methods. These notes indicate that some of the Southwest Region staff were including the "prehistory" aspect into their thinking about interpretive planning for Pecos. For example, under the heading of "Interpretation," the notes listed:

"Select History - 1540 to 1838  
Biggest Pueblo  
Trade center for Indians - both Plains and Pueblo."

Of interest is a statement under "Miscellaneous": "The Fogelsons, especially Greer [Garson Fogelson], are very interested in the area. Their interest, however, is in the Indians - not the church." The emphasis is in the original notes.<sup>20</sup>

In August, 1964, Robert M. Utley of the Southwest Region staff wrote the first interpretive prospectus for Pecos National Monument. The document itself is not presently available, but notes of criticism by archaeologists Al Schroeder and Eric Reed are in the files of the Office of the Chief Historian. The statements reflect their agreement with the Herbert Kahler critique of the *Proposal* in March, the critique probably written by John Corbett. In their opinion, Pecos needed a stronger emphasis on archaeology and prehistory, while Utley emphasized the historic.<sup>21</sup>

### Pecos Reinterpreted

Utley left the Southwest Region to become Chief Historian in Washington in early September of 1964. His departure marked the point at which the Regional Office view of the interpretive emphasis for the development of Pecos began to change. With Utley no longer directly involved in the planning process, the more strongly archaeological interpretive viewpoint of Al Schroeder and Erik Reed began to prevail.

Al Schroeder had helped Herkenham with the preparation of the *Pecos State Monument* proposal in January through March, 1962, but the final document followed Utley's recommended outline of the dominant themes of Pecos. It embodied the entire history of Pueblo-Spanish contact in the Southwest, from Coronado's first visit to usurpation of the land by Spanish settlers

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prepared by the Park Service. The body of correspondence between Corbett's office and Region Three during this period is not presently available, but probably contains considerable information about the development of the "archaeological" school of interpretive planning for Pecos.

<sup>20</sup>"Meeting with Mr. Albert Ely, 6/1/64, of the Museum of Anthropology regarding problems and development of the proposed Pecos Nat'l Monument," PNHP, June 1, 1964, pp. 2, 3.

<sup>21</sup>Robert Utley to Charles W. Porter, September 10, 1964, OCH, PNHP.

just prior to the success of the Mexican Revolution in 1821. The prehistoric culture of Pecos and the significance of the ruins to the development of American archaeology were only secondary themes.

With Utley's departure, the theme of the prehistory of the pueblo suddenly began to receive greater emphasis in planning at the regional level. Utley himself was concerned about this development. On September 10, 1964, soon after he reached Washington, Utley wrote to a subordinate, "I have been battling for several years with Reed and Schroeder, reinforced by Corbett, over whether Pecos is to be primarily historical or archaeological . . . the enemy has not given up, nor am I there now to carry on the fight." Utley then made a clear statement of the focus of all planning and recommendations for Pecos up to the end of 1964: "Pecos was justified as a historical area, and it appears an unparalleled opportunity to tell the whole Spanish colonial story in New Mexico."<sup>22</sup> After Utley's departure, Schroeder seems to have become the primary author of most of the interpretive planning from 1964 through 1967 and was probably the source of the shift in emphasis.

So far as the documentary record is concerned, however, the shift in viewpoint was purely local. Schroeder's viewpoint had not been included in the wording of the *Pecos State Monument* study. It was this study that set the theme for the planning used during Congressional hearings, and constituted the Washington viewpoint on the interpretive themes of Pecos. The "prehistory" viewpoint, however, was discussed and evaluated at the regional level, and began to be included with more emphasis in later planning originating in the Region.

The gulf between the two positions cannot be overemphasized. Pecos as the scene of the interpretation of the story of Spanish-Pueblo contact would require that interpretation be concentrated on the church, convento, and historic pueblo buildings of both the North and South Pueblos, and because South Pueblo was important during the historical period and had already been excavated and stabilized, it would logically receive most of the attention given to the stabilization of pueblo buildings. On the other hand, if Pecos were interpreted with equal emphasis on both prehistoric pueblo life and as the scene of the major excavations of Southwestern archaeology, most of the emphasis would be placed on the development of the North Pueblo, the largely prehistoric pueblo that was the scene of most of Kidder's archaeological investigations. The church and convento would be interpreted as a relatively minor theme exhibit, dealing with Nusbaum and Kidder's excavation and stabilization of the church. It is precisely this shift in interpretive emphasis that began with Utley's departure, until by 1967 everyone in the Southwest Regional Office was convinced that an equal emphasis on archaeology and prehistory had been included in the original planning, and that the Park Service had always intended to carry out excavation and stabilization of the North Pueblo. This viewpoint, however, was true only for the Regional Office, not for most of the Washington office of the Park Service or for Congress.

With the official approval of the Secretary of the Interior in 1962, the acquisition of Pecos State Monument shifted to a more formal process. In August the Acting Director of the National Park Service, Hillory A. Tolson, notified the Regional Director of the Southwest Region that

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<sup>22</sup>Robert Utley to Charles W. Porter, OCH, September 10, 1964, PNHP.

Assistant Secretary of the Interior John Carver had approved the National Park Service request to begin negotiations between the National Park Service and the state of New Mexico for the transfer of Pecos State Monument.<sup>23</sup> On September 4 the first negotiation meeting was held. By January 25, 1963, Wayne L. Mauzy, the new Director of the Museum of New Mexico replacing Ross Toole, was able to notify Regional Director Thomas J. Allen that the full property title of Pecos had been consolidated in the hands of the Museum, that the State Attorney General had given approval on the legal method, and that the State was now prepared to transfer title to the Park Service.<sup>24</sup>

With the question of title clarified, the process of Congressional approval of the proposed Pecos National Monument could begin. Secretary of the Interior Stewart Udall wrote to Senator Clinton P. Anderson of the recommendation that Pecos be accepted into the National Park System. Udall asked Anderson to handle the necessary legislation. On May 8, 1964, Senator Anderson replied that of the two methods of entry into the system – act of Congress or presidential proclamation – the second would undoubtedly be the quickest and easiest. He suggested that Udall initiate the appropriate steps for a proclamation.<sup>25</sup> Secretary Udall wrote on September 2 to Representative Wayne N. Aspinall, Chairman of the House Committee on Interior and Insular Affairs, and to Senator Henry M. Jackson, Chairman of the Senate Committee on Interior and Insular Affairs, requesting that Pecos be included in the National Park System by presidential proclamation under the provisions of the Antiquities Act. He included a draft of the proposed proclamation for their consideration.<sup>26</sup>

It was not to be that simple. On December 18, Congressman Thomas G. Morris, Representative-at-large from New Mexico and Chairman of the National Parks Subcommittee of the House Committee on Interior and Insular Affairs, wrote to Secretary Udall that he had discussed the Pecos proclamation idea with Congressman Wayne Aspinall. Aspinall, a crusty, wily veteran of the House from Colorado's Western Slope, was an outspoken foe of the use of executive proclamations to bring new parks into the System. This committed Congress to appropriations without allowing it any part in the decision. Aspinall insisted that all new parks be authorized by Congress even though the Antiquities Act and Historic Sites Act sanctioned proclamations by the President or the Secretary of the Interior.<sup>27</sup>

With the convening of the 89th Congress, on January 19, 1965, Congressman Morris introduced House Resolution 3165 to make Pecos a National Monument under National Park Service management. On the same day, Representative-at-large E. S. "Johnny" Walker, also of

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<sup>23</sup>Acting Director Hillory A. Tolson to Region Three Director, OCH, August 16, 1962, PNHP.

<sup>24</sup>Director Wayne L. Mauzy to Region Three Director Thomas Allen, files of the New Mexico State Monuments, Museum of New Mexico, January 25, 1963.

<sup>25</sup>Senator Clinton P. Anderson to Secretary of the Interior Stewart Udall, OCH, May 8, 1964, PNHP.

<sup>26</sup>Secretary of the Interior Udall to Congressman Wayne N. Aspinall, OCH, September 2, 1964, PNHP.

<sup>27</sup>Congressman Thomas G. Morris to Secretary of the Interior Udall, OCH, December 18, 1964, PNHP.

New Mexico, introduced House Resolution 3182, with the same wording. The House sent both bills to the House Committee on Interior and Insular Affairs for evaluation.<sup>28</sup>

In early February 1965, Chairman Aspinall requested a report from the Department of the Interior on the proposed Pecos National Monument.<sup>29</sup> To aid in the preparation of this report, and for use in the upcoming House Committee hearings, Acting Regional Director George W. Miller of the Southwest Region sent to the Director revised submissions of the staffing summary, program summary, and development schedule on February 12. Miller also recommended that Chief of Historical Studies Robert Utley serve as technical witness at the hearings.<sup>30</sup>

The schedules contained a detailed breakdown of planned expenditures and when they should occur. Included was a first-year expenditure of \$185,000 for a visitor center (including \$60,000 for exhibits) and a block of money for "ruins excavation and stabilization." As of February 1965, the National Park Service expected that interpretive development could be accomplished by a two-year excavation program with ruins stabilization included as part of the project. The planners anticipated an expenditure of \$25,000 the first year and \$100,000 the second.<sup>31</sup>

Using the *Pecos National Monument* proposal and the development schedules, the Department of the Interior prepared its report for the House Committee in February and submitted it to the Committee on March 1. On March 2 the Department issued a news release indicating its endorsement of the proposed legislation. The first official statement to the general public concerning National Park Service plans for the development of Pecos, it stated that the Department, "to stimulate an appreciation of the pueblo culture and the historical and scientific aspects of the Pecos story, would institute an interpretive program by constructing new facilities, extending the excavations of some of the ruins, and stabilizing all the ruins excavated."<sup>32</sup>

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<sup>28</sup>*Congressional Record*, 89th Congress, Session 1, Vol. 111, part 1 (Washington, D. C.: Government Printing Office, 1965), p. 976.

<sup>29</sup>Assistant Secretary of the Interior John M. Kelly to Congressman Aspinall, "Background Book," microfiche files of the Southwest Regional Office, March 1, 1965. On December 7, 1965, Frank E. Harrison, Chief of the Division of Legislation and Regulation, sent copies of the "background book" and other materials used in the House Subcommittee hearings to the Regional Director of the Southwest Region.

<sup>30</sup>Acting Region Three Director George W. Miller to the Director, "Background Book," February 12, 1965.

<sup>31</sup>"Background Book," Development Schedules, February 17, 1965.

<sup>32</sup>"Background Book," News Release. The news release presented the intended theme of Pecos National Monument as consisting of equal parts prehistory, Spanish/Indian contact, and the development of the science of archaeology. The statements strongly resemble the opinions of Herbert Kahler, Chief of the Division of History and Archaeology, as stated in March 1964; see Kahler to Acting Chief, Division of National Park System Studies, files of the Chief of the Division of History, March 11, 1964.

### The House and Senate Hearings

The hearings before the House and Senate Subcommittees were held on March 16 and June 8. During the hearings Congressmen and Park Service staff made a series of statements about interpretive goals for Pecos. These remarks must be reviewed in detail. They constitute the intent of Congress for the proposed National Monument.

Congressman Morris, as the author of H. R. 3165, made the introductory statement to the House Subcommittee. Congressman Morris had been Chairman of the Subcommittee on National Parks and Recreation of the House Committee of Interior and Insular Affairs during the 88th Congress in 1964, but by the 89th Congress had become a member of the House Committee on Appropriations, a very influential position in the eyes of the Subcommittee. The transcript of the hearing reads as a session of unrestrained back-patting between Morris and the members of the Subcommittee rather than a serious attempt to evaluate the Pecos proposal.<sup>33</sup> Morris said that an expenditure of \$500,000 was planned, to be used for "rebuilding and preserving the pueblo." Congressman Morris was then questioned by a member of the Subcommittee, Congressman John A. Race of Wisconsin: "Are there any plans to reconstruct this?" Congressman Morris replied, "Yes, those are part of the plans of the Park Service in interpreting the history and the national significance of the pueblo." Congressman Race later asked, "Do you have any idea what it will cost to restore this and make the necessary improvements?" To which Congressman Morris replied, "I estimate that it would cost \$450,000." Neither Congressman Race nor any other member of the Subcommittee examined Morris further about his opinions on the restoration of Pecos. In fact, Congressman John Saylor of Pennsylvania stated flatly, "I want to say, Mr. Morris, that I am going to do everything I can to see that we get [Pecos National Monument] for you this year."<sup>34</sup>

The statements by Director George B. Hartzog before the House Subcommittee to some extent supported Congressman Morris's remarks. Hartzog had succeeded Conrad Wirth as Director of the National Park Service, hand-picked by Stewart Udall. A dynamic, articulate lawyer with immense political and bureaucratic skills, he was even more an expansionist than Wirth and could be expected to promote Pecos or any other qualified area that would expand the System's political base throughout the nation.

The establishment of the National Monument, Hartzog said, both in his presentation to the subcommittee and in his prepared statement included in the records of the hearing, "would permit the Secretary of the Interior to preserve, restore, develop and interpret for the public" the

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<sup>33</sup>For example, during the discussion of Morris's statement on the establishment of Pecos, Congressman Harold T. "Biz" Johnson of California said, "I want to welcome Congressman Morris back to the committee and say that I certainly enjoyed our acquaintance as a member of the Interior and Insular Affairs Committee, and we hope that he stays with the Committee on Appropriations to carry out many of those authorizations that cleared his committee." See "Report of Proceedings, Hearing held before Committee on Interior and Insular Affairs, Subcommittee on National Parks and Recreation, H.R. 3165, H.R. 3182, to Authorize the Establishment of the Pecos National Monument in the State of New Mexico and for Other Purposes" (hereafter "Report of Proceedings"), files of the Division of Legislation and Regulation, Tuesday, March 16, 1965, p.12.

<sup>34</sup>"Report of Proceedings," March 16, 1965, pp. 5-6, 11.

remains of the pueblo and church. On the available copy of Hartzog's prepared statement from the files of the Division of Legislation and Regulations, the word "restore" had been lined out. In the version of the statement made to the Senate three months later, however, the word "stabilize" had replaced "restore."<sup>35</sup>

Neither Director Hartzog nor Robert Utley, who made several statements about the significance of the site, could properly contradict or correct Morris's statements concerning "restoration." However, in 1987 Utley told me that the prevailing climate in Congress during the 1960s was against restoration or reconstruction. The Pecos hearing, in allowing Morris to talk so blatantly about restoration of the pueblo of Pecos without any dissent or question, was completely out of character with the usual pattern. Utley believes that no one in the National Park Service or Congress questioned Morris's statements out of simple courtesy. Restoration was not otherwise part of the record, and there was no chance the Park Service would propose it or Congress fund it.<sup>36</sup>

Hartzog, who was also opposed to reconstruction, handled Morris's presentation deftly. Skirting the issue altogether, he observed that "the Department [of the Interior] plans an interpretive program for the monument that will reveal the way of life of an ancient Indian people and the impact of the early Spanish explorers and missionaries." Rather than making any mention of reconstruction, Hartzog said specifically that "a comprehensive program of lasting care and maintenance is necessary to halt erosion and preserve [the] authenticity" of the church, and "additional excavation is planned at the ruins of the pueblo" and the convento. Hartzog then outlined planned expenditures for the development of the park. These expenditures amounted to \$500,000. They included money for the visitor center, roads and trails, residences, utilities, and \$125,000 for excavation and stabilization, but nothing for restoration. No major excavation or stabilization was planned after the second year.<sup>37</sup>

Based on the hearing and the other reports and documentation presented by the National Park Service, the House Subcommittee on National Parks and Recreation recommended to the full Committee that H. R. 3165 be approved. On April 13, 1965, H. R. 3165 was approved by the full Committee and submitted to the House, while the identical bill H. R. 3182 was allowed to lapse.<sup>38</sup> On April 26 the bill was approved by the House after brief discussion.<sup>39</sup> This discussion was between Congressman H. R. Gross of Iowa, notorious during the 1960s for his

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<sup>35</sup>"Report of Proceedings," March 16, 1965, p. 17; "Background Book," Hartzog's Statement. See also "Transcripts of Hearings before the Subcommittee on Parks and Recreation, Committee on Interior and Insular Affairs, United States Senate," files of the Division of Legislation and Regulation, June 9, 1965, p. 4.

<sup>36</sup>Robert Utley to James Ivey, personal communication, September 28, 1987.

<sup>37</sup>"Report of Proceedings," March 16, 1965, p. 19, 20.

<sup>38</sup>*Authorizing the Establishment of the Pecos National Monument, N. Mex.*, House Miscellaneous Reports on Public Bills, 89th Congress, First Session, Vol. 2, House Reports 213-328 (Washington, D. C.: Government Printing Office, 1965), Report 234; see also *Congressional Record*, p. 7999.

<sup>39</sup>*Congressional Record*, p. 8374.

opposition to new National Park areas, and Congressman Morris. Congressman Gross asked Congressman Morris why the proposed National Monument would require \$500,000 for initial costs if the land was being donated? Again Congressman Morris made a flat statement of his opinion that Pecos would be rebuilt. He replied, "The cost is going to be for the restoration and development of the Indian Pueblo . . . The pueblos are to be restored like they were in the 13th century." After further questioning, Congressman Morris reiterated that the National Park Service was "just going to try to recreate the pueblos as they were in the 13th century."<sup>40</sup>

The next day, April 27, H. R. 3165 was introduced to the Senate, which immediately sent it to the Senate Committee on Interior and Insular Affairs.<sup>41</sup> The Committee passed the bill on to the Subcommittee on National Parks and Recreation. The Subcommittee held a hearing on the Pecos proposal on June 9. Acting Assistant Director Gordon Fredine of the National Park Service testified in this hearing, accompanied by Chief Historian Robert Utley. Fredine opened his remarks by reading almost word-for-word Hartzog's statement prepared for the House Subcommittee. However, Fredine stated that "establishment of the Pecos National Monument would permit the Secretary of the Interior to preserve, stabilize, develop and interpret for the public enlightenment and enjoyment" the ruins of the pueblo and the church. Note that the word "stabilize" had replaced the word "restore." Fredine repeated Hartzog's statement that the significance of Pecos resided under the theme of Spanish exploration and settlement, and that the Department of the Interior planned to interpret the site so as to "reveal the way of life of an ancient Indian people and the impact of the early Spanish explorers and missionaries."<sup>42</sup>

Nowhere in the Senate hearings did the Park Service make any statement of intent to "restore" or "rebuild" the pueblo of Pecos. At one point Senator Frank Moss of Utah asked explicitly, "So your development mostly would be to protect the ruins and to build a visitor's center and erect signs?" To which Gordon Fredine replied, "that is correct, sir, and have staff on hand to help tell the story."<sup>43</sup> Further discussion on maintenance referred only to necessary steps of stabilization. In other words, when the Senate Subcommittee approved the passage of H. R. 3165, they were *not* passing a bill to "try to recreate the pueblos as they were in the 13th century." Instead, they were agreeing to the National Park Service program for development as outlined in the proposal and development schedules of February 1965.

Based on the recommendation of the Senate Subcommittee, the full Senate Committee approved the bill on June 14, 1965, and submitted it to the Senate. On June 16 the Senate approved the bill creating Pecos National Monument.<sup>44</sup> After Senate approval, the final steps

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<sup>40</sup>*Congressional Record*.

<sup>41</sup>*Congressional Record*, p. 8507.

<sup>42</sup>"Senate Transcripts," pp. 4, 7.

<sup>43</sup>"Senate Transcripts," pp. 11-12.

<sup>44</sup>*Authorizing the Establishment of the Pecos National Monument, N. Mex.*, Senate Miscellaneous Reports on Public Bills, 89th Congress, First Session, Vol. 2, Senate Reports 183-378 (Washington, D. C.: Government Printing Office, 1965), Report 321; *Congressional Record*, pp. 13435, 13861.

took little time. On June 17 the Speaker of the House signed the bill. The next day it was signed by the Vice-president, and three days later it was submitted to President Lyndon B. Johnson for his approval. On June 28, 1965, the President signed the bill, making it Public Law 89-54.<sup>45</sup>

The text of the bill stated that it was creating Pecos National Monument "in order to set apart and preserve for the benefit and enjoyment of the American people a site of exceptional historic and archaeological importance." It allotted a ceiling of \$500,000, the amount requested by the National Park Service, and stated that the money was "for construction of facilities and excavation and stabilization of the ruins in the Pecos National Monument."

### Interpretive Planning in the Southwest Region During 1965

Meanwhile, the Southwest Region was developing detailed plans for the archaeological work and other interpretive development at Pecos. The actual text of detailed plans for excavation and stabilization at Pecos have not been relocated. However, during a severe reorganization of the goals and priorities of the National Park Service for Pecos in late 1966, Archaeologist Albert Schroeder summarized the similarities and differences between pre-acquisition planning and post-acquisition planning. According to his evaluation, the "original excavation proposals, submitted prior to the acquisition of the area" were for a three-year project that covered the following:

1. Clean-up and stabilization to outline the inner plaza and exterior walls of the North Pueblo.
2. Stabilization of all excavated kivas now open to view.
3. Excavation of a small area on the south side of the North Pueblo.
4. Excavation of a small area in the South Pueblo
5. Testing in other ruins to identify the purpose, use, and age of these other structures for interpretive needs.

One clear problem with Schroeder's discussion is that it presented the archaeological plan as a three-year project, while all available information from the pre-acquisition planning period indicated that at the Washington level, only a two-year archaeological program was planned. It is likely that the "planning" Schroeder referred to was that at staff level in the Regional office, not at the level of policy-making or Congressional hearings.<sup>46</sup>

These same points formed the basis for the scope of work under which the Regional Office set up the actual excavation project under Jean Pinkley, except that by early 1966 the plans had shifted even further towards investigating the prehistory of the pueblo.<sup>47</sup> When Jean Pinkley arrived at Pecos to carry out these plans, she summarized the project briefly: "the work programmed for the first year is stabilization of this structure [the church] and excavation and

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<sup>45</sup>*Congressional Record*, pp. 13994, 14176, 14173, 17917.

<sup>46</sup>Archaeologist Albert Schroeder to Regional Director, files of the Southwest Regional Office (SWRO), October 7, 1966; "Background Book," Development Schedule.

<sup>47</sup>Jean Pinkley, "Monthly Report, Pecos Archaeological Project, July 1966," submitted to Supervisory Archeologist, SWAC (SWAC), National Archives and Records Center, Fort Worth Branch (NARC), August 5, 1966, p. 3.

stabilization of its supporting facility known as a convento. The following two years call for excavation and stabilization of the south end of the South Pueblo and backfilling of the northern, previously excavated end which is in bad shape, and for re-excavation, stabilization, and partial reconstruction of the north Quadrangle [of North Pueblo]."<sup>48</sup>

The scope of work that can be reconstructed from Schroeder's statements and other documents indicates that by 1965 the Southwest Region had accepted the "prehistory" view of the interpretive goals for Pecos, and focused on the North Pueblo. Utley's original emphasis on the "whole Spanish colonial story in New Mexico" implied the requirement that the historic ruins of both the church and the pueblo would be the focus of development, but would have seen the South Pueblo, by all indications constructed during those years, as of more significance to this interpretation, and much of the South Pueblo had already been excavated. The poor job of stabilization had allowed it to return almost to oblivion, but this would have been added reason to make it the principal object of planned archaeological work and stabilization on the pueblos.

By mid-1966, however, Pinkley's summary of her project goals indicates that the Region's plans proposed an expensive project involving the re-excavation of some of Kidder's work on North Pueblo and the further excavation of other areas of the pueblo, involving large areas of stabilization. Soon the plans would be enlarged to include more excavation, stabilization, and selected restoration, and the estimated cost of the work increased by nearly \$1,000,000. Schroeder's presentation of these plans as completely accepted and unremarkable in late 1966 and the emphasis of the plans on the prehistory of the pueblo make it almost certain that Schroeder was the source of the concepts used to establish them.

With Congressional approval of the establishment of Pecos National Monument, the National Park Service embarked on the next phase of planning. The first need was an approved Master Plan. Most of the required estimates of personnel and costs had already been established by pre-acquisition planning, leaving only the actual writing of the formal draft. By late September 1965, the first draft of the Master Plan Brief had been prepared for circulation and criticism. Most of the planning statements paraphrased the *Pecos Proposal* of 1962 and 1963 and the "Background Book" statements used in the House Subcommittee hearings.<sup>49</sup>

After minor changes, the final draft of the first Master Plan for Pecos National Monument was approved by the Acting Chief of Washington Office of Design and Construction Charles E. Krueger on October 7 and by Regional Director Daniel B. Beard on October 10, 1965. Assistant Director Howard W. Baker signed for the Director on January 28, 1966.<sup>50</sup>

This Master Plan was the first published statement of the intent of the National Park Service for Pecos National Monument. The major themes were to be: "1) The life story of the Pueblo Indian, and 2) his conquest, revolt, and subordination by the Spaniards." Minor themes

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<sup>48</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, NARC; copy at PNHP.

<sup>49</sup>"Master Plan Brief," draft in microfiche files of the SWRO, September 1965; Regional Chief of Master Plan Coordination Volney J. Westley to Chief, Washington Office of Design and Construction, NARC, September 29, 1965; copy at PNHP.

<sup>50</sup>*Master Plan Brief* (Santa Fe: Southwest Regional Office, National Park Service, October 1965).

would be the decline and fall of the pueblo, the archaeology of Bandelier and Kidder, "the visits of travelers on the Old Santa Fe Trail," and the history of the site as a state and national monument. Management category was to be a balanced presentation of the site as both a prehistoric and historic site, with archaeological importance being presented within the prehistorical context. Excavation and stabilization of the pueblo ruins and stabilization of the church ruins were mentioned as major goals but never discussed in detail.<sup>51</sup>

The change, though subtle, was already showing. The management category statement was that "the aboriginal history of the Pecos Indians, both before and after the coming of the Spaniards, is the essential context." This statement encapsulates the arguments of Schroeder and Reed as brought to bear on Utley's interpretive prospectus of 1964. It is clearly at variance with the Spanish colonial "essential context" accepted by the Advisory Board when it approved of Park Service plans to make Pecos a National Monument, with the statements emphasizing the Spanish contact and settlement theme made in the *Pecos National Monument* proposal submitted to Congress, and with similar statements made in Congressional hearings.<sup>52</sup>

After the Washington Office approved the Master Plan without changing the emphasis back to a principally historical viewpoint, the Regional office revised the archaeological plans for Pecos, increasing the emphasis on the archaeology of the prehistoric period of the pueblo. Again, none of the detailed plans for proposed archaeological work at Pecos were preserved in the available record. However, discussion of the intended work was incorporated in Jean Pinkley's correspondence and monthly reports, as well as in the reappraisal of the development of Pecos conducted in October, 1966 by Al Schroeder. Using these sources, the general outlines of Schroeder's new plans can be reconstructed.<sup>53</sup>

The revised plans added excavations, stabilization, and some restoration not included in the 1965 scope of work. These were:

1. The opening of the south and east entryways of the North Pueblo through which the interpretive trail would pass.
2. The outlining of terraced walls in a high-standing portion of the pueblo.
3. The exposure of a terraced portal area in one corner of the plaza.
4. Necessary stabilization of these features.

These points do not include the backfilling of the northern, already-excavated section of South Pueblo and a new excavation to uncover another section of it. Nonetheless, these enlargements to the work of excavation and stabilization added considerably to the cost of the original project estimates. With the beginning of archaeological work on the convento, it would quickly become

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<sup>51</sup>*Master Plan Brief*, pp. 3-4.

<sup>52</sup>*Master Plan Brief*, p. 4.

<sup>53</sup>Jean Pinkley, "Monthly Report, Pecos Archaeological Project, July 1966," submitted to Supervisory Archaeologist, SWAC, NARC, August 5, 1966, copy at PHNP; Archaeologist Albert Schroeder to Regional Director, files of the SWRO, October 7, 1966; copy at PHNP.

obvious that by no stretch of the imagination could such an ambitious program be accomplished under the \$500,000 ceiling, or even a ceiling three times that amount.<sup>54</sup>

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<sup>54</sup>Archaeologist Albert Schroeder to Regional Director, files of the SWRO, October 7, 1966; copy at PHNP.



## Chapter Nine

### The Excavations of Jean Pinkley, 1966-1969

Pecos National Monument officially opened on January 1, 1966, and basic administrative development proceeded quickly. On February 17, Director Hartzog announced in a news release the appointment of Thomas F. Giles as the first superintendent of Pecos.<sup>1</sup> In early 1966, archeologist Jean McWhirt Pinkley of the Southwest Archeological Center was selected to conduct the necessary excavations at Pecos required by the interpretation and stabilization plans for the site, as described in Chapter 8.

Pinkley had received a Bachelor's degree in anthropology and archeology from the University of Arizona in 1933, and a Master's degree in archeology from the same university in 1936. She trained in field techniques under Emil Haury, a graduate of the University of Arizona who had just gotten his doctorate from Harvard in 1934, and who became head of the Department of Archaeology at Arizona in 1937.<sup>2</sup>

Pinkley joined the National Park Service in 1939. Her first Service assignment was at Mesa Verde, where she stayed until 1966. In 1942, while at Mesa Verde, she married Addison Pinkley, the son of the legendary Frank "Boss" Pinkley, the superintendent of the Southwestern National Monuments from 1923 to 1940. During 1958-1963, the Wetherill Mesa Archeological Project was a major effort at Mesa Verde; Pinkley contributed to the planning for the project, and served as the park superintendent's advisor on interpretation and research issues. Although her training was in archeology, in the Park Service she worked primarily as an interpretation specialist. She participated in and coauthored a report on one excavation during her twenty-six years at Mesa Verde, working with James A. (Al) Lancaster, the chief of maintenance at Mesa Verde.<sup>3</sup>

About March, 1966, after being transferred from Mesa Verde as part of an abrupt reorganization of the park management and staff, she joined the staff of the Southwestern Archeological Center (SWAC), the National Park Service technical assistance office

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<sup>1</sup>"National Park Service Appoints First Superintendent of Pecos National Monument," News Release, files of the Office of the Chief Historian (OCH), Washington, D.C., February 15, 1966; copy in PNHP. Giles was to guide Pecos through the traps and pitfalls of the next decade until his retirement in 1978.

<sup>2</sup>Richard B. Woodbury, *Sixty Years of Southwestern Archaeology: A History of the Pecos Conference* (Albuquerque: University of New Mexico Press, 1993), pp. 68-70.

<sup>3</sup>*Hidden Scholars: Women Anthropologists and the Native American Southwest*, Nancy J. Parezo, ed. (Albuquerque: University of New Mexico Press, 1993), pp. 210, 392; Chester A. Thomas, "Jean McWhirt Pinkley, 1910-1969," *American Antiquity*, 34(October, 1969):471-473; James A. Lancaster, Jean M. Pinkley, Philip F. Van Cleave, and Don Watson, *Archeological Excavations in Mesa Verde National Park, Colorado, 1950*, Archeological Research Series, no. 2 (Washington: National Park Service, 1954), pp. 23-86; Alden C. Hayes, *The Archeological Survey of Wetherill Mesa, Mesa Verde National Park, Colorado*, Archeological Research Series no. 7-A (Washington: National Park Service, 1964), "A Prologue to the Project," Douglas Osborne, Director of the Wetherill Mesa Archeological Project, pp. 1-12.

headquartered in Globe, Arizona.<sup>4</sup> Her first assignment with SWAC was the excavation and stabilization of the church and convento of Pecos National Monument. In April Pinkley arrived in Santa Fe and began an intensive pre-excavation review of the history and archeological investigations of the site. Chester A. (Art) Thomas, who had been her superintendent at Mesa Verde from September, 1958 through most of the Wetherill Mesa Project, officially left the park four months later on July 2, and the next day became chief of SWAC, and Jean's boss again.<sup>5</sup>

#### Perceptions of Pinkley's Achievements at Pecos

Jean Pinkley's work at Pecos has been presented to the public as a great success. In her obituary, Chester Thomas described the Pecos Project as "one of the most difficult and complex archaeological puzzles an archaeologist might be called upon to face," certainly an accurate assessment of the Pecos Problem. Pinkley's greatest accomplishment at Pecos, he said, was to outline "a large early church which contemporary observers had recorded but which historians had written off as a myth.... The interpretive story that the Mission has to tell has been greatly enriched by Jean's work, and a fascinating chapter in the history of New Mexico has been brought to light."<sup>6</sup> This assessment of her work at Pecos was echoed by Nancy Parezo in *Hidden Scholars*, and both Thomas and Parezo leave the reader with the impression that she received an invitation to the White House as a result of her successes at Pecos.<sup>7</sup>

Alden Hayes, who continued the Pecos Project after Pinkley's death, maintained the same position. "I should make it clear that any original work on my part was minimal," he stated in his preface to *The Four Churches of Pecos*, his study of the results of his excavations and those of Jean Pinkley. "Most of the excavation was done by Pinkley and by William B. Witkind ... Pinkley's tragic death occurred before she could tie down all the loose ends and prepare a report ... without ... Jean's notes this job would have taken many more months to complete." George Kubler in 1972 called Pinkley's finding of the pre-Revolt church beneath the standing ruins the "major archaeological discovery in the world of the missions of seventeenth-century Mexico."<sup>8</sup>

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<sup>4</sup>This center was created in June, 1958, and continued at Globe until January, 1972. The offices were moved to Tucson in January, 1972, and renamed the Arizona Archeological Center. It was given its present name of Western Archeological and Conservation Center in July, 1975. Hiliary A. Tolson *et al.*, *Historic Listing of National Park Service Officials* (Denver: National Park Service, 1991), p. 47.

<sup>5</sup>Both Alden Hayes and Jean Pinkley indicate in their correspondence that Chester Thomas had selected her for the Pecos Project. This is odd, since officially Thomas was superintendent of Mesa Verde until July 2. It appears that Thomas was unofficially made acting chief of SWAC by the time Richard Vivian left that position on April 29, 1966, and probably even earlier, from about February or March, 1966. It is unclear what happened at Mesa Verde in 1965 to produce this abrupt series of changes in the top staff.

<sup>6</sup>Thomas, "Pinkley," p. 472.

<sup>7</sup>Parezo, *Hidden Scholars*, p. 210; Thomas, "Pinkley," p. 472.

<sup>8</sup>Alden C. Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), p. ix; George Kubler, *The Religious Architecture of New Mexico*, 4th ed. (Albuquerque: University of New Mexico Press, 1972), p. x.

Inside the Park Service, however, the perception of Pinkley's work was considerably different. Because she thought she was conducting principally a clean-up excavation, preparing the mission for display to the public, Pinkley kept very few notes, drew very few plans, made no stratigraphic drawings, and took no photographs of the work. When Alden Hayes took over the project after her death, he was shocked to discover "that there was so little to work with. At first I couldn't believe that there wasn't more data squirreled away somewhere." After carrying out the additional field work he felt he needed, Hayes began trying to write the report himself. He quickly concluded that "there was no way I could do a conventional report with so little data," but was concerned "not to make Jean look bad."<sup>9</sup> The short summary of his reconstruction of the architectural history of the Pecos Mission, *The Four Churches of Pecos*, was the result.

When I began the research for this study, it was typical for park staff to remark to me, half jokingly and half seriously, "maybe you'll find Jean Pinkley's missing notes." At Pecos Pinkley's work was considered to have been less than successful. Park Service archaeologists were especially critical of Pinkley's perceived failure. My examination of the available material left by her, however, allowed a fairly good reconstruction of the work she did and what she found. My conclusion is that had Pinkley lived, she would have been able to write an effective report of her work and the conclusions to be drawn from it. She would have made it clear that most of the main section of the convento had been excavated by Witkind and that his field records were of little apparent use to reconstruct the archaeology and history of the building. In other words, Pinkley's work would not be considered a failure within the Park Service had she been given the time to write the report. Hopefully, my review of the context of the project, the work she carried out, and the records she kept will support this viewpoint, and will correct the negative impression within the Service of Pinkley's work at Pecos.

### The Intents and Purpose of the Project

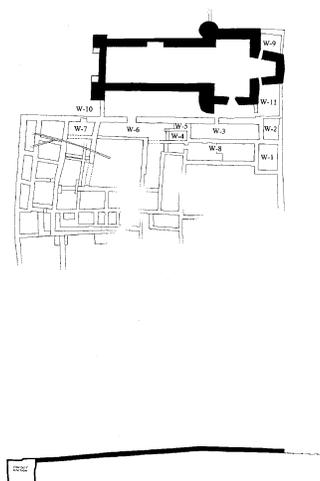
Until Jean Pinkley began excavation and stabilization work in 1966, the state and the National Park Service were under the impression that virtually all the convento had been excavated by William Witkind in 1939-40, as was discussed in Chapters 7 and 8. This assumption led the Park Service to make major errors while planning and carrying out the full excavations of the convento in the 1960s, resulting in a serious loss of archeological information from the work. Pinkley and her supervisors in the Regional Office in Santa Fe and at the Southwestern Archeological Center agreed that the best plan for her first year at Pecos was to concentrate on the excavation and stabilization of the church and convento.<sup>10</sup> In July of 1966, in her first monthly report on the excavations at Pecos, she described the way the project was expected to go: "the work programmed for the first year is stabilization of this structure [the church] and excavation and stabilization of its supporting facility known as a convento. The

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<sup>9</sup>Alden Hayes to James Ivey, personal communication, June 30, 1995.

<sup>10</sup>Supervisory Archeologist Jean Pinkley to James A. Lancaster, May 11, 1966, records of Pecos National Monument, National Archive and Record Center, Fort Worth Branch (NARC); Hayes, *Four Churches*, p. viii; Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," submitted to Supervisory Archeologist, SWAC, August 5, 1966, NARC; copy in PNHP.

following two years call for excavation and stabilization of the south end of the South Pueblo and backfilling of the northern, previously excavated end which is in bad shape, and for re-excavation, stabilization, and partial reconstruction of the north Quadrangle [of North Pueblo]."<sup>11</sup>



**Figures 9.1 and 9.2.** Figure 9.1, on the left, is an aerial view of the church and convento in 1956, sixteen years after Witkind closed down the excavations at the Pecos mission. Figure 9.2, on the right, is a plan of the convento rooms he had uncovered, faintly visible in the aerial photograph. The Witkind rooms numbers used by Pinkley are shown on this plan.

This casual statement about the accomplishment of easily a decade and a half or more of excavation and restoration in three years makes it clear that the project was planned in virtually complete ignorance of the amount of work actually involved. In a letter to Chester Thomas written only two months later, in September, 1966, Pinkley made it clear how little planning had actually occurred: "The trouble, basically, was that no one saw alike on what was to be done. Certainly I have never seen anything in writing and no one has ever given me a concrete picture."<sup>12</sup> A year later, describing the preconceptions on which the initial planning was based, in July, 1967, Pinkley said: "On the basis of previous excavations [by Witkind] in the north section of the convento, and from surface indications, it was presumed that excavation would not require any large expenditure of programmed funds and could be accomplished in a couple of months, three at the very most. This would permit two full seasons and a part of a third season

<sup>11</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, PNHP.

<sup>12</sup>Jean Pinkley to Chester A. Thomas, SWAC, September 3, 1966, PNHP.

for stabilization and partial reconstruction of the adobe church, in very bad shape, and stabilization, outlining and partial reconstruction of the convento."<sup>13</sup> In other words, by 1967, only twelve months into the project, the expected excavation and partial reconstruction of North and South Pueblo had been forgotten, and severe doubt had set in about the completion of the intended work on the church and convento.

For Pinkley and her overseers in Santa Fe, the assumption that the Pecos convento had been entirely excavated was more a hope than a fact derived from any clear knowledge of the previous work at the site. The problem was not a failure to conduct adequate research before going into the field, or a confused research methodology for the planning period of the project; rather, the scope of the project in terms of expected work achieved in a given time period was arrived at by Regional Office managers, with little or no awareness of the actual conditions at Pecos or of the actual scope of the proposed excavations. Accepting the statements of presumed Regional Office experts, Pinkley planned and initially conducted the excavation of the convento under the impression that she was doing no more than cleaning a previously excavated ruin; simply clearing out recent fill accumulated since 1940. She thought that she was removing decayed adobe, blown-in fill, and perhaps backdirt from earlier excavations, rather than excavating untouched deposits.

#### Before the Excavations: Pinkley's Preliminary Research

Pinkley began background research on the church and convento on April 10, 1966.<sup>14</sup> She undoubtedly read through the Domiguez description of the church and convento at Pecos in Adams and Chavez, and the scant description of the same buildings a century later in Bandelier's report. In April or May, at the Museum of New Mexico Photographic Collection she found a number of early photographs of Pecos, including the Nusbaum pictures and the Charles Lindbergh and 3-Hawks aerial photographs of the church and convento taken in 1929.<sup>15</sup>

Pinkley found none of Witkind's field notes, room notes, burial notes, or artifact notes, but did unknowingly see a few of his photographs. Many of the Witkind notes would be discovered in the Laboratory files a year later, long after the critical period of planning was passed and the excavations were well under way. Pinkley arranged for National Park Service photographer Fred Mang to make copies of the photographs she considered the most important sources of information for her planning.

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<sup>13</sup>Jean Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

<sup>14</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," NARC, August 5, 1966; copy at PNHP.

<sup>15</sup>MNM # 6500, "3-Hawks #459," Paul Quinn and Paul Milner of St. Paul, Minnesota. Charles Lindbergh photographs, RSU neg. no. 203, "copied from 8x10 print provided by Museum of New Mexico," School of American Research Photo Collection in Museum of New Mexico, neg. # 130325, 130328, 130366, 130367. Kidder, *Notes*, mentions that Lindbergh took aerial photographs of the Pecos ruins while flying from the Phillips Academy camp in 1929, p. 10 and fig. 3. See Erik Berg, "The Eagle and the Anasazi: The Lindbergh's 1929 Aerial Survey of Prehistoric Sites in Arizona and New Mexico," *Journal of Arizona History* 45(Spring 2004)1:14, 16.

Her undated notes list the pictures Pinkley examined in the photographic collections of the Museum and the Laboratory of Anthropology; this was probably about the second week of April. In the Lab on April 18, she looked at the Kidder notes and plans, and found Witkind's 1939 map, as well as a large plan made from a copy of Bandelier's maps of the pueblo and convento, and a diagram called "General Plan of Pecos."<sup>16</sup> The "General Plan" appears to have been what I am calling the "Academy" plan by Alfred Kidder, a composite plan put together over the years of Kidder's work, including North Pueblo, South Pueblo, the Nusbaum/Adams plan of the church and convento, and other structures measured by Ted Amsden and others. If so, the "General Plan" was the original from which Clyde Arquero later traced his plan, "Pecos Ruins," onto a National Park Service drawing sheet. The original is no longer in the Laboratory of Anthropology files, the files of Pecos National Historical Park, or the papers of the Engineering Division of the Southwest System Office; only Arquero's copy remains in Park Service collections.

To Pinkley's dismay, there was little apparent agreement between the Bandelier and Witkind plans, and other than a few rooms in the northeast corner of the convento, little agreement between Witkind's map and the ruined walls visible on the ground at Pecos. For some reason, she did not see the several versions of the Nusbaum/Adams plan of the church and convento in the Kidder material at the Museum. Although a version of this was later plotted by Arquero on his copy of the "General Plan," Pinkley seems to have ignored it. "At present I have unearthed two ground plans of the convento," she wrote in June, apparently speaking of the Bandelier and Witkind maps. "They do not agree! Neither agrees with Dominguez' description so I am truly at sea."<sup>17</sup>

Consulting with Alden Hayes, with whom she had worked on the Wetherill Mesa Archeological Project at Mesa Verde, she found that Bill Witkind had died ten years before, but his widow, remarried, lived in Norwood, Colorado. This gave Pinkley the opportunity to find out *something*, at least, of what Witkind had done on the convento. On April 21, 1966, she wrote to Bill Witkind's widow, Mrs. Beverly Young.<sup>18</sup> Pinkley briefly outlined the project: "The National Park Service will embark on a three year project this year to prepare Pecos National Monument for exhibit and interpretation. This first season will be spent in restabilizing the mission and excavating and stabilizing the convento." She said that she was uncertain "just how much of the convento was actually excavated [by Bill Witkind] . . . If you can give me any information it will be deeply appreciated. It will help me in planning the nature and extent of excavation and/or re-excavation."

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<sup>16</sup>See "Pecos Notes, Maps, Ground Plans — Taken from Laboratory of Anthropology to S. W. Regional Office of the National Park Service, 4/18/66 by Jean M. Pinkley," in the "Pinkley File," and the notes in "Pinkley Photographic File," PNHP. Most of the items checked out have a note next to them reading "Ret. 6/17/66."

<sup>17</sup>Jean Pinkley to Richard B. Woodbury, Chairman, Office of Anthropology, U.S. National Museum, Smithsonian Institution, Washington, DC, June 3, 1966, NARC; copy at PNHP.

<sup>18</sup>Jean Pinkley to Beverly M. Young, April 21, 1966, NARC; copy at PNHP.

Mrs. Young answered on April 26, saying that Bill had left photographs and other materials stored in his parent's house at Colorado Springs. She also said that Bill's son, W. Max Witkind, would like to work on the Pecos excavation.<sup>19</sup> On April 29, Max Witkind sent a letter to Pinkley, notifying her that he had sent a collection of his father's photographs to his mother to be sent on to Pinkley.<sup>20</sup> Ten days later, on May 9, Pinkley replied to Witkind: "So much work seems to have been done [on the convento] at different times it is difficult for me to try and piece the picture together. . . . Obviously, some digging has been done in the Convento but I cannot determine how much."<sup>21</sup>

Beverly Young sent the photographs on to Pinkley; in the accompanying letter, she indicated that the collection contained perhaps sixty pictures.<sup>22</sup> It is uncertain what happened to these pictures. At present the list of probable Witkind pictures numbers 88, of which 70 can be dated to a specific day or within a few days. I found most of these unidentified in the photographic collection of the Museum of New Mexico. Each picture had evidently been torn out of a photo album, and a caption has been written onto the backs of some of them, although in several cases it appears that the wrong caption was written onto a given photo. This is an easy mistake to make if several photos and captions alternate on a specific page of an album, so that sometimes it is not clear if a caption goes with the photo to the side or to the one above or below. A few additional pictures were in the photographic collection at Pecos, again largely unidentified or mis-identified. It is not clear which of these pictures were those sent by Max Witkind to Pinkley.

Pinkley received the photographs on May 10 or 11. They had the unfortunate effect of convincing her that virtually nothing of the original fill of the northern convento rooms was left. This impression remained with her far into the first year of excavation. As she said in her letter to Mrs. Young, "The pictures clear up many problems and I now have a good idea how to approach the work. . . . Without your assistance I would have been forced to proceed slowly and cautiously, so you certainly have helped the project."

Later, Pinkley would say, "In cleaning out the previously excavated rooms we found the [Witkind] excavations had stopped 2½ feet to 5½ feet short of [the lowest] floor levels, [and] completely missed underlying walls . . ."<sup>23</sup> Pinkley clearly did not understand that Witkind was *supposed* to stop at the uppermost floor of the mission, and that he was not conducting an excavation that was primarily research-oriented.

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<sup>19</sup>Beverly M. Young to Jean Pinkley, May 6, 1966, NARC; copy at PNHP.

<sup>20</sup>Max Witkind, Colorado State University, Fort Collins, Colorado, to Jean Pinkley, April 29, 1966, NARC; copy at PNHP.

<sup>21</sup>Jean Pinkley to Max Witkind, Colorado State University, Fort Collins, Colorado, May 9, 1966, NARC; copy at PNHP.

<sup>22</sup>Beverly M. Young to Jean Pinkley, May 6, 1966, NARC; copy at PNHP.

<sup>23</sup>Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

## The Condition of the Ruins



**Figures 9.3 and 9.4.** In figures 9.3, on the left, and 9.4, on the right, Jean Pinkley, Superintendent Tom Giles, and Al Lancaster examine the area of Rooms 45 and 46 as left by Witkind's excavations. In Figure 9.3, Pinkley is on the right, Giles in the center, and Lancaster on the left. In Figure 9.4, Giles and Lancaster are examining the north wall of Room 45, while Pinkley stands on the eroded east wall of Room 48. Fred Mang, April 26 and 27, 1966; Pecos neg. #5050-118 on the left, and Pecos neg. #5050-121 on the right.

Meanwhile, about April 20, 1966, Pinkley had the maintenance crew of the new park burn off the weeds and brush from the convento.<sup>24</sup> Pinkley invited her old co-workers Al Lancaster and Alden Hayes to come help her consider the problem of Pecos in a pre-excavation planning meeting at the ruins. Lancaster knew something about the excavation of a mission, having served as assistant director of the Awatovi excavation in 1935-39.<sup>25</sup> Hayes had already conducted his first of three seasons of excavations on Mound 7 at Gran Quivira National Monument, and was about to go into the field for the second episode of work.<sup>26</sup> Lancaster, Hayes and Pinkley, accompanied by superintendent Giles, spent April 26 and 27 examining the ruins of the convento in detail, attempting to work out the probable plan of the building and a

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<sup>24</sup>Pinkley arrived at Pecos in early April, 1966, and photographs made during the introductory inspection on April 26-27 show the weed burning had occurred by that date. It is likely that Pinkley requested the burn a few days before the introductory inspection by herself, Tom Giles, and Al Lancaster was to take place. April 20 is a reasonable approximate date.

<sup>25</sup>Melinda Elliot, *Great Excavations: Tales of Early Southwestern Archaeology, 1888-1939* (Santa Fe: School of American Research Press, 1995), pp. 167, 170.

<sup>26</sup>Hayes, *Mound 7*, p. v.

method of excavating those areas still needing work. This pre-excavation inspection of the church and convento was recorded by National Park Service photographer Fred Mang.<sup>27</sup>

Pinkley, Lancaster, Hayes and Giles walked back and forth across the convento area, looking at the wall outlines left by Witkind's work. The rooms of the main convento exposed by Witkind's excavation were clearly visible, and still stood several feet in height, looking very much as they do today; weathering of the walls had lowered and rounded them since 1940, and deposited layers of melted adobe earth and artifacts across the floors of the rooms. Present Rooms 48 and 50, Witkind's Rooms W-13 and W-14 at the southwestern corner, still stood high above the area to its south and west, and the massive stone buttress forming the east side of present Room 46 was relatively unchanged from when Witkind closed down his excavation. The heavy north-south wall lines of the western row of Rooms 48, 50, 52, and 53, with their doorways left open by Witkind, stood several feet above the surrounding ground surface.<sup>28</sup>



**Figures 9.5 and 9.6.** The southern convento structures in 1966 before excavation. Figure 9.5, on the left, is looking east across the wall traces of Area A with Witkind's stone wall to the north. Figure 9.6, on the right, looks south down the wall trace between Area B and Area G, with Witkind's stone wall to the south. An area where weeds were burned about April 20, 1966, can be seen across the wall traces in the foreground. Fred Mang photographs, Pecos neg. #4188, Pecos neg. #4176.

The outlines of the remains of the walls of the southern and southeastern rooms and enclosures of the adjacent corrals, barns, and sheds, some of them trenched by Witkind, were visible after the weed burning. About this time, Pinkley designated Areas A, B, C and D, from the south to the north on the east side of the convento compound, but made no attempt to give

<sup>27</sup>Alden C. Hayes to James Ivey, personal communication, June 30, 1995; Mang photograph series WPS-6, WPS-8, PNHP, of Pinkley and two other persons examining the Pecos church and convento before any work had been done — the other two people were Al Lancaster and Tom Giles.

<sup>28</sup>Mang photograph series WPS-6, WPS-8, PNHP; Aerial photographs: November 14, 1958, # EE-6-134, July 31, 1966, # PNM-1-4, PNHP.

identifying letters or numbers to the other areas and rooms of the main convento itself.<sup>29</sup> She apparently intended to use the Witkind numbers, as far as they went on the map available to her, and perhaps to continue what she believed to be his numbering system along the west side of the convento.

The appearance of the ruins gave Pinkley the impression that Witkind had excavated the entire convento to its original floor levels, but left it largely unstabilized, so that the adobe walls had partly melted into the uncovered rooms: "the entire convento was excavated so that part of the problem is solved."<sup>30</sup> After the planning Pinkley wrote that she and Lancaster both realized "that without notes and prior reports we are lost and may make mistakes if we cannot come upon more data than we have at present."<sup>31</sup> Left with no time for caution or testing of her hypothetical evaluation of the status of the ruins as they were left by the previous excavation, she proceeded as though her first impressions were correct, and adopted a field method suited to the assumed condition of the ruins. These assumptions were apparently confirmed by the arrival of Witkind's photographs two weeks later. Not until well into the excavation did Pinkley begin to realize how wrong her impressions were. Neither Pinkley nor any one else involved in the excavation work of the late 1960s understood that Witkind had excavated the convento only to its last, uppermost floor levels in much of the convento, outlining the Post-Revolt convento in most areas. He had uncovered only the uppermost structure of the stacked ruins of the Pecos convento, where he was required to stop. In fact, in some areas Witkind went too deep, cutting through the post-Revolt convento floors and walls and stopping generally at the last pre-Revolt floors. This error occurred because Witkind began his tracing of the walls of the convento with a trench two feet deep, which occasionally carried him below the post-Revolt convento floors.

#### Pinkley's Planned Approach to the Excavation of the Convento

Jean Pinkley clearly stated her intended method of approach to the excavation of the convento in several places. For example, immediately after seeing the Witkind pictures in May, 1966, she wrote to her old mentor, Al Lancaster, that because the entire convento had apparently been excavated, "We can go in, hopefully, with mechanical equipment and get that overload out with the least expense and loss of time. I wonder if the answer to the utter state of ruin of the convento isn't due to the type of adobe used. . . . With this background I think we are justified in doing whatever we please to produce a good exhibit for certainly what is there today is a far cry from the original."<sup>32</sup>

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<sup>29</sup>Jean Pinkley Notes, I, II, June 21, 1966, PHNP. The few notes left by Pinkley are most detailed in June and July, 1966. They exist in several versions, numbered here as I-IX. Some of these versions were clearly quick, on-site notes, intended to be cleaned up and finalized later. Other versions are first efforts at clean, final daily notes — none of the efforts appear to have met with Pinkley's approval, since she started them over several times and gave up on them in every case.

<sup>30</sup>Jean Pinkley to James A. Lancaster, Mesa Verde National Park, NARC, May 11, 1966; copy at PNHP.

<sup>31</sup>Jean Pinkley to James A. Lancaster, Mesa Verde National Park, NARC, May 11, 1966; copy at PNHP.

<sup>32</sup>Jean Pinkley to James A. Lancaster, Mesa Verde National Park, NARC, May 11, 1966; copy at PNHP.

In her letter of May 16, 1966, thanking Mrs. Young for the loan of the Witkind photographs and a copy of a book about the missions by Edgar Hewett, Pinkley described the approach she would use through virtually all her excavation of Pecos: "I now know that our work is to re-outline walls, then get the dirt out by the fastest possible means in order to stabilize what remains."<sup>33</sup> The book was *Mission Monuments of New Mexico*, by Edgar L. Hewett and Reginald G. Fisher.<sup>34</sup> Hewett included a summary of Witkind's work and included the Mead photograph of December, 1940, showing the excavations at their greatest extent. Based on Hewett's remarks in the book, and from Witkind's family, Pinkley was left under the impression that Witkind had written an unpublished final report. Although he seems to have written a presently-unlocated short summary of the project for Hewett in early 1940, the only other manuscript, and probably the one to which his family was referring, was actually his extensive daily journal, lost in the files of the Laboratory of Anthropology until June, 1967.

In July, 1967, after Witkind's notes were finally relocated, Pinkley continued her tendency to blame Witkind for her difficulties: "Unfortunately, the information from previous excavations was misleading. . . ."<sup>35</sup> In actuality, Witkind's information was not misleading; Pinkley misinterpreted it. Pinkley did not have Witkind's statements for much of her excavation, and based her own methodological planning and her assumptions about the nature of Witkind's excavation on badly identified photographs and the casual remarks of others.

These assumptions directly affected her field procedures: principally, she decided on a low level of recordation during the excavation. As the excavations progressed, she wrote to her supervisor that stratigraphy in the convento was "totally non-existent," even though in her notes she frequently referred to layers of manure and multiple layers of burned material and adobe in specific areas.<sup>36</sup> As a result of her prior assumptions, Pinkley never made a single record drawing of the stratigraphy she found within the rooms, nor any written description, except in the form of casual references in her scant daily notes.

Pinkley consistently expected that the fill would be only a few inches to a foot deep, and that the outline of the rooms visible on the surface was essentially the plan of the structure she would uncover. She was consistently surprised when she found that deposits extended many feet deeper than this, and that the plan of the building changed as she dug deeper. In August, 1966, Pinkley was still thinking in terms of finishing the cleaning out of the convento by the end of the 1966 season: "Final cleanup and photography will have to await the end of the rainy season which, I am told, is mid- or late September."<sup>37</sup> In September, 1966, she was still looking for

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<sup>33</sup>Jean Pinkley to Beverly M. Young, May 16, 1966, PHNP.

<sup>34</sup>Edgar L. Hewett and Reginald G. Fisher, *Mission Monuments of New Mexico* (Albuquerque: University of New Mexico Press, 1943), pp. 142, 224-230.

<sup>35</sup>Jean Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PHNP.

<sup>36</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, April 1967," undated, but probably written in the first week of May, 1967, PHNP.

<sup>37</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966.

areas that could be emptied by backhoe: "The soil was devoid of sherds and bone and we had hopes that this large block [Area G] could be cleared with a back hoe."<sup>38</sup>

Pinkley did not number the rooms of the main convento until the winter of 1966-1967. During the 1966 field season, she apparently considered it sufficient to use Bill Witkind's room numbering system, as best she could sort it out. This led to strange designations, such as "Thomas into 2nd room w of [Witkind's] Room 8."<sup>39</sup> From the beginning, however, she applied area designations to Areas A through H, and in Area D actually assigned room designations to a few of the subdivisions, but even here there are no artifacts associated with any room designation.

She did not take photographs of the daily progress of the work, expecting to record the convento structure in a single episode of photography once the walls and floors were cleaned. The only pictures made during the excavations were occasional shots taken by other Park Service personnel, principally Frank Wilson, the park historian.

Since she considered the majority of the artifacts she found to have either been deposited in the rooms by the melting of debris-laden bricks, or left behind in disturbed and unfinished deposits by the "poor" excavations of Witkind, she thought that none of these artifacts came from original deposits, and made no effort to record where they were found. "Early in excavation," she said later, "it became apparent that any effort to keep sherds by levels was a useless and time-consuming procedure."<sup>40</sup> Virtually every artifact she kept was unprovenienced.

Reading Pinkley's notes as she began the excavation, it is obvious that, in spite of her continual complaints about Witkind's field methods, she used precisely the same techniques. For example, her first line of notes on the first day of the test excavations, Monday, June 20, 1966, read "Work: To outline observable walls of convento area of Mission preparatory to full-scale excavation."<sup>41</sup> As photographs and the Arquero map clearly show, she used trenching along wall faces as her primary means of determining room outlines throughout her excavations. It is clear from her statements that Pinkley saw nothing wrong with tracing the outline of a building by excavating trenches along the faces of its walls. This may be forgiven for excavations conducted in the 1930s, but by the 1960s such a methodological approach was inexcusable. This procedure destroys the stratigraphic and temporal relationship between walls, original ground surfaces, floors, and the episodes of room filling and reconstruction. The lack of such information makes it difficult or impossible to work out a good approximation of the history of construction and use of a building. The standard introductory texts of British archeology, for example, regularly warn against such wall trenching. In the early 1950s, after discussing the best methodology for the excavation of a building, the eminent British archeologist Kathleen Kenyon warned:

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<sup>38</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1966," September 8, 1966.

<sup>39</sup>Jean Pinkley, Loose Notes VII, Tuesday, July 26, 1966.

<sup>40</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, April 1967," undated, but probably written in the first week of May, 1967.

<sup>41</sup>Pinkley Notes, I, Monday, 6/20/66.

This description of how to excavate a building will have shown how fundamental it is to have sections running up to all the walls, for it is by them that the relationship of the walls to the deposits and their dating material is established. It follows that it is a cardinal error to dig along the line of a wall. Such a trench cuts through the connection of wall and floors or other deposits and destroys the evidence. Before the principles of stratification were understood, the lines of walls were traced by a trench along them, but this nowadays should *never* be done.<sup>42</sup>

Unfortunately, Pinkley's training under Emil Haury thirty years earlier defined her approach to Pecos. Haury was an advocate of "metric" stratigraphic excavation; he felt that excavating an archeological site by its "natural stratigraphy," was inaccurate and much too slow. In this approach he opposed Alfred Kidder, who followed the work of Nels Nelson and pioneered the method of excavation by natural stratigraphy in the American Southwest during his excavations in the Pecos valley in 1915-1929, discussed above in Chapter 6.<sup>43</sup> Pinkley's training under Haury resulted in her applying his disregard for natural stratigraphic structure and other methods of the early 1930s to her excavation of the convento at Pecos in the 1960s. In the thin, complex strata associated with structures, the "metric" method of excavation becomes destructive rather than allowing the retrieval of data from the multiple layers.

Witkind was following more or less the standard methods of his time, and his method of wall trenching can therefore be tolerated. Pinkley, however, should have known better, and perhaps she did—but the problems with budget gave her no time for exacting research excavations. She had to do everything as quickly and as cheaply as possible.

### Pinkley's Excavations Begin

After arriving at her faulty understanding of the amount of excavation conducted by Witkind, and formulating her flawed plan of approach based on this, Pinkley began excavation on June 20, 1966.<sup>44</sup> During June through August, 1966, the excavations uncovered the general outlines of the large corral areas in the south half of the convento and along the east side up to the northern *Torreón*. Pinkley did not consider these enclosures to be more than corrals, and anticipated no buildings or other structures in them; she thought she would be merely tracing individual enclosure walls.

Although no excavation in the area of the main convento were mentioned in the monthly reports until September, 1966,<sup>45</sup> the scraps of daily notes show that Pinkley worked in some of

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<sup>42</sup>Kathleen M. Kenyon, *Beginning in Archaeology* (New York: Frederick A. Praeger, Inc., 1952), p. 90.

<sup>43</sup>Gordon R. Willey and Jeremy A. Sabloff, *A History of American Archaeology*, 2nd ed., (San Francisco: W. H. Freeman and Co., 1980), p. 93.

<sup>44</sup>Pinkley Notes, I, II, Monday, June 20, 1966, PNHP.

<sup>45</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," dated October 4, 1966, PNHP.

these rooms in July and August as well. These investigations will be described at the appropriate points below.



**Figures 9.7 and 9.8.** June and July, 1966. Figure 9.7, on the left, looks southwest towards Witkind's stone wall and the Contact Station. The workman is trenching along the wall between Area D and Area G, with the north wall of Area G extending to the right. Figure 9.8, on the right, looks west at the trenching along the north wall of Area G. Jean Pinkley is kneeling in the trench. Pecos negs. #5045.26 and 5045.20.

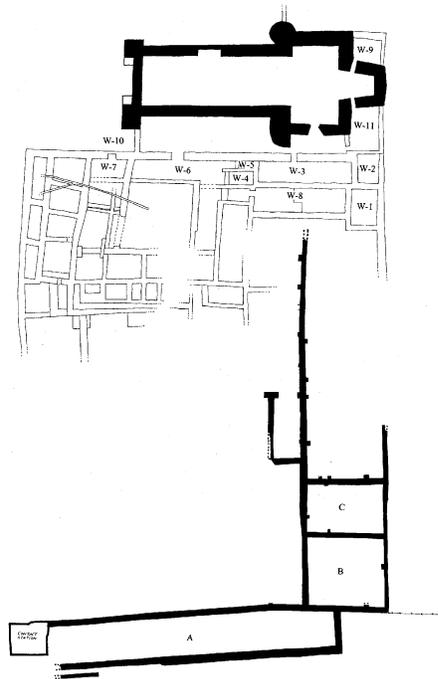
Pinkley began by trenching along the visible wall traces of Area A; she was beginning work on those portions of the convento compound that would clearly need complete excavation. Even here, though, she apparently thought that the fill would be very shallow and the work would consist only of emptying out blown dirt and wall rubble. Superintendent Thomas Giles, summarizing Pinkley's feelings after three weeks of excavation, said "The wall pattern is a complex one, not nearly as simple as surface indications led us to believe. There is far more dirt to move than originally estimated and the peculiar wall pattern rules out all possibility of using mechanical equipment to remove fill."<sup>46</sup> The difficulty with the trenching approach in these areas was that the visible surface features were the post-Revolt structures associated with the convento, while the below-ground features were pre-Revolt structures.

For the sake of consistency, Pinkley's excavations will be described in one-month periods, since after August, 1966, only the monthly narratives contain descriptions of the work in any detail. Pinkley's daily notes, kept in narrative form only in the first three months of the field work, give somewhat more information about what she saw during this period. There are multiple sets of notes, which have been designated by Roman numerals and collated here. From

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<sup>46</sup>Thomas Giles, Superintendent, Pecos National Monument, memorandum to Director, National Park Service, "Monthly Narrative Report for June, 1966," July 18, 1966.

their appearance, some sets are preliminary notes made in the field, while others are the more formal notes prepared from field notes at the end of the day. None of them cover more than a small part of the time spent in the field.



**Figure 9.9.** June, 1966.

June, 1966

Pinkley began work on June 20, 1966.<sup>47</sup> During the ten days remaining in the month, Pinkley and her crew trenched along the faces of the walls visible at the surface, as revealed by the burning of the weeds in April. The controlled burning of the weeds and brush covering the convento Pinkley and Giles had conducted in mid-April had revealed the outline of the southern sections of the convento, its corrals and pens; Pinkley considered these to be the only unexcavated portions of the building.

During these ten days, Pinkley traced along the major walls of Areas A, B, C, D, the area later called Area E, the southern part of Area F, and found indications of rooms 26, 28, 29, 31, 32, and 33. Areas A through D had been so labelled after the weed-burning of April, 1966, but the rooms were not numbered until six months later. The removal of the weeds had revealed

<sup>47</sup>Note that the fiscal year began July 1 at this time, so fiscal year 1967 began on July 1, 1966, and funds for FY 1967 could not be spent before July 1. Therefore, all work in June was done in FY 1966 and paid for out of 1966 money.

traces just visible on the ground surface, indicating the tops of the stone walls surrounding each area.

#### The Results of the First Ten Days

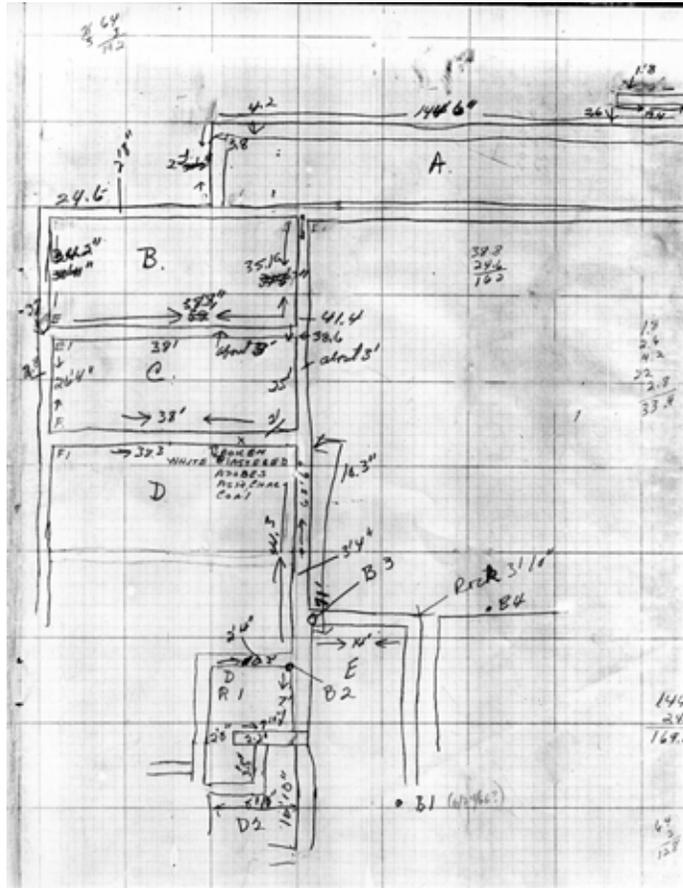
Pinkley did not write a monthly report for June as she did for all later months, because the project did not begin, officially, until July 1. However, Tom Giles submitted his usual monthly narrative report, and in it briefly described the first period of the excavations. He referred to the excavations as "preparation of the Mission Convento (friary) site for full scale excavation-stabilization . . ." The work, he said, consisted of "trenching operations undertaken to outline walls along the southeast section of the compound. . . ." At this point, only ten days into the excavation, it was already clear to Giles, and presumably to Pinkley, that the project was going to be much more difficult and time-consuming than had been planned for.<sup>48</sup> The excavation had not yet officially started and already the principal expectations of a rapid, shallow investigation with easy removal of most fill by machine were being abandoned.

The trenching found clear and unanimous evidence that the structures built in the southeastern corner of Pecos Mission were a series of small corrals or large pens with small sheds, storerooms, or workshops built in some areas within them. The corral and shed walls were constructed of black adobe brick laid on stone footings from two to four feet high above the probable floor levels in use at the time, probably about at the level of the original ground surface—the use of black brick construction indicates that the work was carried out in the 1620s and 1630s, during the only time when this brick was being used for primary construction. The walls were then plastered with a thick layer of adobe mortar, and finished with a coat of whitewash. The rooms may have been covered with *azoteas*, flat earthen roofs supported on vigas, or they may have had thatched, gabled roofs. After some period of time, the entire area was destroyed by fire; it is reasonable to assume, at least initially, that this was the result of the Pueblo Revolt. It appears that the layer of burned material was found deeper below the surface the farther north the trenches were cut; it was first found at a depth of about a foot and a half in the southwest corner of Area D, but was four feet deep by the time the northeastern corner of Room 26 was reached. The stratum of burned material was apparently not sloping downwards towards the north; rather, the surface of the collapsed rubble was sloping upwards. This generally matches the conclusions of Robert Lentz, who worked with Alden Hayes at Pecos in 1969-70 (see Chapter 10). In 1969 he arrived at the conclusion that most of the area of Rooms 26-30, 34 and 35 were all a mound of collapsed wall material and were never reused after the reoccupation of Pecos Mission in the 1690s.<sup>49</sup> However, although Pinkley's results and later investigations indicate that most of Areas A, D, E, F, and H remained unused, it is clear that the general outlines of Areas B, C, and G were put back into use sometime after the Reconquest, with new sheds and rooms built of red brick on top of the rubble of the earlier structures.

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<sup>48</sup>Memorandum to Director, National Park Service, from Thomas Giles, Superintendent, Pecos National Monument, PNHP; Jean Pinkley, "Monthly Narrative Report for June, 1966," July 18, 1966, PNHP.

<sup>49</sup>Robert Lentz, *Functional Analysis of Porciúncula de Pecos Convento and Church*, August 20, 1969, Rooms 29-31, xerox copy in PNHP.

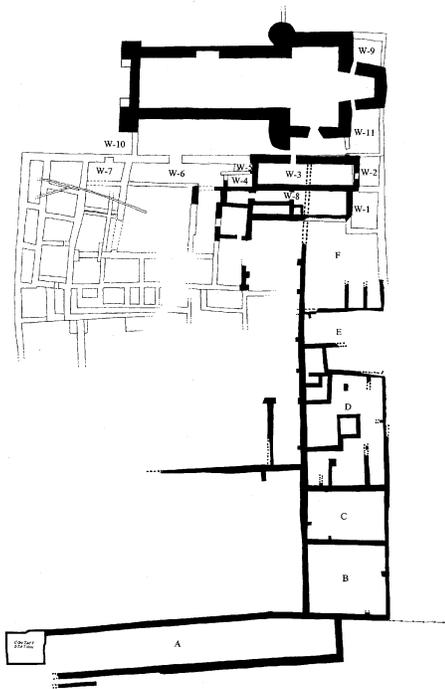


**Figure 9.10.** A sketch plan from Jean Pinkley's notes, mid-July, 1966. North is towards the bottom of the sketch. At this point, Pinkley had given the designation of Area E to the present Rooms 32 and 33.

The initial trenching missed virtually all evidence of crosswalls subdividing the areas Pinkley was outlining, except for one or two higher walltops in Area D. Various sketches of the areas made during these ten days make it clear that, since some of these walls were visible at the surface in aerial photographs, the trenches cut through the walls without recognizing them. The notes do not mention any suggestion of floors or use surfaces, of animal manure, or of wood traces other than two posts encountered in Area B.

July, 1966

The extensive trenching of June had revealed the outlines of the rooms on the southeast corner of the convento. As the project officially began on July 1, 1966, Pinkley decided to start with a full excavation of Area D; she spent July emptying most of the rooms of this area.



**Figures 9.11 and 9.12.** Pinkley's excavations as of late July, 1966. Note that in the aerial photograph, figure 9.12, the outline of the buried walls can be seen in the areas not yet excavated, and that they match the plan mapped by the Nusbaum/Adams map in 1915. Most of the convento rooms uncovered by Witkind's excavations in 1939 and 1940 have not yet been cleaned out.

In her first monthly report on the progress of the excavations, written a few days after the end of July, Pinkley said little about what she was seeing in the ground. "Most walls average 3' thick and consist of adobes laid on a stone base. So far we have found no evidence of trenching for the base stones." That is, she saw no footing trenches; if this observation was correct, the walls she looked at were built directly on original surfaces, whatever they were. "Many of the adobes used in construction are very poor; they were molded of trash from the rubbish heaps and are characterized by ash, sherds and food bones. They are very black and frequently difficult to distinguish from the burned material surrounding them . . . All areas and traceable rooms are characterized by manure, heavy burn, and fallen, broken, and often heavily burned adobes, brick red in color. . . . No two floor levels in the convento seem to be the same level . . ." Actually, in her available field notes Pinkley mentioned manure only in Areas B through E, and had apparently seen none in the main convento rooms that she excavated in July (Rooms 3, 4, 5, 6, part of 7, 8, and 9, and a trench across the east cloister into the flagstone patio). At this point, Pinkley was still thinking in terms of finishing the excavation within three or four months. She made a point of the difficulty of excavation. The ground was as hard as concrete in some areas,

she said, while in other places, "the material cuts like butter and we are frequently through a wall before we can determine its existence. . ." <sup>50</sup>

After stopping work on Area D on July 19, Pinkley moved the crew to the northeastern corner of the main convento. This was her first contact with areas that she knew for certain Witkind had excavated before. Witkind had already excavated these rooms to an upper floor in 1939-1940; since then, the walls had eroded and partially filled the rooms with melted adobe. Pinkley began what she thought of as a simple cleaning operation on July 21, starting with Witkind's Room 3 and "what must be Witkind's Room 8," the present Rooms 3, 4, 5, and 6.

Pinkley began excavating in Witkind's Room 3 (the present Room 3) on July 21, 1966. The crew immediately hit a floor in the trench cut along the wall in the southwest corner of the room. This lowest floor was a "hard-packed, level surface" of adobe, two inches thick and laid on the sandstone bedrock of the mesilla. This floor was apparently well below the floor at which Witkind had stopped; the trenches revealed massive stone footings beneath the adobe walls forming the room, something Witkind had never gotten deep enough to see. One of the crew found the doorway leading out of the room at the northwest corner, and then the north bench. The crewman working in the southwest corner of the room found a series of flagstones forming an apparent floor level above the adobe floor; some of the flagstones were found to be large metates laid with the trough down, and all were at the level of the top of the stone footing. <sup>51</sup>

Trenching in the room continued on July 22 and 25 with no reported results. <sup>52</sup> On the 26th, Pinkley saw adobes in the center of the room which, as the measurements given on her sketch plan drawn probably on this day, matches the location of a "firepit" on the Arquero map; this was apparently the same structure Witkind called a "vault" or "crypt." "By evening," said Pinkley, "it appeared we had cut through an adobe wall into an east room." She drew this wall on her sketch plan and indicated that it was 24.9 feet from the west wall of the room. She found that the "east room" was floored with adobe, presumably the black adobe bricks that Witkind considered to be the floor of Room 3. During this day Pinkley's crew found the south bench; she immediately assumed that it, and presumably the north bench, were the actual wall faces of the room, and that Witkind had cut over a foot into the walls as he excavated the space. She did not look closely enough at the Witkind map to see that the benches were drawn on his plan, nor did she have his discussion of these features, since his notes were not found until a year later. <sup>53</sup> Crew excavating in the area of the doorway leading from Room 3 into Rooms 4, 5, and 6 found adobes in the opening, and again Pinkley assumed the worst about Witkind: she declared that the doorway was a "fake." <sup>54</sup>

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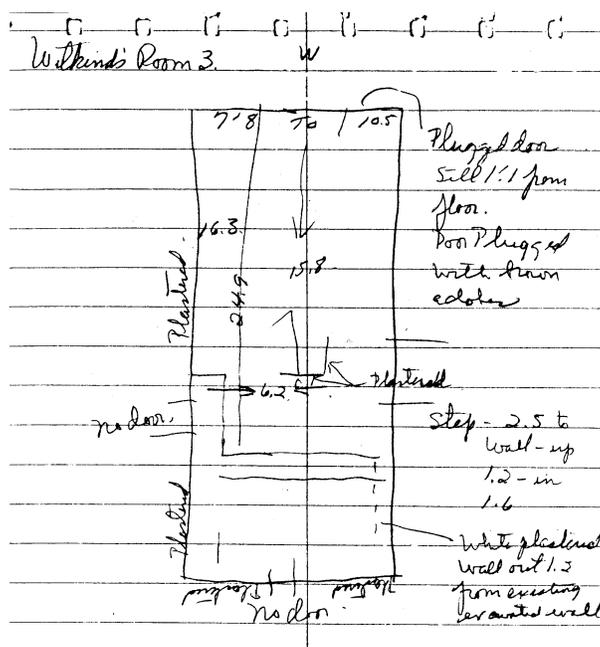
<sup>50</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, PNHP.

<sup>51</sup>Pinkley Notes, VII, Thursday, July 21, 1966, PNHP.

<sup>52</sup>Pinkley Notes, VII, Friday, July 22, Monday, July 25, 1966, PNHP.

<sup>53</sup>Pinkley Notes, VII, July 26, 1966, PNHP.

<sup>54</sup>Pinkley Notes, VII, Thursday, July 21, 1966, PNHP.



**Figure 9.13.** Pinkley's sketch plan of Room 3, drawn July 26, 1966. North is to the right.

The deep wall running south to north across the room at 24.9 feet from the west end lines up with the wall between Areas G and H and Areas B, C, D, and E. Pinkley had traced this wall partway across Area F and either lost it or lost interest in it. This wall apparently originally ran all the way to the south wall of the seventeenth-century church.

The sketch of Room 3, probably drawn on the 26th, shows the doorway in the northwest corner sealed with "brown" adobe bricks; Witkind had mentioned that the doorway was found closed with adobes, and Eric Reed's photographs of late November, 1940, show the adobes still in place about 3 feet high. The white-plastered north bench extended out into the room 1.2 ft south of the north wall itself. Pinkley found no door in the east end of the room. On the sketch plan of Room 4, 5, 6, drawn probably on July 26, is a note explaining why Pinkley called this Witkind's Room 8: "There are 11 numbered rooms [on Witkind's map]. No. 8 is missing; as this room [the present Rooms 4, 5, 6] shows as excavated it has been assigned the no. 8."

In the process of excavating these rooms, she moved through the doorway between Room 5 and Room 8, and into parts of Room 7 and Room 9. She trenched west from Room 8 across the east cloister and into the patio. Here she saw a small area of flagstone floor, but did not recognize it as a patio.<sup>55</sup>

Pinkley made sketches of the plan of these rooms, and described her additional excavations in detail in her notes. However, the note-taking stopped before the end of July, and beginning in August the only information Pinkley recorded about her work in the main convento were frequently-ambiguous statements in her monthly report.

<sup>55</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, PNHP.

It is clear that Pinkley never arrived at a comfortable methodology for dealing with these previously-excavated rooms. As she moved from the eastern part of the main convento to the area around the central patio, she found herself in a difficult situation. She was supposed to be carrying out the conclusive excavation of the Pecos mission, resulting in a complete excavation report. However, the area that was most likely to have been the principal part of the convento had already been excavated by someone else who had, as far as she could tell, left virtually no notes or detailed descriptions and few photographs of what he had found. The physical evidence indicated that Witkind had indeed excavated most of the main convento to the upper floors, and that Pinkley did little more than clear out the melted adobe from these spaces, while occasionally excavating deep test trenches to check whether Witkind had indeed gone deep enough. In some rooms she dug a little deeper than the last Witkind surface, and in other rooms Hayes later removed fill that she had left in place. Most of this work Pinkley considered to be little more than cleaning for stabilization when the time was right, and not worth recording. But throughout the excavation and her attempts at beginning her report, she was unable to decide how she was going to write about the excavation of Pecos, the history of use of the main convento, or its changes over time, when she knew nothing about what Witkind had found in these main rooms of the convento.

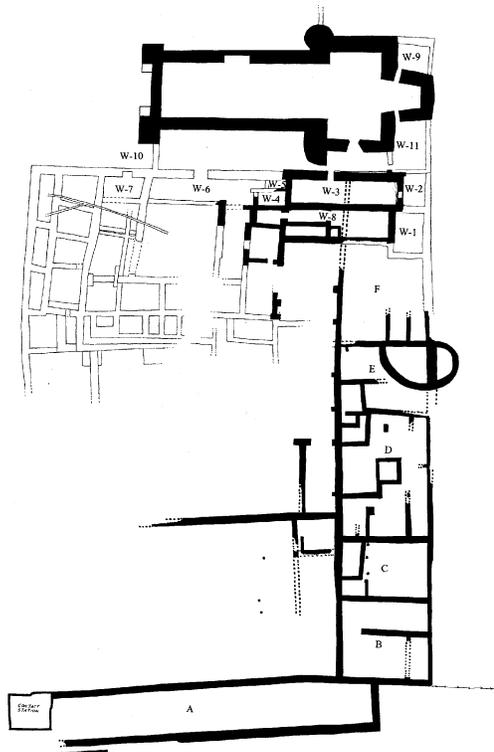


Figure 9.14. August, 1966.

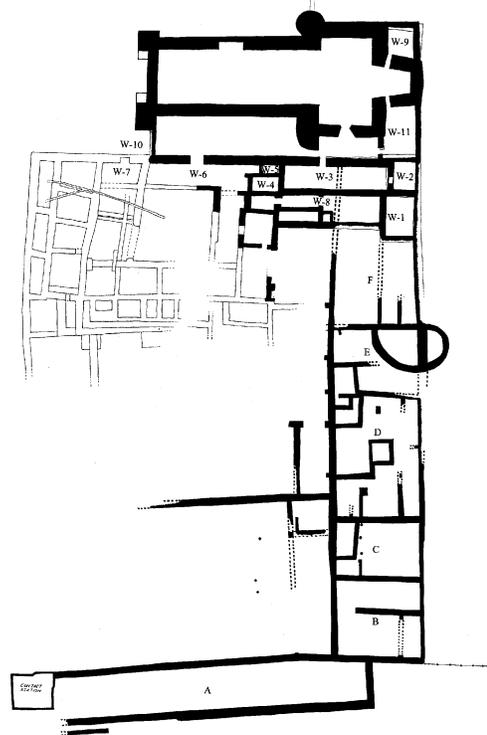


Figure 9.15. September, 1966.

August, 1966

August saw Pinkley move the crew back to areas A through F. She continued to make brief notes during the excavation for the first few days of August. On the night of August 5, between 9:00 and 10:30 pm, a severe hail and rain storm hit the Pecos area.<sup>56</sup> It apparently took several days afterwards for the water left from this storm to drain from the excavation units. Some excavation occurred in the period from August 5 to August 21, but there are no notes describing the excavations during this two week period. The available information indicates that Pinkley and the crew emptied all of Areas B and C, began Area E and the semicircular torreón, and carried out some trenching in Area G. A few incidents are mentioned in work-hour records kept during the month, indicating that a second major storm hit on August 21, followed by the breakdown of the pump on August 23. This caused Pinkley to give up on excavation and start the stabilization of the walls of the church, which occupied the rest of the month.<sup>57</sup>

September, 1966

In September, Pinkley spent most of her time on stabilization of the church and adjoining buildings. This involved little archeology, but on a few occasions Pinkley had a crewmember dig into a stabilized wall or floor in an attempt to determine what the original fabric was like in the church.

During September 27-30, Pinkley conducted excavations in the convento.<sup>58</sup> The monthly notes indicate that during these few days, Pinkley cleaned out Rooms 1 and 2, and finished the cleaning of Rooms 7, 9, and part of the northern cloister, and indicated other work that she gave no location for. Pinkley discussed the excavation of these rooms: "walls with stone foundations were trenched to the base of the stone in an effort to pick up cross walls. The pattern encountered on the east side of the site [Areas B-F] continues and it is even more difficult to follow the various construction and reconstruction patterns as this area has been dug in, apparently several times but in most cases not to floor level. . . ."<sup>59</sup>

Brown Adobes

During her clearing of the northeastern convento rooms in July and September, Pinkley began to notice differences in the colors of the adobes and some indication that these were associated with periods of construction. "In the area where we are digging [Rooms 1,2, 7 and 9], and in the area west [main convento rooms], a number of black adobe walls are capped or partially capped with a second type of brown adobes. This, I feel, is the result of reconstruction

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<sup>56</sup>Jean Pinkley, "Assessment of Storm Damage, Pecos Excavation and Stabilization Project," PNHP, no date, but written soon after August 5.

<sup>57</sup>Pinkley Notes, VIII, 8/22/66; IX, 8/22/66; VIII, 8/23/66, PNHP. August 22 was the second entry in Notes VIII. At the same time, beginning about August 22, Pinkley began adding very brief notes to Notes IX (originally a record of man-hours on the job) giving the principal event of the day.

<sup>58</sup>Pinkley Notes, IX, 9/27-30/66, PNHP.

<sup>59</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

in the 1939-1940 period but can find no proof that such was the case." One of the walls bothering Pinkley was "a long section of brown adobe wall covering a black adobe wall," the south wall of Area I. This wall actually was capped in brown brick by Witkind as part of his stabilization and restoration program. However, it appeared to Pinkley "that the black walls of the rooms to the west were covered in the same manner but not to such a height . . ." In fact, these are a different type of brown adobes; later reseach indicated that they were added to the walls in the mid-1600s.

Pinkley wanted to remove the Witkind-placed brick, and her error in attributing *all* red or brown convento brick to Witkind almost resulted in disaster for the structure: "If we can demonstrate to everyone's satisfaction that the brown adobe is, in some cases, the result of partial, modern reconstruction I recommend it be removed."<sup>60</sup> Ultimately, the distinction between the two general types of bricks was made, and Witkind's work was removed while the other red-brown bricks, those added during original construction, were left in place.

#### The Arquero Map

Pinkley had made several attempts to begin a plan of the convento, showing where she had excavated. The odd angles and variations, added to the complexity of the building, made this a task well beyond what she could handle. She requested help from the Division of Engineering in the Regional Office. Finally, in September, 1966, "assistance was rendered by the Regional Office to map the convento site and establish existing levels prior to a decision as to how to backfill for maximum drainage."<sup>61</sup> The field supervisor of this mapping was Clyde Arquero, who eventually made a number of maps and plans of the convento during Pinkley's excavation. In earlier preparation for mapping the convento, Arquero and his crew had placed permanent base reference points just east of the east convento wall a few feet north of the southeast corner in February, 1966, and in April, 1966, had set a second marker in front of the church.

The mapping began in November, and proceeded over the next year until the final map of the entire convento was prepared in September, 1967. Using these various maps helps us follow where Pinkley carried out excavations in the intervals between when they were made.

#### The "Kitchen Garden"

A curious side-show to the main excavation of the Pecos Project was the development of the "Kitchen Garden" now maintained by the Park Service below the edge of the mesa west of the church. Frank Wilson, the historian at Pecos during the excavations, became convinced that the outline of the garden was visible on the ground surface on the slope of the hillside, and beginning in September, 1966, made it his personal project to return the garden area to use as a "demonstration garden," where, as an interpretive display, would be grown herbs, vegetables and

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<sup>60</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

<sup>61</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

fruit typical of a mission garden of the colonial period: "Mr. Wilson wishes to re-establish the kitchen garden as an exhibit-in-place . . ." <sup>62</sup>

The Dominguez description says that "there is a beautiful kitchen garden for green vegetables below the cemetery to the west. It is dependent on rain, and has a good wall attached to and entered from the cemetery." <sup>63</sup> Wilson interpreted this statement to be describing the ridged mound west of the church and camposanto, visible on the ground and as a clear but rather irregular curved structure on aerial photographs. He conducted some background research: "In photographs taken in 1915, remains of the stone wall bordering the cemetery on the north and west are quite plain and stone appears in places around the garden. . . . The garden walls, showing in the Lindbergh aerials, can be scaled on the ground." As was discussed in Chapter Six, however, photographs clearly show that this mound was created in 1915 by Jesse Nusbaum as the dump for earth fill removed from the church during his stabilization. Before that date, there was no structural outline in the area; the nearest walled enclosure is the "Ancient Walled Area," farther west. It is quite possible that a smaller enclosure existed beneath the mounds of backdirt piled west of the church by Nusbaum, but if so, it was not found by Wilson's excavations. "Remnants of a heavy, once well-battered wall extend downward from the campo santo," reported Pinkley, referring to the western camposanto wall, "but to date efforts to trace the south, west, and north walls of the garden have failed." In spite of the virtual lack of evidence for the location and plan of the structure, Pinkley gave the reconstruction project her support: "I feel [the evidence of the photographs] is sufficient basis for reconstruction of this feature . . ." <sup>64</sup>

In October, 1966, the work on the "kitchen garden," was temporarily halted, apparently because of a continuing failure to find any evidence of its outline in the ground. "The buttressed retaining wall was exposed to the base and evidence for a flight of steps [up] to the campo santo enclosure established. No remains of the bordering north, west, and south walls have yet been found. If these were adobe, rather than stone, the only hope of tracing them in the accumulated fill will be deep trenches to expose foundations. . . ." <sup>65</sup>

In November, "The kitchen garden was trenched with a back hoe. The base of the west wall was encountered 60' west of the retaining wall for the cemetery at a depth of 5'. The retaining wall, built of river boulders, is 2 courses wide, 9' high and 18' long." <sup>66</sup> It seems likely that the foundations of some wall was found here, and it is a reasonable possibility that the wall foundations had been part of the "kitchen garden" described by Dominguez. The problem here, however, is that the trenching was conducted specifically to find the "kitchen garden," and any

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<sup>62</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

<sup>63</sup>Domínguez, *Missions of New Mexico*, p. 213.

<sup>64</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

<sup>65</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP.

<sup>66</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, November, 1966," November 30, 1966, PNHP.

physical structural traces found were simply assumed to belong to that structure without question. This is not a good way to conduct archeological investigations. However, the existence of a presumed wall foundation in the general area of the Nusbaum mounds was considered sufficient evidence to construct the present garden. As Tom Giles reported later in the month, "the Kitchen Garden was excavated and a suitable level established so that tree plantings can be made this winter."<sup>67</sup>

A year later, in October, 1967, "Removal of fill from the back (west end) of the old church revealed a system of terraces presumably built in connection with the construction of the existing church to provide a campo santo by making a platform utilizing the west end of the old church."<sup>68</sup> The "old church" in this statement was the pre-Revolt church, discovered in June, 1967.

By 1968, Pinkley herself began to question the colonial origin of the retaining wall traces in the area. In May, she wrote that she "decided to lower, level and step down the two terraces," which she had thought were "built following the reconquest of 1692-93, which presently parallel and almost hide the back (west end) of the old church." However, "in lowering the first terrace we ran into tin cans, hunks of concrete and finishing nails! I still haven't made up my mind as to the validity of these structures."<sup>69</sup> Evidence from photographs and the Academy map indicate that the western retaining walls predated the work of Nusbaum and Witkind, but that debris from Nusbaum's clearing of the nave of the church, and from Witkind's removal of portions of Nusbaum's concrete, was all dumped on the western slope across the wall traces. In June, 1968, Pinkley became "convinced that the terrace walls lying back of the sanctuary wall of the old church are recent. From the outer wall we recovered modern nails, a tin wash basin, the bowl of a modern sieved cooking spoon, Remington 45 bullet cases, a rusted sardine can and more chunks of concrete. The inner terrace wall does not meet the northwest corner of the convento, being off more than a foot. It just ends abruptly. The construction is entirely different than that found elsewhere in the complex, being crude by comparison."<sup>70</sup>

Finally, Pinkley had the outer, or western terrace "removed and the area sloped to provide drainage away from the church. I can find no record as to when this second terrace was built but it definitely had been put in by the State and had no historical significance." In a later report, Pinkley summarized the reasons behind the demolition of the western terrace. "The second terrace proved to be of late construction, though no data can be found as to when it was built. It contained such items as finishing nails, tin wash basins, modern sieve spoons, broken chunks of concrete, hunks of re-bar and modern bullet cases; items not associated in any way with the

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<sup>67</sup>Thomas Giles, "Memorandum, Superintendent, Pecos, to Director, Monthly Narrative Report, November, 1966" December 9, 1966, PNHP.

<sup>68</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, October 1967," November 6, 1967, PNHP.

<sup>69</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, May, 1968," June 3, 1968, PNHP.

<sup>70</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP.

Spanish occupation of the site. It was removed."<sup>71</sup> Both this terrace and another about twelve feet farther west, apparently never seen by Pinkley, were recorded as old, partially collapsed wall lines on the Academy map of 1915 and the Lindbergh aerial photograph of 1929. They had probably been built by ranchers using the ruins as corrals in the late 1800s, rather than built by the state of New Mexico after 1939. The eastern, or inner terrace, the first terrace west of the back wall of the 1600 church, "was rebuilt, filled and used as a loading platform for getting fill into the church."<sup>72</sup> It is unclear whether the western terrace wall was associated with the reconstructed "kitchen garden," but Pinkley's uncertainties about the age of the terrace certainly should have inspired a reconsideration of the traces of the western wall used as a basis for the reconstruction. No such reconsideration is mentioned in the available records. There can be no doubt, however, that the reconstruction of the "kitchen garden" was based on little or no evidence other than wishful thinking.

#### October, 1966: Revision of the Scope of Work for the Pecos Project

By the end of September, it had become obvious to everyone that the archeological project was going to take much longer than planned, and much less money would be available for stabilizing the church and convento. The regional office submitted petitions to Washington, requesting that Congress be approached with a request to increase the money to be allowed to prepare Pecos for exhibit. At the end of September, the Director of the National Park Service rejected the Regional Office's request for a funds increase. This required that the Pecos archeological project be reevaluated, in order that the available funds could be used to accomplish the most important parts of the project.

Tom Giles wrote, "as a result of the Director's instructions for the monument to seek to become fully operational within the Congressional limitation, review and reassessment of all development plans have been made. . . . Revision of the scope of the archeological project in the initial period allows redistribution of funds to such facilities as the visitor center and interpretive program. . . ."<sup>73</sup> The "revision" of the final goal of the Pecos excavation and stabilization project was straightforward. Rather than attempting to stabilize the surviving adobe walls of the convento, Pinkley and her crew would instead "backfill and/or partially backfill the convento complex and outline and reconstruct walls and major features at arbitrarily established levels." One of the steps suggested as part of the backfilling was to line the excavated rooms with black plastic so as to allow future investigators to know where Pinkley's excavations stopped. However, Pinkley felt that "it would be an unjustifiable expenditure of funds for material and

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<sup>71</sup>Jean Pinkley, "Narrative Statement [FY 1968], Pecos Archeological Project." ca. December 14, 1968 (received at SWRO December 16, 1968), PNHP.

<sup>72</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1968," August 1, 1968, PNHP.

<sup>73</sup>Thomas Giles, "Memorandum, Superintendent, Pecos, to Director: Monthly Narrative Report, October, 1966," November 15, 1966, PNHP.

manpower to line the rooms with plastic," because "once stabilized, reconstructed and prepared as an interpretive exhibit, there will be no call for re-excavation" of these rooms.<sup>74</sup>

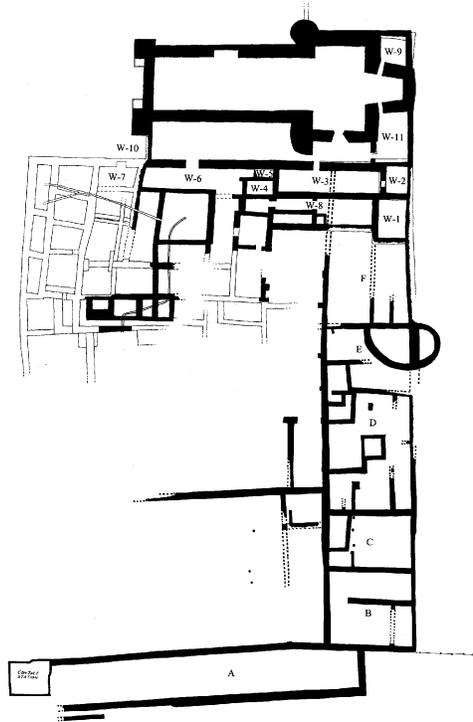


Figure 9.16. October, 1966.

### Excavation

During October, Pinkley and the crew began cleaning the area of the convento patio, and uncovered the flagstone paving and the under-paving stone-lined drain extending south from this area. Following the drain, the crew cleaned out rooms 12, 19, 20, and 21, as well as the northern, western, and portions of the southern and eastern cloisters. Pinkley mentioned this work only in her various reports, scattered over several months after the excavation was carried out.<sup>75</sup>

<sup>74</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP.

<sup>75</sup>The first reference to the flagstone patio was on July 26, 1966 (Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, PNHP), but it was not identified as such. The patio was not mentioned by name until her "October Monthly Report, November 4, 1966," p. 2. She later described the process of finding the patio in "Jean Pinkley, Loose Notes," undated, PNHP files, and implied that she had known its location since July; however, it is unlikely that she recognized the patio for what it was until October.



mapping the excavation. The excellent drawing they have produced has aided measurably in analyzing the pattern of excavated features."<sup>78</sup> The Arquero map for 1966 records the extent of excavation as of November 23. Comparing this with the aerial photographs taken on July 31, the progress from August 1 to November 23 can be clearly separated from the excavations before July 31, making it much easier to identify where Pinkley's work was being carried out, in spite of her sometimes obscure locational descriptions.

The final map for 1966, updated on November 23, however, shows somewhat more of the convento than Pinkley had excavated. For example, although Pinkley never mentions working in Rooms 10, 13-17, and 22-26, these are plotted on the Arquero map in the same plan that they are shown on all later maps of the convento. In addition to these rooms, Arquero also plotted the full outline of all four cloisters, Passage 2, the eastern quarter of Room 11, and part of the western portion of Area F. None of these spaces are discussed in the monthly reports. It appears that Arquero mapped all the visible walls of the convento, rather than only those rooms Pinkley had excavated. Most of these rooms of the main convento had already been excavated by Witkind, and their wall lines were fairly visible at the surface, requiring little work to allow their plotting on the map. Pinkley's crew probably did little more than remove the weeds and other brush from these western rooms. However, Rooms 46, 48, 50, 52 and 53, and some indications of Rooms 45, 47, 49, and 51 were also clearly visible in the aerial photograph, but were left off the 1966 Arquero map.

It appears that the western rooms were roughly mapped as part of the survey of November, 1966, but left off the drawing prepared then because they had not been cleaned out, so that some of the wall lines and angles were guesses, with some incorrect wall alignments. They were eventually plotted on the revised version of the map, along with measurements of new rooms and walls around Area H as they appeared in May, 1967. A few other changes were added later, in August, and finally the entire map was redrawn in September, 1967, and included floor depths and wall heights at the corners of the rooms. The wall alignments, however, were never corrected from the first rough estimates of their corners. Such a sequence of events would explain why there are several places on the western two rows of rooms that are incorrectly plotted as to angle or the details of their layout. For example, the wall between the two western Rooms 49 and 51 is shown as having an angle to the north, but quite obviously on the site and in aerial photographs has an angle towards the south. The later surveys in 1967 appear to have plotted the outline of the pre-Revolt church, and wall heights after the convento rooms were cleaned out, but did not correct the inaccuracies already included on the western rooms.

### The Winter of 1966-67

No excavation in the convento occurred from November 23, 1966, through the end of April, 1967. Work ended on November 23, in time for the Thanksgiving holiday, and Pinkley

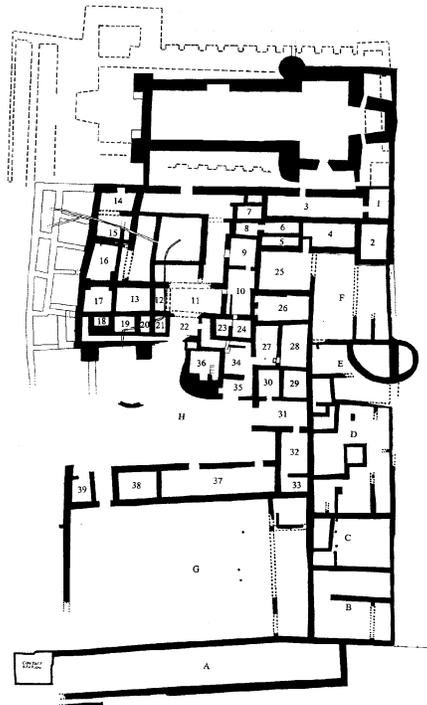
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<sup>78</sup>Thomas Giles, "Memorandum, Superintendent, Pecos, to Director, Monthly Narrative Report, November, 1966" December 9, 1966, PNHP.



During January, kept inside by the weather, she worked on laboratory analysis. She stated in the brief monthly report that "preliminary sorting and boxing of sherds and food bones was accomplished."<sup>80</sup> Pinkley was apparently again on either annual or sick leave all of February and the first week of March. The brief March monthly report says little more than "The Supervisory Archeologist returned to duty March 7."<sup>81</sup>

On April 25, 1967, the National Park Service historical architect Charles Pope, of the Washington office, visited the site accompanied by an architect from the University of New Mexico, Walter A. Gathman. Pope had contracted with Gathman to prepare architectural drawings of the Pecos Church as a Historic American Buildings Survey project that could be used directly as part of the Historic Structure Report on the church. Pinkley said that Pope informed her that "Work will start [on the drawings] on or about June 1."<sup>82</sup>



**Figure 9.19.** May to mid-June, 1967, and the discovery of the 17th-century church. Rooms 36-39 numbered.

<sup>80</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, January 1967," undated (Feb. 8, 1967 written on by hand, PNHP).

<sup>81</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, March 1967," March 31, 1967, PNHP.

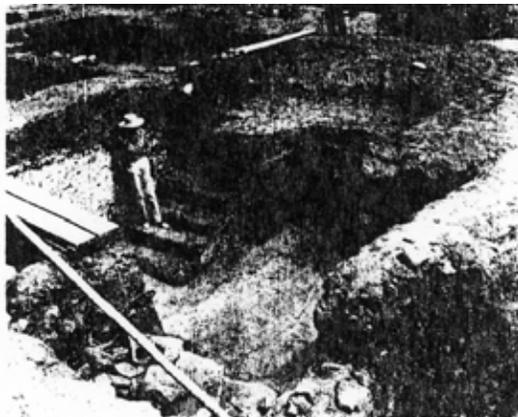
<sup>82</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, April, 1967," no date (probably first week of May), PNHP.

### The Field Season of 1967

The field season of 1967 started on May 1, 1967. During the first part of May, work concentrated on the corrals and rooms of Areas G and H. The second half of the month, the crew worked on the main convento. Notes X begin May 1, 1967, and, like Notes IX, were man-hour records with occasional additional remarks, although much fewer than in 1966.

### May, 1967

During May, Pinkley and the crew carried out a great deal of exploration of the convento. They completed the excavation of Rooms 27-35, discovered the "cellar," a below-ground room beneath the room numbered 36, and began tracing the rooms that Pinkley later numbered 37-40 around Area H. They cleared weeds and removed some fill from the western portion of the main convento, later Rooms 45-53, allowing Arquero to include these rooms on the map. In general, however, Pinkley did little more to these rooms than to remove weeds and adobe melt. The pre-excavation photographs taken in 1966 show the convento to have been excavated almost to the extent seen today; Pinkley simply cleaned out the spaces in preparation for eventual stabilization.



**Figure 9.20.** Jean Pinkley stands on the stairs of the "cellar" below Room 36. Pecos neg. #123.

### June, 1967

In June, work concentrated on the church, but part of the month was spent on Area H. Bill Witkind's notes were found by the Museum during the month of June, and a copy made available to Pinkley. "Many of Bill Witkind's notes of 1939-1940 were found by the State Museum. From them it is obvious that relatively little of the existing church is original. Even the wood, with the exception of the roof fragment in the room north of the sanctuary, is apparently new. Witkind was a poor writer and a worse speller; used strange terminology and it is difficult to follow his notes. He excavated a good deal more in the convento than Hewett's report, in 'Mission Monuments of New Mexico' indicates, as I have suspected all along. . . . While Witkind's notes leave me more confused than I was, if that is possible, they explain the

impossible hodge-podge I have been cursing in the northwest quadrant of the convento."<sup>83</sup> Pinkley probably attempted to associate Witkind's room numbers in his notes with the numbers on the early version of his plan of the ruins with no success, and gave up on getting any information from the Witkind material.

Pinkley had decided that Area H should be considered a patio surrounded by a continuous row of rooms, rather like a large convento. The discovery of the "cellar" below room 36 led her to cut a trench across Area H at about its east-west centerline, in search of other deep structures. This trench hit "one heavy north-south stone wall," eventually marked on the Arquero map, and two adobe walls, one east-west and one north-south.<sup>84</sup> The east-west wall was the southernmost part of the convento kiva eventually identified by Alden Hayes in the summer of 1970. The north-south wall was not followed and is still unidentified.

### The HABS Project

Walter Gathman and his students, due to show up on June 1, 1967, did not arrive to conduct field measurements for the HABS drawings. Pinkley said that she had "not yet been notified by the architects when to expect them. As so little remains of the original church and the pattern has been so distorted by construction of the concrete foundations in 1915, and subsequent tearing into them in 1939, I consider the purchase of architectural drawings a waste of time and money."<sup>85</sup> She was counting the pennies on the project, so it isn't surprising that she was opposed to the Washington office spending some of the limited project money on the HABS work. Gathman and his group finally began their field work on June 13, and produced a set of architectural drawings of the church in August, 1967.

### Archeomagnetic Sampling in the Convento

Dr. Robert DuBois, a pioneer in archaeomagnetic dating, sent a crew to take archeomagnetic samples from the site on June 9-14, 1967.<sup>86</sup> "Dr. Robert DuBois assistants, Messrs. Leder and Johnson, took samples from convento fireplaces for archeomagnetic dating purposes. Results, if any, will be submitted in the fall."<sup>87</sup> Archeomagnetic dating uses the magnetic orientation preserved in fired earth to date when the fire that baked the sample took place. It requires a careful removal of the sample so as to record its orientation relative to the local magnetic field, and a good history of the movement of the north magnetic pole through

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<sup>83</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>84</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), p. 3, PNHP.

<sup>85</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, May, 1967," June 1, 1967, PNHP.

<sup>86</sup>Pinkley Notes, X, June 9-14, 1967, PNHP.

<sup>87</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

time. By comparing the direction of magnetic north as recorded in the sample with the movement of the magnetic pole, the date at which the sample was last heated enough to change its orientation can be estimated. This estimation is usually no more accurate than plus or minus twenty-five years, and frequently the possible error range is much wider than that.<sup>88</sup> However, it was a rapidly developing dating method, and Pinkley considered it worth the trouble to try to apply it at Pecos.

The process of analyzing the samples from the field was less refined in the 1960s; today, the results of the analyses of the 1960s cannot be used as known points to add to the curve of polar movement, because the laboratory results are considered not precise enough. To add to the uncertainties, the movement of the north magnetic pole had been determined only generally, and few certain points were available for the period from the early sixteenth century to the late eighteenth century. As a result, DuBois's estimated dates have only a very general resemblance to the probably correct ones.

DuBois's field collectors, Leder and Johnson, took samples from Rooms 1, 9, 17, 28, 29, 36, C3, and D2. Pinkley did not receive these results in the fall of 1967, as she had expected. In fact, in November, 1968, she wrote to DuBois: "I am starting the final analysis and report writing on the excavations in the Spanish Franciscan mission complex at Pecos. Were your assistants, Messrs. Leder and Johnson, who took fireplace samples from the convento during the period June 9-14, 1967, able to secure any dates? If so, I would deeply appreciate knowing what they were."<sup>89</sup> DuBois answered that he was delaying sending her the results while processing other, more recently collected samples, all of which could refine the dating curve.<sup>90</sup> Pinkley responded, "There is no urgent need for the dates at this time. I will be involved in report writing until the first of May, when the field season opens, and probably will not complete the report until the winter of 1969-1970, so you may set your own deadlines."<sup>91</sup> DuBois's archeomagnetic results for the samples taken during Pinkley's excavations were not made available to the Park until July 20, 1970, when Alden Hayes called DuBois and got a list of dates from him:<sup>92</sup>

Room 1	— 1620±29
Room 28	— 1665±19
Room C-3	— 1690±18
Room D-2	— 1685±21

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<sup>88</sup>Jason M. LaBelle and Jeffrey L. Eighmy, *1995 Additions to the List of Independently Dated Virtual Geomagnetic Poles and the Southwest Master Curve*, Colorado State University Archeomagnetic Laboratory, Technical Series No. 7 (Fort Collins: Colorado State University, May, 1995); copy in PNHP.

<sup>89</sup>Jean Pinkley to Dr. Robert DuBois, November 25, 1968, PNHP.

<sup>90</sup>Robert DuBois to Jean Pinkley, December 6, 1968, PNHP.

<sup>91</sup>Jean Pinkley to Dr. Robert DuBois, December 13, 1968, PNHP.

<sup>92</sup>Alden Hayes field journal, "Log -- Pecos -- Hayes -- July-Aug 70," July 20, 1970, xerox copy in PNHP.

The dates given to Hayes in 1970 differ from those DuBois associated with the samples at a later date, presumably in the late 1980s:<sup>93</sup>

Room 1	— 1700±29
Room 28	— 1700±19
Room C-3	— 1650±18
Room D-2	— 1670±12

The differences may be the result of the accumulation of an additional ten years of comparative data, allowing an increase in the accuracy of the results. Based on my analysis of the construction sequence of the convento rooms, the hearths in Rooms 28, C-3 and D-2 should be dated to the middle period of the seventeenth century. The dates for C-3 and D-2 are probably roughly correct. Room 28 should date before 1680, just beyond the extreme early end of its range of variation, and Room 1 ought to be in the mid-eighteenth century, at the extreme late end of its variation range.

#### The HABS Project Begins

The HABS project arranged by Charles Pope of WASO, intended to begin on June 1, 1967, was delayed until June 13.<sup>94</sup> Walter Gathman and his students arrived at Pecos on that date, and surveyed the church through June 16.<sup>95</sup> The fieldwork only measured the standing walls for elevation drawings. This is the only fieldwork mentioned; the plan of the church and convento included with the HABS drawings was a copy of the Arquero plan of September-November, 1967, with no improvement on the errors on this map.

#### Discovery of the Pre-Revolt Church

The single most significant discovery of the Pecos Project occurred on June 8, 1967, when the large pre-Revolt church was recognized. The discovery began as a series of apparently unrelated structural traces uncovered during the previous year and the first few weeks of the 1967 season. Pinkley may have seen traces of the white-plastered walls of the sacristy of the seventeenth-century church in October, 1966, but considered it part of the disturbed and, in her opinion, inaccurately-restored southwestern bell tower area of the eighteenth-century church. In June of 1967, she returned a crew of excavators to this area: "June 1 we moved to the church to trench to their bases the foundations of the nave walls and bell towers and to see if we could

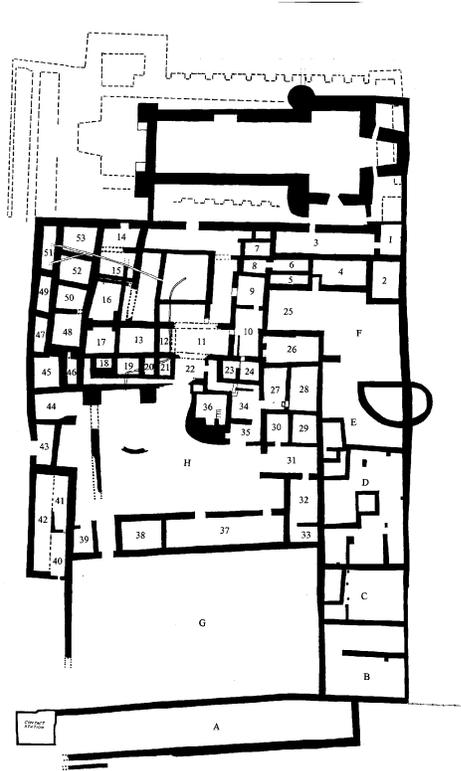
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<sup>93</sup>"Pecos AM Data," in the files of Pecos NHP; note on list: "Todd Metzger will give final prov. 12-4-89."

<sup>94</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>95</sup>Pinkley Notes, X, 6/13-16/67. Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

find the porter's lodge described by Dominguez as lying in the campo santo on the north side of the convento.<sup>1196</sup>



**Figure 9.21.** Late June through August, 1967. Rooms above 39 numbered.

While working on the attempt to outline the nave and bell tower walls, Pinkley said, "we kept encountering odd features, difficult to interpret."<sup>1197</sup> On June 8, she began clearing rubble and fill from the base of the north bell tower: "During the course of this work we ran into the remnants of a white plastered wall lying 18 inches north of the north bell tower of the church," oriented in such a way that the bell tower would have to be *inside* the building indicated by these walls. The connection of these walls to the church "was impossible to ascertain. It finally was decided that it probably had been a nave wall and that perhaps at Pecos, as at Zuni, the north wall had collapsed and when it was rebuilt it was moved inward."<sup>1198</sup> At Zuñi, in 1966 and 1967,

<sup>1196</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>1197</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>1198</sup>Jean Pinkley, Loose Notes, PNHP.

National Park Service archaeologist Louis Caywood and architect Russell Jones directed an NPS project to bring the ruined Zuñi mission church back into use. Because the north wall of the building was threatening collapse, it was rebuilt somewhat to the south, making the church smaller than it had originally been. "With this in mind we started trenching to find the exterior. . . . Finally it was realized that here was the old church."<sup>99</sup> At first, Pinkley assumed that the early church had the same orientation as the post-Revolt church, with its entrance to the west. Eventually, as the outline was worked out she realized that the earlier building had its front on the east end of the building, opposite the post-Revolt church.

As exiting and unexpected as the discovery of the huge early church was, from a management viewpoint this was a major setback: "June 30 we were still in the church area and it is anybody's guess when we will get back to the convento. I certainly 'goofed' when I estimated excavation as 60% complete at the end of the 1966 field season."<sup>100</sup> The inspection of the site and the early church by Washington and Santa Fe Park Service archeologists on June 16 had made this clear: "A brief inspection of the project was made June 16 by Archeologists Corbett, Thomas, and Schroeder. A decision was reached to complete the excavation, much more extensive than thought for, as the story being revealed is vital to the interpretation of the contact period, and do all possible within project funds for the churches. Unless the limitation is lifted and extra funds made available, this will preclude doing anything to the convento other than backfilling, leaving its partial reconstruction for some future project."<sup>101</sup>

July, 1967

"Work throughout the month was hampered by rain, including some real 'gully washers.' Work on the old church was abandoned and we moved back to the Convento. . . ." The excavations in the convento concentrated on the eastern part of the northern half of the convento. The work cleared parts of Area F and Rooms 25 and 26.<sup>102</sup>

The Santa Fe architect William Lumpkins and his wife visited the excavation on July 11. Lumpkins was especially interested in the foundations of the early church, still only partly outlined. "Mr. Lumpkins . . . pointed out the architectural significance of the 'old church', explaining that our so-called buttresses were bastions and that the style was typically European."<sup>103</sup> Later, after her own research into the topic, Pinkley would reject this evaluation:

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<sup>99</sup>Jean Pinkley, Loose Notes, PNHP.

<sup>100</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>101</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," no date (probably the first week of July), PNHP.

<sup>102</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, July 1967," August 7, 1967, PNHP.

<sup>103</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, July 1967," August 7, 1967, PNHP. The rectangular structures along the sides of the pre-Revolt church are buttresses, not bastions. A bastion is a defensive structure, usually intended to house cannon or at least infantry firing muskets or rifles.

"Contrary to the information given to me by architects and a student of historical church architecture, the fortified church was not uncommon in the New World. It was almost without exception the only type constructed during the 16th century in New Spain."<sup>104</sup> It is clear that she had found Kubler's book on sixteenth century Mexican architecture.<sup>105</sup>

On July 13, during a period of rain at Pecos, Pinkley and her crew visited Alden Hayes's excavation of Mound 7 at Gran Quivira, and examined the missions at the New Mexico State Monuments of Abó and Quarai.<sup>106</sup> Looking at these mission buildings must have aggravated her, because the stone structures would have been so much easier to define than she was finding the Pecos ruins. Their straightforward plans would also have infuriated her.

Regional photographer Fred Mang took aerial photographs of Pecos from a helicopter on July 27, and the next day Mang photographed "the few artifacts we have recovered."<sup>107</sup>

Father Fray Angelico Chavez visited the Pecos excavations on July 31. In her monthly report, Pinkley remarked "I have since been informed that Father Chavez has indicated an interest in writing up the historical significance of the Pecos Mission. If he can undertake the work, it will be a real contribution to knowledge and understanding of Spanish American History." However, Fray Angelico ultimately decided not to join the Pecos Project.<sup>108</sup>

Probably written about this time was Pinkley's "Progress Report FY 1967, Pecos Archeological Project." It should have been prepared at the end of the fiscal year, which was June 30.<sup>109</sup> In this report, Pinkley offered a neat summary of the work she had conducted to date: "Field work, excavation and stabilization in the Franciscan Mission complex of Nuestra Señora de los Angeles de Pecos, was conducted July 1 - November 23, 1966, and May 1 - June 30, 1967. Research of the literature and analysis of material and findings occupied the winter months. . . . An estimated two-thirds of the 5,100 square yard area known as the convento, which adjoins the mission church on the south, was excavated. This is a rambling mass of rooms, areas, patios and corrals, and at least three occupations are discernable."<sup>110</sup> Pinkley had never mentioned in her available notes that she was seeing evidence for three superimposed occupation episodes in the convento; this reference in the progress report shows that she was observing more during the excavations than she was recording in the notes and her monthly reports. Because of this lack of discussion, it is unclear what these three occupations might have been. Presumably they were

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<sup>104</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, February 1968," March 5, 1968, PNHP.

<sup>105</sup>George Kubler, *Mexican Architecture of the Sixteenth Century*, 2 vols. (New Haven: Yale University Press, 1948).

<sup>106</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, July 1967," August 7, 1967, PNHP.

<sup>107</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, July 1967," August 7, 1967, PNHP.

<sup>108</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, July 1967," August 7, 1967, PNHP.

<sup>109</sup>This report could have been written as late as December, 1967, but was most likely written in July, 1967.

<sup>110</sup>Jean Pinkley, "Progress Report FY 1967, Pecos Archeological Project," no date, PNHP. An area of 5,100 square yards is roughly equal to the area of the entire convento, from the south side of Area I to the south side of Area A

the pre-Revolt mission, the post-Revolt mission, and the post-abandonment occupation by shepherders.

"Adjacent to the church," Pinkley continued, "is the claustro, a square of large hallways surrounding a small, flagstone paved patio. A complex of living rooms and passageways surround the claustro on the east, south and west. A large, room-surrounded patio entered by a gateway through the west wall of the convento lies south of the main block. At least two cellars lie here, one of which was excavated." The gateway mentioned here is the opening through the west wall of Area H. One of the cellars was the room below Room 36, excavated in May, 1967; the other was apparently the Convento kiva, Kiva 23.

Pinkley briefly mentioned the discovery of the Ortega Church: "In June, 1967, during trenching operations to expose the foundations of the existing church for mapping by historical architects, the foundations of a much larger and older church were discovered. The structure had been burned during the Pueblo Rebellion of 1680 and, after the Reconquest of 1692-93, the remaining walls had been leveled to form a platform for the late church which sits in and partially over the old structure, making complete excavation impossible. . . ."

At this point, Pinkley believed that she would finish the project by June 30, 1969, "at which time a publishable scientific and historic report will be submitted."<sup>111</sup>

August, 1967

Area F of the convento was completed in the first half of August, and the rest of the month was spent in Area H, concentrating on Rooms 40, 41, 42, and 43. The conflict between the initial plan and budget for the Pecos Archeological Project and the actuality continued to drift farther apart, until by August the situation had become a crisis.

In August, "at the request of WASO, revised estimates were phoned . . . August 9. Estimates for stabilization of the churches and convento were prepared by Santa Fe architect William Lumpkins at no cost to the project."<sup>112</sup> WASO, unhappy with this revision, insisted on a new revised budget, based on a visit to the site on August 16, by WASO staff archeologist Zorro Bradley, Regional Chief of Interpretation Robert Barrel, and Al Schroeder.<sup>113</sup> In a letter to Chester Thomas two days later, Pinkley said "The outlook is hopeless. Everyone agrees (WASO, SWR, and the field) that something should be done, has to be done. Everyone also agrees (WASO and SWR) there is no hope of persuading the Director to return to Congress and ask for reconsideration of the limitation" on the original startup funds for Pecos. Of the four alternatives Bradley carried back to Washington, the fourth was to "halt excavation this fall, plot and outline unexcavated sections, backfill and do what we can for the existing church with

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<sup>111</sup>Jean Pinkley, "Progress Report FY 1967, Pecos Archeological Project," no date, PNHP.

<sup>112</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1967," no date, but probably first week of September, PNHP.

<sup>113</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1967," no date, but probably first week of September, PNHP.

remaining monies."<sup>114</sup> This was the alternative selected by Washington. In other words, rather than to concentrate on completing the excavation of the convento, with (hopefully) the understanding of its history that would come from such a completion, and letting the stabilization of the churches and the convento wait for future money, National Park Service headquarters opted to carry out the stabilization at the expense of the excavation. Such a decision removed any hope that Pinkley might have had for making sense out of the archeology conducted so far.

Excavation work was ordered stopped at the end of August, fourteen months into the project: on August 22, "By phone, Chief Archeologist Corbett ordered the excavation halted, the churches stabilized and the convento backfilled."<sup>115</sup> The reports indicate that a total of less than nine months were spent on the main convento during the period of actual excavation in 1966 and 1967. The remainder of Pinkley's fieldwork through the rest of 1967 and all of 1968 was spent on stabilization (except the excavation of the pre-Revolt church). All entries in her notes after this date concern stabilization only. Some information about the structures of the church and convento after this date come from the monthly reports.

#### The "Old" Church in the News

In spite of a lack of publicity by the Park Service, word of the discovery of the pre-Revolt church spread rapidly. On August 2, reporters from the *Santa Fe New Mexican* and the *New York Times* arrived at Pecos to interview Pinkley, four days before the official Park Service press release on August 6. Pinkley was annoyed by both reporters; she said later that she met the *New Mexican* journalist in Santa Fe on Saturday, August 6, who said "I do hope you won't think I've exaggerated too much;" she characterized the article as "hogwash," and had little hope of a more professional discussion in the *Times*: "It was written by their music critic!"<sup>116</sup> The articles appeared in the Sunday Supplement sections of the *New Mexican* and the *New York Times* on August 6, the same day as the Park Service press release. The Park Service had delayed an official announcement until Pinkley could outline the church sufficiently to make a preliminary plan of the building and a first assessment of its significance and place in the history of Pecos.<sup>117</sup> Pinkley had put together her initial evaluation on July 25, and sent it to Chester Thomas at SWAC.<sup>118</sup> Thomas sent it on to Chief Archaeologist John Corbett in the Washington office of the National Park Service: "There is enclosed a copy of Mrs. Pinkley's memorandum to me entitled 'The "old" Pecos Church; information and appraisal.' The report is accompanied by a

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<sup>114</sup>Jean Pinkley to Chester Thomas, August 18, 1967, in PNHP, Files, Correspondence.

<sup>115</sup>Pinkley Notes, X, 8/22/67; Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1967," PNHP, no date, but probably first week of September.

<sup>116</sup>Jean Pinkley to Chester A. Thomas, ca. August 8, 1967 (mailed after Saturday, August 6, and received Tuesday, August 9, according to receipt stamp), PNHP, Correspondence. *Santa Fe New Mexican*, August 6, 1967.

<sup>117</sup>Pinkley Notes, X, 8/2/67; X, 8/15/67, PNHP; Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1967," PNHP, no date, but probably first week of September.

<sup>118</sup>Jean Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

ground plan and a photograph. . . . Her discovery makes a far more intriguing story than any one conceived of when the project was planned and initiated."<sup>119</sup> Pinkley's summary was used to prepare the Park Service official announcement. Belatedly realizing that something of significance had happened at Pecos, the television newspeople of Albuquerque finally began a follow-up. On the morning of August 15, Lyn Bouche, of KOB-TV, Albuquerque, taped and filmed a short sequence for the 6:00 pm news program.<sup>120</sup>

#### Pinkley vs. Nusbaum

In the cover letter included by Chester Thomas when he sent Pinkley's assessment of the "old" church to WASO, Thomas remarked that in addition to finding the early church, "Pinkley has done valuable work in ferreting out the spurious portions of the new church."<sup>121</sup> Pinkley had become convinced that the outer face of the concrete buttressing built by Jesse Nusbaum to support the adobe nave walls he had uncovered in his 1915 excavations was intended to indicate the actual face of the wall. This ultimately led to her conclusion that the entire western nave and front of the church had been reconstructed by Jesse Nusbaum, and followed an incorrect outline.

Pinkley had first presented this viewpoint in October, 1966. "Previous digging [by Nusbaum] for the concrete foundation under the bell towers so disrupted the construction pattern it may be impossible to accurately define these structures. . . . what we have uncovered demonstrates that the 1915 reconstruction of the towers was largely hypothetical."<sup>122</sup> By November 4, 1966, she had decided that the "inaccuracy of the bell tower restoration was so gross that nothing was done to these two structures at this time . . . it is now obvious that these features [the bell towers and the nave walls] were reconstructed in 1915 and the work was largely hypothetical."<sup>123</sup> For example, "the offset in the north wall was solely an interior feature. The exterior wall was straight rather than jogged as originally reconstructed."<sup>124</sup> Pinkley cut into the standing fabric of the southern bell tower in order to determine where the original structure might have been. The crew cut away the concrete buttressing, "picked up the stone foundation and finally the original plastered north and west faces at the entry. These faces were three and one-

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<sup>119</sup>Memorandum from Chester A. Thomas, Chief, SWAC, to John Corbett, Chief, Division of Archeology, Washington, D. C. (WASO), August 1, 1967; copy in PNHP.

<sup>120</sup>Pinkley Notes, X, 8/15/67; Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1967," PNHP, no date, but probably first week of September.

<sup>121</sup>Memorandum from Chester A. Thomas, Chief, SWAC, to John Corbett, Chief, Division of Archeology, WASO, August 1, 1967; copy in PNHP.

<sup>122</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, September 1966," October 4, 1966, PNHP.

<sup>123</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP.

<sup>124</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP.

half feet back of the flared concrete buttress!"<sup>125</sup> Note that in both these examples Pinkley found actual wall fabric and wall surfaces within the Nusbaum concrete, which invalidated any suggestion that the entire structure of the nave and facade was an inaccurate reconstruction.

In July, 1967, she stated flatly that "during reconstruction, foundations of the late church were not always established prior to replacing walls, but new foundations laid and walls built where they never existed."<sup>126</sup> This led Chester Thomas to tell the Chief Archeologist of the National Park Service that "it appears that what has long been held to be the original walls are actually reconstructions and of no architectural or historical value. This accomplishment is important because it will save the Service from possible embarrassment in the future."<sup>127</sup>

An examination of Nusbaum's photographs, however, shows that the faces of the concrete buttressing were built two or three feet outside the line of the face of the church wall, and that the actual wall line was indicated by the face of the adobe above the buttressing concrete. Much of this was original adobe that Nusbaum found in place and left that way; most of it was left unaltered by Witkind, except for the removal of some of the concrete buttressing and patching with new adobes on the bases of the wall faces. The assessment by Pinkley and Thomas of these components of the standing church left the Park Service stabilization crews with tacit permission to remove any or all of the western nave and to rebuild it according to any plan they saw fit.

From August, 1967, through the end of the 1968 season, Pinkley and the crew concentrated largely on the stabilization of the two churches. Most of the work during September was devoted to preparing the early church for stabilization. "The fill [around the early church] is deep and difficult to dig. It is composed of the debris from demolition of the big church. . . ." This included masses of ash, charcoal, and fire-reddened adobes, leaving no doubt that the church had been burned.<sup>128</sup>

The base map of the church and convento was revised in September, 1967, so as to include the western part of the convento and the early church. "Regional Engineer Cotton and his assistants spent the week of September 11-15 mapping the areas uncovered during the summer and were back September 29 to complete work on the two churches."<sup>129</sup> The available Arquerro map was revised September 26, 1967. Whatever results came of the September 29 follow-up was not included on the map, although such details as the plan of the sacristy and its doorways and stairway up to the west, the extended version of Room 53, and the base of the baptismal font in the baptistry were all apparently known by this time and are shown on various

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<sup>125</sup>Jean Pinkley, "Report, Pecos Archeological Project, October 1966," November 4, 1966, PNHP.

<sup>126</sup>Jean Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

<sup>127</sup>Memorandum from Chester A. Thomas, Chief, SWAC, to John Corbett, Chief, Division of Archeology, WASO, August 1, 1967, PNHP.

<sup>128</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, September 1967," October 3, 1967, PNHP.

<sup>129</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, September 1967," October 3, 1967, PNHP.

tracings Pinkley made of the base map. At present, a copy of the final September 29 version of the plan of the church cannot be found in the files of the National Park Service.

Pinkley continued her preparation for stabilizing the early church during October. In the existing church, she backfilled exploratory trenches in the nave and transept, the apse, the main sacristy south of the south transept, and the secondary sacristies north and south of the apse, which she had "excavated to expose the facade of the old church." The remaining fill in Area I, between the south nave wall of the old church and north wall of the convento, was removed.<sup>130</sup> Pinkley removed the rubble of the early church from the west side of the mesilla, revealing "a system of terraces presumably built in connection with the construction of the existing church to provide a campo santo by making a platform utilizing the west end of the old church." In the process, she removed the old cross and cross mound in the campo santo, put up about 1912. "It straddled the back wall of the old church and the fill of the first terrace. . . ." All the fill removed from the west, north and northeast sides and from the west terraces "consisted of rubble from the old church: burned adobe, broken black adobes, charcoal, ash, plaster, maroon-colored mortar, rotted wood and tons of rock. Much of this had been deliberately placed, obviously to create a platform for constructing the existing church."<sup>131</sup> This suggests that some of the demolition of the pre-Revolt church was carried out under the direction of the Franciscans themselves during the construction of the new church beginning in 1714. Before this, the church was probably visible as a massive mound of rubble and wall fragments standing to several feet in height.

Fieldwork was stopped for the winter of 1967-1968 in November, and Pinkley spent the winter attempting to begin the writing of her final report. As will be seen below, in "Trying to Write the Report," she had little success. With the arrival of reasonable spring weather at the end of April, 1968, she was able to put the frustration of this effort aside and return to the field: "The crew has been instructed to report for work Monday morning, May 6."<sup>132</sup>

The year 1968 saw a continuation of the effort to stabilize the churches. The season began with further work on the terraces west of the apse of the early church. "It was decided to lower, level and step down the two terraces, built following the reconquest of 1692-93, which presently parallel and almost hide the back (west end) of the old church."<sup>133</sup> In the process Pinkley saw evidence that at least the easternmost of the two terrace walls had a fairly recent origin, probably in the late nineteenth century.

During June, Pinkley and the crew located the south and west faces of the sacristy of the early church while preparing the church foundations for stabilization: "During excavations we had been unable to establish the pattern to our satisfaction. The area had been heavily trenched,

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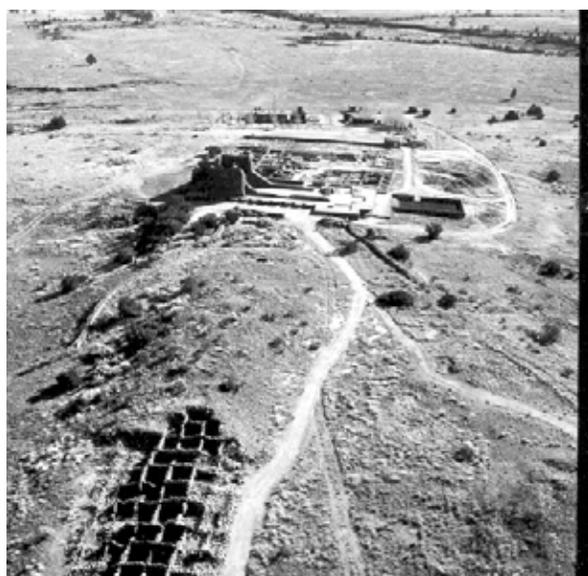
<sup>130</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, October 1967," November 6, 1967, PNHP.

<sup>131</sup>Jean Pinkley, "Monthly Report, Pecos Archeologist Project, October 1967," November 6, 1967, PNHP.

<sup>132</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, April 1968," May 7, 1968, PNHP.

<sup>133</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, May, 1968," June 3, 1968, PNHP.

and then the trench backfilled with the rock thus removed."<sup>134</sup> These were Witkind's trenches, visible in the Mead photos of his work at the southwest corner of the old church taken on December 4, 1940.<sup>135</sup> The plan of the southwestern corner of the early church was never added to the master plan of the church and convento, although they were noted on one of Pinkley's tracings. Since Pinkley's excavation, this area has been covered by the visitor trail to the church, and the corner may have been destroyed by its construction. The space west of the early church sacristy appears to have been a northern extension of Room 53. At the same time, Pinkley and the crew exposed portions of the northeastern bell tower of the early church under the northern sub-sacristy. "The peculiarly rebuilt (1939) north wall of the room north of the sanctuary of the 1700 church was breached to expose the east facade of the northeast bell tower of the 1600 church. We found the original foundation back under the wall and everyone is of the opinion this entire reconstruction should be torn out."<sup>136</sup>



**Figure 9.22.** An aerial photograph taken by Fred Mang in 1968, looking south along South Pueblo towards the church and convento. The excavations by Friar Hans Lentz are visible at the south end of South Pueblo. Pecos neg. #4555.

Friar Hans (Robert) Lentz, a Franciscan lay brother from Duns Scotus Seminary in Southfield, Michigan, joined the project June 10. Brother Hans volunteered as an excavator in order to gain first-hand knowledge about a mission in New Mexico as part of his research for his

<sup>134</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP.

<sup>135</sup>W.J. Mead, December 4, 1940, MNM # 6508.

<sup>136</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP.

Bachelor's thesis on Franciscan mission methods in pre-Revolt New Mexico.<sup>137</sup> This was the beginning of a long relationship between Lentz and the park. He continued to volunteer for Alden Hayes in 1969 and worked as a seasonal interpreter at the park through the late 1970s.

Because Lentz was a volunteer, Pinkley could assign him to research-oriented excavations, whereas she could not do this with any of her paid people, since she had been ordered to stop excavations that were paid for by the Project. Pinkley immediately assigned him the task of excavating a trench on the south end of South Pueblo. Here, she said, "Dr. Kidder reported that the rooms at the south end of the South Pueblo were larger than those showing elsewhere in the mound. In view of what Hayes found at Mound 7, I have wondered if these rooms might possibly be the 'few cells' de Vargas reported the Pecos had built for their Father when he brought Fray Zeinos to the pueblo in 1694." Lentz found that "several feet in from the south toe of the mound is a heavy Spanish-type wall running east-west [see Figure 4.17]. This is abutted on the north by narrow pueblo-type walls. . . . So far we have not been able to pick up more than one cross wall on the south, and this is again a pueblo-type wall."<sup>138</sup>

Lentz's major interest was an attempt to reconstruct the appearance of the church and convento in the seventeenth century. This interest prompted him to make several watercolors showing the interior and exterior of the church and convento. In July, Lentz finished the first two of these pictures: "Friar Hans completed two watercolors showing the 1600 church and convento as he feels the structure may have appeared. One pictures the complex from the east. It is a handsome painting.<sup>139</sup> The other is a birdseye view of the convento from the south with the church in the background."<sup>140</sup> The view towards the church from the east was used as the cover illustration for Alden Hayes's *Four Churches of Pecos*.

In August, Lentz completed a third painting, showing "solemn high mass for the patronal fiesta of the pueblo and mission as it may have been offered by Father Fray Velasco and three visiting priests, August 2, 1680. Costumes and church appointments are based on what is known to have been available and used in New Mexico at that time." During this period, he conducted "a study of conventos and analysis of the possible use of those rooms and features known to have been in existence in the 1600's." This was undoubtedly an offshoot of the research he was conducting concerning mission methods and procedures for his thesis. Lentz left Pecos at the end of August for the fall semester at Duns Scotus. Pinkley's evaluation of his work was that he

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<sup>137</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP. Lentz completed the thesis in 1969, a 137-page study of the methods of the Franciscans in New Mexico: Fray Hans Lentz, O.F.M., "Franciscan Missiology in Seventeenth-Century New Mexico," Duns Scotus College, Southfield, Michigan, 1969.

<sup>138</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1968," July 2, 1968, PNHP; Lentz, "Notes on Minor Excavation Project at the South End of the South Pueblo, June-July, 1968," June 15, 1971, PNHP.

<sup>139</sup>Hayes later used this painting as the cover illustration for *Four Churches*.

<sup>140</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1968," August 1, 1968, PNHP.

had "made an outstanding contribution to the project and we regret he must now return to his seminary in Michigan. . . ." <sup>141</sup>

During the continuing stabilization of the early church in August, a number of new details about the building were uncovered. "1600 Church: When the buttress was removed from the [northwest corner of the] transept of the 1700 church we discovered there had been a niche, or alcove in the north nave wall of the old structure. We got the west end only; the rest of the feature lies under the concrete abutment which supports the 35-foot high wall of the late church. We tunneled as far as we dared, but did not find the east side. . . . A fragment of a plastered wall, again lying under the concrete abutment, indicates there was a room, or stairwell in the northeast bell tower. Trenching, preparatory to pouring a concrete footing for the walls of the south arm of the transept [of the pre-Revolt church], finally brought out the features in this section. This arm is totally unlike the north arm." <sup>142</sup> Of course, the extensions to the north and south of the nave are not transepts, but rather a side chapel on the north and the sacristy on the south, rather like San José de Giusewa at Jemez Springs.



**Figure 9.23.** The Pecos mission during excavation at the end of June, 1967. Pecos neg. # 4492.

Pinkley continued, "A doorway from the convento cloister gives access to a small room, or hall, at the east. Another room lies to the west and from this a stairway gave access to the area south of the sanctuary, indicating there may once have been another room, possibly a robing sacristy, or a stairway to one of the six towers. . . . During excavation last year, we encountered sandstone slabs lying at the base of the wall north of the sanctuary. In ripping into this wall we discovered it had had a niche and encountered in it the rotted remains of a huge, squared timber, buried upright. Friar Hans suggests a large wooden crucifix may have been recessed into the

<sup>141</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1968," August 30, 1968, PNHP.

<sup>142</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1968," August 30, 1968, PNHP.

wall at this point. Such a large fixture could not be hung successfully from an adobe wall."<sup>143</sup> None of these features are plotted on any of the church/convento base maps available, but are shown on various tracings Pinkley made of her copy of the base map. These include the stairway in the northwest corner of the sacristy, the niche in the northern part of the west wall of the nave, and portions of two niches in the eastern part of the north wall of the nave.

Pinkley completed most of the work on the stabilization of the church in September and October, 1968. She was planning on beginning the stabilization of the convento when the field season of 1969 began in May, and continuing some exploratory trenching in the south end of the South Pueblo. In January, 1969, she wrote to Friar Lentz: "I would like to continue probing the south end of the South Pueblo where you partially outlined the one heavy Spanish-type cross wall last year. I have no doubt in my mind there were interim convento-type rooms in that section, just as there were in Mound 7 at Gran Quivira." Presumably she was still thinking that these were rooms from the reoccupation of 1694. It is curious that she ignored the already-excavated rooms at the north end of South Pueblo, that had a far stronger similarity to the Gran Quivira Mound 7 rooms, and which evidence indicates were the temporary convento in the 1620s. She was interested in Lentz's participation beyond simple excavation, though. "Also, it would be advantageous to have your ideas of what the post-Rebellion church and remodeled convento looked like. This could be accomplished with a painting or series of paintings such as you did of the 1600's establishment."<sup>144</sup>

However, on February 7, 1969, eight days after completing the January report, Pinkley suffered an aortic aneurysm in her office in the Pecos administration building, and died eleven days afterwards, on February 18, 1969, after surgery and apparent improvement. Thomas F. Giles wrote to Friar Lentz on the same day to inform him of what had happened:

Dear Friar Hans:

We have the unhappy task of informing you that Jean Pinkley passed away at 1:30 a.m. today.

She suffered an apparent heart attack on February 7 here at work. She was flown to Houston, Texas on February 9th, where they performed surgery and repaired a ruptured aorta.

Her sister, Ruth Ann, has been in touch with our Santa Fe office since her original attack, and from all reports, she was progressing quite rapidly in her recovery.

...

The loss of Jean to the project as well as our personal loss is unmeasurable.<sup>145</sup>

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<sup>143</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1968," August 30, 1968, PNHP.

<sup>144</sup>Jean Pinkley to Friar Hans Lentz, January 17, 1969, PNHP.

<sup>145</sup>Thomas F. Giles to Friar Hans Lentz, February 18, 1969, PNHP.

### Trying to Write the Report

Pinkley began the attempt to write an archeological report on the Pecos Project in January, 1967. During the winter months of 1966-1967, 1967-1968, and 1968-1969, while excavation was made impossible by the weather, she worked on the preparation of the report. The first three months in the winter of 1966-1967 were spent continuing her research in an effort to find more documentation on the church and convento of Pecos, with little result.<sup>146</sup> Not until John Kessell's "Documentary History" of Pecos was completed in July, 1975, was the available documentation explored and the history of the mission synthesized from it in some detail.<sup>147</sup> Had she had this information, Pinkley would not have been noticeably better off; very little structural reference occurs in the documents.

By May, 1967, Pinkley was beginning to think about the problems she would face when it came time to write up her excavation report on the project. The incredible tangle of walls in the convento were particularly daunting: "the place is a nightmare and trying to describe it or define it is going to be a worse nightmare."<sup>148</sup> This is an accurate portrayal of the difficulties encountered by everyone who has attempted to write the structural and archeological history of the mission at Pecos. For Pinkley, it was not going to improve.

The Museum of New Mexico found their copy of Witkind's notes in June, 1967, but because Witkind changed his room numbers constantly and because the notes for the last few months of 1940, when most of the excavation in the convento took place, were not found, Pinkley found little help in the document: "it is difficult to follow his notes. . . . Witkind's notes leave me more confused than I was, if that is possible."<sup>149</sup>

Pinkley's attempts to recognize some sort of relationship between the scant historical record and the equally scant archeological information continued when off-season began in November, 1967: "Research. Research of the existing literature was resumed. Previously completed work was rechecked in the hopes that some overlooked or heretofore meaningless statement might provide a clue to the date or dates of construction of the existing church. The results have been disappointing to date, but the work is continuing."<sup>150</sup> December was no better: "Research and analysis. This work occupied the first two weeks of the month. There were no startling results. The Supervisory Archeologist was on annual leave the remainder of the

<sup>146</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, January 1967," undated (Feb. 8, 1967 written on by hand), PNHP; Jean Pinkley, "Monthly Report, Pecos Archeological Project, March 1967," March 31, 1967, PNHP; Jean Pinkley, "Monthly Report, Pecos Archeological Project, April, 1967," PNHP, no date (probably first week of May).

<sup>147</sup>John Kessell to Thomas Giles, July 14, 1975, PNHP; John Kessell, "The Pueblo de los Pecos: A Documentary History, 1540-1838," typescript, Denver Service Center, National Park Service, May, 1977.

<sup>148</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, May, 1967," June 1, 1967, PNHP.

<sup>149</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, June 1967," PNHP, no date (probably the first week of July).

<sup>150</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, November 1967," December 1, 1967, PNHP.

month."<sup>151</sup> Pinkley was apparently unable to make use of the original manuscripts available at the University of New Mexico library (an entire multi-year project in its own right, as the National Park Service found out when it began exactly that enquiry), and was therefore restricted to secondary literature.

In January, 1968, Pinkley began to realize that her predicament had no clear way out. "By now I realize that procedures normally followed in writing an archeological report cannot be applied in this case. I'll admit at the moment I'm 'stymied!' Regretably, I've made little progress, but the work continues and sooner or later we will lick the problem, the sooner the better, as far as method of approach goes."<sup>152</sup>

### The Pecos History Project

Giving up on the effort to find some previously unnoticed book or article dealing with the history of Pecos, an approach already discarded by the Regional Office in mid-1966, Pinkley pinned her hopes on the ongoing "Research of Spanish Documents" project to give her some sort of outline of the construction history of the mission.

The effort to compile a "Comprehensive History of Pecos Pueblo and Mission," as the project was originally called, began with the creation of Pecos National Monument. In April, 1966, Tom Giles gave this project the second highest priority of park research projects for fiscal year 1967. The Washington office assigned the job of preparing this study to Ross Holland, of the Division of History Studies, WASO. However, in July Frank Wilson, historian at Pecos, objected to the planned history project, arguing that Al Schroeder had already gone over the available secondary sources with only modest results in information concerning the history of the pueblo and mission, so that what was needed was a primary research program, looking for new original documents that might tell the Pecos story in a more complete manner.

Wilson indicated that Eleanor Adams of the University of New Mexico had noted a number of documents in the photostat collection of the Coronado Room that contained important references to the establishment, construction, and management of the Pecos mission, and had indicated interest in the project. The idea was that Adams would locate and copy appropriate documents, and the copies would be sent to Daniel Matson of Tucson for transcription and translation. This new project, "Research of Spanish Documents," was approved on September 2, 1966, and the broader "Comprehensive History" was put on hold until the documents became available in translation.

On October 1, Al Schroeder and Frank Wilson met with Eleanor Adams to work out the details of the agreement. At this meeting she recommended that John Kessell be named as the investigator who would do most of the search through the Coronado Room records. The contract was set up through the university, with Eleanor Adams as the principal investigator and John Kessell as the researcher, and began on November 8, 1966.<sup>153</sup> Adams and Kessell completed the

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<sup>151</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, December 1967," January 2, 1968, PNHP.

<sup>152</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, January 1968," February 2, 1968, PNHP.

<sup>153</sup>Robert M. Utley to Al Schroeder, February 6, 1870, NARC; copy in PNHP.

compilation of 1,299 pages of manuscript and two roles of microfilm (containing an estimated 2,000 frames) apparently on August 18, 1967, the same day that Jean Pinkley was becoming impatient for "the archival research so desperately needed."<sup>154</sup> In February, 1968, Pinkley carried the document collection to Tucson: "Spanish documentary material regarding Pecos which was xeroxed and microfilmed this past year at the Coronado Library, University of New Mexico, was delivered to Dr. Dan Matson, Tucson, for evaluation and estimates as to costs of transcription and translation."<sup>155</sup> Ultimately, Matson decided he did not have the time to devote to such a large project, and John Kessell was selected to write the definitive history of Pecos Pueblo. This study, completed for the Park Service in 1975, was published in 1979 as *Kiva, Cross and Crown: the Pecos Indians and New Mexico, 1540-1840*.

While in Tucson, Pinkley met with Father Kieran McCarty, of San Xavier Mission, "to discuss Franciscan activities and church construction in the 17th and 18th centuries."<sup>156</sup> Curiously, at no time during her research does Pinkley ever indicate that she had found the Awatovi report, available since 1949 from the Peabody Museum, or the Hawikuh report, published in 1966 by the Museum of the American Indian, supported by the Heye Foundation. It is rather curious that she hadn't seen the Awatovi report, since her mentor, Al Lancaster, had worked as assistant director of those excavations. Both reports, especially the Awatovi report, with its detailed discussion of mission construction and Franciscan life in a mission, would have been of great value to her.

In March, 1968, Pinkley stated that the secondary literature search was "complete, or so I hope, with little new being found of importance to the history of Pecos." It would be seven years before any of the material from the Pecos documents collected by John Kessell became available. In the meantime, she summarized her progress: "Writing: Notes have been arranged chronologically. Some progress has been made on writing the historical aspect of the report."<sup>157</sup>

From April to November, 1968, Pinkley concentrated on the stabilization of the churches and some work in the convento. With the end of fieldwork in November, she began preparations for returning to her attempts to write the report in late November. "Field work terminated as of COB November 8, when we arrived at work to find everything covered with snow. The rest of the month was spent in catching up with a back-log of paper work, reviewing notes and organizing for the winter's work."<sup>158</sup> Through most of December, 1968, Pinkley was on leave,

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<sup>154</sup>John Kessell to Al Schroeder, August 1, 1967, NARC; Jean Pinkley to Chester A. Thomas, August 18, 1967; "Status of Program Report," November 25, 1969; Robert M. Utley to Al Schroeder, February 6, 1970, NARC; Ernest Allen Connally, Chief, Office of Archeology and Historic Preservation, to Carl O. Walker, Acting Regional Director, Southwest Region, April 17, 1970, NARC; copies in PNHP.

<sup>155</sup>John Kessell, *Kiva, Cross and Crown: the Pecos Indians and New Mexico, 1540-1840* (Washington: National Park Service, 1979).

<sup>156</sup>Jean Pinkley to Chief, SWAC, "Monthly Report, Pecos Archeological Project, February 1968," March 5, 1968

<sup>157</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, March 1968," April 3, 1968, PNHP.

<sup>158</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, November 1968," November 29, 1968, PNHP.

so there was no report for that month. In the middle of the month, however, she wrote to Du Bois to inform him that she would not be needing archeomagnetic dates from him until she was further along in writing the report. In this letter, she stated that she did not expect to complete the report "until the winter of 1969-1970 . . ." <sup>159</sup> Her annual report on the progress of the project, submitted in mid-December, stated that the project was scheduled for completion on December 31, 1969, and that the "final scientific and historical report" would be submitted at that time. <sup>160</sup>

At the end of January, 1969, Pinkley wrote to Chester Thomas, "Progress in writing has been extremely slow, so there is nothing to report as I have spent the month trying to get inspired. This isn't the easiest report in the world to tackle and I quite frankly do not yet know what is the best way to get the facts down, inter-relate the archeology with the history, and come up with something that does not read like the Federal Register. Sorry, but that is the way it goes." <sup>161</sup> Seven days later, on February 7, Pinkley had her aneurysm, and died eleven days afterwards. It seems likely that the difficulty with the preparation of the Pecos report contributed to the stress that brought about her death.

#### The Report at the Time of Pinkley's Death.

In the files at Pecos are twenty-four pages of typescript and manuscript, all that exist of Pinkley's efforts to write her final report. They form perhaps five or six aborted introductions to the report, and internal evidence indicates that all were written probably in the early months of 1968; in April of that year she reported that "some progress has been made on writing the historical aspect of the report." <sup>162</sup> Each effort bogs down in confusion, principally on the questions of how many churches there were, who built them, how they were found, and what had been written about each one in historical and archeological publications. As can be seen from the examination of these topics in this study, these were not simple, easily-answered questions.

This was the central problem for Pinkley. She had very few historical documents describing the Pecos buildings. The description of Pecos in the Dominguez report, the longest and most detailed of the available documents, bore little resemblance to what she had found in the ground. She could not identify the missing "old" church that Dominguez said adjoined the standing church on its south side, nor could she arrive at any comfortable fit between Dominguez's depiction of the convento and the rooms she and Witkind had uncovered: "the structure [of the "old" church] was not found, nor anything that I can conscientiously believe ever was a church within the confines of the convento. To compound the problem, the convento at Pecos in no way resembles the structure described by Dominguez." She considered herself to be attempting to correlate "disappointingly brief historical records with archeological evidence,

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<sup>159</sup>Jean Pinkley to Dr. Robert DuBois, December 13, 1968, PNHP.

<sup>160</sup>Jean Pinkley, "Narrative Statement [FY 1968], Pecos Archeological Project." ca. December 14, 1968 (received at SWRO about December 16, 1968, according to date stamp on it), PNHP.

<sup>161</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, January 1969," January 31, 1969, PNHP.

<sup>162</sup>Jean Pinkley, "Monthly Report, March, 1968," April 3, 1968, PNHP.

itself confused by previous excavations and pot hunting activities . . ."163 Unfortunately, the complexity of the site and of the historical and archeological information about it proved too much for her.

#### Implications and Conclusions: The Extent of Pinkley's Notes on the Excavations

Pinkley actually carried out excavation only from June 20, 1966, to November 23, 1966, and from May 1, 1967, through August 31, 1967. This was a total of nine months of excavation, of which a fair portion was spent on the church and the corral areas of the southern convento. The reports indicate that only 5½ months were spent on the main convento; photographs show that most of this work was devoted to removing wind-deposited fill and melted adobe and mortar from rooms already excavated by Witkind. Pinkley apparently did not dig below Witkind's stopping point in many of these rooms; these were mostly in the eastern part of the convento. A comparison of the photographs, Witkind's journal, and the Room Notes of Hayes and Lentz with Pinkley's notes indicate that she actually kept moderately detailed notes for most of the areas that were her new excavation areas. We could have wished for more observation in the main convento, but this was eventually supplied by Hayes and Lentz. In general, then, although Pinkley clearly omitted some important record-keeping, she supplied us with first-hand observations of reasonable detail on most of her new excavation. It has simply been impossible to evaluate her information in a reasonable way in the absence of a clear understanding of what Witkind found. Now that this is available, Pinkley's work makes a good deal more sense, and leaves far fewer questions.

It would be easy to dismiss Jean Pinkley's excavations at Pecos as a failure and a destruction of the physical evidence without adequate recording, as has been the back-room tradition in the Park Service. However, this evaluation is incorrect. Such a view, arrived at by many who have reviewed Pinkley's work at Pecos, is the result of a failure to understand how much work William Witkind did (the same problem Pinkley had), and therefore in what context Pinkley was working. I have certainly muttered a few curses when she dismissed an entire month's worth of work in the convento as "a number of rooms were exposed along the north-northeast section of the area."<sup>164</sup> However, the lack of detail where we would most like it, in the main convento, was the result of the excavation history of the mission, not her own failure.

Had she lived to write her report, many of these criticisms would never have arisen. Her memory and direct examination of the ruins and excavations would have filled out the notes and made the presentation of her work in the south convento much more detailed and to the point, and her discussion of her work in the main convento would have made it clear that she did little more than clean-up, with only occasional deep probes below Witkind's stopping point. Pinkley's death certainly resulted in the loss of half of the records on the excavations, but these were not misplaced documents; they were her personal observations and thoughts, on record nowhere but in her head.

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<sup>163</sup>Pinkley, "Fragments," n.d. PNHP.

<sup>164</sup>Jean Pinkley, "Report, Pecos Archeological Project, November 1966," November 30, 1966, p. 2, PNHP.

It is unfortunate that when Pinkley began the actual attempt to compile her notes, memories, sketch plans, research and observations into a clear report, she made little progress because of the same difficulty that Alden Hayes would later encounter. She knew virtually nothing about the plan and construction history of the main convento, because that had largely been excavated by Witkind and she couldn't make head nor tail of Witkind's journal. Without the story of the main convento, it would be almost impossible to write an effective report on the archeology of Pecos. It is not surprising that Pinkley was unable to make any headway on the writing.

Using the material actually on record, it is clear that Pinkley's excavations produced two results of great importance for the understanding of the structural history of the mission at Pecos. One of these, of course, was the huge pre-Revolt church, that finally made sense out of the statements about the Pecos Mission during the seventeenth century. The other was the exploration of the southern half of the convento compound. Little attention has been paid to Pinkley's findings in Areas A, B, C, and D. This is unfortunate, because much of the later confusion and argument in the Park Service about the plan of the convento and which rooms were in use after the Pueblo Revolt and Reconquest were answered in Pinkley's notes, in combination with other information. Pinkley observed the color of the adobe brick used to build these areas, the evidence for a major fire here, and the indications of overlying episodes of construction. The single most important indication of Pinkley's observations is that the corrals south of the main convento were almost entirely pre-Revolt. The vast majority of the structural traces are associated with black brick, and therefore date to the earliest period of the construction of the mission, before 1635. The area had only very limited use after the Reconquest.

#### The Missing Pinkley Documents

Since Pinkley's death, there has been a long-standing belief in the National Park Service that the majority of her notes and drawings disappeared from her papers at the time of, or just prior to her death. During the preparation of the detailed examination presented in this chapter, I have found no evidence of any great number of missing notes. We have most of what Pinkley wrote; she simply did not keep anything like the quantity of notes expected for an excavation of the size of the Pecos Project. There are no missing notes, except insofar as Pinkley failed to write them down. There is, however, evidence for a few missing documents *other* than notes. These are all maps:

1. Map on which she worked out room numbering system in winter of 66-67.
2. Map on which she marked out the "old" church, the seventeenth-century structure for the NPS press release; this map had buttresses on the inner corners of the flagstone-paved patio, and was printed in the *New Mexican* article on the discovery.<sup>165</sup>
3. Map showing rooms numbered in late 1967, rooms above 39.

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<sup>165</sup>Santa Fe *New Mexican*, August 6, 1967.

4. The Carr-Corbett map of the South Pueblo, with the paste-on additional plan of the rooms excavated by Stubbs and Ellis, that Pinkley borrowed from the Laboratory of Anthropology in 1966 and apparently never returned. Although a copy of the map has been found in the Tree-Ring Laboratory files in Tucson, Arizona, the Laboratory of Anthropology copy remains missing.
5. The original of the "General Plan" of the Pecos mesilla, now existing only as an untitled Arquero-drawn map on Park Service paper.

Fragments and tracings of some of these plans have been found; for example, portions of maps 1, 2 and 3 are known from the illustration in the *New Mexican* article about the finding of the early church, published August 6, 1967. These maps and plans may have been taken to SWAC (now WACC, the Western Archaeological Conservation Center), and might still be there in a map file somewhere, although the tracking system for the collection does not mention any Pinkley maps. Other than these plans, however, everything Pinkley ever referred to at one or another place in her notes is available.

Within the National Park Service, Jean Pinkley has been considered to have failed in her responsibility to record her excavations at Pecos, which is equivalent to saying that her excavations destroyed much of the evidence for the history of the mission buildings without hope for the recovery of this evidence.<sup>166</sup> However, the review of her work at Pecos in this chapter<sup>167</sup> should make it clear that, although her field methods could certainly be criticized, it was not much worse than many others who carried out field work in the 1960s and 1970s. Instead, her failures were more academic: she was unable to arrive at a clear understanding of what the structural and stratigraphic information she was seeing had to tell her. But Pecos was, and remains, a difficult site, and a good deal of the evidence for its many periods of occupation was either eroded away or rendered almost unnoticeable by time and the well-meant efforts of earlier investigators.

Pinkley had been a good student. She had listened in class when Emil Haury described why natural stratigraphy was too fine a comb to use to go through midden deposits. Her mistake was to consider this idea to apply even to the contents of a historical building. Research since Pinkley has shown that it is in the very finest details that the story of the structure of Pecos lay hidden. Pinkley had a very direct approach to archeology and its interpretation, a very straightforward way of thinking, and so she believed that the Pecos Problem would have a direct, straightforward answer. Regrettably, her direct approach did not comb out the tangled evidence which obscured the story of Pecos.

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<sup>166</sup>For more information on the National Park Service evaluation of Pinkley's work, see the discussion of Alden Hayes and his reaction to the condition of Pinkley's records when he arrived to take over the excavations in 1970, in Chapter Ten, "Recent Research."

<sup>167</sup>I have compiled a more detailed room by room analysis of Pinkley's work in a new Room Histories, now in the files of Pecos National Historical Park along with the volumes of her collected notes and correspondence.

## Chapter Ten

### Recent Research, 1969-1995

Alden Hayes and Robert Lentz, 1969-1970

Pinkley's death left the Pecos Project in complete disarray, with the Park Service scrambling to find another archaeologist to head the excavation. Fortunately, Alden Hayes had finished the excavation of Mound 7 at Gran Quivira in the fall of 1967, and was well begun on writing the report of his work at the pueblo and mission. Chester Thomas of the Southwestern Archaeological Center assigned him and Roland Richert, a stabilization specialist, to take up where Jean had left off. Hayes expected that he would be able to turn to the writing up of the Pecos work by the fall of 1969.

On March 4, 1969, Hayes and Richert made their first visit to Pecos after Pinkley's death. "The purpose of our trip was to conduct an on-site survey, review files and field notes, and confer with Pecos and Regional staffs regarding the late Jean Pinkley's excavation-stabilization project at Pecos Mission and to determine the best means of carrying the unfinished work to successful completion." Richert's trip report outlined the purpose of this introductory trip and the division of the remaining work between the two men. "As it stands now, you have assigned to Mr. Hayes the task of completing the archeo-historic report while I am to complete the programmed stabilization and allied report. . . ."<sup>1</sup>

Richert outlined the stabilization work that he would undertake. This was the final version of the various plans for the stabilization of the churches and convento within the original budget allowed for the Pecos Project; it shows the much-reduced hopes of management at Pecos and in the Regional Office after the long and difficult excavation had so completely disrupted all previous plans. "Before Jean's untimely passing, the remainder of the work to be accomplished within available 1969-70 funds was fully discussed by her with Messrs. Giles and Wilson, both of whom agreed on the agenda. Obviously, the funds fall far short of all that is required to bring the entire site—the 1700 church, the convento and the two pueblos—up to maintenance level." Richert proposed to preserve and stabilize the area of the patio of the main convento and the rooms immediately around it, so that it could be opened for interpretation along with the two churches. This would require that some sort of barrier be erected between the stabilized rooms and the rest of the convento, left open to be viewed by visitors. The nave walls and bell tower of the post-Revolt church would be veneered and capped with stabilized adobes; eventually, the transept and apse walls would also have to be capped, Richert added.<sup>2</sup>

Hayes described his somewhat different ideas about the stabilization of the ruined mission a few months later: "The current plans for spending the remaining time and money allotted to the Pecos Project are to finish the stabilization of the 18th century church and the

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<sup>1</sup>Roland Richert, Chief, Ruins Stabilization Unit, to Chief, Southwestern Archaeological Center, Globe, Arizona (SWAC), "Field Trip Report, Pecos, March 4, 1969," March 13, 1969; copy in PNHP.

<sup>2</sup>Roland Richert, Chief, Ruins Stabilization Unit, to Chief, SWAC, "Field Trip Report, Pecos, March 4, 1969," March 13, 1969; copy in PNHP.

exposed footings of the 17th century church, and to stabilize the garth-cloister area of the convento and the rooms immediately adjacent to it. This will leave nearly three-fourths of the convento unprotected. There has been some talk of possibly backfilling the unstabilized walls. It would probably not cost more than twice as much to fully stabilize them. Most of these remaining walls are masonry footings from one to three feet high. Though there is a baulk of earth above some sections it is composed of fill rather than adobe wall, and it should come off if further stabilization is done. I recommend that these walls be left open in hopes that funds can be found to fully stabilize them and to leave them open to view. The exhibit is not complete without them. I believe the Service will be justifiably criticized for their initial excavation if we don't make the most of them."<sup>3</sup> Ultimately, this alternative was selected, and over a period of several years the ruins of the convento were completely stabilized within the annual operating budget of the park.

In addition to the preliminary examination of the site and a discussion of the alternatives available for the stabilization work, Hayes and Richert collected Pinkley's records. "With the consent and kind assistance of the area staff, we gathered together all notes, photographs and ground plans relating to the project for removal to SWAC where this material is now being sorted and filed by categories."<sup>4</sup> This material was especially critical to Hayes, who needed Jean's notes on her field work and her historical research in order to write the report.

This initial visit to Pecos was only one day long, and Hayes did not have much chance to evaluate the records left to him by Pinkley. However, after reaching Globe and sorting the material, it became clear that the situation was not as straightforward as everyone had assumed. Hayes found that the written record of the excavations was not as detailed as he had hoped. "I didn't know until I got up there and poked around that there was so little to work with. At first I couldn't believe that there wasn't more data squirreled away somewhere."<sup>5</sup> Hayes organized the available notes and attempted to work out what they told him in the way of excavation data. The southeastern rooms were well described, even though there were few plans, no section drawings, and no photographs. The obvious gaps were found concerning the rooms of the main convento. For these rooms, although Pinkley clearly had done some work in the area, there was no description of any sort. Of course, this was because Pinkley's work in these rooms was mostly clearing sediment and melted adobe from Witkind's excavations, rather than the actual removal of archaeological deposits. However, the lack of any information about these rooms stopped Hayes from even beginning a report on the project, as it had stopped Pinkley. Hayes began to plan on a trip back to Pecos to carry out a detailed examination of what could be seen in all the rooms of the convento, and especially the main rooms around the patio, in order to have some information about these critical core areas of the mission.

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<sup>3</sup>Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP.

<sup>4</sup>Roland Richert, Chief, Ruins Stabilization Unit, to Chief, SWAC, "Field Trip Report, Pecos, March 4, 1969," March 13, 1969, PNHP.

<sup>5</sup>Alden Hayes to James Ivey, personal communication, June 30, 1995.

In the interim, Hayes began tracking down information about the date and photographer for the mass of photographs Pinkley had assembled. Many of these were historical photos, but some were taken by Frank Wilson and Fred Mang during the course of Pinkley's work.<sup>6</sup> He searched for the Witkind journal, but was unable to find it in the papers brought back to Globe. Fortunately, Roland Richert found the xerox of the journal at Pecos in May.<sup>7</sup> Finally, Hayes wrote to Robert DuBois, asking about the progress on the archeomagnetic dating of the samples taken for Pinkley.<sup>8</sup>

#### The Room Notes of 1969

Hayes arranged for Hans Lentz to meet him at Pecos and help in the room data recording. Lentz was the closest thing to an assistant Pinkley had had on the project, and was eager to continue to work on the mission. He had written to Tom Giles on March 9, asking who would take over the supervision of the excavation, and mentioned that Pinkley had intended to have Lentz continue to work on what she thought was the 1694-96 convento for the mission on the south end of South Pueblo, as well as testing east of the church to determine if the campo santo of the pre-Revolt church had been there.<sup>9</sup>

Hayes arrived at Pecos in the afternoon of Monday, June 23. The next morning he and Lentz began the compilation of the Room Notes, the most comprehensive single description of the mission ruins up to that time. On June 25 Hayes drove into Santa Fe to consult with Regional personnel, and Lentz wrote additional notes for Room 8. Hayes and Lentz continued the detailed description until Hayes's departure on Monday, June 30. The joint effort had carried the two up to Room 40, and included Areas B through F and H. Lentz completed the room notes over the next several days after Hayes's departure, including Areas A and G, and continued the photography of the rooms and walls.<sup>10</sup> Hayes designated the room south of the church, the old Zeinos chapel, as Area I in 1970.

Lentz completed the notes about the end of the first week of July; Rickert indicates that the notes and photographs were done by July 11.<sup>11</sup> Lentz made two copies, and sent the original to Hayes on July 24. He kept a copy for himself, and gave a second to Roland Richert. Hayes wanted the other two to "make any additions or corrections that occur to them during the season

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<sup>6</sup>Al Hayes, Gila Pueblo, Globe, Arizona, to Bill Brown, Southwestern Regional Office, Santa Fe (SWRO), March 12, 1969; Al Hayes to Erik Reed, March 12, 1969; copies in PNHP.

<sup>7</sup>Al Hayes to Erik Reed, March 12, 1969; Roland Richert, at Pecos, to Alden Hayes, at Globe, May 17, 1969, PNHP.

<sup>8</sup>Al Hayes to Dr. Robert DuBois, March 13, 1969, PNHP.

<sup>9</sup>Friar Hans Lentz to Thomas F. Giles, March 9, 1969, PNHP.

<sup>10</sup>Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP.

<sup>11</sup>Roland Richert, at Pecos, to Alden Hayes, at Globe, July 11, 1969, PNHP.

and all will be consolidated after field work is shut down in the fall." Richert apparently made no additional remarks on the notes, but Lentz spent some time from the end of July through August 20 annotating and adding to his copy of the notes. On July 24 he wrote to Hayes that he was "starting on the dissection of the convento floor plan which I mentioned to you in June. Today I drew up a half-scale chart from the blueprint, which should be easier to work with. Next I will concentrate on the abutment data & make tracings from my chart which hypothesize the convento shape in different eras." His concluding remarks on his copy of the room notes are dated August 20, 1969.<sup>12</sup>

After the assembly of the room notes, it was clear to Hayes that some further excavation would be necessary. "There are still some gaps in the obtainable record of the excavation. About six scale profile drawings should be drawn of the entire complex in order to record bedrock, floor levels, and wall bases. This will require some test pits plus mapping with the plane table and will take perhaps three weeks. I would like to return sometime in FY 70 to do this."<sup>13</sup> Beyond this series of excavations, Hayes felt that a test should be conducted beneath the flagstones of the cloister patio to check for the presence of a kiva here: "Kivas have been found in similar locations, and if the test should reveal one here, it should certainly be excavated even if it is backfilled later."<sup>14</sup>

### Room Numberings

Hayes and Lentz changed the numbers of Rooms 40, 41, and 42 at least twice. At the time Hayes wrote the first version of the room notes for Room 40, on June 30, 1969, he used Pinkley's numbering system for this room or rooms, as shown in Figure 9.20. Here, the large enclosure was divided into three sub-sections, numbered 40, 41 and 42. Hayes suggested that Room 42 should be instead Room 41a, which would have required that all subsequent room numbers had to be lowered by one number. Lentz, when he wrote his more detailed discussion of the room(s) after Hayes left, assigned the combined numbers 41 and 42 to the room, leaving the number 40 out of his listing, which allowed the rooms numbered 43 and higher to keep Pinkley's original numbers. When Hayes published *Four Churches* in 1974, his diagram of the late convento was a variation on Pinkley's numbering, so that 40 seemed to indicate the room in general, and 41 and 42 designated the subsections along its east side, an adaptation of Lentz's

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<sup>12</sup>Friar Hans Lentz, St. Francis Cathedral, Santa Fe, to Alden Hayes, Globe, Arizona, July 24, 1969. The original of these typed notes with Lentz's additional handwritten comments is unlocated, but may be in the files of the Western Archaeological Conservation Center (WACC) of the National Park Service in Tucson, Arizona. Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP. Lentz's plans produced during this analysis are unlocated, but his sketches of his information are included in Al Hayes and Robert Lentz, "Room Notes, Pecos 1969-1970," PNHP.

<sup>13</sup>Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP.

<sup>14</sup>Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP.

numbering. This was the sequence adopted by Gary Matlock in 1975. Today, as a result of this decision, Rooms 41 and 42 together make Room 40.<sup>15</sup>

The space called Room 54, just east of Room 43, was probably numbered by Lentz during his final round of note-taking in 1969. If Pinkley had numbered this space in late 1967, when she numbered the rest of the rooms up to 53, she would probably have numbered it 44, and the other rooms with higher numbers would have gone up by one number.

#### Preparation for the 1970 Excavations

Apparently the archaeologist Dr. Emil Haury was asked his opinion on the Pecos convento excavations as a result of Hayes's request to conduct further testing. Haury recommended that the additional testing be conducted. Superintendent Giles wrote to Chester Thomas at Globe that, in his opinion, these tests would be the best use of the remaining funds left over from the initial stabilization effort conducted by Richert. "Rick felt, and we agree, that this work is most important to Al Hayes' part of the project and that he would probably want to supervise the testing."<sup>16</sup>

In the meantime, the Regional Office was attempting to fill the gap in historical knowledge about Pecos, so frequently mentioned in Pinkley's monthly reports. As was described in Chapter 9, a contract had been established in September, 1966, with Eleanor Adams at the University of New Mexico to go through the vast mass of virtually untouched photostats in the Special Collection, in order to assemble a "documentary history" of the mission at Pecos. She had hired the historian Dr. John Kessell to conduct this research. The collection of documents had been completed by 1967, but a contract for their translation could not successfully be worked out; persons qualified to make a good translation of seventeenth century Spanish documents were rather rare, and most of these were engaged in other projects. As of November, 1969, no contract had been made.<sup>17</sup>

A Historic Structure Report on the "mission complex," approved on February 3, 1967, had come to a halt. Frank Wilson had written "part I," the administrative history section of the report; the architect Walter Gatham was to write "part II," the detailed analysis of the buildings based on his architectural examination of them as part of the preparation for the Historic American Buildings Survey drawings made of the ruins. Nothing other than the architectural drawings were ever received from Gatham. This is not surprising, since he, like everyone else involved, had far too little information about the mission buildings for most of their period of use to be able to write any sort of history.<sup>18</sup> Not until more than twenty years later would the effort to produce a Historic Structure Report resume.

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<sup>15</sup>Larry Nordby, Gary Matlock, and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," 1975, PNHP, p. 151.

<sup>16</sup>Memorandum From Thomas Giles to Chief, SWAC: "Subject: Pecos Project Funds," October 17, 1969, PNHP.

<sup>17</sup>Thomas F. Giles to Al Schroeder, November 25, 1969, PNHP.

<sup>18</sup>Thomas F. Giles to Al Schroeder, November 25, 1969, PNHP.

As a result, Alden Hayes was left with very little to go on for the writing of his report on the excavation of Pecos. All the previous archaeological information was either missing, idiosyncratic and almost incomprehensible, or had been lost with the deaths of the various investigators. The detailed historical research on the buildings was underway, but would not be available in any useful way for another five years. His only immediate hope was that a series of excavations at specific points in the ruins would get enough information from the already twice-excavated rooms that he could reach some tentative conclusions about the construction history of the place.

Chester Thomas accepted these arguments, and the recommendations of Emil Haury, and agreed to allow Hayes to carry out the necessary excavations at Pecos. He recommended that the work begin June 1, but various delays arose, some of them associated with the completion of the manuscript for the Gran Quivira Mound 7 project, and Hayes ultimately arrived at Pecos to begin his field work on July 1.<sup>19</sup>

#### Hayes Excavations Begin

So it was that, although the excavations at Pecos had officially ended by order from Washington on August 22, 1967, Alden Hayes returned to conduct additional archaeological investigations beginning on July 1, 1970. Later, in the introduction to *The Four Churches of Pecos*, Hayes described this work: "In the summer of 1970 I finished Pinkley's ground plans, tested several unplumbed areas in the convento, made tests in the presumably secular structures lying southwest of the mission ruins, and trenched the area immediately west [east] of the churches to locate the seventeenth century cemetery."<sup>20</sup>

The fieldwork lasted about fifty days, and was completed on September 11. It was clear from the beginning that Hayes considered it necessary to do more than place a few test pits in the convento in order to prepare profile drawings of the structure. He already had a suggestion from Robert Lentz concerning trenching east of the church to confirm that the camposanto of the pre-Revolt church was indeed located there. Hayes considered other structures adjacent to the convento to be of equal importance: on the first day of field work he "looked over the 'compound' and planned to test it thoroughly."<sup>21</sup> This was the first reference to the structure presently called the Estancia; Hayes later referred to this group of building remains as the Presidio, and another group closer to the convento as the Convento Annex. These structures had been tested briefly by Kidder but apparently had been ignored by everyone else. In other words, Hayes arrived at the site with every intention to conduct an extensive excavation, rather than a limited series of test pits; he and his superiors had undoubtedly agreed, off the record, that this more intense level of investigation was necessary to make up for the perceived lack of data from Pinkley's fieldwork.

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<sup>19</sup>Chester A. Thomas, Chief, SWAC, to Superintendent, Pecos: "Subject: Pecos Project Funds," January 16, 1970; Al Hayes, Globe, Arizona, to David Snow, Laboratory of Anthropology, Santa Fe, May 18, 1970; copies in PNHP.

<sup>20</sup>Alden Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), p. xiv.

<sup>21</sup>Alden Hayes, "Log--Pecos--Hayes--July-Aug 70," July 1, 1970, PNHP.

### Work Within the Convento

During the two and a half months occupied by his excavations at Pecos, Hayes carried out a variety of enquiries. He began with his primary goal for the field work, the collection of information that would allow him to draw cross-sections of the stratigraphy of the convento. Pinkley had said in 1967 that "The convento is far larger and far more complex than indicated on the surface. The fill is deep. The massive, original walls, with foundations based on bed rock, require, in some cases, removing up to 9' of packed, broken adobes . . . We now know we have to go to bedrock throughout the complex . . ."22 This statement may be why Hayes immediately decided to conduct deep excavations across the convento, since Pinkley never was able to.

On July 1 he began a series of test pits, excavated "to bedrock on Line X-X' from Room 3 (four feet east of west wall on north wall) to south wall of Area G (23' west of SE corner)." At the same time, he dug a test pit under the patio "for possible earlier structure. Found that walls are footed circa three feet below flagstone floor about a foot above bedrock. Perhaps earlier floor level at base pertains to early church."<sup>23</sup> The patio test pit became part of the cross-section he labeled A-A'. As laid out on July 2, this cross-section ran west to east "from Room 52 (6.6' from SE corner on east wall) to Room 2 (6.4' from SE corner on east wall)." On the same day, Hayes also laid out line B-B' "from Room 44 (3.7' from NW corner on west wall) to Torreon, Room E-2 (3.8' south of inside corner of outer edge of outer convento wall)."<sup>24</sup> Cross-section A-A' was drawn on July 6,<sup>25</sup> while B-B' was drawn on July 7 and 9.<sup>26</sup> Hayes had the crew backfill the cross-section test holes on July 23 and 24.<sup>27</sup> Toward the end of the month, Hayes added a fourth section, Y-Y', running north to south from Room 53 to 45 (see Figure 6.9). This section was not mentioned in the notes, but was drawn before Hayes and his crew removed the earth still largely filling Room 48. This removal began July 21, so section Y-Y' was probably drawn on July 20 or 21, when rain slowed down the work of cleaning the rooms around the patio. At the end of July, Hayes reported that the "first priority was given to familiarizing myself with the convento area and completing the recording of the work Jean Pinkley had done there. To accomplish this, 37 test pits were dug at selected points which permitted the drawing of four sectional drawings . . ."28

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<sup>22</sup>Jean Pinkley, "The "old" Pecos Church; information and appraisal," July 25, 1967, PNHP.

<sup>23</sup>Alden Hayes, "Log--Pecos," July 1, 1970.

<sup>24</sup>Alden Hayes, "Log--Pecos," July 2, 1970.

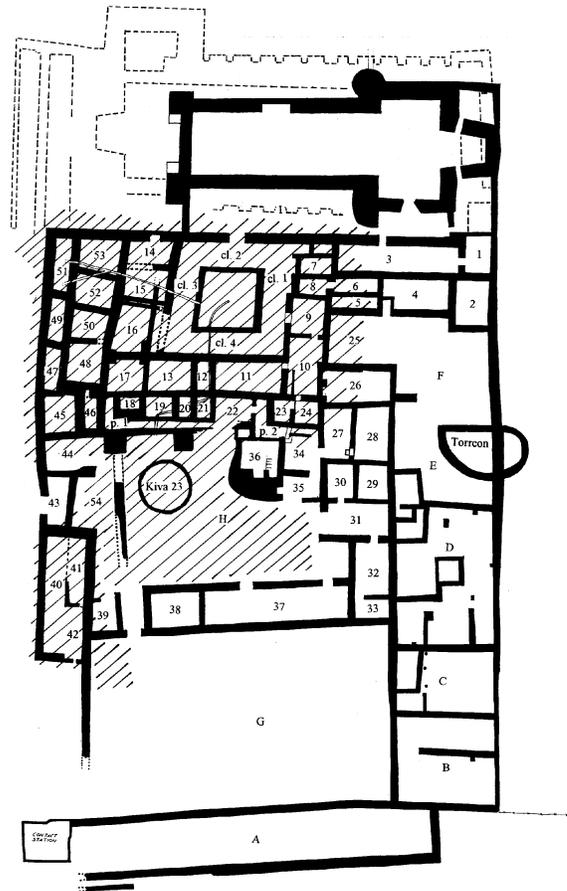
<sup>25</sup>Alden Hayes, "Log--Pecos," July 6, 1970.

<sup>26</sup>Alden Hayes, "Log--Pecos," July 7, 9, 1970.

<sup>27</sup>Alden Hayes, "Log--Pecos," July 23, 24, 1970.

<sup>28</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

## Testing of the Main Convento Rooms



**Figure 10.1.** Hayes's excavations in 1970. The hatched areas show where Hayes investigated. The room numbers 40, 41, 42, and 54 are Hayes's final number designations.

On July 6, Hayes decided that he had to remove fill from the rooms around the cloister patio of the main convento if he was to have any hope of working out the construction history and possible use of these rooms<sup>29</sup> In the monthly report for July he said that the "fill was removed from the lower levels of several rooms in the old section of the convento surrounding the garth to determine the character and elevation of the footings."<sup>30</sup> This work began on July

<sup>29</sup>Alden Hayes, "Log--Pecos," July 6, 1970.

<sup>30</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP. Hayes used the English term "garth" to refer to the cloister patio, but this study uses the more appropriate Spanish word, "patio." This refers to the central space within the cloister walk, which is a continuous walkway around the patio. The term "cloister walk" is used in this study to refer to this walk.

8, when Hayes used tags to mark the rooms to be cleaned. From July 14 to July 17, the crew cleaned Rooms 17, 16, 15, and cloister 3.<sup>31</sup>

By July 20, Hayes's cleaning of the main convento rooms had revealed a number of errors in the Arquero map of the ruins. Hayes began making corrections to his copy of the map on the 20th, and continued on the next day. Unfortunately, we do not have a copy of the corrected map.<sup>32</sup>

On July 20, Hayes and the crew cleaned up Rooms 9 and 10 and Cloister 1.<sup>33</sup> Rain on the night of the 20th left water and mud in the rooms around the cloister walk, and Hayes shifted the cleaning operation to Room 48 in the westernmost row on the 21st. He remarked in his notes that Room 48 would "have to be dropped nearly two feet to get a level below the top of masonry footing."<sup>34</sup> He had to have excavated a test pit in Room 48 at this time in order to know this; the test pit was one of those used to draw cross-section Y-Y' before July 21. From July 22 to July 24, the crew cleaned out Rooms 48 and 53. They began on Room 52 on August 6, continued to work here on August 7, and completed cleaning the room on August 21.<sup>35</sup>

The crew returned to the area around the patio of the main convento on August 24. Hayes specifically mentioned finishing the cleaning of the cloisters and rooms 11 and 22.<sup>36</sup> The western half of Room 11 and most of Room 22 had never been excavated since Witkind's crew had used the area as a wheelbarrow ramp.

Hayes characterized his work in the convento in August in rather obscure terms: "The remainder of the rooms in the core area of the convento were excavated to below the upper level of the masonry footings and some more testing was done in several spots of the convento where the record was incomplete."<sup>37</sup> Hayes makes no mention of the removal of earth from Rooms 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 47, 49, 50, or 51, probably because these rooms had already been more or less completely excavated by Pinkley and Witkind. Although he made no remarks about these rooms in the daily notes, Hayes described them in detail in the room notes and showed them as empty in the various cross-section drawings – the notes and drawings indicate that they were already at their present depth.

As a result of the testing conducted to draw the series of cross-sections, and the subsequent room cleaning and excavations, Hayes realized that his detailed observations of the

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<sup>31</sup>Alden Hayes, "Log--Pecos," July 8, 14, 15, 16, 17, 1970.

<sup>32</sup>Alden Hayes, "Log--Pecos," July 20, 21, 1970. This map may be in the WACC collections.

<sup>33</sup>Alden Hayes, "Log--Pecos," July 20, 1970.

<sup>34</sup>Alden Hayes, "Log--Pecos," July 21, 1970.

<sup>35</sup>Alden Hayes, "Log--Pecos," July 22, 23, 24, August 6, 7, 21, 1970.

<sup>36</sup>Alden Hayes, "Log--Pecos," August 24, 25, 26, 27, 28, 1970.

<sup>37</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of August, 1970," August 31, 1970, PNHP.

convento rooms written in 1969 were in need of being substantially updated. As the room cleaning and testing continued, Hayes began revising the room notes. His first reference to the revisions was on July 15, and the changes and additions were completed on August 19.<sup>38</sup> This second round of notations can be distinguished from the first in the manuscript of these room notes.<sup>39</sup>

#### Excavations in Other Areas of the Convento

In 1969, Hayes had suggested to Roland Richert that the cloister patio be tested below its flagstone floor; "Kivas have been found in similar locations . . .," he remarked.<sup>40</sup> Richert had been unable to make such a test while he was carrying out the stabilization of the two churches, and Hayes made it one of his first priorities when he began the Pecos field work. On the first day of the fieldwork he dug a test pit under the flagstones of the cloister patio. He saw that the stone wall footings extended about three feet below the flagstone surface of the cloister patio, and were based about a foot above bedrock, and suggested that a floor-like surface at the base of the cloister patio walls dated from the time of the pre-Revolt church.<sup>41</sup> It was undoubtedly the surface of the first patio, 1620-1645, into which the second, flagstone patio was built about 1645. However, no kiva was found, and the shallowness of the fill demonstrated that in fact it was not possible for a kiva to have been built here. Eventually, though, Hayes's quest for a kiva in the Pecos convento resulted in success.

Mike Barela, who had worked on Pinkley's crew, recalled the traces of wall she had found in the ground of Area H a little west of Room 36 in June, 1967.<sup>42</sup> Hayes, knowing that any wall traces had to be defined and mapped in order to have any hope of working out the structural sequence, had a trench cut running east to west in the northwest corner of Area H "to rediscover a wall remembered by one of the workmen, but not recorded on the map."<sup>43</sup> In the daily notes of July 22, Hayes said that this trench, designated 70-3, was begun "to find top of old wall which Mike Barela remembered seeing in '67 - one cut by one of Pinkley's trenches."<sup>44</sup> By July 27, the trenching had "uncovered two more subterranean walls . . . evidence of at least two more cellar

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<sup>38</sup>Alden Hayes, "Log--Pecos," July 15, 20, 21, August 14, 15, 17, 18, 19, 1970.

<sup>39</sup>Al Hayes and Robert Lentz, "Room Notes, Pecos 1969-1970."

<sup>40</sup>Alden Hayes to Chief, SWAC: "Trip Report, Gran Quivira and Pecos, June 22 through July 1, 1969," July 3, 1969, PNHP.

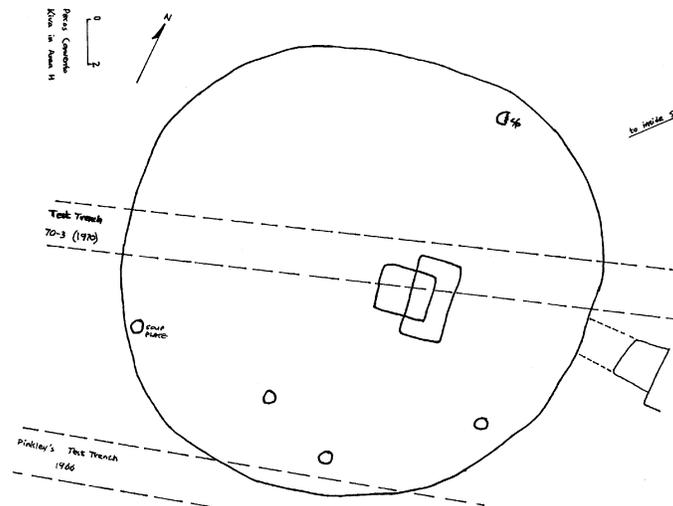
<sup>41</sup>Alden Hayes, "Log--Pecos," July 1, 1970.

<sup>42</sup>Alden Hayes, "Log--Pecos," June, 1967.

<sup>43</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

<sup>44</sup>Alden Hayes, "Log--Pecos," July 22, 1970.

rooms adjacent to [the “cellar” under Room 36] excavated by Jean Pinkley” (Figure 10.2).<sup>45</sup> In his notes, Hayes stated his suspicion that the “slightly curving wall in TT 70-3 [in Area H] is a kiva with wall made of black adobes.”<sup>46</sup> Undoubtedly the idea of a kiva made of Spanish adobe bricks bothered Hayes, but he did not elaborate on this point in the notes.



**Figure 10.2.** Hayes's September 9, 1970 drawing of Kiva 23 at the north edge of Area H in the Pecos convento.

On July 28 the crew "found sawed boards in fill to east of first wall and continued to trowel for eastern edge of the subterranean structures." In his monthly report he referred to the wood as "roofing timbers."<sup>47</sup> After clearing some of the backdirt from around the trench on August 26 and 27, on August 31 Hayes began trenching along the walls of the structure to determine its outline. It quickly proved itself to be a circular subterranean room; by definition, this made it virtually certain to be a kiva: "The pit in Area H is apparently a circular kiva 20' across."<sup>48</sup> Hayes began removing the fill from the kiva with the backhoe on September 1, with two crew members looking through the spoil for artifacts.<sup>49</sup> At the end of the day, the back-hoe bucket cut the corner of the reflector behind the firepit at the bottom of the cut; this allowed a firm identification of the structure as a kiva. On September 3, the crew continued to remove fill

<sup>45</sup>Alden Hayes, "Log--Pecos," July 28, 1970; Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

<sup>46</sup>Alden Hayes, "Log--Pecos," July 27, 1970.

<sup>47</sup>Alden Hayes, "Log--Pecos," July 28, 1970; Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

<sup>48</sup>Alden Hayes, "Log--Pecos," July 29, August 26, 27, 31, 1970.

<sup>49</sup>Alden Hayes, "Log--Pecos," September 1, 1970.

by hand, the backhoe being unable to reach safely into the structure.<sup>50</sup> They located the floor on September 4,<sup>51</sup> and emptied the remaining fill on September 8.<sup>52</sup>

On September 9, Hayes drew a plan of the structure (Figure 10.2).<sup>53</sup> The same day, he called Roland Richert at SWAC and discussed the oddities of the kiva with him. He later summarized the main points of evidence in the September monthly report: "Testing around the edges of the subterranean structure in Area H . . . proved it to be a kiva. A back-hoe was hired to remove the upper fill down to the level of the deflector and the excavation was completed with hand tools. The kiva was round, 20 feet across, entirely below ground, and with a maximum present depth 6.4 feet. There was no trace of timbering and the fill was nearly sterile soil rather than trash or alluvium from the convento area, and it appeared to have been brought in purposefully to fill the hole."<sup>54</sup> Hayes had been puzzling over the odd combination of evidence in the kiva: it was clearly a functioning kiva structure, but built of Spanish adobe bricks and mortar – in fact, the same combination of materials used to build the church and the earliest version of the convento in 1620-1635 – and constructed in the convento: "Of particular interest was the fact that the kiva was lined with bricks of the same 'black,' charcoal-impregnated adobe which was used in the early, 17th century church and convento. The walls were covered with a coat of fire-blackened plaster. A shallow, rectangular firebox was backed by a terraced altar-deflector of adobe, and was filled with ashes and animal bones which overflowed onto the adjacent floor area."<sup>55</sup>

Hayes felt that he had worked out the explanation, and outlined his thinking in a telephone call to Richert on September 9. We have no record of the discussion during the call, but again the summary from the monthly report written a few weeks later will serve as an outline of the conversation: "From the position of the kiva in the convento, from the type of bricks used, and from the nature of the fill one can infer a range of dates and a case of superposition such as Jo Brew and Ross Montgomery describe for Awatovi. What apparently happened was that the Indians of Pecos, as an act of defiance at the time of the great rebellion of 1680, burned out the church, pushed over the walls, and then used bricks salvaged from the Catholic shrine to build a pagan one in the Franciscan's back yard. When the padres returned in 1692 they caused the

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<sup>50</sup>Alden Hayes, "Log--Pecos," September 3, 1970.

<sup>51</sup>Alden Hayes, "Log--Pecos," September 4, 1970.

<sup>52</sup>Alden Hayes, "Log--Pecos," September 8, 1970 (Tuesday).

<sup>53</sup>Alden Hayes, "Log--Pecos," September 9, 1970.

<sup>54</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of September 1970," September 31, 1970, PNHP.

<sup>55</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of September 1970," September 31, 1970, PNHP.

symbol of disrespect to be razed and obliterated by filling with soil carried in for the purpose."<sup>56</sup> Richert wrote a letter to superintendent Giles on September 9, mentioning the phone call and closing: "I shall look forward to examining this apostate kiva in the near future. With this important discovery, the potential interpretive story for Pecos is obviously enhanced."<sup>57</sup>

On September 11, the last day of the fieldwork, Hayes conducted several tests beneath the floor of the kiva, finding that the north kiva wall was based on the bedrock sloping down from the shallow level under the paved convento patio. He put up a shelter over it, based on the recommendations given him by Richert.<sup>58</sup> He summarized this step in the monthly report: "The kiva was left open but covered with a temporary shelter of lumber and canvas."<sup>59</sup>

Two other brief enquiries were carried out in and around the convento, both apparently as part of Hayes's effort to understand the structural sequence that produced the large and complex building he was dealing with. While trying to make sense of the complicated tangle of walls and floors formed by Rooms 41 and 42, Hayes uncovered traces of walls in the northwest corner of Area G. On August 6, he mentioned in his notes that he found "fragmentary walls in NW corner of Area G. They are high on fill and undoubtedly relatively recent."<sup>60</sup> Pinkley had seen some suggestion of these walls in May, 1967. Neither Pinkley nor Hayes considered them to be of any importance. They were also visible in the 1966 aerial photographs as well as the 1929 Lindbergh and 3-Hawks aerial photographs, and were plotted on the 1915 Adams-Nusbaum plan of the convento. The walls outline a room that was apparently of the same general age as the other final changes to the convento that had been visible on the surface in 1915-1929. The sheep-enclosure walls of the 1880s cross over the north wall of the structure, suggesting that it was built late in the life of the mission, as part of the post-Revolt corrals.

On July 6, Hayes excavated to the base of the stone footings along the east side of the east wall of Areas B, C, D, and F.<sup>61</sup> He completed this examination on July 9.<sup>62</sup> Later, on August 5, Hayes again examined the area east of the east convento wall, looking for traces of the sheep-enclosure wall that had stood here and which was plotted on the Nusbaum/Adams map: "Prospected east of apse and Rooms 1, 2, and 25 for a wall shown on Kidder's map — supposed to run from southeast corner of apse to Tower about 7 feet east of present east convento wall.

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<sup>56</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of September 1970," September 31, 1970, PNHP.

<sup>57</sup>Roland Richert to Superintendent, Pecos, "Preservation of Adobe-lined Kiva at Pecos," September 9, 1970, PNHP.

<sup>58</sup>Alden Hayes, "Log--Pecos," September 11, 1970.

<sup>59</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of September 1970," September 31, 1970, PNHP.

<sup>60</sup>Alden Hayes, "Log--Pecos," August 6, 1970.

<sup>61</sup>Alden Hayes, "Log--Pecos," July 6, 1970.

<sup>62</sup>Alden Hayes, "Log--Pecos," July 9, 1970.

At a couple of spots there is much scattered rock but at no place is there one above the other. Believe that a low, recent dry wall may have been built on the current surface in recent times."<sup>63</sup> Curiously, Hayes paid no further attention to the Nusbaum/Adams map, and never included it in his thinking about the development of the post-Revolt convento.

#### Work Outside the Convento

Outside the convento, Hayes tested the probable camposanto east of the pre-Revolt church, that Robert Lentz had indicated was one of Pinkley's last intended trenches. On July 22, Hayes had the backhoe "cut Test Trench 70-2 from behind apse of second church."<sup>64</sup> This was in the same area that Bill Witkind had put four trenches (see Chapter 7). The cut began against the footing of the apse of the church, and was about two feet wide for its entire length. The south side of the cut was 5.5 feet north of the south outside corner of the apse. The trench extended about seventy feet due east, with the last twenty feet bent a slight angle to the south.<sup>65</sup> Hayes drew a profile of the trench on July 29, and made the final draft of the drawing on July 30-31. The trench was backfilled on August 27.<sup>66</sup>

In this trench, Hayes found a number of burials, confirming the expectation that the area in front of the pre-Revolt church had been used as a campo santo by the Franciscans: "The trench, cut to bedrock, exposed 12 burials and parts of others, and determined the suspected location of the cemetery associated with the earlier church."<sup>67</sup> Additionally, he saw clear evidence that the facade of the Ortega/Juárez church had collapsed during the fire that destroyed the building: "Much burned adobe, some unburned black adobes, and yeso on a level two to three feet above old grade is probably the facade fallen outward. Ca. 50 feet from church wall is a line of rock which is possibly a stone coping or firewall."<sup>68</sup> Witkind had described the same layer of burned material in his description of his trenches in this area. "The profile shows that the steep slope behind the later church was a leveler grade originally, but was built up by the collapsed facade of the first church."<sup>69</sup> The steep-sided mound of earth to the east of the church had been further built up by "the rear [wall] of the sanctuary of the later church which fell sometime after

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<sup>63</sup>Alden Hayes, "Log--Pecos," August 5, 1970.

<sup>64</sup>Alden Hayes, "Log--Pecos," July 22, 1970.

<sup>65</sup>Alden Hayes, "Pecos, TT 70-2," notes at PNHP, p. 1.

<sup>66</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP; Alden Hayes, "Log--Pecos," July 29, 30, 31, August 27, 1970; Alden Hayes, "Pecos, TT 70-2," p. 1.

<sup>67</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

<sup>68</sup>Alden Hayes, "Log--Pecos," July 22, 1970.

<sup>69</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

1890," making two fallen church walls of two different churches lying one on top of the other at the east end of the standing church.<sup>70</sup>

Hayes carried out mapping and testing of the ruins west of the convento that he called the Convento Annex, and the structure west of that he called the Presidio. His work in these structures has been discussed in Chapter 5, "The West Buildings."

### Writing the Report

Hayes completed his excavations on September 11, 1970: "The crew was layed off on the evening of the 11th, and I returned to Gila Pueblo on the 14th [of September]."<sup>71</sup> It is clear, from his focus during the fieldwork, where Hayes felt the greatest gaps in Pinkley's information to be. The virtual absence of any data on the main convento made it impossible for him to begin any report on Pinkley's excavations and the history of the construction of the mission at Pecos, as it had for Pinkley before him. Hayes had to carry out more detailed inspection of these rooms and dig a series of test pits that told him something about their structural sequence and the little stratigraphy left in the main convento rooms. The testing outside the convento was to answer questions Jean had never had a chance to, or questions that had arisen since her death.

After their initial review of Pinkley's available documentation, Hayes and his associates decided that they had to carry out some cosmetic work to repair Pinkley's perceived and actual research shortcomings. They determined to write a short narrative of the most reasonable interpretation of the archaeological and historical information available at the time, "with the hope that somebody could use the information and the drawings, and that nobody would ask why there wasn't more information."<sup>72</sup> Hayes described the discussion in his notes: "Conferences yesterday and today with Giles, Wilson and with [James H.] Gunnerson and [Charles] Steen contributing – Schroeder concurring – about reporting the job. . . . A presentation of maps, sectional drawings and room notes will . . . be the basis for an interpretation of the sequence of building events. Only enough history will be included to support the archaeological evidence — or to explain it. Further I will present, as a result of the extra-convento testing, data which can provide the bases for future study proposals."<sup>73</sup> In his August monthly report to Art Thomas, Hayes summed up the conclusion reached: "All concurred that a formal report for the NPS Archaeological Series was not feasible due to the nature of the data, but that a shorter story for El Palacio or some similar quarterly could recount any pertinent new facts discovered."<sup>74</sup> This

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<sup>70</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SW AC, "Report for the Month of July, 1970," July 30, 1970, PNHP.

<sup>71</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SW AC, "Report for the Month of September 1970," September 31, 1970, PNHP.

<sup>72</sup>Alden Hayes to James Ivey, personal communication, June 30, 1995.

<sup>73</sup>Alden Hayes, "Log--Pecos," August 7, 1970.

<sup>74</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SW AC, "Report for the Month of August, 1970," August 31, 1970, PNHP.

was the beginning of the popularized discussion of the Pecos Project, *The Four Churches of Pecos*. Hayes also intended to publish a series of descriptive archaeological and historical articles: "The new data of importance which has not gotten onto a published record will be presented informally by an article for El Pal[acio] or some historical journal."<sup>75</sup> This series of publications never materialized.

Beyond the published narrative and more technical articles, as much of the record as possible of what was seen in each room for all the different excavations would be assembled in a single, in-house report. "We will try to make up a bundle of notes — not to be published — which can be used primarily for management, secondarily for interpretation. It will record in as much detail as possible the history of the various archaeological efforts. Who dug where and what was found, and also what areas have not been thoroughly investigated."<sup>76</sup> This would be in the form of "a list of notes for Pecos and for SWAC detailing, in so far as is possible, what work has been done where and by whom, for each room and area of the convento."<sup>77</sup> The Hayes/Lentz Room Notes were a good beginning on this; Hayes intended to expand the room notes to include all work by Pinkley and Witkind. Eventually, the Hayes/Lentz and Pinkley notes, with some references to Witkind's excavations and including other work through 1974, were compiled in "A Stabilization History of Pecos National Monument: 1974 and Before," written by Gary Matlock, Larry Nordby and William Cruetz. The history as it was completed in the 1970s showed the same problem that Pinkley and Hayes had already encountered: because of the difficulty of making use of his notes, virtually nothing of Witkind's work was included, and what was included was usually attributed to the wrong room. The Room Histories were expanded by Courtney White in 1993,<sup>78</sup> making use of my own effort to understand Witkind's excavations. My final version of these room histories, including some revisions of interpretations of Witkind's and Pinkley's notes, as well as the results of continuing discussion with White, have been compiled and filed at Pecos National Historical Park.

Hayes found that attempting to assemble a publishable version of the Pecos story from the available information was far from easy. Three months after the completion of the fieldwork, on December 21, 1970, he wrote to Tom Giles, "I have finally started to make some headway on the Pecos job."<sup>79</sup> But the interpretation of the pattern of changes to the convento was daunting; the confused information from Witkind's excavations and the sparse additional material from Pinkley's work allowed too many possible alternatives, and Hayes had to pick one clear sequence to present in the structural history. After several months of attempting to work something out,

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<sup>75</sup>Alden Hayes, "Log--Pecos," August 7, 1970.

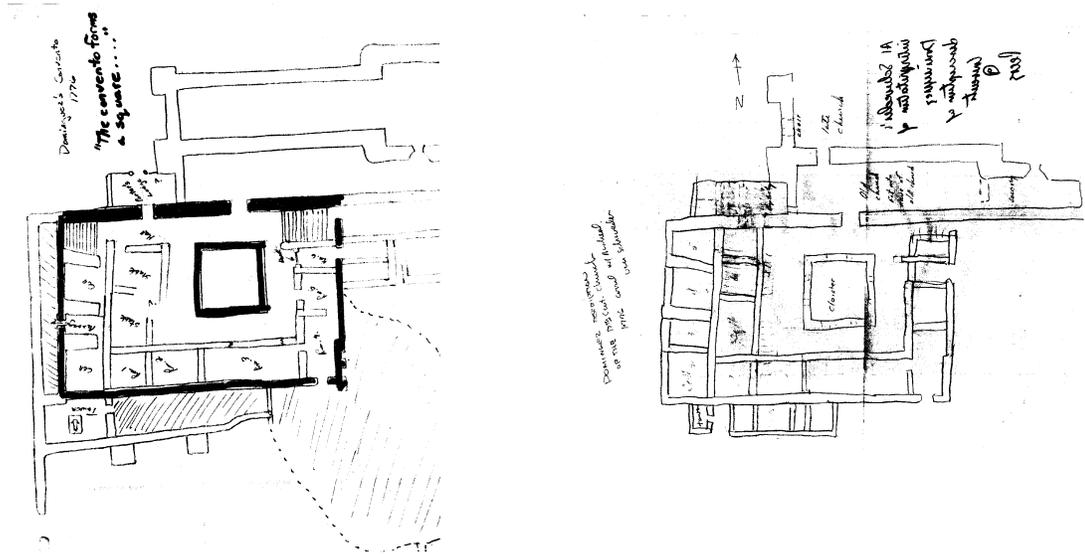
<sup>76</sup>Alden Hayes, "Log--Pecos," August 7, 1970.

<sup>77</sup>Al Hayes, Supervisory Archaeologist, Pecos Project, to Chief, SWAC, "Report for the Month of August, 1970," August 31, 1970, PNHP.

<sup>78</sup>Joseph Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," PNHP, May, 1993.

<sup>79</sup>Al Hayes to Superintendent Tom Giles of Pecos, "Pecos Project," December 21, 1970, PNHP.

Hayes was still uncertain about the change of the convento through time when it became necessary to arrive at some hard conclusions in order to plan the stabilization of the convento walls in the summer of 1971.



**Figures 10.3 and 10.4.** Two of the attempts in June, 1971, to match the known plan of the convento ruins at Pecos to the Dominguez description of the convento. Figure 10.3, on the left, is Robert Lentz's suggestion, and on the right is that by Al Schroeder. Both are flawed by the failure to use the Nusbaum/Adams plan of the final convento.

In an attempt to make sense out of the tangle of walls, Hayes and Tom Giles decided to call together a group of persons with some expertise on convento plans and have them work out a best guess plan. Giles wrote to Angelico Chavez: "Before we start on the convento, we want to define as best we can from archaeological and historical evidence, the layout of the original convento and subsequent additions. To do this, we are planning a meeting here at the monument sometime during the second or third week of June. In attendance at the meeting will be Alden Hayes, NPS Archaeologist from the SWAC, Al Schroeder, Interpretive Archaeologist from our Regional Office in Santa Fe, Gary Matlock, our new monument archaeologist [who had apparently started in the first week of January, 1971], Bob Lentz, (formerly Fr. Hans Lentz, O.F.M.), and myself. . . ."<sup>80</sup> Among other things, the meeting produced several alternative plans that attempted to fit the Dominguez description to the Arquero plan of the convento (Figures 10.3 and 10.4).<sup>81</sup> We have one from Al Schroeder, one from Robert Lentz, and a third that is

<sup>80</sup>Thomas Giles, Superintendent of Pecos, to Fray Angelico Chaves, Peña Blanca, New Mexico, June 3, 1971, PNHP.

<sup>81</sup>Albert Schroeder, "Al Schroeder's Interpretation of Dominguez description of Convento at Pecos," Robert Lentz, "Robert Lentz's Interpretation of Dominguez," both in: PNHP, Flat Files, Historical Sites drawer, "Church and Convento Planviews and Profiles, pre-1992" folder.

unidentified, but could be a sort of Tom Giles/Gary Matlock suggestion. The intense discussion that apparently took place at this meeting served to clarify Hayes's thinking. Over the next month or so he settled on a construction sequence for the convento that was the best compromise he could reach with the available information.

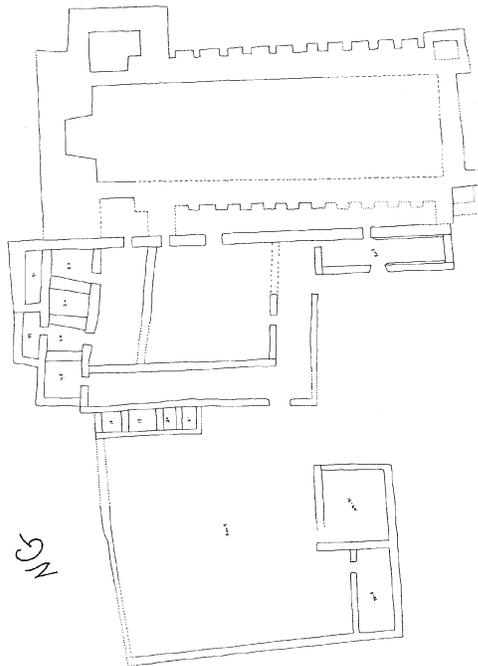
Hayes's greatest difficulty lay in the same place as all the other researchers who have attempted to work out the structural history of the convento: at what point in the development did the Pueblo Revolt occur? As long as the Nusbaum/Adams map failed to be recognized as the record of the post-Revolt plan, the destruction and renovation resulting from the Revolt had no clear presence in the architectural sequence. The archeomagnetic dates Hayes had gotten from DuBois were of no help – they seemed to fall in the 1600s or the 1700s without regard to the brick colors of the rooms within which they were found. In general they supported the idea that virtually the entire convento had been in use before the revolt, and was put back into use after the revolt. Hayes had no way to know that at that time these dates were accurate only to perhaps a century, at best, and were not sufficient to determine the construction sequence of the building, or the probable changes resulting directly from the destruction of the Pueblo Revolt.

Hayes decided that the changeover from pre-Revolt to post-Revolt was marked, not by a major and significant revision of the plan of the convento (since without including the Nusbaum/Adams plan there was no such great change late in the sequence of development) but by the beginning of the use of red brick in the construction of the building. Pre-Revolt was black brick, post-Revolt was red brick. With a little thought, this produced a fairly direct sequence of development, although eventually Hayes realized that he had to accept some red-brick use before the revolt on the west side of the convento, in Rooms 47 and 48. Everywhere else, however, the use of red brick meant construction or reconstruction after the Revolt, although in Hayes's view black brick, apparently salvaged, continued to be used in post-Revolt construction. As a result, Hayes's sequence of construction mixes episodes that, in the present study, are considered to be divided by the Revolt.

One early plan and a brief set of notes records Hayes's early efforts to sort out the construction sequence. The plan, labeled "Earlier Mission, Second Stage of Construction," shows a developmental period unlike any of those included in his final choice of sequence as presented in *Four Churches* (Figure 10.5). Along one side of it is written "NG" in large letters, undoubtedly meaning "No Good." The plan of the main convento is the same as that shown on Hayes's figure 1, "Suarez's church and the first convento," although details of the church differ, in that the sacristy is the same shape as the north side chapel, no northern extension to room 53 was included, and the baptistry was left off.

Hayes showed buttresses along the nave wall, continuing through the baptistry area, although some details of Pinkley's findings in this area indicate that they did not. The major difference, however, shows up in the corral area attached. In *Four Churches*, Hayes considered Area F, the eastern yard south of the *portería*, the entrance to the convento, to have developed first. On the "Earlier Mission" plan, he experimented with the idea that Area H was the first of

the corrals to be added to the mission.<sup>82</sup> The notes discussing this, "Early Church," part of the material included with his room notes in the files at Pecos, say: "A corral of some kind was probably essential from the beginning. But we can only say that the walls for the large corral (Area H) were erected after the garth and cloister -- almost certainly in this case, as in the previous increments discussed, there was no appreciable lapse in time. . . . The large opening at the NE corner of the corral [where Rooms 26, 27, and 28 are located] is also only guessed at. Can only say that it was later walled up . . . Certainly the entrance to the corral was originally here -- in front of the convento next to the porter's lodge."<sup>83</sup>



**Figure 10.5.** One of Hayes's discarded attempts to work out the development of the pre-Revolt convento plan.

Hayes's final sequence of construction as presented in *Four Churches* was, in the absence of adobe brick analysis, good archeomagnetic dates, and acceptance of the Nusbaum/Adams map as an indication of the plan of the post-Revolt building, and with no luxury of time to examine the structures in the field or evaluate all the evidence and implications from Nusbaum, Witkind, and Pinkley, a good effort. In general, it describes one possible line of development of the

<sup>82</sup>Alden Hayes, "Earlier Mission, Second Stage of Construction, 2" no date, in the files of the Intermountain Region, Division of Curation. It is likely that the missing "Earlier Mission, First Stage of Construction" implied by the title of the available map, was identical to the plan of the first stage as shown in *Four Churches*. The available map, then, is the equivalent of Hayes's figure 2, "17th Century church with additions to the convento," except that the addition in the published version was Area F, rather than Area H.

<sup>83</sup>Alden Hayes, "Early Church," no date, in the files of Pecos National Historical Park.

convento; the major difference between Hayes's suggested development and the one presented here in Chapters 11 and 12 is that in my reinterpretation of the evidence, all of this development except the construction of the eighteenth-century church occurred before the revolt. From the viewpoint of the much more extensive evidence for the construction of the building now available, Hayes never described the post-Revolt convento building at all.

Alden Hayes completed the final manuscript of *Four Churches* at the end of November, 1971, and sent the typescript to superintendent Tom Giles of Pecos on November 24. "I think I have shot my wad on the Pecos Project," he said, "and the wad is enclosed. The illustrations are rough but will enable the earnest reader to follow the drift . . ." <sup>84</sup> The manuscript was published by the University of New Mexico Press in 1974.

#### The Convento as Seen by Robert (Fray Hans) Lentz

Relatively unknown in the entire process of excavating, mapping, and interpreting the structural history of the Pecos church and convento is Robert Lentz, who began working (under his Franciscan name of Hans Lentz) with Jean Pinkley in June, 1968. Lentz ably assisted Hayes during the first round of preparation of room notes in 1969, and his appraisal of the archaeology and history of the building is available in "Analysis of the Pecos Church and Convento," a compilation of Hayes's and Lentz's original notes and Lentz's additional observations and suggestions. Lentz noticed (and carefully assessed) a number of small details about the structural sequence of the convento in this manuscript. At first I paid little attention to this little-used, complex and difficult analysis, but as my sense of what had happened at Pecos developed with the clarification of brick and mortar sequences, and the clearer recognition of where the Pueblo Revolt fell in the progressive changes to the convento, Lentz's discussion began to have direct relevance. Ultimately, it was his observations that defined the plan of the post-Revolt convento in the midst of the tangle of pre-Revolt remains, and allowed me to recognize and accept the Nusbaum/Adams map as the map of this convento. It is therefore important to include a brief review of Lentz's thinking here.

While evaluating the archaeological information room by room, the physical evidence brought Lentz to realize that the rooms at the southeastern corner of the pre-Revolt convento, Rooms 26-30 and 34-36, had never been returned to use after the Reconquest. <sup>85</sup> The layers of fill, collapsed adobe, and animal manure, in his eyes, were all the result of the revolt itself and the use of the area as an animal pen in the eighteenth century. Because of this interpretation, Lentz suggested that the post-Revolt convento did not extend south of the wall along the south side of Passage 1 – one version of this idea can be seen on his drawing of his suggested interpretation of the Dominguez report, Figure 10.3. Hayes rejected this proposal, considering

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<sup>84</sup>Al Hayes to Superintendent Tom Giles of Pecos, "Pecos Project Report," November 24, 1971, PNHP. Copy of the manuscript of *The Four Churches of Pecos* dated "1971" in the Pecos National Monument files, Intermountain Cultural Resource Center, Santa Fe.

<sup>85</sup>Lentz, "Analysis," Rooms 18, 26-31, 34-36.

the manure layer to date from the mid-nineteenth century, after abandonment of the mission.<sup>86</sup> When combined with Pinkley's descriptions of this area, and the strata of melted adobe and animal manure that White and I observed over the southern portions of the "cellar" below Room 36, Lentz's argument became persuasive. Once the traces of the remainder of the south wall of the post-Revolt convento were recognized in the various records, it became convincing. His position has been accepted here, with some additions, changes, and elaborations resulting from recent research and the use of the Nusbaum/Adams plan as the plan of the post-Revolt mission.

For the pre-Revolt convento, Lentz was never able to make much sense of the jumble of rooms, but his close observations of abutments, foundations, and fills along the southwestern corner of the main convento supplied evidence to help confirm the picture being presented by the adobe analysis information.<sup>87</sup> Again, it would have been considerably more difficult to work out the pre-Revolt sequence without Lentz's eye for detail.

#### Archaeomagnetic Upsets and Documentary Histories

In the background, as these various lines of thought about the history of the convento continued, new information about Pecos began to be produced from other research. As mentioned above, in July, 1970, while Hayes was conducting his excavations at Pecos, he called Robert DuBois and got a statement of the estimated dates from the archeomagnetic testing DuBois had done for Pinkley. At the same time, he made arrangements for DuBois to have the fireplace in Room 2 of the Convento Annex sampled for dating.<sup>88</sup> The sampling apparently occurred after fieldwork was completed, since there is no mention of it in Hayes's field notes; additionally, several other fireplaces were tested.

In 1974, while the manuscript for *Four Churches* was in press at UNM, Hayes received notification that Charles Dubois had succeeded in dating the sample taken in 1970. The date came as a surprise to Hayes. He wrote to Gary Matlock at Pecos, "Sample 464 from the fireplace in room 2, Convento Annex, reads 1670 plus or minus 12. That is 75 or 80 years earlier than I had guessed, and it indicates a pre-rebellion construction."<sup>89</sup> In *Four Churches*, Hayes had suggested that the entire complex that he called the Convento Annex was the *Casas Reales* of the 1760s and 1770s.<sup>90</sup> The archeomagnetic date demonstrated that this was incorrect, but it was "too late," he said, "to change my text but it can be fed into the interpretation."<sup>91</sup> During the

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<sup>86</sup>Hayes, "Room Notes," 1969, Room 26.

<sup>87</sup>Lentz, "Analysis," Rooms 18, 21.

<sup>88</sup>Alden Hayes, "Log--Pecos," July 20, 1970.

<sup>89</sup>Al Hayes to Gary Matlock, Park Archaeologist, Pecos National Monument, "Dates from Casas Reales," May 6, 1974, PNHP.

<sup>90</sup>Hayes, *Four Churches*, p. 58.

<sup>91</sup>Al Hayes to Gary Matlock, Park Archaeologist, Pecos National Monument, "Dates from Casas Reales," May 6, 1974, PNHP.

intensive reexamination of the abutments, the adobe brick and mortar use, and the archeomagnetic dates, Courtney White had Tom Windes of the Regional Office collect a new set of samples from the fireplace in Room 2 of the Casa. The date for these samples was found to be between 1525 and 1651 by Jeffrey Eighmy of Colorado State University.<sup>92</sup> The northern portion of the building was not built until after the Franciscans moved to the mesilla in 1620; this gives a 95% probability that the fireplace was fired its hottest between 1620 and 1650, confirming Dubois's rougher date. Hayes's evaluation of the building as the *casas reales* in the next century in *Four Churches* was, as he said in his letter to Matlock, incorrect. It can be annoying when facts destroy a perfectly good theory.

Meanwhile, the document translation project for the history of Pecos made progress. The contract to translate the 1,299 pages of manuscript and two roles of microfilm compiled by the document search project in 1967 had been given to John Kessell.<sup>93</sup> Kessell was going to use these documents to write the definitive history of Pecos pueblo. After his completion of the Pecos document search, Kessell had gone on to work for the Denver Service Center of the National Park Service, where he prepared a documentary history of Tumacacori National Monument. Kessell completed this study in October, 1972; the research eventually became *Friars, Soldiers, and Reformers*, published by the University of Arizona Press in 1976. The director of the Denver Service Center recommended in August, 1972, that Kessell take on the Pecos history project upon his completion of the Tumacacori work.<sup>94</sup> Frank F. Kowski, the director of the Southwest Region, replied to Denver in late August that this was acceptable to the Regional Office and to Pecos.<sup>95</sup> The work on the Pecos history went slowly, but ultimately resulted in *Kiva, Cross, and Crown: the Pecos Indians and New Mexico, 1540-1840*, probably the finest single volume of New Mexico Spanish colonial history available. Kessell completed the manuscript and submitted it to the Park Service in July, 1975, and it was originally published as a limited-circulation Park Service report in May, 1977. In 1979, a high-quality hard-bound version of the report was published and made available to the general public.<sup>96</sup>

### Gary Matlock

Gary Matlock became the Pecos park archaeologist early in 1971, only a few months after Alden Hayes completed his excavations at the park. The stabilization of the convento was

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<sup>92</sup>Jeffrey L. Eighmy to Todd Metzger, November 30, 1993, PNHP.

<sup>93</sup>John Kessell to Al Schroeder, August 1, 1967, PNHP.

<sup>94</sup>Glenn O. Hendrix, Director, Denver Service Center, to Director, Southwest Region, "Pecos research project," August 9, 1972, PNHP.

<sup>95</sup>Frank F. Kowski, Director, Southwest Region, to Director, Denver Service Center, "Pecos Research Project," August 30, 1972, PNHP.

<sup>96</sup>John Kessell to Thomas Giles, July 14, 1975; *The Pueblo de los Pecos: A Documentary History, 1540-1838* (Denver: Denver Service Center, National Park Service, May, 1977); *Kiva, Cross and Crown: the Pecos Indians and New Mexico, 1540-1840* (Washington: National Park Service, 1979).

Matlock's highest priority; the method elected by the Park Service was to encase all of the standing adobe walls in modern adobe. Matlock began this work in the spring of 1971, and over the next four seasons he stabilized most of the convento. He kept a careful documentation of the process, and his observations of the structural details and abutments of the original walls revealed further information about their construction history.

In 1971, his first year of work at Pecos, Matlock oversaw the stabilization of Kiva 23 (the Convento Kiva), the Ortiz Church, the Estancia buildings, and Square Ruin. In the Convento Kiva, Matlock saw several new details of structure in the fill around the kiva, and recorded them in his stabilization notes. The most curious thing was that the ventilator shaft found during the original excavation by Hayes, Vent A, was not the original ventilator. Matlock found an earlier one, Vent B, a few feet north of Vent A. The opening to it had been plugged with rock, faced with black adobe brick, and plastered over. The adobes of the vertical shaft had been dug out of the ground down almost to the bottom of the shaft – the last foot or so remained in place.<sup>97</sup>

1972 saw stabilization work in the cloister patio, Rooms 3, part of 7 and the stairway, 18, 19, 20, 21, 22, 23, 24, 25, part of 26, 44, 45, Buttresses A and B, and Passage 1. In the patio, Matlock had the flagstones reset, and cleared the intake of the stone-lined drain that began here and ran south to area H. He and the stabilization crew started work on the stabilization of the surviving segments of the patio walls, but were unable to finish these during the working season. In Room 18, Matlock noted details of the abutments of the south and west walls; these suggested that Room 46 originally ran all the way over to 18.<sup>98</sup> As he worked in Room 19, Matlock noted that the south wall of Room 19 abutted the south wall of Room 20, and in Room 21, that the west wall abutted both the north and south walls. In Room 22, he saw the remains of wooden posts in the black portion of the south wall, and a possible black brick wall or floor traces near the center of the room.

Matlock noted an additional stone hearth against the east wall of Room 24, north of the corner hearth found by Pinkley, and in Room 44, he uncovered the flat stone slabs seen by Lentz, that are probably the floor of the western bastion described by Dominguez in 1776; Matlock noted that these slabs extended beneath the foundation of the western buttress, and drew a sketch of these stones in a letter he sent to Alden Hayes on July 13, 1972.<sup>99</sup> During this season, Matlock reexcavated five rooms on the north end of South Pueblo as part of a stabilization project in that area. The rooms were 1, 2, 3, 5, 9, and 10.<sup>100</sup> This re-excavation revealed the outlines of the original plan of the north end of South Pueblo, before the Franciscans rebuilt it in 1620.

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<sup>97</sup>Matlock, "Stabilization History," pp. 240-245, PNHP

<sup>98</sup>Matlock, "Stabilization History," diagram, p. 116; Matlock to Alden Hayes, July 13, 1972; copies in PNHP.

<sup>99</sup>Matlock, "Stabilization History," pp. 154-55, and fig. I/18, p. 154; Matlock to Alden Hayes, July 13, 1972; copies in PNHP.

<sup>100</sup>Todd Metzger, "Draft Ruins Preservation Guidelines, Pecos National Monument, New Mexico," March, 1990, p. 5:15; Bruce Anderson, Archaeologist, Southwest Regional Office, to Keith Anderson, December 18, 1974; copies in PNHP.

The stabilization work for 1973 included finishing the cloister patio walls, and stabilization in Rooms 3, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 50, 52, Area C interior walls, and a wall in Area D-5. Room 48 was stabilized by Dr. Butterbaugh of the University of Pennsylvania during this season, using an experimental stabilization material, the polymer Rhoplex.<sup>101</sup>

In Room 3, a test pit along the south wall determined that either Witkind or Pinkley had placed three feet of fill in the room to cover the adobe floor and benches. This apparently raised the floor to the present height. Traces of the adobe bench remain on the south side, and portions of the black brick adobe floor are still present in this area, under the fill. Re-excavation of the western portion of Room 8 confirmed the observations made by Lentz that in Room 8 a stone footing ran across the western edge of the room, and a wooden doorsill with adjacent adobe bricks were still present in the floor. About the same time, the floor of Room 9 was reexcavated; no new features were found.<sup>102</sup>

In Room 10, a previously unnoticed firepit was found in the southeastern corner. This firepit was oval in plan, and made of thin slabs of stone set on edge. An examination of the east wall of the room found two post holes, each about ten inches in diameter. The west wall of Room 13 was reexamined, and details of the surviving stratigraphy of the west wall noted.<sup>103</sup> This reexamination found a red brick layer on top of the wall above a layer of "rammed earth". Lentz says this is a layer of fill above a black brick wall stub, suggesting that Matlock's layer of red brick is actually a few pieces of broken red brick collapsed from the surrounding walls. Matlock examined the firepit in the southwest corner of Room 17, and found that the base of this firepit "was above the floor." This suggests that Matlock found a floor at a depth somewhat lower than the base of the firepit, but beyond this the remark is unexplained. In the flagstone-covered cloister patio, Matlock noted a gap in the foundations at the center of the east wall, and suggested that this was possibly the entrance into this patio.<sup>104</sup>

In Area C, Matlock investigated the east wall of C-1 and the east and south walls of C-2. Here he exposed the foundations of the walls, repointed them, reset the top course of stones, and applied "a puddled mud cap." In Area D, the walls of D-5 were stabilized.

In 1974, Matlock stabilized the Torreon and Rooms 1, 2, 4-5-6, 14, 27, 35, 39, 40-41-42, 46, 47, and 49. Of these, he saw new structural evidence only in Room 6 and the Torreon. In Room 6, there was clear evidence that the western doorway had been cut through the original black brick wall and plastered with a white lime wash. Subsequently, new jambs of red adobe

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<sup>101</sup>Matlock includes a detailed history of the use of various stabilizer materials in his history of the stabilization work on the Pecos church and convento. The earliest known use of a stabilizer was by Jean Pinkley, who used the chemical "Pencapsula" on the adobes of the Pecos ruins during her work there, although no record is available of where she used it; Chester A. Thomas, "Jean McWhirt Pinkley, 1910-1969," *American Antiquity*, 34(October, 1969):472.

<sup>102</sup>Hayes and Lentz, "Room Notes," Room 8; Matlock, et al., "Stabilization History," pp. 72-77, 84-94.

<sup>103</sup>Matlock, "Stabilization History," sketch elevation, p. 102.

<sup>104</sup>Matlock, "Stabilization History," p. 203.

were added against the white lime wash to narrow the doorway.<sup>105</sup> Wall alignments indicate that this narrowing was part of the construction of Rooms 4-5-6, and that before this the wider doorway opened into the north end of Area F. In the Torreon, Matlock noted the old south wall of Area F running west below the Torreon, and saw two wall stubs "extending away from the torreon interior," possibly the two wall stubs running north from the north wall of the Torreon on the Pinkley/Arquero map of 1966. Rooms 28-34, 36-38, 43, and 54 received no investigation by Matlock.

Matlock wrote up the first draft of the Room Histories in 1974-75. He left in mid-1975 for Alaska, leaving the Histories as a handwritten manuscript. No archaeologist took his place at the park until 1991.

#### Larry Nordby and Bill Cruetz

Larry Nordby, with the Division of Archaeology of the Cultural Resource Center, Southwest Regional Office, conducted a series of archaeological projects at Pecos during the period from 1975 through 1980. He did a complete archaeological survey within the boundaries of the then Pecos National Monument, and reexcavated twenty-nine rooms in South Pueblo in 1976.<sup>106</sup>

Nordby had Matlock's room history manuscript typed, and then began the editing of it. Bill Cruetz, archaeological technician at the park, arrived in October, 1975, and helped Nordby finalize the room histories by checking room measurements and filling in blanks left by Matlock in the manuscript. Cruetz has described the manuscript as still principally the Matlock text, just cleaned up by Nordby.<sup>107</sup> Nordby did the drawings - some of the originals of these are on file in the files of the park. A separate volume of 200-300 photos and plans was assembled, but were missing at the time the research for this study was conducted, and have been since about the early 1980s – these are probably misfiled somewhere.

Cruetz received an Southwestern Parks and Monuments Association grant in 1982 for testing of Square Ruin, looking for evidence that might show its construction was associated with that of the church and convento. The field work was conducted in 1982 and 1983. Nordby assisted Cruetz in the field work, analysis, and report preparation.<sup>108</sup>

#### Todd Metzger

Todd Metzger began the process of documenting the surviving original structural material in the church and convento in 1988. Metzger worked for the Division of Conservation in the

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<sup>105</sup>Matlock, "Stabilization History," pp. 83-84.

<sup>106</sup>Metzger, "Guidelines," pp. 2:6, 5:13-5:15; untitled map of excavated rooms in South Pueblo, Flat Files, Prehistoric Sites drawer, South Pueblo folder, PNHP.

<sup>107</sup>Bill Cruetz to James Ivey, personal communication, March 15, 1994.

<sup>108</sup>Metzger, "Guidelines," p. 2:6; Larry Nordby and William Cruetz, "Test Excavations at Square Ruin, Pecos National Historical Park, 1982," March 9, 1993, p. vii, PNHP.

Cultural Resource Center of the Southwest Regional Office of the National Park Service; he approached the documentation project with the conviction that there was more information to be found in the surviving original adobe and stone, and that plan and elevation drawings of the surviving fabric, combined with photography, would recover some of this information.

In July, 1988, the west wall of Room 9 and the wall between Rooms 48 and 17 were stripped of protective modern adobes and examined closely. Metzger found that in the west wall of Room 9, he could distinguish two different types of dark-colored adobes. The predominant type, a dark reddish gray with a large quantity of charcoal, he called Type I. Alterations around the doorway through the west wall had been carried out with a dark reddish brown brick with little charcoal but some organic debris; he called this Type II brick. Metzger could see two mortar types used in the construction of this wall. The most common type, called Type I, was a reddish brown color with a sandy clay loam makeup and a number of siltstone flecks included in the material; it was used exclusively with Type I bricks. The second mortar variety, Type II, had virtually the same color, but was distinctly different in particle size ranges and had no inclusions; it was used only with the Type II bricks.

In the shared wall between Rooms 48 and 17, the adobe brick was apparently all of one type, reddish brown in color with a large quantity of charcoal; because there was only one variety visible, Metzger did not give it a type designation. Again, Metzger could see two mortar types. He called the mortar used for most of the wall Type I, reddish brown with a sandy loam makeup. Type II mortar was used only in the topmost surviving course of adobes and in a repair below the filled doorway; this was a yellowish red in color, and had a sandy loam texture. The two were quite similar in particle size ranges, and differed significantly only in color.

Metzger indicated in his report that, as of the time of its writing, there was no necessary identity between any of the mortar and brick types seen in these walls; that is, for example, the Type I mortar in Room 9 looked similar to the Type I mortar in the wall between Rooms 48 and 17, but had not yet been demonstrated to be the same. In the same way, the particle size analysis indicated that the adobes in the wall between Rooms 48 and 17 were quite similar to Adobe Type I in Room 9, and neither was particularly like Adobe Type II in Room 9, but it was not yet possible to say that the more numerous adobes in Room 9 and the wall between Rooms 48 and 17 were actually the same type, but a different type from Type II in Room 9.

In October, 1989, the wall between Rooms 3 and 6 was examined. No particle size analysis or Munsell color designations were carried out for the bricks and mortar in this wall. The bricks were described as black and full of midden debris, with a high percentage of flecks and chunks of charcoal, sherd fragments, gravel, and sandstone flecks. The adobes were made in two sizes, 49 by 23 cm. (19.3 by 9.1 in.), and 54 by 23 cm. (21.3 by 9.1 in.).

As a result of this trial documentation effort, Metzger made several recommendations about how documentation should be conducted. Those that pertain directly to the information needed for this Historic Structure Report were: a) adobe and mortar type samples should be collected "to aid in the identification and description of the various types that were used in construction at the site"; b) an archaeologist should be on-staff and work with the stabilization crew, so that original fabric could be documented in a timely manner that did not interfere with the progress of the stabilization crew; c) the use of the mapping approach to the documentation

of the original fabric of a wall should be continued, rather than depending entirely on black-and-white photographs, as had been the standard before 1988; and d) a detailed history of the archaeological investigations known to have been conducted in each individual room should be compiled. However, in the 1990 field season, these recommendations were not applied. Kate Dowdy of the Division of Conservation conducted the assessment of condition and recording of original fabric at Pecos in 1990, using rectified black-and-white photography as the principal means of recordation. Dowdy described and photographed original fabric in the northeastern corner rooms of the convento.<sup>109</sup>

In 1991, Metzger was appointed as park archaeologist for Pecos. During the 1991 field season, he was again forced to accept rectified photography as in 1990, but was able to begin a program of identifying and sampling adobe and mortar varieties for eventual analysis. The limitations of rectified black-and-white photography can be shown by a specific problem caused by the 1991 photographic recordation of the west wall of Room 50. Alden Hayes's notes indicated that the wall had been constructed of black brick, but had an opening through it that had been plugged by red brick. White's detailed examination and mapping of the west side of this wall in Room 49, in 1993, clearly recorded the details of the red brick plug. However, when the black-and-white photographs for the east side of the wall were examined, no trace of the plug or of a difference in brick color was apparent; the surface looked so uniform, in fact, that there was no indication that the plug came all the way through the wall fabric. When the stabilized brick was removed from the wall in 1994, however, the presence of a red plug on the east face of the wall was confirmed, and its details diagrammed.

Metzger sent samples of the adobe bricks and mortar collected from 1988 to 1991 to Brian Bauer of Grand Junction Laboratories for a grain-size analysis. Bauer found that, in general, the Type I and II adobe bricks were about 20% clay, while the mortar was about 50% clay.<sup>110</sup> This analysis was not enough to distinguish between the various brick types and mortar types; it was clear that a more detailed analysis would have to be conducted, on a wider sample of brick and mortar types.

### Courtney White

Metzger hired Courtney White as his archaeological technician in 1992. White was to carry out the recommendations made by Metzger when he wrote his 1990 report on the 1988-89 documentation experiment. White was to be the monitoring archaeologist working with the stabilization crew, and was to continue the project of mapping original wall material and its structural details begun by Metzger in 1988. White quickly realized that a great deal of structural information could be recovered from the adobe brick walls, and conducted the documentation with more detailed observation of construction sequence and materials than had been the practice before, using color photography and paying attention to fine differences between brick and

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<sup>109</sup>This effort by the Regional Office to use rectified black-and-white photography as a cost-effective documentation tool in 1990 had little success; White, "Documentation, 1988-1992," pp. 19-21.

<sup>110</sup>Brian Bauer, Grand Junction Laboratories, Grain-Size Analysis Reports, October 27, 1992, in White, "Documentation, 1988-1992."

mortar colors. In the process, he began to recognize a clear tendency for patterning of the locations of particular brick colors and mortar types. The combined efforts of Metzger and White began a revolution in our ability to finally understand the construction sequence at Pecos.

At the same time, I had been assigned the job of writing the Historic Structure Report on the Spanish colonial buildings of Pecos. I knew that the structural sequence proposed by Alden Hayes was somehow flawed because it did not fit the description of the buildings given by Fray Anastacio Dominguez in 1776, and my work with Dominguez's descriptions at other missions had shown that he was generally a meticulous observer and a careful narrator of the layout of a building. But I also knew Alden Hayes, and knew that he had given the plan and history of the convento some careful thought before he wrote *Four Churches*. I could not revise or discard his interpretation of the structure without very good reason. In order to be able to arrive at a reevaluation of the structural sequence, I needed specific evidence about the construction of the convento rooms, in more detail than had been available to Hayes, or Pinkley or Witkind before him. Metzger and White's clear understanding that the history of a building is made up of all the little details of its construction, and White's exacting approach to dissecting these details, allowed the real research for this structural history to begin – but at the same time delayed the final preparation of this study for several years while the documentation was collected.

White began the process of carrying out another of Metzger's recommendations, a rigorous comparison of the adobe and mortar types found throughout the site, with the intent to determine if the various similar bricks and mortars seen across the site were indeed of the same types. He did this by collecting samples of bricks and mortar and subjecting them to analysis by material composition, particle size, and trace elements.

In 1992, as his first assignment in the original fabric recordation program, White recorded apparent traces of original fabric on top of the east wall of Areas C-1 and C-2. C-1 had traces of a red material that might have been decayed adobe brick, although mortar or hardened red mud was also considered a possibility. The east wall of C-2, had traces of a darker-colored soil that might have been the remains of black adobe brick. White recorded these traces and reported them in "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992."<sup>111</sup> Ultimately, the history of these structures indicated that C-2 was not built until the nineteenth century, while C-1 was probably built late pre-revolt, when red brick was being used; however, no brick survived on these walls after the excavations by Pinkley. Matlock's notes showed that the material on the wall tops was not original fabric, but was a mud cap placed on these walls after they were repointed and the top course reset in 1973.<sup>112</sup>

On the north wall of Room 13, White exposed black bricks of Types Ia and Ib, put in place with mortar Types 1a and 2, an orange-tinted mortar found only between these brick types. A little of the north wall of Room 12 was exposed at the same time. White sent brick samples taken from this wall to plant part and pollen experts for analysis. Glenna Dean found that pollen

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<sup>111</sup>White, "Documentation, 1988-1992."

<sup>112</sup>Nordby, Matlock and Cruetz, "Stabilization History," p. 183.

from maize, beans, squash, typical meadow and bottomland plants, cholla and other cacti, and a large amount of charcoal were present, indicating that the bricks were made from midden deposits near the pueblo and fields. Dean considered the mortar to be a midden product, as well. Mollie Toll's plant parts analysis showed the same general picture. Neither analysis indicated the presence of any imported plants: no wheat, oats, grapes, watermelons, or even chiles.<sup>113</sup>

Hayes had indicated in *Four Churches* that although red brick apparently began to be used at the convento about the middle of the seventeenth century, only two rooms had been built of this material.<sup>114</sup> Hayes thought that the construction after that point used a random mixture of black and red brick, and that the post-Revolt construction used a mixture of new red brick and black brick salvaged from the ruins of the church and convento. Was this true, or was there some order to the use of the two varieties of brick? White began to assemble specific details about the interface between black brick and red brick. The south wall of Room 16 was found to be built of Types Ia and Ib bricks, using Type 1a mortar except for a few patches that might have been Type 2, orangish mortar. White saw clear indications of the presence of red brick on top of the east wall of the room, under modern black stabilized adobes. The west wall was all black adobes of both types, laid in Type 1a mortar, with a few patches that might have been Type 2 mortar in areas of the north half of the wall. Some of the examination lapped over into Rooms 50 and 52, as well. The doorway opening indicated by Witkind still showed as a gap in the wall fabric. In Room 17, White observed that the east-west wall that began as the north wall of the cloister walk ran through the four-way intersection of walls at this point. The east wall of Room 16 and the east wall of Room 17 both abutted the black brick of the east-west wall. Farther south on the east wall, White saw the same stratigraphy on the wall between Rooms 13 and 17 that Matlock had seen in 1973: black brick on the stone foundation, topped by a red material that appeared to be red brick; White does not mention the layer of "rammed earth" or fill between the two brick layers. The "red adobes" on top were so weathered that White could determine nothing about them; they could as easily be chunks of broken brick or the melt from red bricks as anything else.<sup>115</sup> However, to me the presence of this red layer, similar to the pattern followed on the top of the western half of the wall between Rooms 9 and 10,<sup>116</sup> suggested the possibility that the black brick room dividers were black only on the lower courses, and changed to red at some higher level that varied from wall to wall at the time of changeover to red bricks. Perhaps the partition walls of most of the corridor rooms were built early in the building of the convento, during black brick construction, but the south wall of Room 9 and the west wall of Room 13 were added later during the changeover to red brick.

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<sup>113</sup>Mollie S. Toll, "Plant Parts Found in Adobe Bricks at the Spanish Mission of Pecos, NM," November 24, 1992, and Glenna Dean, "Pollen Analysis of Adobe and Mortar Samples from Pecos National Historical Park, San Miguel County, New Mexico," December 11, 1992, in White, "Documentation, 1988-1992."

<sup>114</sup>Hayes, *Four Churches*, p. 29.

<sup>115</sup>White, "Documentation, 1988-1992," pp. 31-32.

<sup>116</sup>White, "Documentation, 1988-1992," p. 14.

We emerged from the 1992 season with strong suspicions that we were beginning to see a pattern of use for red adobe bricks, but no hard evidence. One of White's recommendations at the end of 1992 was: "A concerted effort should be made to locate, collect, and sample authentic 'red' adobe [bricks]. As it stands, 'red' adobe is severely underdocumented when compared to information gathered about 'black' original adobe."<sup>117</sup>

In 1993 White began a more intensive examination of the original fabric, including sampling and trace element testing. He had the western 14.76 feet of the south wall of Room 11 stripped of stabilized adobes on its north and south sides, and then recorded the original fabric exposed here. The exposure did not reach the doorway plugged with red adobes at the eastern end of the wall. The wall was constructed entirely of Type Ia and Ib adobe bricks set in 1a, 1b, and some Type 2 mortar.

In Room 12, White examined original fabric in the south and east walls. On the south wall, the stone foundation crossed over the drain, and black brick survived in place on this foundation. This was Type Ib brick set with Type 1a mortar. The east wall was built of Types Ia and Ib bricks. The wall was found to lack a stone foundation on its east side, the bricks being laid on brown fill; on its west side it rested on the east edge of the stone-lined drain passing southward through the room. Mortar was Type 3 and an anomalous Type 1a with bits of white pebbles scattered through it.

In Room 15, the south wall retained original adobes only at its eastern end, where it joins the east wall. These were Type Ib and perhaps Ia adobes set in Type 1a mortar, and appeared to extend onto the south end of the east wall. The stone foundation was only two courses deep, resting on brown fill, and the exterior stones appeared to have been reset in stabilized mortar by Matlock. The surviving portions of the north end of the east wall retained only areas of Type 1a mortar; no bricks could be found. A stub of wall extended eastward from the east wall, consisting of Ia adobes set in 1a mortar. The west end of the stub appears to have abutted the east wall of the room.

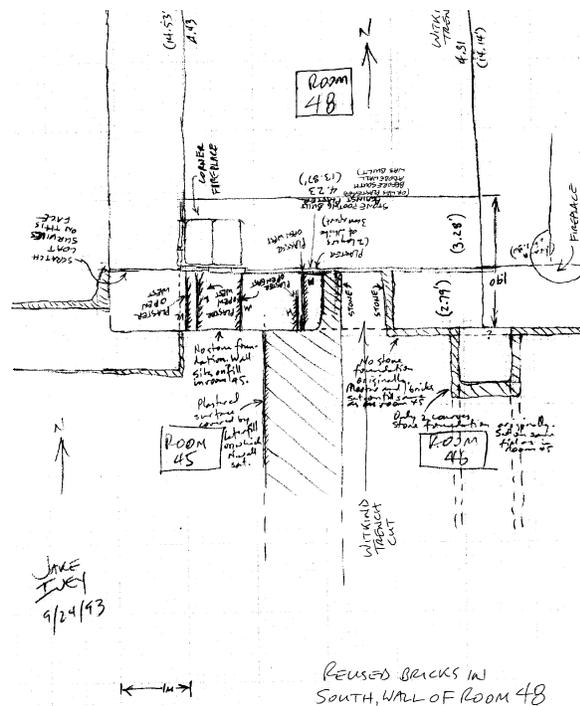
White then examined the group of Rooms 45, 46, 47 and 48. The walls of this group of rooms still survive to a height of five to seven feet in some places, and are the best-preserved record of the construction sequence of the main convento. With their multiple phases of construction and easily-recognized brick and mortar types, these rooms provided the information that finally allowed us to firmly reject Hayes's hypothesis of black brick=mostly pre-Revolt, red brick=mostly post-Revolt. White realized that there were several varieties of red brick, and they seem to have been used in specific episodes of relative position. He began to put in place a black-to-red sequence with a much clearer relative date range.

The breakthrough occurred as we looked at the surviving lower portion of the south wall of the early version of Room 48. Here White and I could see that the wall had been begun in black brick with red mortar, but was finished with red brick after seven courses of black bricks had been laid. No visible change in the mortar used between the two types of bricks was visible. The south face of the wall was then plastered with a gray mortar scratch coat, and finished with a white lime plaster coat; a second layer of gray scratch coat and white lime plaster was later

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<sup>117</sup>White, "Documentation, 1988-1992," p.55.

applied over the first surface. This sequence clearly demonstrated that red brick was used fairly early in the construction of the convento, during the very first of Hayes's phases of pre-Revolt construction. Moreover, on the east wall of Room 49, and to a lesser extent on the other black brick walls of Rooms 47-50, was an easily recognized "weathering shoulder" at the top of the black brick, overlaid by vertical, unweathered red brick. The structural evidence strongly argued that the black brick of the southwestern rooms had been built up to a height of four or five feet, and then construction on these walls stopped for a period long enough for the outer edges of the top-most courses of brick to weather away, leaving a rounded shoulder. The top was then leveled off, and new red brick was laid onto the black original construction. It is likely that the same sequence happened on the north and south walls of Room 48.



**Figure 10.6.** Plan of the examination of the south wall of Room 48 and north walls of Rooms 45 and 46 in September, 1993, by Courtney White and James Ivey.

The construction of the later south wall of Room 48 was carried out above a thick fill of decayed and collapsed black and red brick, ash, and charcoal. As we cleaned off this wall top, we saw several red bricks with white plaster faces on them – but set into the wall, not with this face towards the outside of the wall. In September, 1993, I drew a plan of this wall top, which shows that just at the level of the top of the surviving wall, five red bricks with white plaster faces within the wall were visible.<sup>118</sup> White recognized these as salvaged red bricks with white

<sup>118</sup>Jake Ivey, "Reused Bricks in South Wall of Room 48," September 24, 1993, in the files of Pecos National Historical Park.

wall plaster on one face, reused to rebuild the south wall of Room 48 on a new location one wall thickness south of the original south wall. These bricks demonstrated that a major collapse and reconstruction had occurred on this corner of the convento. Even more evocative of such collapse and reconstruction was White's realization that the mortar used for the new wall was made from decayed red and black adobes from the fallen walls of the convento: it was a brown mortar containing innumerable flecks and flakes of white wall plaster. Once White pointed this out, we started noticing this reused material with white plaster chips in a number of apparently late walls.

The north and east walls of Room 46 told the same story — some portions of the east wall were constructed using adobes containing plaster flecks, indicating that they, too, are made from the broken and decayed brick of the collapsed convento walls. It was clear that such extensive destruction and rebuilding was most likely the result of the Pueblo Revolt, and the reconstruction using bricks and mortar made from the rubble of these walls therefore probably dated to ca. 1694, when the Franciscans returned to Pecos and began the rebuilding of the convento.

At this point in 1993, we were looking for a flaw in Hayes's structural sequence. The idea that there were two episodes of red brick construction, one pre-Revolt and one post-Revolt, was a vague hypothesis based on Hayes's recognition that some construction in red brick had to have occurred before the revolt at the south side of Rooms 47 and 48: we had no reason to think that looking closer at the evidence behind Hayes's proposal would lead us any farther. Looking at the blatant physical evidence, however, White and I proposed between ourselves a simple hypothesis: that a major episode of red brick construction had occurred before the revolt, sufficient to leave a large number of red bricks in salvageable condition to be reused post-Revolt, and that the original use of this pre-Revolt red brick began when the use of black brick ended, rather than Hayes's assumption that the two brick colors were used together throughout the history of construction at the mission. Hayes did not know that an entire second story had been built on the convento sometime before 1663; the evidence of extensive reuse and remanufacture of red bricks in the post-Revolt period suggested to us that most or all of the second story construction had been of red brick. Rather than a minor construction event in two corner walls sometime just prior to the Revolt, the use of red brick would then be a change in convento construction methods, occurring before 1663 and representing a major set of structural additions and renovations built onto the original black adobe convento.<sup>119</sup>

The hypothesis began as a simple proposed sequence: black brick construction was used only in the first decades, the 1620s and 1630s, replaced well before 1663 by construction using only red brick, and the structures necessary to create a second floor on the convento. This was followed by fire and collapse in 1680, and reconstruction using mostly salvaged red and black bricks and bricks made from melted red adobe (and some black adobe) walls in 1694. This hypothesis seemed to make sense of the tangle of building episodes at the southwest corner of

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<sup>119</sup>J. Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1993," pp. 28-29, CRM Technical Series Report no. 5, 1994, manuscript on file at Pecos NHP.

the convento. Would it make sense of the rest of the tangled foundations of the convento? Indeed, it did. White and I have never seen any evidence that contradicts this hypothesis; rather, extensive brick and mortar analyses have continued to demonstrate a clear difference between the various bricks and supported White's contention that specific groups of similar-appearing bricks are indeed from the same period of primary use, and a particular combination of brick and mortar types was only used in a specific time period.

An evaluation of the episodes of use of particular brick and mortar types demonstrated that they followed a logical sequence of construction and enlargement of the convento which could be correlated with site-specific and province-wide architectural developments. As a result, a clear history of construction, destruction, and reconstruction of the Pecos convento has been worked out by applying this group of associations of brick/mortar types and dates to this complex building, and is presented in Chapter Eleven.

After the formulation of the theoretical sequence of brick types, much of our fabric investigation was directed toward the working out of hypothetical construction sequences of the convento after the black brick period, by determining which variety of red brick and mortar had been used in various places. Our most important examination was of the south wall of Room 22. The north side of this wall had been built with black brick, while the south side was made of red brick. Hayes had noticed the red wall of which this was a part, and considered it among the last structures built at the Pecos mission after its effective abandonment in the first years of the nineteenth century: "One final addition was apparently made . . . A wall of red adobes on a shallow stone footing was run from the southeast corner of room 46, roughly parallel to the south walls of rooms 18 through 21, to join the common south corner of rooms 21 and 22. The bottom of the foundation was at a somewhat higher level than the walls of the earlier rooms. The long corridor which was created tapered from 3 feet wide between rooms 46 and 18 down to 1 foot at the east end, and the space was filled with earth. Its purpose seems to have been that of a curtain wall to provide extra support to this row of rooms, which was originally intended to be no more than one story when built in the 1620s but it supported a second story after the post-revolt rebuilding."<sup>120</sup>

When we first removed encasing stabilized adobes from the red section of the south wall of Room 22, we instantly saw red bricks with white plaster flecks, telling us that this portion of red brick wall had been built probably as part of the 1694 first construction on the rebuilding of the convento after the Reconquest, against a black wall built in the 1620s or 1630s. Hayes's last construction on the mission had just become the first construction on the post-Revolt mission. Looking at the map of associations, it was clear that this fragment of very early post-Revolt wall was part of the continuous red wall extending the entire width of the south side of the convento described by Hayes, from the southeast corner of Room 46 to Room 22 – and other evidence showed us that it extended onward, to the southeast corner of the wall against which the southeastern torreón was built. This information, when associated with Hans Lantz's careful dissection of the ruins, which supplied good evidence that none of the convento rooms south of this line were reused after the Reconquest, indicated that this was *the* south wall of the convento

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<sup>120</sup>Hayes, *Four Churches*, pp. 58-59.

– that after the Revolt, all there was of the convento was north of this line. Keep in mind that in the context of Hayes's reconstruction, which had the entire straggling convento all the way to Area A in use right up to final abandonment after 1800, this was heresy of the highest magnitude, and far beyond what we thought we were working towards in terms of reevaluating the construction sequence of the convento.

What was even more striking about this revolutionary idea was that it was familiar. It was exactly what Lentz had been arguing, and what the Nusbaum/Adams map said was the plan of the convento buildings they could see in 1915. The Nusbaum/Adams plan had been sitting in my files as an unexplained curiosity all this time, and now it suddenly meant something. The evidence that White had been collecting for post-Revolt construction of red brick walls with reused or recomposed brick abutting or atop early black brick walls all along the south side of the convento, matched what we now realized was the plan of the last convento in this area, recorded by Nusbaum and Adams, and this plan contradicted all the previous proposed construction sequences. Each line of research, one into brick typology and the other into the archaeological records, plans and notes, supported the other, and finally gave us proof that the Nusbaum/Adams map was indeed the plan of the post-Revolt convento. This tossed Hayes's sequence out the window.

As White continued to record walls during stabilization, we watched for further evidence that there was a correspondence between the Nusbaum/Adams plan and the occurrence of post-Revolt brick in the convento. At the same time, we began working out the construction sequence in the pre-Revolt convento. For example, in Room 52, the stabilization stripped the northern two-thirds of the east wall, the portion that was not examined in 1992, and White recorded this section. It was found to be built entirely of Type 1b black bricks in Type 1a purple-red mortar, and therefore was built in the period from 1620-1640.

Meanwhile, other analyses added to our picture of the sequence of structural and cultural events at Pecos. Tom Windes took new samples of burned brick from the fireplace in Room 2 of the Casa in the Estancia buildings, and submitted them to Jeffrey Eighmy for a new archaeomagnetic dating of the structure. Eighmy's results indicated that the building had been in use in the mid-seventeenth century. The date range given by Eighmy's analysis was 1588±63, or 1525 to 1651.<sup>121</sup> In the real world, since the building was not even constructed until sometime after 1620, the actual possible date range for this fireplace in the Casa was about 1620 to 1651. Mollie Toll examined brick and mortar samples from the Delgado Church (1717) for plant parts, and found that the remains of wheat straw and grains commonly occurred in these bricks and mortar, confirming Bandelier's statement that he had seen wheat straw in the bricks of the standing church.<sup>122</sup>

During the field season of 1994, White and I reexcavated most of the "cellar" room below Room 36 in order to examine the bricks and mortar. They were clearly of the Type IIa brick and

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<sup>121</sup>Jeffrey Eighmy, Colorado State Archeomagnetic Laboratory, to Todd Metzger, November 30, 1993: results of archeomagnetic analysis of sample LA625J-1, Estancia Complex, Casa, Room 2, southeast corner fireplace, PNHP.

<sup>122</sup>Mollie S. Toll, "Plant Parts Found in Adobe Bricks at the Spanish Mission of Pecos, NM, II," 1994, PNHP.

Type 4 mortar that characterized much of the red-brick construction at Pecos in the middle seventeenth century. The floor, however, was paved with red bricks of the same color as the Type IIa bricks, but with Type Ia or Ib dimensions. White suggested that these were among the first of the red bricks made, still using the molds for the earlier black brick. The walls of the "cellar" were also built of IIa brick with Type 4 mortar, but the bricks here were of the standard size for red bricks.<sup>123</sup> The implication of these brick types and sizes was that the "cellar" in Room 36 was built just as red bricks began to be made at the Pecos mission, sometime in the mid-1600s.

In the south wall of the "cellar" Pinkley found an alcove that she described in detail in her monthly report for May, 1967.<sup>124</sup> Our examination of it quickly showed that her description failed to make clear that the entire alcove was a large fire hearth. The hearth opening at its front was 4 feet wide, 3.5 feet from front to back, and 2.23 feet high; the top of the opening was formed by a round wooden beam across the front of the hearth at that height, which would have supported an adobe hood wall above the hearth opening. The beam itself was about 5 inches in diameter, and was set into the face of the south wall on the west side of the hearth, and into the stairs at the top of Step 5 at the east side of the hearth. It extended 2.3 feet east from the edge of the hearth opening along the step. In order to protect this supporting beam from the extreme heat of the fire, it would have been jacketed in a thick layer of adobe clay. No beam sockets were visible behind the socket at the face of the hearth, indicating that the chimney for the hearth was almost four feet square, and rose more or less straight up from the firebox itself. Most of the south wall surface inside the hearth, against which the fire would have been built, had been baked to ceramic, with a vitrified surface, indicating that the fire must have raised much of this surface to temperatures of 1000 degrees or higher. We had Tom Windes take samples of these fired bricks for archaeomagnetic analysis.

The "cellar" itself was 14.4 feet wide, east to west, and 12.3 feet long, north to south. No trace of beam sockets for a ceiling was found on the surviving wall fabric, or could be seen in the photographs, although traces of the hearth hood beam socket could be recognized in the pictures. Pinkley found the remains of a ceiling lying on the floor of the "cellar"; she estimated that the walls on the north and east sides, at least, stood to a height of 7.3 feet when the excavation of the room was completed, and probably had survived to at least a height of 9 feet as of the time she began excavation here. The lack of roofbeam sockets indicates that the space had no roof at ground level, but the presence of ceiling remains indicates that it was covered; therefore it probably had a roof at the first floor level, perhaps 11 feet above the ground and 18 feet above the floor of the subsurface room. This is also made likely by the consideration that when the fire was burning, the temperature in the room could have been high enough to be fatal within a few minutes if the space was enclosed by a roof at ground level; a draft of fresh air to feed oxygen to the fire could have only come down the stairwell. Traces of white plaster covered much of the wall surface. The presence of the hearth indicates that this room was not a "cellar"

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<sup>123</sup>White, "History," Room 36.

<sup>124</sup>Jean Pinkley, "Monthly Report," June 1, 1967, PNHP.

in the sense of an underground room or storage space, but instead existed specifically for the fireplace itself. Considering the size of the thing, it seems likely that the entire northern half of the room was used for the storage of wood to keep it burning when it was in use. Logs a little under four feet in length, stacked end-on against this wall, would leave a space of about three feet beyond the foot of the stairs, about right for a workman to come down the stairs to feed the fire. It is clear that this hearth was built to be a heat source, in the form of *draft* heat, for some activity in the larger room at ground level above and south of the hearth room. This would have been something akin to a boiler, rather than, say, a blacksmith hearth, which would have needed a completely different arrangement of heat source to work. What this activity was is unknown; the rest of the outline of the room, and any surviving floor surface, was not located by archaeological investigation, although some part of it undoubtedly survives in the area to the south and west of the hearth room.

In December, Jeff Eighmy sent us the results of the archaeomagnetic dating of the furnace-room hearth. Based on our hypothesis of the sequence and probable dates of use of black and red brick, we had suggested a probable date range of 1640-1660. Eighmy said that the samples gave an unusually tight dating. As of December, 1994, the date range was  $1625 \pm 25$ .<sup>125</sup> A refinement of the dating curve the next year, after the addition of our samples from the 1600s, changed the curve in this period, so that the new date range for the samples from Room 36 became  $1670 \pm 30$ . These dates confirmed our suggested period, and the archaeomagnetic information acted as an independent confirmation that our hypothesis about brick sequence and periods of use was probably correct.

Later in the season, White examined the south wall of Room 9, that I had been curious about since 1992, and the west wall of Room 50. In Room 9, he found that the section of wall east of the doorway was made of Type II d adobes and Type 6 mortar; that is, the eastern jamb was of post-Revolt red-brick construction, with plaster chip inclusions all through the mortar and bricks. The western jamb, however, was black brick up to most of the present height, but with the last remains of a Type II a (pre-Revolt red brick) adobe course at the top. This suggested two things: first, the doorway was about  $4\frac{1}{2}$  feet wide before the revolt, and was narrowed to  $2\frac{1}{2}$  feet during post-Revolt construction. Second, the upper part of the western portion of the south wall had to be repaired with red bricks at some point, either before or after the revolt. Beyond that, the results made it clear that Room 9, and therefore much of this east wing of the convento, had survived the Revolt destruction in fairly good condition, and was probably put back into use with little more than re-roofing.<sup>126</sup>

In Room 50, White cleaned the west wall to show the brick color and laying pattern of the plug in the wall opening said by Hayes to be here, and already examined on the other side in Room 49, in 1992. Hayes called this opening a plugged doorway, but it actually looked too irregular to be that. It more resembles a rounded hole cut through the wall of black brick and

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<sup>125</sup>Jeffrey Eighmy, Colorado State Archeomagnetic Laboratory, to Courtney White, December 1, 1994: results of archeomagnetic analysis of sample LA625A-1, Area H, Room 36, south wall fireplace, PNHP.

<sup>126</sup>Joseph Courtney White, "A History of the Preservation and Archeological Activities In the Spanish Convento At Pecos National Historical Park, 1939 to Present," manuscript in PNHP, 1994, Room 9.

then refilled with a rather jumbled mass of red brick and post-Revolt mortar, with little mortar between the bricks stacked into the opening.<sup>127</sup>

In June, 1994, we received a petrographic analysis of the adobe brick and mortar types by Maury Morgenstein of Geosciences Management Institute.<sup>128</sup> Morgenstein found that the grain size distributions of the bricks were distinctive – that is, they sorted into distinct groups, each with specific characteristics different from the others.<sup>129</sup> Morgenstein's analysis showed that the types Metzger and White had worked out were real groups, different from each other in physical characteristics. The black brick types were somewhat similar to each other, and the red brick types also somewhat similar to each other, but the black brick types differed considerably from the red brick types.

Mollie Toll carried out a third plant parts analysis on brick and mortar samples from the Ortiz Church, Kiva 23, and more samples from the standing church. The Ortiz Church samples appear to be from a non-midden source of material, having virtually no charcoal, and only a few weed and grass particles. The Kiva 23 samples indicate that the bricks were indeed type I and II, from the same general midden deposits, and the mortar was a relatively clean material, probably not from a midden. Her analysis showed no difference between the bricks and mortar from the pre-Revolt church and the black bricks and mortar making up the kiva walls.<sup>130</sup>

Tom Windes sampled Kiva 23 on November 9, 1994. Eighmy's dating of the Kiva 23 hearth indicated that the range of the sample was fairly tight, but the dates were meaningless – they were either 550-650, or 1750-1800.<sup>131</sup> Neither of these periods would work at all with the archaeological information (the kiva was made with form-made black brick and purple mortar, so it had to have been built sometime after the arrival of the Spanish in the southwest, or 1540, so the earlier date range was impossible, and the artifacts from the kiva indicate that it was used sometime in the seventeenth century and backfilled sometime before 1700, so the later date range would not work either. Sometimes this happens: archaeomagnetic dating will give results that have no apparent connection to the real world, for no clear reason.

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<sup>127</sup>White, "History," Room 50.

<sup>128</sup>Maury Morgenstein, *Petrographic Analysis of Adobe and Mortar Samples, Pecos National Historic Park, Pecos, New Mexico* (Boulder City, Nevada: Geosciences Management Institute, June, 1994); copy in PNHP.

<sup>129</sup>Morgenstein, *Petrographic Analysis*.

<sup>130</sup>Mollie S. Toll, "Plant Parts found in Adobe Bricks at an 18th C. Spanish Mission, Pecos, NM: III," February 16, 1995, manuscript on file at PNHP.

<sup>131</sup>Jeffrey Eighmy, Colorado State Archeomagnetic Laboratory, to Courtney White, 1995: results of archeomagnetic analysis of sample LA625A-2, Kiva 23, firepit.

In January, 1995, Morgenstein sent us the results of his second analysis.<sup>132</sup> The important results concerned trace element analysis in the brick and mortar samples, which showed again that the brick and mortar types were grouped together by some trace element ratios. Of interest here was that both the black bricks and purple mortar used in Kiva 23 grouped with the black bricks and purple mortar used to build the earliest sections of the convento.

1995 saw White examining Room 17, and the north walls of Rooms 48, 50, and 53. The south and west walls of Room 17 retain several courses of black brick, seven on the south wall and nine on the south end of the west wall. Variations in brick size and mortar type suggested to White that some experimentation in brick form size and mortar composition took place in the earliest period of construction of the convento, perhaps during the initial phase of building under the direction of Ortega in 1620-21. The doorway through the western wall first unsealed by Witkind was still recognizable, and a large flagstone sill in place at the base of the opening seemed to be original, set into post-Revolt Type 6 mortar with plaster inclusions. The door apparently extended a little over a foot farther south than the edge of the sill stone, and perhaps somewhat farther to the north. The jumbled nature of the wall construction on either side of the opening indicates that the doorway was built into a rough opening cut through the pre-Revolt wall, probably during the reconstruction of the convento in the 1690s. White saw traces of the same fireplace in the southwest corner of the room that both Matlock and Hayes saw, and noted that its apparent base was the same approximate height as the sill of the western doorway and the fireplace on top of the early wall in Room 48. Because of this similarity in height, White suggested that this was the level of the floor of the post-Revolt convento.<sup>133</sup>

White examined the wall between Rooms 48 and 50, removing the protective stabilized adobe jacket from the north, east, and south faces of the wall. This wall showed the same evidence of severe erosion of the top of the black brick north wall of Room 48 that White had seen on the east wall of Room 49 in 1993, again indicating that the low black brick walls had been exposed to a period of weathering prior to the construction of a red-brick wall using the black brick as a foundation. The same sequence of mortars that he had also noted in the west wall of Room 17 were visible in the construction of the first courses of this room.<sup>134</sup>

Examining the north wall of Room 53, White found that the visible north wall with a stone foundation and stabilized black adobes had no original fabric beneath it; that is, there was no indication that Room 53 had had a north wall where the present stabilized section now rests.<sup>135</sup> The north wall of the room had actually been formed by the south face of the massive south wall of the pre-Revolt apse of the church.

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<sup>132</sup>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, January, 1995), copy at PNHP

<sup>133</sup>White, "History," Room 17.

<sup>134</sup>White, "History," Rooms 48, 50.

<sup>135</sup>White, "History," Room 53.

White's determination that the adobe brick and mortar types used at Pecos had specific time periods associated with each combination of types was clearly a methodological breakthrough; the technique could be used at any historical adobe brick construction site in the southwest. He published a description of the method in the journal *Kiva* in 1996,<sup>136</sup> and a successful application of the same procedure in the analysis of the structural history of the Franciscan missions of Tumacacori and Guevavi in 1997-1998, and Calabasas in 2004, demonstrated its effectiveness in working out the construction sequence of a building or group of buildings.

#### Genevieve Head and the Pecos Survey

In May, 1995, Genevieve Head of the Intermountain Region Cultural Resource Center conducted a Cultural Resources Inventory Survey of Pecos National Historical Park. The field work was completed in August, 1997. It was intended to survey all cultural resources outside the original National Monument boundary, and to resurvey the core monument area and re-record the sites within it. For the purposes of this report, the Pecos Survey's reexamination of the Square Ruin, Ancient Walled Area, Estancia, and the mesilla top are of significant interest.<sup>137</sup>

Head and her crew made a detailed contour map of the mesilla top, the first since the aerial mapping of 1966, and carried out surface artifact counts in a number of selected areas in and adjacent to the historical structures discussed in this report. Her results are extremely informative. Since artifact counts can distinguish between black and red brick use for construction,<sup>138</sup> Head's survey suggested the construction material, and from that the date of construction of most of the buildings could be inferred, using White's periods of use hypothesis. Head's surface collections indicated that the northern half of the Casa section of the Estancia was built of black brick, while the southern half was of red brick. The corrals area seemed to be red brick. Square Ruin, west of Glorieta Creek, has a heavy litter of fourteenth century sherds in a black, midden-like fill, but the structure itself was not a residential area. Head's collection indicated that Square Ruin's walls were made of black brick. This was confirmed by Nordby's original excavations that found black brick fragments along the wall bases, and additional reexcavations by White and myself at selected points along the walls in Nordby's old units.

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<sup>136</sup>Courtney White, "Adobe Typology and Site Chronology: A Case Study From Pecos National Historical Park," *Kiva* 61(1996)4:347-63.

<sup>137</sup>Genevieve Head, personal communication, December 8, 1997; Genevieve Head and Janet Orcutt, *From Folsom to Fogelson: The Cultural Resources Inventory Survey of Pecos National Historical Park*, two volumes, Intermountain Cultural Resources Management Professional Paper no. 66 (Santa Fe: National Park Service, 2002).

<sup>138</sup>Melted black brick leaves dark, midden-like earth fill with artifacts from the fourteenth and fifteenth centuries, while melted pre-Revolt red brick leaves red fill and very few additional artifacts, so that the artifacts found in a red-brick area generally reflect the actual period of use.

### Conclusions

The historical archaeology at Pecos was all conducted with the intent to understand the immensely complex sequence of structural change in this nearly four-hundred-year-old group of buildings. Although for most of the people who labored there a sense of understanding never came, their records, notes, observations, photographs and drawings saved much of the information they collected. Ultimately this labor of hope did result in understanding, a century after Bandelier first speculated on the age and plan of the church, convento, and other Spanish buildings at Pecos. It took the work of dozens of men and women, and the slow invention of new techniques that did not even exist when the enquiry began, but finally Pecos has begun to be sorted out. The results of these years of work, and the exhaustive (and exhausting) analysis of the last several hundred pages, will be summarized in the following three chapters narrating the architectural history of the site.

PART IV  
CONSTRUCTION OF THE SPANISH COLONIAL BUILDINGS  
OF PECOS



Chapter Eleven  
**The Seventeenth-Century Construction at Pecos**

Introduction

Because the majority of the archeological information about the church and convento of Pecos has never been published, and has been synthesized only in the previous chapters in this report, most of the citations supporting the following narrative will reference the statements and information included in those chapters rather than the original documents.

The sequence of construction presented here is derived from the application of a few simple rules to the archeological information, the room plans, and the examination of surviving brick and mortar types. First, each brick and mortar combination is assumed to have been used only during a specific period—there is no indication that a given brick and mortar combination was ever reused at a later date. The periods of use are based on historical references, archeomagnetic dates, and the assumption that certain similar structural events happened about the same time at all the missions in the province.<sup>1</sup> The brick and mortar types and their approximate periods of use are given below, in Table 11.1.<sup>2</sup>

Adobe Brick	Mortar	Estimated Date
Type IV "yellow"	Type 1a "maroon"	1617-1620 with salvage use to 1640
Type Ia-Ib "black"	Type 1-3 "maroon" to "brown"	1620-1645 church and convento
Type IIa-IIb "red"	Type 4-5 "red-brown"	1645-1680 with reuse to 1700
Type IIc-IIe "red" (recycled IIa brick) with white plaster chips	Type 6 "red" (recycled IIa brick) with white plaster chips	1694-1716 convento reconstruction
Type III "brown"	Type 7 "brown"	1716-1830 church and South Pueblo

**Table 11.1.** Adobe Brick and Mortar Types at the Mission of Pecos.

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<sup>1</sup>The dates estimated for those events were worked out during the preparation of James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, *Southwest Cultural Resources Center, Professional Papers* (Santa Fe: National Park Service, 1988), and references to those discussions will be included in the following narrative.

<sup>2</sup>Adapted from Courtney White, "Adobe Typology and Site Chronology: A Case Study from Pecos National Historical Park," *Kiva* 61(Summer 1996)4:354.

Second, the buildings are presumed to have a certain optimal logic to them: rooms will be accessible, second stories will be reached by stairs, the usual complement of rooms and associated activities will be present in the convento, and the rule of enclosure will be followed.

Third, no more building will be assumed to be present than necessary. That is, if, for instance, black brick is present on a foundation to a height of two or three feet, and no suggestion of red brick survives above it, the discussion will assume that there *was* no more wall than the two or three feet of black brick—*unless the plan and logic of the building or a historical reference requires more wall height than that*. This results in the presumption that, for example, rooms 51, 52, and 53 were never completed: no brick survived above the first few feet of black, these few feet show severe weathering, and the few hints from historical evidence suggest that nothing stood here; while at the same time an entire second story is assumed to have stood on top of the black brick first story around the convento patio because this structure is described in the documents, and its construction is assumed to be of Type IIa and IIb red brick because it was built during the period when red brick and red mortar was being used elsewhere in the convento. This may sound arbitrary, but each case was decided by the sum of available information pertaining to it.

As a result of the application of the above rules, the sequence of construction given below will not resemble the plans of Alden Hayes to any great extent, other than that they follow the same wall outlines; the actual order in which rooms and buildings were constructed, and the general dates for each of these episodes of construction, will not be particularly recognizable. Furthermore, rather than being a reworked version of the pre-Revolt convento plan, as Hayes saw it, the final eighteenth-century convento plan after the Revolt will have little resemblance to any previously published plan of the history of Pecos, because it is based on the site drawings and photographs of 1846-1966 and the Nusbaum/Adams plan of 1915, which has been ignored by all previous investigators.

### The Establishment Period

Missionaries were first assigned to Pecos during the first year of the new colony. Fray Francisco de San Miguel and his *donado* assistant Juan de Dios arrived in Pecos on September 18, 1598. San Miguel had been assigned all the pueblos and Indian groups east of the Sierra, the line of mountain ranges east of the Rio Grande, but apparently spent his brief tenure entirely at Pecos.<sup>3</sup> It is likely that these two missionaries acquired some rooms in the pueblo and modified them rather like the first convento in the pueblo of Las Humanas. This set of rooms would have been in some part of North Pueblo; at that time, South Pueblo was only a small, ruined structure with collapsed walls and no roof; the other buildings on the south part of the mesilla did not yet exist. No indication of this earliest missionary establishment has yet been seen.

San Miguel and Juan de Dios left Pecos in December, 1598, after Juan de Zaldívar and his men were killed at Acoma, triggering a period of crisis for the new colony.<sup>4</sup> No missionary

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<sup>3</sup>John Kessell, *Kiva, Cross and Crown: the Pecos Indians and New Mexico, 1540-1840* (Washington, D.C.: National Park Service, 1979), pp. 82-85.

<sup>4</sup>Kessell, *Kiva, Cross and Crown*, p. 85.

returned to Pecos until after the colony was transferred from the proprietary holding of Juan de Oñate and made into a royal colony in 1609. This transfer resulted in a greater emphasis on the missionary effort and an increase in the number of Franciscans sent to the colony. By 1617, the central pueblos had been reconsolidated, with churches and conventos in place, and the new missionary program had begun to look towards the large pueblos outside the Rio Grande valley. At this time, most of the churches of New Mexico were simple structures, rather long and narrow, without transepts or transverse clerestory windows. However, during the period from 1610 to 1620, the missionaries in this new province begin to build large, complex churches (see Chapter Fourteen, Conclusions). The first of these for which we have any record was Nuestra Señora de los Dolores de Sandia, begun about 1612. Sandia was 126 feet long, 33 feet wide, and had an “*artesonado*” roof; that is, a wooden, shingled, gabled roof, rather than the familiar flat earthen roof more typical of New Mexico.<sup>5</sup>

#### The "Lost", or Ortiz Church

Fray Pedro Zambrano Ortiz arrived in New Mexico with the wagon train of January, 1617. He was probably assigned to Pecos soon afterwards, during the first chapter meeting in early 1617.<sup>6</sup> Ortiz was thirty years old at the time, and this was his first assignment in the field. Kessell, puzzled by the delay in the return of Franciscans to such a large and important pueblo on the eastern frontier of the province, speculated that the Pecos may have opposed being included in the mission system while other, less strategic pueblos like San Lazaro or Chilili were receiving missionaries.<sup>7</sup> The probable truth of this speculation is indicated by the location of the new church, begun in mid- or late 1617. Clearly the pueblo reluctantly accepted a mission, but was able to refuse the construction of a church on the mesilla.<sup>8</sup> As a result, Ortiz began his small church about a thousand feet northeast of the pueblo. He apparently lived in a small shack among boulders just east of the site of construction at first,<sup>9</sup> and later in the sacristy and an adjoining portal, the area of which is visible on the ground but which has not been excavated.

Ortiz's church was typical of the “interim” frontier mission church in the period from 1610 to 1620.<sup>10</sup> It had no transepts or clerestory window, and was 24½ feet wide and 66 feet long on the interior. By 1619, the structure was completed to the point that it had been roofed – the interior fill had a large amount of fragments of rubble from the puddled adobe of the roof, still with the imprint of the latillas on their undersides (see Figures 3.5 and 3.6). The altar platform was under construction, with what looks like a walk-up ramp near its center for the

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<sup>5</sup>James Ivey, “George Kubler and the Prime Object at Pecos,” thesis, University of New Mexico, 2003, pp. 197-199.

<sup>6</sup>Kessell, *Kiva, Cross and Crown*, p. 104.

<sup>7</sup>Kessell, *Kiva, Cross and Crown*, p. 104.

<sup>8</sup>Ivey, *Loneliness*, p. 38. The pattern of careful Franciscan relationships with the Pueblos is discussed in James E. Ivey, “Convento Kivas in the Missions of New Mexico.” *New Mexico Historical Review* 73(1998)2:121-152.

<sup>9</sup>Stanley A. Stubbs, Bruce T. Ellis, and Alfred E. Dittert, Jr., “‘Lost’ Pecos Church,” *El Palacio* 64 (1957)3,4:75.

<sup>10</sup>Ivey, “George Kubler and the Prime Object at Pecos,” pp. 195-197.

dumping of earth behind the adobe retaining wall to be packed as the platform surface. Eventually, stairs up to the top of the platform would have been built, as well as a predella on which the altar would have stood. The building was unfinished inside when work stopped. The exterior and interior of the church had received their initial scratch coats of mortar, but none of the interior finishing coats in white, or any painted dado or other decoration. The sacristy was roofed and given a coat of mortar, but also was unfinished on the interior, with no final whitewash coat, or decorative dados painted on the walls. The sacristy and a portal built next to it against the church formed Ortiz's residence, with a small hearth area at the southwestern corner of the sacristy.

Ortiz left between mid-1619 and August, 1621, replaced by Fray Pedro Ortega. Kessell suggested 1620 as the date Ortiz departed, but the status of later construction indicates that the timetable was more likely early in this period, with Ortiz leaving Pecos and Ortega arriving earlier, about the end of 1619.

#### The Ortega and Juárez Churches and Convento

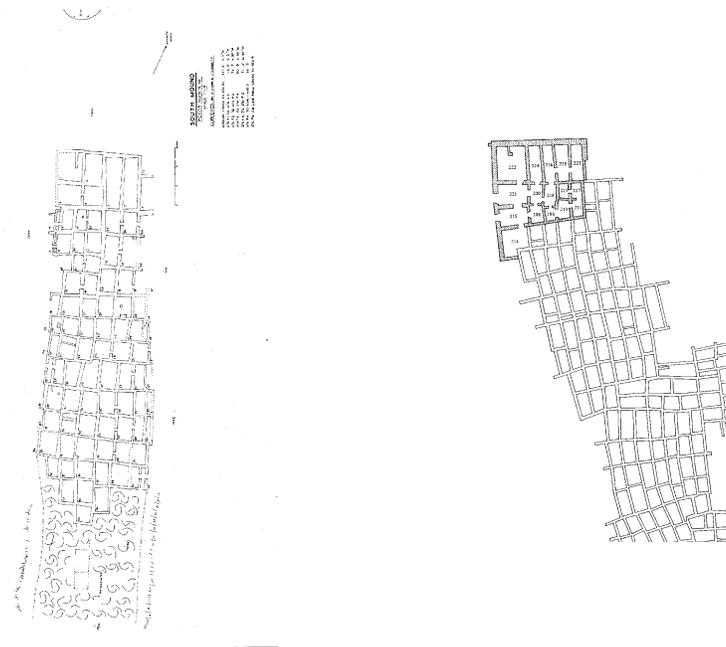
Soon after Fray Pedro Ortega's arrival about the end of 1619, he was able to negotiate a new understanding with the leading kin-groups and societies of Pecos, and by early 1620 had acquired the use of the ruined South Pueblo structure (the northernmost six or eight rows of rooms of the later historical South Pueblo building) and permission to build a large church and convento at the far south end of the mesilla. The location for the new building was not much of a gain; it was almost exactly the same distance from the center of North Pueblo as the Ortiz Church had been, but at least it was on the mesilla instead of on the next hill. Ortega stopped work on the almost-complete Ortiz Church, and probably authorized the dismantling of its roof and walls, while in South Pueblo he renovated the ruined rooms of the abandoned pueblo, as near to the main pueblo as possible. The southern half of the old ruins were restored more or less on their original plan. The principal convento rooms on the first two rows of rooms on the north side, however, were rebuilt to a considerably larger plan, the size of one and a half to two rooms of the original pueblo rooms (see Figures 11.1 and 11.2).

The similarity to the convento built into the rooms of Mound 7 at Las Humanas is striking. The similarities suggest hypothetical uses to be assigned to the various Pecos rooms. Following the pattern at Las Humanas, very likely Rooms 4 and 6 were the temporary church associated with this convento (making these rooms the Ortega Church); Rooms 1 and 2 were the friar's quarters, while Rooms 3, 5, 9 and 10 were storerooms to hold the goods to be used in the principal church, and Rooms 5A, 7, 8, 8A, 11, 12, 16, 23, 29, and 32 were other convento rooms such as the kitchen, pantry, dispensary, classroom, and so on.<sup>11</sup> Ortega reused some adobes from the Ortiz Church in the construction of the new convento rooms and the Ortega Church. However, the pattern of reuse of the brick suggests that most of the adobes mined from the Ortiz Church were taken by the Pecos over the next twenty years or so, and used in the Indian sections of the South Pueblo construction, and in some rooms and a kiva in North Pueblo.

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<sup>11</sup>Compare with the discussion of room uses in the Mound 7 convento rooms at Las Humanas in Ivey, *Loneliness*, pp. 166-167.

Ortega lasted no more than two years at Pecos. His excessive zeal led him to destroy some Pecos kachinas. The Franciscans had enough influence there to allow Ortega to survive this affront, but Kessell thinks that this put him in such obvious conflict with Pecos authorities that the Order was required to remove him at the end of 1621, replacing him with Fray Andrés Juárez about the beginning of 1622.<sup>12</sup>



**Figures 11.1 and 11.2.** Figure 11.1, on the left, shows the plan of the north end of South Pueblo at Pecos. On the right, Figure 11.2 shows the plan of the Franciscan rooms at the west end of Mound 7 at Gran Quivira (Las Humanas). North is to the top for Figure 11.1, and to the right for Figure 11.2.

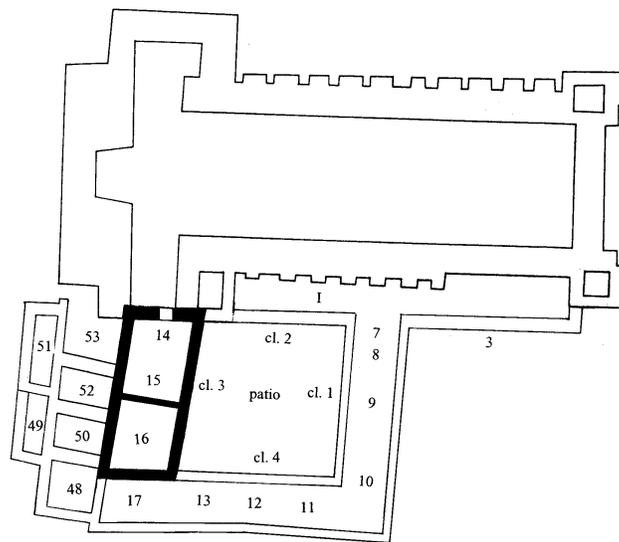
Before he left, Ortega worked out the plan and began the construction of a church for Pecos. Ortega, however, did not begin just another typical New Mexican church like those being built at other missions in the province in the early 1620s. Influenced by the new, more experimental approach to mission churches in New Mexico embodied in *Nuestra Señora de los Dolores* at Sandia, begun twelve years earlier, he pegged out the foundations and built the first several feet of the walls of a huge building, even larger than the Sandia mission church – in fact, as far as we know, he marked out the largest church ever built in New Mexico before the late nineteenth century.<sup>13</sup>

To allow services to continue while the permanent church was under construction, Ortega built a temporary church, the structure referred to as the "Jacal" church (the Third Church). The

<sup>12</sup>Kessell, *Kiva, Cross and Crown*, pp. 110, 121

<sup>13</sup>Ivey, "George Kubler and the Prime Object at Pecos," p. 195-97.

location of this church is unknown. Ortega said it could hold "not half the people," who numbered two thousand "or a little less" in total. Figuring "not half" as equal to about 80% of half, and "a little less" to be 1800 persons, the church could hold about 720 persons. At 2.5 square feet a person, the church would have to have about 1800 square feet of area. This is a church with a nave 25 by 72 feet, or about the size of the Ortiz ("Lost") church. No building we know about other than the Ortiz church falls into this category – the temporary church in the north end of the South Pueblo building was far too small to have been the structure described by Ortega.



**Figure 11.3.** Ortega's layout of the foundations of the permanent church at Pecos in 1620. The rooms in black, Rooms 14-16, were the first to be built on these foundations.

This suggests that either the Ortiz church continued in use until at least the end of 1622, or there is an undiscovered church at Pecos. Because "jacal" could mean either a structure built of vertical posts encased in adobe mortar, or a shack, a light, unimposing structure of any material, and the Ortiz church was a substantial structure of adobe of reasonable solidity and mass, it is not likely to have been called a "jacal."<sup>14</sup> Therefore, there is a church still missing at Pecos. In addition to the clearly European structures at the north end of South Pueblo, there are a group of buildings of apparent European origin at the south end of the South Pueblo; one of

<sup>14</sup>Kessell, *Kiva, Cross and Crown*, p. 122 and n. 32. Kessell agrees that the "Lost," or first Pecos church, would not have been called a "jacal."

these, known only from one wall found by Robert Lentz in 1968,<sup>15</sup> had a fairly thick wall extending somewhat southeast to northwest. In the same general area as this wall, excavations by Alfred Kidder located four extended burials, numbers 1800-1803, apparently also oriented southeast-northwest. It is reasonable to assume that this was the location of the missing "Jacal" church, at the south end of South Pueblo, somewhat north of the Ortega/Suarez Church, and that the extended burials were either within this building or in a cemetery associated with it. For the sake of consistency, if this church is ever identified, either at the south end of South Pueblo or at some other location, it should be called the Ortega Church II, and the probable church in the temporary convento at the north end of South Pueblo should be called Ortega Church I.

#### Ortega Begins the Ortega/Juárez Church and Convento

At the same time as the work was progressing on the temporary convento and Ortega Church in South Pueblo, Pedro Ortega was planning his permanent construction. He selected a broad flat area just outside the wall at the south end of the mesilla, and began the Ortega/Juárez Church and the new convento about mid-1620. Why he chose this site is uncertain; since South Pueblo at the time was only about the northernmost eight rows of rooms of the later pueblo, there was enough space to hold the planned Fourth Church south of it within the wall surrounding the mesilla. It is possible that the Pecos had already begun the construction of the full length of South Pueblo as early as 1620, leaving no other spaces large enough on the mesa top for the huge building that Ortega planned; or, probably more likely, the leaders of the pueblo may have refused to allow Ortega to build his new church any closer to the North Pueblo.

Ortega marked out the careful plan of his church and a very simple, more irregular convento, and began construction (see Figure 11.3). The convento was like a visita convento, a block of rooms attached to the church at the sacristy door. It would have consisted of Rooms 14, 15, 16, 48, 50, 52, and 53. As Ortega laid out the plan, Rooms 14-16 were apparently intended to be a *corridor* along the front of the convento proper, Rooms 48, 50, 52, and 53.

The spaces that have been designated Rooms 49 and 51 were probably never intended to be rooms. Under perhaps two feet of soil, the edge of the level bedrock of the flat mesilla top ran south from the apse of the church along the later western cloister walk into Room 13, where it curved to the east, ran under the west and south edges of Room 34, and leveled off under Room 30; here, the difference in the upper and lower levels of bedrock was no more than about three feet, while from the west cloister to Room 51 the drop was ten or eleven feet. This was a considerably steeper slope than that seen at the Ortiz Church, where the builders used buttresses on the west side of the building. It is therefore reasonable to suppose that the Franciscans also wanted buttressing along the downhill sides of the convento, rather like the buttresses built earlier against the Ortiz Church and later against the south face of the convento. The less room-like structures along the west side of the convento, 49 and 51, were therefore retaining walls or the bases of buttresses to support the edge of the convento platform here.

It seems likely that Ortega began the cloister walk around the central cloister patio, because when it was subdivided into rooms ten years later, several inches of construction and

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<sup>15</sup>Jean Pinkley, "Monthly Report, July 2, 1968," PNHP; Hans Lentz, "Notes on Minor Excavation Project at the South End of the South Pueblo, June-July, 1968," June 15, 1971, PNHP.

use fill had built up above the original ground surface. The convento kiva, however, was probably not built during Ortega's tenure; he was zealously anti-kachina and may have disapproved of kivas, as well, even those built by Franciscans to be education rooms.<sup>16</sup>

### Ortega's Construction

Ortega left Pecos at the end of 1621, as the result of his anti-kachina activities. At the time of Ortega's departure, he had worked at Pecos less than fifteen months, from about mid-1620 to late 1621. About August, 1621, a little before his departure, conflict arose between the Franciscans and Juan de Eulate, the governor of New Mexico, that stopped work on the new church buildings. Subtracting time lost to winter weather and to the work slow-down engineered by governor Eulate, the actual time spent on construction of the church and convento was probably no more than eleven months.<sup>17</sup>

During this eleven-month period, some portion of the time had to be spent on the excavation of foundation trenches and the construction of stone foundations. The soil cover for most of the church and half of the convento was shallow to non-existent; only at the southwest corner of the convento did the structure extend out over deep deposits above steeply sloped bedrock. A month's worth of work would have gotten the massive stone foundations far enough along that brick-laying could begin on sections of it. Estimates from Tumacacori and other buildings in southern Arizona indicate a reasonable building rate for moderate-sized pueblos was about 4000-4400 adobes per month.<sup>18</sup> At the rather large pueblo of Pecos, where the Franciscans were clearly enjoying strong public support in spite of Ortega's anti-kachina attitude, the rate was probably higher. Using 5,500 bricks per month as the average rate for Pecos, Ortega could have laid 55,000 bricks in 10 months. This would have been only 275 bricks per day – the average brick-making crew could easily produce over 300 bricks per day. For a crew of perhaps 7 brick-layers, this would have been an average rate of about 40 bricks a day per brick-layer, or 5 bricks per hour, or a brick every 12 minutes for each brick-layer. This was a sustainable rate.<sup>19</sup>

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<sup>16</sup>Ivey, "Convento Kivas," pp. 121-152.

<sup>17</sup>Kessell, *Kiva, Cross and Crown*, p. 114.

<sup>18</sup>James Ivey, "Draft Historic Structure Report, Tumacácori, Calabazas, and Guevavi Units, Tumacácori National Historical Park, Arizona – History Data Section," in the files of Tumacácori National Historical Park, Tumacácori, Arizona, pp. 59-60; Richard Whitehead, *Citadel on the Channel: The Royal Presidio of Santa Barbara, its founding and construction, 1782-1798* (Santa Barbara: Santa Barbara Trust for Historic Preservation, 1996), pp.155-56.

<sup>19</sup>Bill Witkind found that a six-man crew making adobes in the traditional manner could make between 275 and 375 adobes a day, depending on weather conditions. He had a loss rate of about 6 bricks out of every 75 or 80. Brick production began to drop off in October, when the cool weather increased the drying time, and his construction crew was able to lay bricks faster than the brick-making crew could produce them. Witkind felt that brick production became unfeasible about November 1 in the Pecos valley, and remained risky because of frosts through the end of April. If bricks were stockpiled, construction could be conducted during periods of good weather in this six-month interval; Witkind Field Notes, June 1 and October 17, 1939. Richard Whitehead quoted Fray Estevan Tapis in 1799 in California as saying that the average nine-man crew would make 360 adobes a day, working only the first four or five days of the week, for only a half of each day; Richard S. Whitehead, *Citadel on the Channel: The Royal Presidio of Santa Barbara, Its Founding and Construction, 1782-1798* (Santa Barbara: Santa Barbara Trust for

In the first period of construction, Ortega used brick Types Ia and Ib apparently indiscriminately; they probably indicate that two different crews were making bricks, using somewhat different forms and taking their midden soil from different areas of the mesilla sides. The mortars used were Types 1-3. This period of construction resulted in about 39,000 cubic feet of adobe wall above the foundations.<sup>20</sup> Examination of the foundations in the early 1990s indicates that the stone foundations for the western rooms of the convento were raised about three feet above ground and were probably filled to make a platform. Onto these foundations perhaps three to five feet of black brick wall were built.<sup>21</sup> Rooms 14, 15, and 16, apparently originally intended to be a *corredor* or *portal* along the east front of the convento rooms, were instead built to full height, or about 13 feet, closed off, and roofed to make a two-room structure, 18 feet by 46 feet on the interior (the partition between 14 and 15 was built later). These rooms may have been used as a temporary church and sacristy, and the possible “*jacal*” church at the south end of South Pueblo may have been closed down when this temporary church became available. Beams from the “Lost” church, each about 31.5 feet long, may have been cut down and used as the vigas for its flat roof.

Construction to this extent in the convento had a wall area of about 542 square feet for Rooms 14-16, and 662 square feet for the western rooms. The completed portion of the convento, Rooms 14-16, used 6,504 cubic feet of brick, and the unfinished western rooms and buttressing structures used an additional 2,646 cubic feet of adobe brick, for an estimated total of 9,150 cubic feet used on the convento. Such a level of construction on the convento would have left almost 30,000 cubic feet of brick and mortar to be used on the church. The church had a wall area of just under 5,000 square feet; such a volume of brick would raise the church walls to a height of about 6 feet above the three-foot high stone foundation tops during Ortega's effort from mid-1620 to late 1621. This meant that the structure of Rooms 14-16, completed to a height of about 13 feet above the platform of the stone foundations, would have stood well above the church and other convento room outlines, all at about 3 to 6 feet in height above the platform.

### Juárez Completes the Church

Fray Andrés Juárez arrived at Pecos about the end of 1621, and remained the minister there from 1621 to 1634.<sup>22</sup> He began construction again on the church probably in the spring of 1622, and added to the plan the choir stairs and landing at the east end of Area I. It is likely that Ortega intended the choir stairs to be put here, because the foundations indicate that no buttresses

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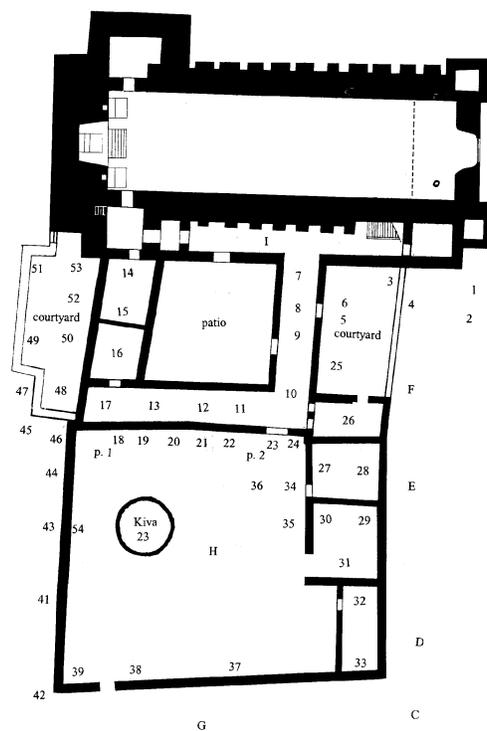
Historic Preservation and Arthur H. Clark Company, 1996) pp. 155-56.

<sup>20</sup>The standard black brick used at Pecos was 25 cm by 50 cm by perhaps 7 cm, with joints almost as thick as the brick, say 5-6 cm. For volume calculation, half the mortar thickness around each brick is included in the brick size, making a brick/mortar unit of 30 by 55 by 12 cm to get the total volume of wall for a given number of bricks; this is 0.98 by 1.8 by 0.4 feet, for a volume of 0.706 cubic feet per brick/mortar unit. 55,000 bricks, therefore, equals 38,830 cubic feet of wall above stone foundations.

<sup>21</sup>The investigations of Metzger and White show that the western rooms apparently never got any higher than about 4 feet above the stone foundations.

<sup>22</sup>Kessell, *Kiva, Cross and Crown*, p. 154.

were to be built along this area of the nave wall. Juárez continued using black brick, which probably had some amount stockpiled at the site. When he reached a height of 20 feet, he built the choir loft into the east end of the church, and a short stairway up through the wall from the landing outside the church wall, reached by the stairs along the south face of the south nave wall. The landing would have served as the *antecoro*, the dressing room. It would have covered the exterior wall surface of the south wall of the nave up to a height of about 30 feet, concealing the lack of buttresses here, and supporting the wall in the same way buttresses would have. Buttresses were probably added to the church wall above the *antecoro*, so that the roof vigas here would have the same counterweight pinnacles that the rest of the vigas had (see Figure 11.5).



**Figure 11.4.** Juárez completes his version of the church and convento, 1621-1631.

The entire exterior of the church was covered with several thick layers of yellowish-white lime plaster, and the interior with several thin layers of lime plaster whitewash. The interior of the church and some other rooms, such as the sacristy, side chapel, and perhaps some convento rooms, undoubtedly received painted dados along the lower several feet of the walls.<sup>23</sup>

<sup>23</sup>Alfred Kidder found thick yellow-white plaster on the exterior of the west end of the church in 1925; Kidder, "Field Notes, 1925," in Kidder Collection, PNHP, pp. 29a-31, August 19-20, 1925.

Among the first things Juárez built was the kiva-like room (Kiva 23) south of the convento, a structure Ortega would have been hesitant to build, since it would have seemed too much like approving of the Pecos kivas and their associated kachina activities that Ortega opposed so strongly as idol worship.<sup>24</sup> Since the patio had only about one or two feet of soil above solid bedrock, Juárez could not build here, as was apparently the usual method at the time; instead, he had to place the kiva south of the convento, at the closest point where the earth was deep enough to hold the subterranean building. Marking out a circle 22 feet in diameter, Juárez directed the construction crew to excavate the circular pit into the soil; when it was completed, the bricklayers faced the raw earth surface with black adobe bricks set in the same purple-red mortar as was being used to build the church and convento. The various posts and beams found by Matlock around the north and south sides of the kiva were probably part of a retaining wall built to support the earth face while the adobe structure was being built.<sup>25</sup> Juárez had the builders add the usual ventilator, fire hearth, and roof found on similar Pecos-built kivas. Once the structure was completed, Juárez probably began conducting religious indoctrination, schooling, and perhaps simplified Christian services for friendly leaders of the Pecos in this new but familiar space.<sup>26</sup>

By October, 1622, Juárez was predicting that the church would be finished by 1623. Construction had been in progress a total of no more than eighteen months when this prediction was made, so, assuming Juárez had in mind a completion time late in the year, he expected to finish after only about 27 months work. This was not too unreasonable, if he had pushed the construction crew to a somewhat higher brick-laying rate of about 6,700 bricks per month; this, however, was probably somewhat too high to maintain as a steady rate of production, and was overly optimistic on Juárez's part.

In reality, the work was not finished until late 1625. The total volume of the probable plan of the final church was about 158,000 cu. ft. of brick and mortar, allowing for the walls of the main church to be an average of 40 feet high, and tapering to perhaps four feet thick near the tops; the side chapels and other rooms would have been an average of 15 feet high and again tapering to perhaps five feet thick at the tops. Of this 158,000 cubic feet, 30,000 cu. ft. had been placed by Ortega, leaving 128,000 cu. ft. to be placed by Juárez. At 5,500 bricks per month, or about 3,900 cu. ft. per month, it would take an additional 33 months to finish the building, or about four years at nine months of work per year. That is, if Juárez began work in April, 1622, and continued at nine months per year, the walls of the church would be completed by September, 1625. The roofing, plastering, and decorating would have been completed by December. If Juárez had managed to achieve a brick-laying rate of 6,000 or 6,500 bricks per month for some months, the construction and finishing would have easily been completed in time for the church to be dedicated on August 2, the feast day of the mission's patron saint, Nuestra Señora de los Angeles, in 1625.

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<sup>24</sup>Ivey, "Convento Kivas," pp. 129-30.

<sup>25</sup>Gary Matlock, Larry Nordby and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," pp. 240-245

<sup>26</sup>Ivey, "Convento Kivas," p. 121

The Pecos themselves undoubtedly cut and carved all the roofbeams and other worked wood in the church. They were recognized woodworking artisans by 1625, when Benavides said, "these Indians apply themselves to the trade of carpentry; and they are good craftsmen, since their minister brought them masters of this craft to teach them."<sup>27</sup> This training program must have begun by 1620, if not earlier, and probably built on the woodworking skills already known to the Pecos.

When it was completed, the church was perhaps the finest example of a "post and lintel" building (what the architectural historian George Kubler called "trabeated") ever constructed on the Spanish colonial frontier. In 1630, Benavides called it a "most splendid temple of singular construction and excellence on which a friar expended very great labor and diligence", and in 1634 he described it as "very spacious, with room for all the people of the pueblo."<sup>28</sup> This would have been about 2,000 people – at a comfortable 2.5 square feet per person, this would have required a church 40 feet wide and 125 feet long. The church was actually 40 feet wide by 133.5 feet long up to the mouth of the sanctuary. Fray Agustin de Vetancurt, writing in 1697, described the completed building:

*"El Pueblo de los Pecos.— Tenia á Nuestra Señora de los Angeles de Porciúncula un Templo magnifico con seis torres tres de cada lado adornado, las paredes tan anchas que en sus concavidades estaban hechas oficinas . . ."*

The pueblo of the Pecos: this had the magnificent temple of Nuestra Señora de los Angeles de Porciúncula, adorned with six towers, three on each side, the walls so thick that in their recesses storerooms had been made . . .<sup>29</sup>

### The Construction and Expansion of the Convento

During the twelve years that Juárez was minister at Pecos, he made his first priority the completion of the fourth church. As this building was built, the two-room temporary church built by Ortega from the western convento corridor continued in use. After the Fourth Church was finished in 1625, Juárez turned to the convento as his next construction priority. Here he worked out a redesign of the convento, using what he could of Ortega's first construction.

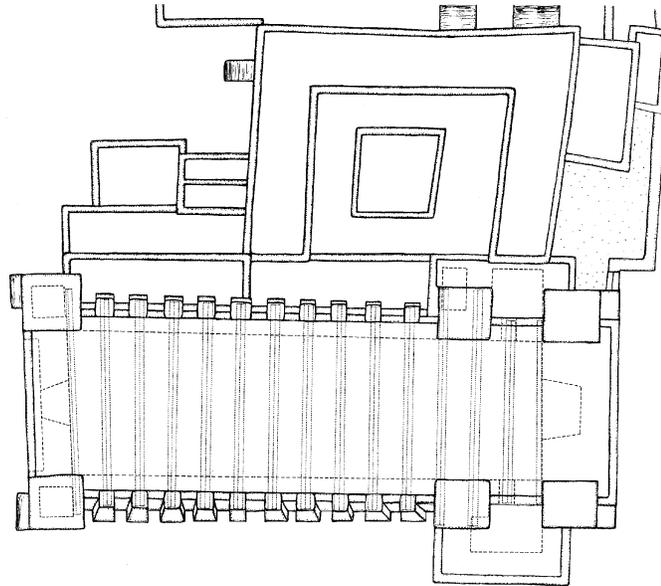
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<sup>27</sup>Alonso de Benavides, *Fray Alonso de Benavides' Revised Memorial of 1634*, Frederick Webb Hodge, George P. Hammond, Agapito Rey, tr. and ann. (Albuquerque: University of New Mexico Press, 1945)

<sup>28</sup>Kessell, *Kiva, Cross and Crown*, p. 126—this is Kessell's translation of the original Spanish as published in Benavides, 1630, p. 103; Benavides, 1634, p. 67.

<sup>29</sup>Fray Agustin de Vetancurt, *Teatro Mexicano: Descripcion Breve de los Sucessos Exemplares de la Nueva-España en el Nuevo Mundo Occidental de las Indias*, vol. 3, *Chronica de la Provincia del Santo Evangelio* [Coleccion Chimalistac de Libros y Documentos Acerca de la Nueva España, vol. 10] (Madrid: Jose Porrua Turanzas, 1941), p. 277. Kubler translated this as "walls so thick that services were held in their thickness," but this is incorrect. "Oficiar" is to celebrate mass, and "oficio" is a religious service, such as a mass, but "oficina" means an office or workshop, with no associated idea of religious service. George Kubler, *The Religious Architecture of New Mexico*. 4th ed. (Albuquerque: University of New Mexico Press, 1972) p. 85.

Juárez finished the cloister walk and the hall along the south side of the church. He worked within the legacy of structure left to him by Ortega (Figure 11.4). The first section of the cloister walk, Rooms 14-15 and 16, were temporary rooms and the western rooms, Rooms 48, 49, 50, 51, 52, and 53, had not been raised above a height of about four feet. Juárez left these western rooms unfinished, as a courtyard filled to the level of the floor of Rooms 14-15 and 16. These two large rooms remained the only convento rooms.



**Figure 11.5.** A conjectural roof plan of the church and convento about 1660. The dashed lines show the internal walls of the church, and the dotted lines show the probable layout of the roof beams. The six towers are integral to the structure. North is to the bottom in this diagram, to match the other reconstruction drawings of the pre-Revolt church.

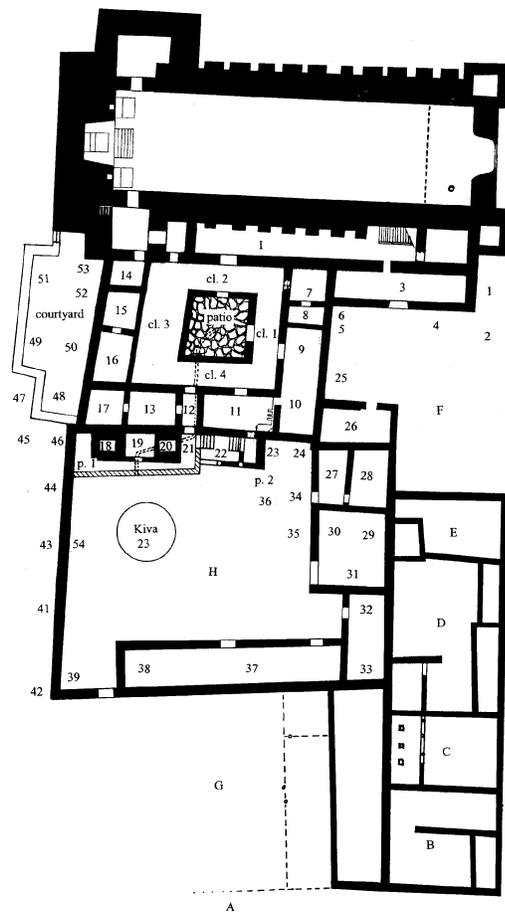
The “portería” at this time appears to have been nothing but a large doorway into the east cloister walk from Area F (this later became the doorway into Room 8), and Juárez apparently built Room 26 to be a missionary’s entrance into the cloister. A retaining wall along the east side of Area F made it into a raised courtyard somewhat above the level of the ground to the east of the convento. From the courtyard, Area F, friars and other important visitors entered Room 26 at its northeastern corner, and then went on into the cloister walk through a large double door in the southwestern corner of the room. This entrance directly into the enclosed convento was only for Franciscans and persons of authority, not for the Pecos Indians (Figure 11.4).

Juárez built the first version of the south courtyard, Area H, including the spaces that later became Rooms 27 and 28, the spaces that became Rooms 29, 30 and 31, and the space that became Rooms 32 and 33. Because Juárez had revised Ortega’s plan so that the convento residential rooms were built into the intended cloister walk to the east, the walls of the western rooms (48-53) remained weathering black bricks on stone foundations forming the sides of a platform or raised courtyard along the west side of the building. Juárez completed his construction of the convento quickly – probably by 1626 or 1627 the basic structures were all built and in operation. At this point Pecos was on its way to being a self-supporting mission.

Juárez was able to concentrate on developing his ministry among the Pecos, as well as the fields, herds, and associated buildings and corrals that would form the broad economic base necessary to support the mission.

#### The Construction of the Early 1630s

In 1631 a sudden optimism arose as the result of the success by the Franciscans in their negotiations for a royal support and supply contract, approved in that year. The contract provided for an increase in friars in the province, expected to be the first of several such increases. Juárez reevaluated the convento, and began a major renovation of it that would considerably enlarge its living space.



**Figure 11.6.** Changes to the convento by Juárez, 1631-1640.

In order to increase the number of rooms in the convento with the least additional construction, Juárez worked out a simple stratagem. He built a new enclosing wall in the center of the original patio, on a shallow stone foundation framing a new patio area. Inside this patio, he built a flagstone floor; then he roofed the space between the old walkway and the new patio,

making it into the new ambulatorio. This allowed Juárez to partition the original cloister walk with walls of black brick, making them into additional convento rooms around the patio. All the partition walls were laid directly on the fill of the first construction episode.

This partitioning created Rooms 7, 8, 9-10, 11, 12, 13, and 17. The original version of the partition between Room 9 and Room 10 was apparently added a little later, but still during the period of construction with black brick. Rooms 14, 15 and 16 were remodeled by the demolition of their east wall, and the partition between them, and the construction of new, thinner walls of black brick over fill, making these three rooms somewhat smaller than the original rooms built by Ortega in 1621.

At the same time, Juárez completely renovated the entrance to the convento. He built a formal portería, Room 3, against the hallway along the south side of the church, and discontinued the older entrance from Area F through the doorway that had opened into the area that became Room 8. Room 26 continued as the missionary's entrance for a while, but this was discontinued by 1640.

Juárez decided to add a drainage system when he paved the new patio. This suggests that the old patio had become a bog every time it rained. To accomplish this, a covered drainage ditch was excavated from the center of the new paved patio, across the new cloister walk, below the new Room 12, and out along the south side of the convento. At the same time, Juárez had two massive buttresses (Rooms 18 and 20) built against the south wall of the cloister now converted to convento rooms – the drainage ditch ran south to a point beneath the eastern of these two buttresses, indicating that the drainage ditch was built first. It then abruptly curved west to pass under the space between the buttresses, and then back towards the south into Area H, indicating that the buttresses were built as part of the new construction, just after the ditch. These buttresses were large stone rectangles supporting adobe superstructures, and filled with packed earth. That Juárez made the effort to build these buttresses indicates that the problem with slippage and settling of the southwestern corner rooms of the convento was fairly severe. Later, about 1800, after the Reconquest and the reconstruction of the destroyed convento, a new set of almost identical buttresses would again be built along this southwest corner, probably for the same reason. Because of the intentional curve to the drainage ditch to take it through the space between the buttresses, it is reasonable to assume that this small space, Room 19, was a latrine for the convento, flushed by the flow of the drain from the patio (whenever it rained, at least). Such a latrine would have been similar to the one built at Abó in the 1660s. This latrine was a five-seater, and if it had a flushing water channel, it has not yet been located.<sup>30</sup>

Room 12 was probably an entrance hall connecting the main convento with the south yard, Area H. Room 12 opened out onto a landing, Room 21, from which by several steps one went eastward down to the present Room 22, a porch at the general level of Area H, about three feet lower than the level of the floor in the cloister. From the landing, Room 21, friars could walk out onto a platform south of the two buttresses, and then west around the east buttress ("Room" 20) to reach the latrine between the two buttresses. The south edge of this platform was formed by a stone retaining wall that ran west to the west wall of the south yard, Area H. The stone footing of this wall must have been built at the same time as the flagstone patio,

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<sup>30</sup>Ivey, *Loneliness*, pp. 104-05.

because the drain from the patio was built out to and beneath it. All of this construction indicates that the floor level in the new convento was raised about two or three feet above the original floor level.

Two posts on the south edge of the portal in Room 22 supported its roof, and a black adobe brick balustrade filled the central and eastern spaces between the posts. On the east side of this portal, another short flight of stairs went up to a second landing in the northern part of the space now called Passage 2. From this landing, a door opened northward into Room 11, clearly the kitchen because of the group of cooking hearths in it; Rooms 23 and 24 were probably not present at this time. Because Room 11 was the kitchen, this was therefore the cooks' entrance into the convento; in order to preserve enclosure within the convento, the cooking staff reached the kitchen from the convento's south yard, rather than through the convento itself. It is likely that the large room, Room 10, east of the kitchen was the refectory; food was given to friars in Room 10 by means of a pass-through, a small window-like opening in the northeastern corner of Room 11.

To enter the convento from the *portería*, a visitor walked north into the hall next to the choir stairs, and then west to the main entrance into the cloister walk. This main entrance was probably closed by a door, protecting the enclosure of the cloister. Choir members entered through the *portería* and then went up the stairs to the choir loft, without ever entering the cloister proper. The room inside the south "transept" of the church was likely to have been the priest's chapel, with the room to its east the sacristy storage room and the priest's robing room. Pinkley indicated that there was also a doorway from the sacristy storeroom into the hall. Rooms 15 and 16 were probably the main cell suite for the guardian of the mission, with 16 the main cell and 15 the alcove, or bedroom. Rooms 13 and 17 appear to have been a second suit, somewhat smaller in size, and rooms 7 and 8 a third suite, even smaller.

Around the second courtyard, Juárez constructed the southern buildings, Rooms 37, 38, and perhaps 39. Rooms 37 and 38, actually a single room with a terraced step down towards its west end, was probably a granary. Areas B, C, D and E were added after the construction of Area H but before 1640, and a large stable was built against the west walls of B and C along the east side of G, with an enclosure of vertical posts to its west. The stable at the east end of Area G had a stone wall along its west side, probably with a series of large doorways and windows through it. The building was constructed first, as part of the construction of Areas B and C, and before the rest of Area G; the south wall of the area changes direction slightly at the structure's southwest corner, but not at its southeast corner where it joins with Area B.<sup>31</sup> Pinkley found the remains of three burned vigas that had formed part of the roof at the northern end of the stable. Traces of at least one other wall section inside the north end of the building were marked on the 1966 Arquero map, but never mentioned in the notes. Pinkley saw the burned vigas and north end of the west wall in early July, 1966,<sup>32</sup> the middle section of the wall in November, 1966, and the south end in May, 1967. Gary Matlock photographed the traces of the south end of the wall

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<sup>31</sup>This change in angle, although visible when one looks at the wall, was marked only on the 1966 Arquero map; this slight angular change was moved to the southwestern corner of Area B on all the later maps.

<sup>32</sup>The burned vigas are not mentioned in her notes, but are plotted with comments on one of her sketch plans of the southeastern corner of the mission; Pinkley Notes, PNHP.

in 1971.<sup>33</sup> Trenching by Pinkley in August, 1966, found three post bases in no apparent pattern west of the building; these posts, hit in two random narrow trenches, suggest that there were a number of such posts in Area G, subdividing it into several smaller spaces with wooden palisade fencing.

Within Area B, the wall partitioning B-1 from B-2 was probably part of this construction, and possibly the small enclosure at the east end of B-1. Area C appears to have had a ramada built across its west end, with its roof supported by three posts. This portal covered three equally-spaced hearths, suggesting that this was a blacksmith shop. Areas D and E were built as one continuous smaller corral, but were soon divided into a number of pens and enclosures, while Area E2 and the portion of Area E north of the original north wall of the combined spaces were not enclosed, but were part of the open courtyard of Area F south of the portería, Room 3.

This construction created an effective convento complex, with all the amenities to be found in other mission compounds of the period. At Pecos, however, it appears that the mission herds did very well, and Juárez had to add a number of additional structures for the management of these herds. The structures forming Areas B, C, D, E, G and H were only the components built adjoining the convento itself. Soon these were not enough, and Juárez had to build two other major compounds, using black brick and purple mortar: one, the Square Ruin, was a second corral complex west of Glorieta Creek, and the other was the Estancia, a large compound formed by a group of barns, corrals, sheds, and a residential area, all just west of the convento compound itself.

#### Construction of the Western Mission Buildings

The Casa, the residence portion of the Estancia, was begun during the 1630s buildup. The northern rooms were constructed of black brick at this time, around two patios. This would have been rooms 1, 2, and 10-17 around patios P1 and P2 (Figure 11.7). Ceramic sampling from the Corral area indicates that it was built entirely of red brick, and therefore was not built during the 1630 expansion, but rather after 1645. In the 1630s this area probably had a palisaded enclosure as the precursor to the late stone Corrales.

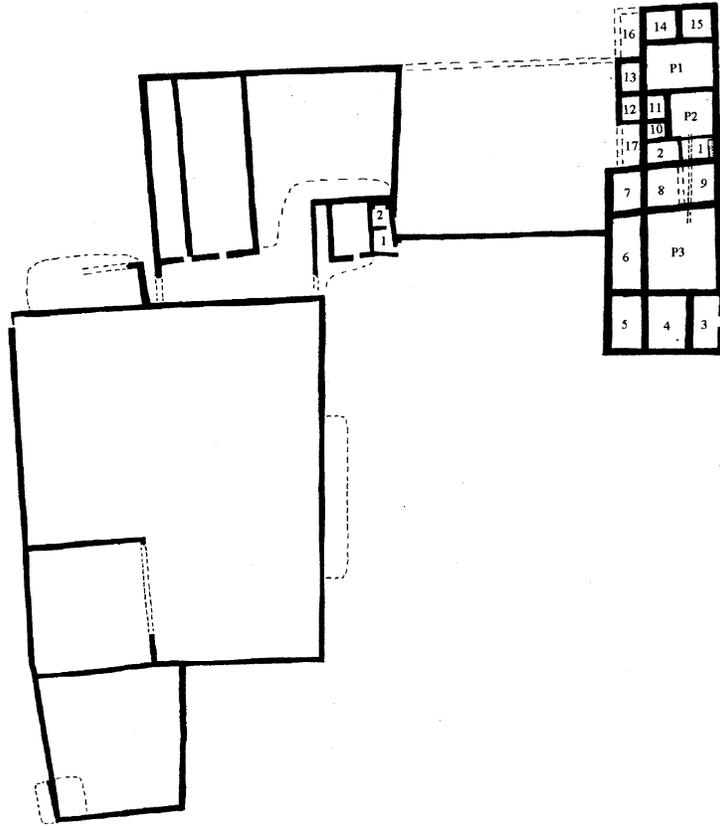
However, Square Ruin had massive stone foundations supporting black adobe walls, indicating that Juárez built it during the same burst of construction about 1630 during which he modified and enlarged the convento and its second courtyard. The northwestern corner of Square Ruin was remodeled several times during the 1630s, using black brick. Fallen fragments of black brick and purple-red mortar typical of this period are scattered along the walls here.<sup>34</sup>

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<sup>33</sup>Gary Matlock, PECO 1960-1964, May 25, 1971.

<sup>34</sup>Larry V. Nordby and A. William Cruetz, "Test Excavations at Square Ruin, Pecos National Historical Park, 1982," 1993, manuscript in the files of the Intermountain Cultural Resource Center Archives, p. 63. Nordby specifically said that this combination would suggest that Square Ruin was built at the same time as the first construction of the church and convento – if it weren't for Kiva 23, he added, which has the same combination and which Hayes said was built during the 1680s. Since the 1680-90 date for Kiva 23 has been rejected in favor of a 1620-25 construction date, the physical characteristics of Square Ruin comfortably fits the construction date range of 1630-1635 suggested here.

Undoubtedly other changes were made after the 1630s, but insufficient archeology has been carried out here to define any other periods of construction (see Figures 5.15, 5.17).



**Figure 11.7.** The Estancia, with the Corrales on the left and the Casa on the right.

### The Addition of the Baptistry

Antonio de Ibargaray was assigned to Pecos about early 1635, replacing Juárez. Ibargaray remained until perhaps late 1638. During his administration a second friar, Fray Domingo del Espíritu Santo, was assigned as his assistant for less than a year, from about the end of 1634 to early or mid-1635. There are no indications of any changes in the church or convento during their tenure. The two decades after Ibargaray's ministry saw a number of changes at Pecos, but unfortunately missionaries at Pecos from about 1640 to about 1660 are not known; this is a period with few records throughout the province.<sup>35</sup>

The first of the changes to Pecos occurred about 1640, at a time when all across the province of New Mexico the Franciscans built separate baptistries at or near the fronts of existing

<sup>35</sup>Kessell, *Kiva, Cross and Crown*, pp. 155, 157-58. Even France Scholes left this period largely empty. His "Church and State" ends in 1650 and discusses little more than the Rosas affair for the period of 1640-1650, while "Troublous Times" begins in 1659.

churches. Prior to ca. 1640, the baptistry was placed under the choir loft at one side of the main entrance door. After this date, the baptistry was in a separate room to one side of the nave or entrance in virtually every church for which we have any information. At Pecos, the east end of the corridor along the south side of the nave, between the nave wall and the convento, was converted to a baptistry (Figures 11.11 and 11.13). Pinkley found a portion of the base of the baptismal fount at the location shown on the plan.<sup>36</sup>

This area had originally contained an earth-filled stairway going up to a landing and a second stairway up through the nave wall to the choir loft, with an earth-filled platform or a room beneath to form the landing. I have shown it as a room on the plans, reached from the hallway, Area I (Figure 11.6). This space beneath the stairway and landing was converted to the baptistry. A doorway was cut through the wall of the church, and any doorway from the baptistry into the stairwell and hall was closed. With the location of the stairs as shown on the plan, the ceiling of the baptistry would be about 10 feet high.

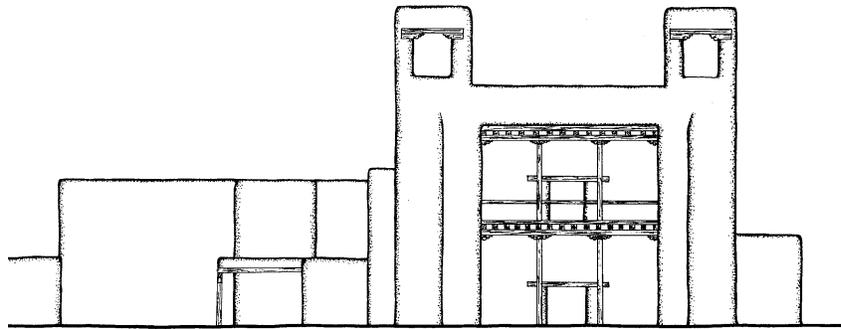
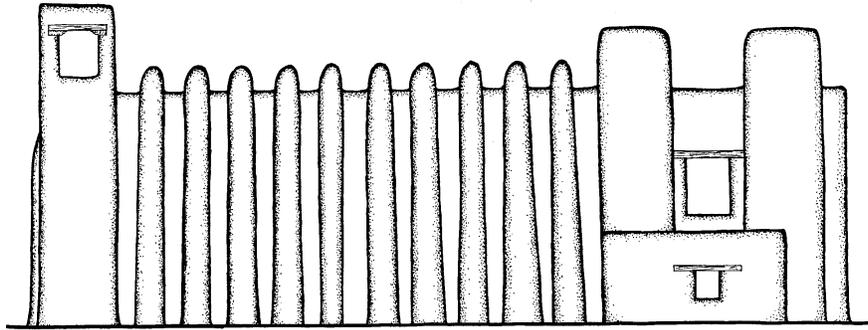
### The Appearance of the Pre-Revolt Church

Curiously, in spite of the great interest generated by its discovery, the seventeenth-century Pecos church has never been the subject of an architectural analysis to determine the likely arrangements of basic mission church structures and activities within its volume. There are reconstruction drawings of its exterior used for the wayside information plaques at the park, but these are taken directly from the paintings by Hans Lentz, the Franciscan brother who worked with Jean Pinkley and Alden Hayes on the excavation of the mission. For all his talents, Lentz was not an architectural historian, and the paintings are not the result of a thoughtful evaluation of how such typical features as the sanctuary, the choir loft, the baptistry, the sacristy, and a side chapel would have actually been built within the envelope of the structure indicated by the floor plan. Lentz was far too influenced by the transepted appearance of the plan of the church.

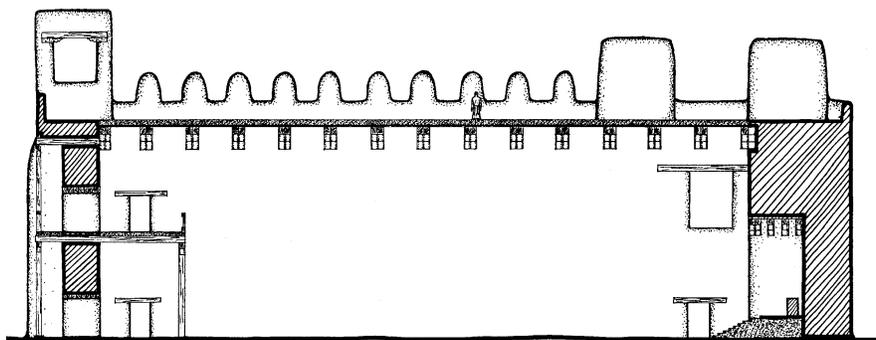
In New Mexican pre-Revolt churches, the early twentieth-century Modernist concept of "functionalism," where "form followed function," actually applied. The functions required certain spaces in specific relationships, and the form of the church was fitted onto these functional spaces. The sacristy and side chapel that form the transept-like outline at the head of the church were both about fifteen by fifteen feet on their interiors (see Figure 11.4). In his painting, Lentz interpreted them as though they *were* transepts, and extended them upward to the tops of the sanctuary walls, about forty-five feet high. They were not, however, transepts open to the sanctuary area, but enclosed rooms. It is unlikely that they would have been chimney-like spaces fifteen feet square but forty-five feet high. It is more typical of these rooms that they would have been no more than perhaps fifteen or at most twenty feet high on their interiors. On the exterior, these rooms would have ended 20 or 25 feet below the roof line of the sanctuary. As a result, the church would have had a more strongly single-naved appearance than the tran-

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<sup>36</sup>"The stub of a cross-wall 2.8 feet thick and 15.5 feet from the east end of area I was probably the west wall of a baptistry entered from the gospel side of the nave just inside the main entrance. On the floor of this room was a discoidal platform of adobe about 3 feet across and a few inches high which may have been the base of the font;" Hayes, *Four Churches*, p. 23.



**Figures 11.8 and 11.9.** Figure 11.8, at the top, is a conjectural view looking south at the north side of the 17<sup>th</sup>-century church, and Figure 11.9, at the bottom, is the conjectural eastern facade of the church.



**Figure 11.10.** Cross-section down the nave of the 17<sup>th</sup>-century church, looking south. This view shows the choir loft on the left and the sanctuary on the right. The doorway to the baptistry is under the choir loft, and the doorway to the choir stairs is above it. To the left of the sanctuary is the doorway to the sacristy, and above it is a large window facing south.

septed impression given by Lentz's paintings and the interpretive drawings at Pecos National Park (see Figure 11.8).

The sanctuary was fourteen feet wide by eleven feet deep, and narrowed somewhat from front to back. Rather than extending all the way to the ceiling at least 40 feet overhead, like a crack in the head wall of the church, it more likely was roofed at perhaps 20 feet so that it would form a proportional alcove in the massive surface of the head wall.

Maintenance people needed to reach the roof of the church to maintain its water-proof seal and sloping surfaces, and to clear the canales that drained the roof. No typical ladder could be placed against the wall and climbed to a height of 45 feet or so – and any reasonable person would not climb one if it was available. Access to the roof must have been by interior stairs, within the walls themselves, and in fact Pinkley found the beginning of a staircase in the west wall of the sacristy, running up into the huge mass of the southern apse tower base.

This staircase was probably the access to the roof.<sup>37</sup> It would have run westward up into the southwestern tower base, then probably turned to the north and continued up through the thick west wall of the church past the sanctuary to the northwestern tower base, where it would have then turned east and continued to the level of the roof, like a rising tunnel through the mass of the adobe tower bases themselves, to give access to the roof. This is long enough a run of stairs that with the typical step height and length known to have been used in colonial construction in New Mexico, the stairs could easily reach the height of the roof.

The front towers, framing the eastern facade of the church, were certainly bell-towers. At least the northern of these two structures had an interior room in the base of the tower at ground level, with a white-plastered interior. Pinkley suggested that this room contained a staircase to the bell level.<sup>38</sup>

The buttress-like structures on the outside walls of the church apparently were not to help support the walls, already of huge thickness. Instead, they appear to have been pilasters to serve as part of the stress-management system for the roof structure. That is, they were intended to be platforms where the roof beams could extend wider than the width of the walls, with crenels or square pillars set over the ends of the roof beams above the tops of these pilasters at a greater distance from the center of the nave space than if the pilasters were not there. They were spaced in such a manner that they suggest paired roof beams at the tops of the walls, each viga about one foot square, with the pairs set at a little more than 9 feet center to center. This roof would have been much like that built at Abó in 1645-1651, also built with pairs of vigas at 9-foot centers. In place of *latillas*, the Abó roof had *tablas*, boards, forming the ceilings between the pairs of vigas. If the Pecos roof was built like this, Abó's roof was probably a copy of it.<sup>39</sup> The

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<sup>37</sup>In fact, Pinkley herself suggested this: "a stairway gave access to the area south of the sanctuary, indicating there may once have been another room ... or a stairway to one of the six towers," Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1968," August 30, 1968.

<sup>38</sup>"A fragment of a plastered wall ... indicates there was a room, or stairwell in the northeast bell tower;" Jean Pinkley, "Monthly Report, Pecos Archeological Project, August 1968," August 30, 1968.

<sup>39</sup>Ivey, *Loneliness*, p. 77. In fact, the present ruined church at Abó seems to be the result of a remodeling to make the building look very much like the Pecos church.

crenelations along the wall tops at Abó were therefore probably also copied from Pecos. At Pecos, these would have been adobe pinnacles, one above each pilaster so that the weight of each pinnacle was on the ends of the paired vigas of the roofing beams. Here, they helped prevent sagging of the vigas at the centers of their large spans and to fix the ends of the corbels in place, so that they, too, helped to support the vigas.<sup>40</sup> Although somewhat irregular in their ground level plan, Figure 11.7 shows that the pilasters would probably have appeared regular in size and spacing when extended to the roof line.

With these pinnacles above the pilasters, the absence of pilasters and their associated pinnacles above the choir loft stairs and antechoro would be visually obvious – and the Franciscans probably would not have wanted the vigas in this area to be without the additional support. I therefore presume that short pilasters would have been built against the nave walls above the choir stairs and antechoro, resting on extra-thick vigas in the roofs of these spaces, and supporting pinnacles like those on the rest of the building. As a result, the nave wall in this area would resemble the rest of the building, and the row of pinnacles on the south side of the building would have been uninterrupted (Figure 11.5).

With only the floor plan of the church available to us, there can be no direct evidence about whether Pecos had a transverse clerestory window, but the history of use of the transverse clerestory window, although virtually unknown at present, still suggests that it was not used in New Mexico before about 1625. Because the plan and cross section of Pecos is very like the plan of Giusewa at Jemez Springs, built at the same time and clearly without a transverse clerestory window (although Giusewa does have *lateral* clerestories), this suggests that such a window would not have been built on the Pecos church (Figures 11.11 and 11.12). For the origin of the transverse clerestory window, see Chapter 14.

If the building did not have a clerestory window, as seems likely, then this raises the question of how the interior of the structure was illuminated. The pilasters on the walls would have made it impossible to have windows of any size, and the thickness of the walls would have prohibited small windows, which would have been little more than small square tunnels through the walls. It is likely that the area of the sanctuary was lit by two large windows, one on the north side and one on the south, above the side chapel and the sacristy, as shown on the drawings. The north window would have kept a constant north light illuminating the sanctuary, and the south window would have had a beam of sunlight that moved through the day, changing its angle with the cycle of the year. Specific areas of the interior would be lit on specific dates. In the morning, the sun would shine through the main door and the choir balcony door. These four openings would have given sufficient light for the purposes of the Franciscans.

#### First Construction with Red Brick

Beginning about 1655, the Franciscans of New Mexico experienced a rebirth of optimism across the province, similar to the 1630-31 upswing. During the period from 1655 to 1660, the province saw an increase in the number of friars, returning to the count of the early 1630s, and

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<sup>40</sup>A discussion of this sort of dynamic roofing system as used at Quarai is in Ivey, *Loneliness*, pp. 389-98,

at many missions a period of new construction and redesign ensued. This is the period when second stories were added to some missions, including Pecos.<sup>41</sup>

At Pecos, the new construction episode of the late 1650s brought a new construction material with it. The unknown Franciscan who directed this episode of construction decided to use a new earth source with a cleaner clay mixture of a red-brown color to make his bricks, rather than continuing the use of the old earth source in one of the pueblo middens. Genevieve Head suggests that this changeover in brick source material may have been the result of the Pecos formally objecting to the use of their middens to supply the dark earth used to make the black bricks.<sup>42</sup> In many pueblos, the middens are considered sacred to some extent, because they contain the broken pots, household utensils, hearth cleanings, and bodies of their ancestors. If the Pecos had the same attitude, they would have eventually objected to the use of the midden deposits as earth sources. If the Franciscans were willing to be conciliatory, as the general process of missionization suggests they were,<sup>43</sup> they would have moved their earth mining operations away from the midden deposits, with the result that the bricks made after such a decision would have been clean earth rather than full of midden material. The limited evidence suggests that black brick with purple-red mortar was used up to about 1640 or 1650, and that later construction used red-brown brick with the same purple-red mortar at first, later changing to a brown or red-brown mortar.

The earliest red bricks have the same dimensions as the black bricks before them, 51 cm long by 23 cm wide by 9 or 10 cm thick, suggesting that the original forms were being put back into use. Later, the red bricks changed to 53 cm x 25 cm x 10 cm, indicating new forms had been built.<sup>44</sup> During the first period of construction after the change in brick color, some random black brick was occasionally used, perhaps salvaged from remodeling. Recent mitigation excavations in the area of the parking lot south of Area A suggest that the clay source for making these new red adobes may have been in this area.<sup>45</sup>

The new major construction effort at Pecos about 1655 included the addition of a second story to the convento, as well as a number of other structural additions to the building. No physical traces of the second floor remain, of course, but it is described in a document of 1663, and various structural provisions for it such as stairways, wall reinforcements and buttresses survive (see below for a description of the second story). The new construction produced several red-brick additions, including the building of the western Rooms 48 and 50 (and the buttress, “Room” 47, soon afterwards), on the original weathered black brick foundations laid out by Fray

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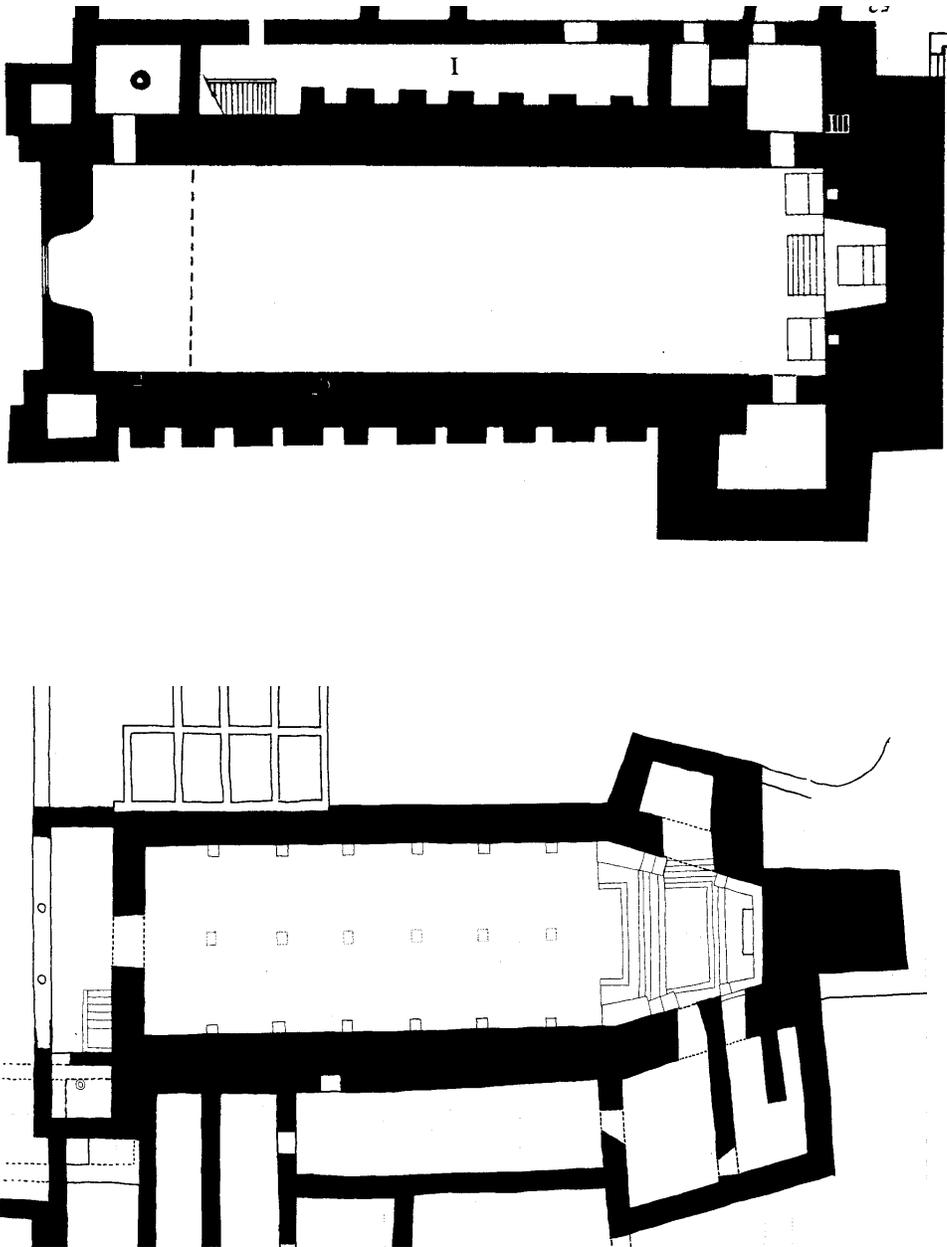
<sup>41</sup>Ivey, *Loneliness*, p. 31.

<sup>42</sup>Genevieve Head to James Ivey, personal communication, September 9, 1998.

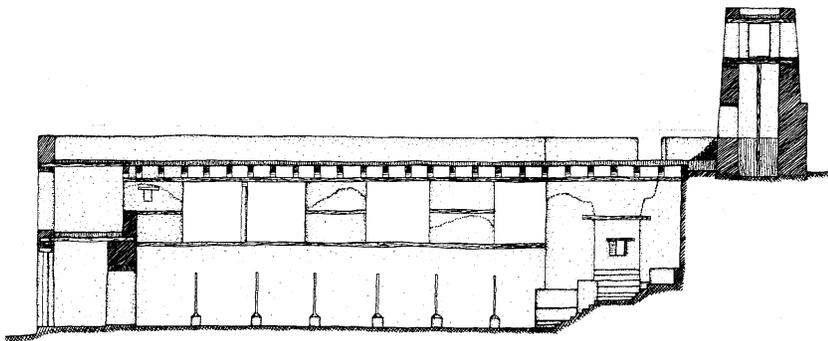
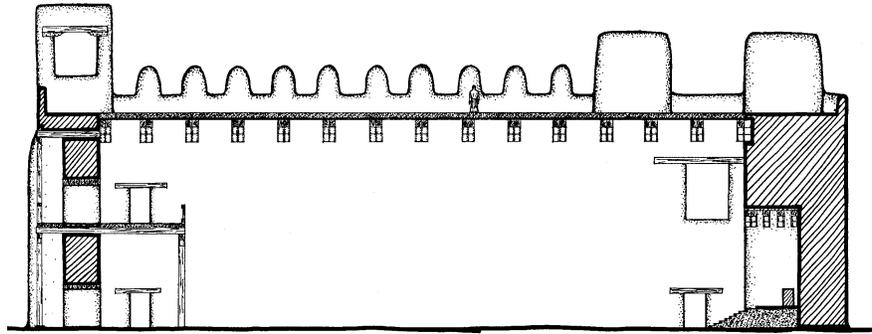
<sup>43</sup>See Ivey, “Convento Kivas,” for a discussion of the contrast between early and late conversion methodologies in New Mexico.

<sup>44</sup>Joseph Courtney White, “A History of the Preservation and Archeological Activities In the Spanish Convento At Pecos National Historical Park, 1939 to Present,” manuscript in Pecos National Historical Park, Pecos, New Mexico, 1994, Room 36.

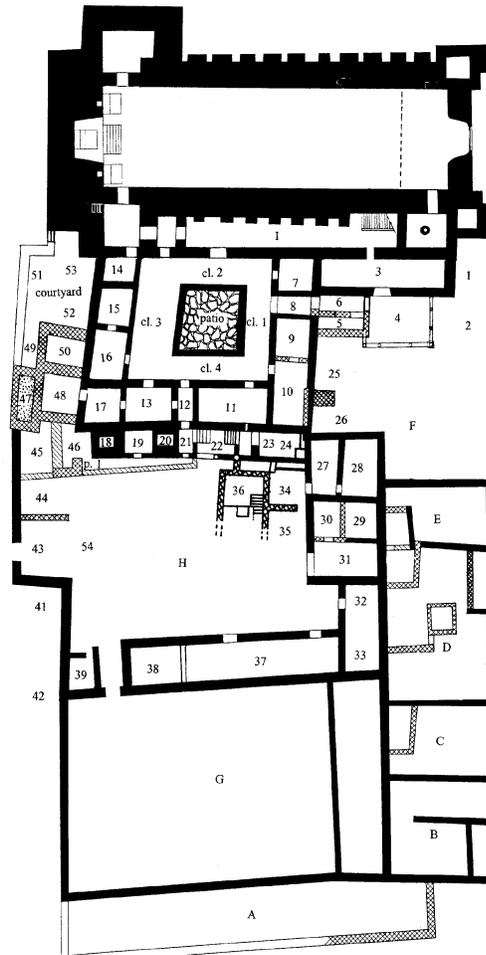
<sup>45</sup>Tim Burkett to James Ivey, personal communication, May 5, 2004.



**Figure 11.11.** The plans of the seventeenth-century Pecos church at the top, and its sister mission, built at virtually the same time, San José de Giusewa at Jemez Springs, at the bottom. Both are to the same scale.



**Figure 11.12.** Cross sections of the seventeenth century churches of Pecos, at the top, and San José de Giusewa, at the bottom, to the same scale.



**Figure 11.13.** Construction at the convento of Pecos, 1650-1660, adding the second floor. This is the first red-brick construction.

Ortega thirty years earlier. These walls, built to a height of about five feet and left incomplete in the 1620s, had been filled in to form a raised courtyard on the west side of the convento in the 1630s. The weather-rounded top of the black brick construction still survives within the protective shell of modern adobes in a number of places in the west rooms. For example, on the west wall of Room 50 the black brick reaches 2.2 feet above the top of the stone footing, and has a clearly weather-worn, curved upper surface. If we assume about one foot of stone footing showing above grade at the time of construction, then the height of the top of the wall when black brick construction ended would have been about 3 to 3.5 feet above original pre-construction grade. The last course of black bricks consists of only scattered lumps of brick; resting on this eroded top course is the base of a well-built red brick wall, with a clean, vertical face.<sup>46</sup>

<sup>46</sup>White, "History," Room 50.

Room 48 was apparently built to serve as a back room or alcove for Room 17, while Room 50 was apparently built as a stairwell to get to the new second floor. Rooms 51, 52, and 53 continued as an open, unroofed porch at the northwestern corner of the convento.<sup>47</sup>

Lentz's observations in the south part of Room 47 indicates that the present south wall replaced an earlier wall in line with the south wall of Room 48; this earlier foundation marks Ortega's original plan for the buttressing in this area. The top of the foundation of the south wall of 48 is visible at its southwestern corner, and plaster can be seen all the way down the joint between it and the south wall of 47, showing that 47 was added after 48 was completed and finished with a white plaster coat. At the time of the construction of the southwestern corners of Rooms 47 and 48 the ground surface here was somewhat below the top of the stone foundation of Room 47. Room 47 appears to have been a buttress on the west side to help support the second story, and at the same time serve as a *mirador* or balcony for the second story room above 48. The cross-wall and large posts against the walls in Room 50 were probably what Witkind and Hayes thought they were (although a hundred years earlier than they had proposed): a stairway to the second floor running up from the porch formed by Rooms 51-53.

The western buttress called "Room" 47 and the massive stone buttress between Rooms 45-46 were built onto the west and south faces of Room 48 to help support the weight of the new red-brick second story on this precarious corner, to help keep the weight of the convento from sliding down the steep face of the sloping bedrock here. At the same time, the northern part of the west edge of Area H, the second courtyard of the convento, was expanded to the west to match this new corner. In the new area, Room 43 was an enclosure of the new main gateway, while Room 44 was a space in the northwest corner of the courtyard, and Room 45 was a small pen or platform on the west side of the stone buttress. It appears that no other walls were built around the 45/46 buttress. On the east was the platform allowing access to the latrine in Room 19. The area of Rooms 45 and 46 have been built over so many times, however, and have been so disturbed by excavation and multiple stabilizations, with so little attention to the details of the stratigraphy, that the sequence of construction can no longer be completely sorted out.

The kitchen entrance was probably modified about this time. Room 10, that had apparently been the refectory because of its physical location next to the kitchen, was remodeled. The pass-through opening from Room 11 into Room 10 was sealed, and the partition wall between Room 10 and Room 9 built, making Room 9 into an alcove. These changes would have made Rooms 9 and 10 the principal cell suite for the convento. If so, it is likely that the doorway from Room 9 into the cloister was sealed, and a new doorway cut through the west wall of Room 10. Room 11 was converted from the kitchen to become the refectory, and the entrance by the landing of the stairway from Area H was closed up except for a small pass-through. Rooms 23 and 24 were built at the same time to be a new kitchen, with prepared food passed through to the new refectory from the stair landing.

At the east side of the convento, a number of other changes were built. Room 26, built by Juárez as the friar's entrance into the convento, was torn down and a massive stone buttress

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<sup>47</sup>The area of Rooms 49, 51, 52, and 53 was described as a "patio" at the time of the construction of the portería on these foundations in 1696, indicating that no walls of pre-Revolt structures stood above the courtyard level; see Chapter 12.

built on top of the foundation of its north wall, again probably intended to help support a sagging wall when the weight of the second story was added; the strength of the east wall of Room 10 in this southeastern corner of the convento had been considerably lessened by the doorway that had been cut through the wall here about 1625-1630, and was now badly patched with red brick. Foundation heights indicate that Rooms 5 and 6 were built at about the same time (Rooms 2 and 4 were constructed later, on deeper fill).<sup>48</sup> The south wall of Room 6 goes down to bedrock, while the south wall of room 5 stops at a higher level, above fill, at the same height as the base of the buttress built over the north wall of 26. The comparative foundation depths and thicknesses suggest that the south wall of Room 6 supported more weight than the south wall of Room 5. The plan and structure of the two rooms as originally found by Witkind in 1939 suggests that 5 and 6 housed the new friar's entrance to the convento through Rooms 6 and 8, and the main stairway to the second story in Room 5. With the change of Room 8 from an alcove to an entrance hall, Room 7 probably became a storeroom or something similar. About the same time, a portal was built where Room 4 would later be located, using the new east wall of Rooms 5 and 6 as part of its support. South of the Room 4 portal, all of Area F, including the areas where Rooms 1, 2, and 26 are today, formed an unenclosed courtyard in front of the portería, Room 3.

As a result of these changes, the convento was reorganized. Most of the cells were moved to the second floor. The public entrance remained Room 3, giving access to the choir loft and the doorway from Area I through the north wall of the convento into the cloister walk.

#### The Second Story as Described in the Documents

In 1663, a confrontation between the Governor of New Mexico, Diego de Peñalosa, and the Custodian of the Franciscan province, Alonso de Posada, resulted in the governor arriving with a group of armed men to search the mission of Pecos.<sup>49</sup> The testimony later recorded about this incident gives us a few bits of information about the convento and its layout.

When the governor and his group arrived at the mission, they came up to it from the northwest side. Here, "All proceeded on foot from behind the kitchen garden toward the convento. The Father Custos, taking a walk or praying, was on a mirador that looks out toward the villa [Santa Fe]. Hearing the rustling, the Father Custos said in a loud voice, 'Who goes there?'"<sup>50</sup> This tells us there was a kitchen garden on the west side of the mission in the seventeenth century as well as in the eighteenth, as described by Dominguez.<sup>51</sup> This garden was probably the Enclosure, just below and to the northwest of the convento. Here, "*entre Unos alamos que estan a Vista del conv[en]to del d[ic]ho pu[eb]lo de los pecos,*" among some

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<sup>48</sup>Room 1 is post-Revolt.

<sup>49</sup>Kessell, *Kiva, Cross and Crown*, pp. 198-201; "Francisco de Madrid et al., deposition to Governor Juan de Miranda," Santa Fe, April 22, 1664, Archivo Genereal de la Nacion, Inquisition, no. 507, ff. 343-46; "Declaration of Posada," Santa Fe, May 24, 1664, AGN, Inq., no. 507, ff. 347-58v.

<sup>50</sup>Kessell, *Kiva, Cross and Crown*, p. 199.

<sup>51</sup>Dominguez, *Missions*, p. 213.

cottonwoods that were in sight of the convento of the said pueblo of Pecos, probably by Glorieta Creek, the group dismounted.<sup>52</sup>

Father Posada was “*en n[uest]ra selda y el Conv[en]to en silencio y las puertas del serradas,*” in his cell and the convento was in silence with the doors locked, when the barking of some dogs told him someone was about. “*Sali a un balcon o bentana que hase al parte de la selda,*” he said, I went out on a balcony or window which made one side of the cell, and saw six or seven men with arquebuses in their hands, approaching the convento, “*y por rreconoser quienes eran dije desde la d[ic]ha Bentana o balcon deo gratias,*” and in order to find out who they were I said from the said window or balcony, “*Deo Gratias.*”<sup>53</sup> This “window or balcony” was the mirador mentioned by the deposition of the group with Peñalosa, above, that looked toward Santa Fe – that is, it was on the west side of the convento at the second floor level. This tells us that Fray Posada’s cell was on the west side of the second floor of the convento, with a small balcony or mirador on its west side; this mirador would be on top of the buttress, “Room” 47, on the plan in Figure 11.12.

When Governor Peñalosa identified himself, Posada said, “*saludandole desde arriba me dixo abra V.S. La puerta,*” I greeted him from above [from the second floor] and he said to me, “Open the door . . . .” Posada directed him to go around “*a la porteria prinsipal del convento,*” to the main porteria of the convento. “I then ordered the door opened,” said Posada, “*y sali de n[uest]ra selda a R[eci]vir a la Escalera que hase al patio . . . y lo lleve via recta a la selda de n[uest]ra avitasion,*” and left our cell to receive [him] at the stairway that leads to the patio . . . and took him straight to the cell of our residence.<sup>54</sup> The *porteria prinsipal* would have been Room 3, and the missionary’s entrance was through Room 6 on the east side of the convento next to the outside patio, Area F. This is undoubtedly the same patio described below as the *patio de afuera*, the outside patio, to distinguish it from the cloister patio. Here the horses or riding mules for the Franciscans were kept. The stairs to the second floor in Room 5 began at this patio, and at these stairs, probably at ground level, Posada met Peñalosa and led him back upstairs.

Peñalosa searched Posada’s cell, on the west side of the second floor, and then another cell where Posada had lived previously, and then “*se bajo al claustro,*” went back down the stairs to the cloister. Posada said, “*le dize Visitase la yglesia y demas seldas y ofisinas del conbento . . . y boviendo a entrar en la selda de n[uest]ra asistencia,*” I told him to search the church and the rest of the cells and workrooms [or storerooms] of the convento . . . and returned to enter our *asistencia* cell.<sup>55</sup> This indicates that the convento had at least two more cells, for a total of at least four, and at least two *oficinas*, which can be either storerooms or workshops, or even “offices.”

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<sup>52</sup>Posada, “Declaration,” f. 347.

<sup>53</sup>Posada, “Declaration,” f. 347.

<sup>54</sup>Posada, “Declaration,” ff. 347-348v.

<sup>55</sup>Posada, “Declaration,” f. 348v. “Asistencia,” in this context, is defined as “a room intended to receive private visits [visitas de confianza], and are commonly found on the upper floor of houses, near the entrance;” Francisco J. Santamaria, *Diccionario de Mejicanismos*, (Mexico: Editorial Porrúa, 1959), p. 90.

At one point during this search, Posada remarked that he was in the cloister outside the guest cell, on the second floor, and could see the door to his own cell: “*que aunque algo lejos devise al [two men] que estaban junto a la puerta de mi selda y al [a third man] que estava en un pasadiso que ase al patio de afuera degado a la misma selda,*” I made out although at some distance [two men] who were next to the door of my cell and [a third man] who was in a passageway which leads to the outside patio, going out from the same cell.<sup>56</sup> This sounds like there was a passageway on the second floor that ran through from the second floor cloister to the outside patio on the east, probably the passageway for the stairs.

Finally Peñalosa announced that Posada had to go back with the governor to Santa Fe, that very night. Posada agreed, and they went down to the patio. “*Afuera en el patio p[ar]a subir a caballo se me ofresio bolver a la selda,*” said Posada, I was outside in the patio about to mount up when it occurred to me to return to the cell.<sup>57</sup> This confirms that the outside patio, probably Area F, was used for riding animals, and may already have had the stables adjacent to it shown on the plan in Figure 11.13. As they left Pecos, riding towards Santa Fe up the road along Glorieta Creek, they rode through the fields of Pecos for at least a league, or 2.6 miles.<sup>58</sup>

This series of statements gives us some sense of how the convento of Pecos was laid out and used in 1663, and seems to fit the plan we have worked out for it in that period.

#### Area H Construction: The Subterranean Hearthroom

Adjacent to the main convento and just south of the kitchen, Room 36 and its large subterranean hearthroom were built as part of the red-brick expansion of the convento.<sup>59</sup> The subterranean hearthroom was built perhaps as early as 1645, part of the earliest red-brick construction. The hearth itself was a large fireplace in the south wall of the subterranean room, facing north onto a below-ground “stoking space” fifteen by twelve feet, and perhaps six feet deep below the ground floor level, reached by a flight of adobe stairs down to the southeastern corner of the “cellar.” The top front of the hearth was a clay or adobe brick partition supported by a wooden beam set into the sides of the hearth opening and probably protected from the heat by a thick coating of clay. This sort of construction indicates that the hot air and smoke from the fire was intended to be channeled through a chimney that would have extended up through the roof of the building enclosing the furnace.

The back and sides of the hearth had reached temperatures that vitrified the front surfaces of the adobe bricks forming the center of the back wall, and baked most of the other bricks to ceramic. This indicates that temperatures in the hearth reached perhaps 1000° or more. Physical evidence shows that the subterranean room was not roofed at ground level. This is not

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<sup>56</sup>Posada, “Declaration,” f. 348v.

<sup>57</sup>Posada, “Declaration,” f. 349.

<sup>58</sup>Kessell, *Kiva, Cross and Crown*, p. 203.

<sup>59</sup>Al Hayes has suggested that the fill from the excavation of the pit for the subterranean hearth room Room 36, went into Kiva 23; if so, the kiva was filled about 1645, when the construction of Room 36 began; Hayes, *Four Churches*, p. 48.

surprising; had the hearth and stoking-room been roofed at the level of the ground floor, the entire room would have been at a very uncomfortable or even fatal temperature when the fire was burning. The below-floor space, open to the rest of the building, would have had perhaps 18 feet of clearance from the floor of the stoking space to the ceiling of the building. Most of the stoking space must have held a stock of firewood, with a working space immediately in front of the hearth and stairs where a stoker could keep the fire supplied with wood. The rest of the building at ground level south of the hearth room is of undetermined outline.

What was this rather large and elaborate furnace for? The Franciscans went to considerable trouble to construct the hearth and stoking-room below ground level – the plan seems to indicate that the furnace was to supply a great deal of continuously maintained heat to the room. This suggests that an "industrial" facility was in operation in Room 36. It seems a little large and elaborate for a meat-smoking and drying industry; perhaps the structure was a major sugar-making system, with the hot air from the fire channeled under a large vat for sugar syrup boiling in preparation for pouring the processed syrup into molds.<sup>60</sup> Such an "industrial" structure has never been recognized in other mission excavations in the seventeenth-century American southwest, and the implications are far-reaching. To quote Courteney White, if the "industrial" interpretation of this subterranean hearth proves to be true, "then this room suddenly offers a glimpse into an episode of economic behavior at Pecos that had not previously been considered."<sup>61</sup> It is possible that the room floor, the base of the chimney, and perhaps indications of structures or equipment used in the room, also survive south of the disturbance that destroyed the upper two or three steps of the stairs – it is likely that an excavation of this area could define the plan of the room and its contents, and suggest the nature of the manufacturing activity that occurred here. A stone sill set into the north wall of Room 36 suggests that later in the pre-Revolt period, the furnace and stoking space were filled, the chimney removed, and the room converted to a ground-level space. The room was not reused after the Revolt.

#### Last Construction on the Convento

The available information indicates that the last construction on the convento, perhaps in the 1660s, was a remodeling of the entrance courtyard, Area F. The ramada on the east wall of the friary entrance, Rooms 5 and 6, was removed, and Rooms 4 and 2 were added.

The east wall of the entrance courtyard, area F, was built about this time with a ramada structure along its west side. On the west side of the convento, Rooms 40-42 were built just south of the entrance into Area H, probably also in the 1660s. The cobbled floors, very like those seen in the barn of the estancia at the Sanchez Site, LA 20,000, near La Cienega (Figure 11.14), suggest that this structure was also a barn, probably for milk-cows.

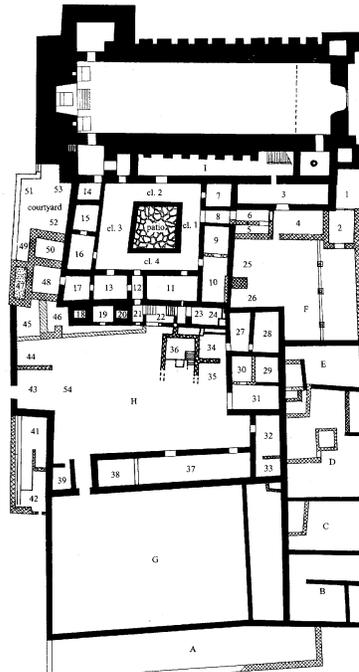
During the period of famine from 1668 to 1670, the missions in the Salinas basin and possibly San José de Giusewa added secure storerooms to their conventos next to the kitchens. At Pecos, Rooms 34 and 35 may have been added at this time, and perhaps the hearth-room

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<sup>60</sup>Today, sugar cane is grown and processed into sugar at Rancho de las Golondrinas, a few miles south of Santa Fe; it therefore seems possible that the Pecos valley could support the cultivation of sugar cane in the seventeenth century.

<sup>61</sup>White, *Room Histories*, Room 36.

below Room 36 was filled and this room used as secure storage as well. It is possible that this whole area would benefit from archaeology to determine the plan of Room 36 and the last changes to the convento here.<sup>62</sup>



**Figure 11.14.** Late 17<sup>th</sup>-century construction at the convento of Pecos, 1660-1680.

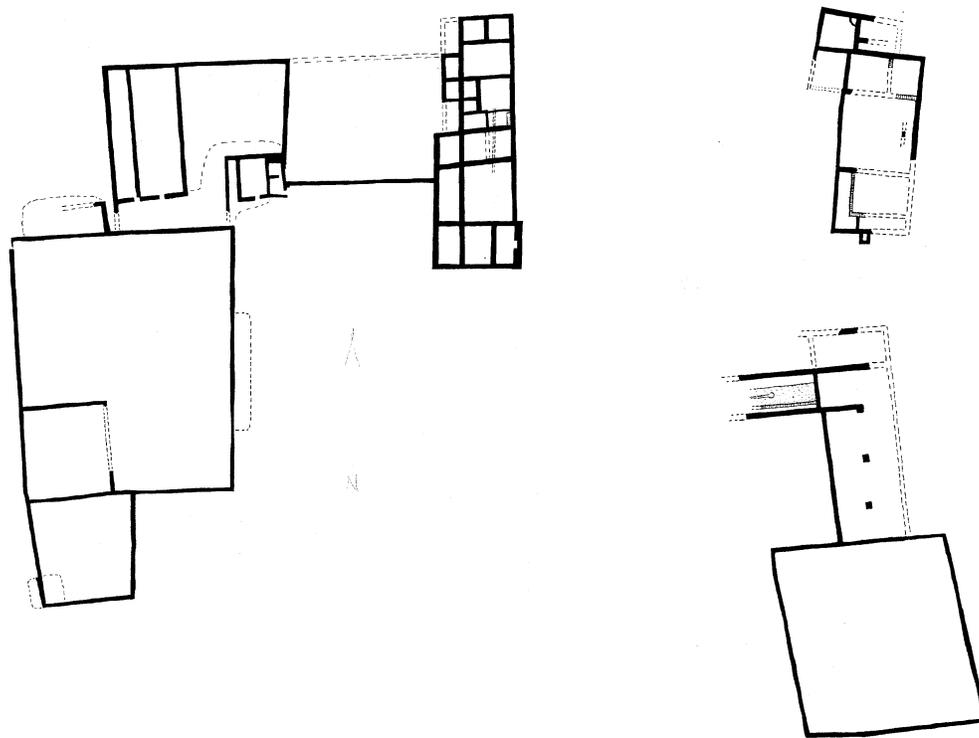
Away from the main convento, a number of other changes and additions occurred during the period of construction in red brick. In Area H, partitions were built that created rooms 29 and 30 out of the larger space that had included all of 29, 30 and 31, altering already-existing structures in this area.

Because Areas A, D, E and H were not used in the post-Revolt period, all changes to them had to happen in the pre-Revolt period. The history of Area D is probably the most confused. It shows a number of walls built on fill, several of which were associated with black adobe brick, and therefore predates ca. 1635. Some of the construction of cross-walls in Area D are associated with red brick, therefore in the 1645-1655 period, or perhaps even later; the walls of this period are the north wall of Area D, Area D6, and Area E1, the north wall of which had red brick. D5 is of uncertain age, but was built before 1680, since none of Area D was reused after the reoccupation of Pecos mission.

<sup>62</sup>James E. Ivey "‘The Greatest Misfortune of All’: Famine in the Province of New Mexico," *Journal of the Southwest* 36(Spring, 1994)1:84; James E. Ivey, "Un Templo Grandioso: A Structural Assessment of the Mission Church at Jemez State Monument, New Mexico," p. 23, manuscript in the office of the Director, State Parks and Recreation, New Mexico, 1991; Ivey, *Loneliness*, pp. 109, 153-54, 199.

### The West Buildings

During the period of expansion after 1655, the Estancia was enlarged. The Casa was more than doubled in size by the construction of a new group of larger rooms, 3-9, around a new patio, P-3, on the south end of the building. These non-Puebloan, non-conventual buildings at Pecos suggest several implications because of their presence, plan, and dates. These implications will be briefly summarized here.



**Figure 11.15.** The Pecos mission estancia buildings on the left, and the LA 20,000 private estancia buildings on the right.

The non-convento Spanish buildings at Pecos are a rare collection of buildings associated with the economic operations of a frontier mission. Many seventeenth-century missions are known to have one or another building associated with it that might have been a supporting activity structure, but in most cases no clear attribution of date or use, or even a reasonable plan, is available. Pecos offers a fairly complete set of such structures, and careful consideration of the group will allow reasonable guesses about similar structures, previously unidentified or misunderstood, to be found at other missions.

The strong resemblance between the Pecos Estancia complex and the contemporaneous estancia at the Sanchez Site, LA 20,000, leaves little doubt that both these structural groups were used for the same purposes. They fit into a continuum of similar sites with varying complexity, of which the Pecos Estancia and LA 20,000 are the most complex. Other examples are the Las Majadas site (LA 591) in the Rio Grande Valley near Cochiti Dam, of only moderate complexity, and such simple sites as Estancia Acomilla (LA 286) on the west bank of the Rio Grande, north

of Socorro and south of Sevilleta, or the Santa Fe River sites between Santa Fe and La Cienega, all of which have little more than a small house and corral.

Most mission archeology has looked only within the walls of the mission and convento; not even the landscape within the first dozen feet outside the walls has received much consideration. In general, the picture of the New Mexico mission as a simple, poverty-stricken establishment, the popular idea before about 1980, did not allow for the presence of any additional buildings outside the central church and convento. A misunderstanding of the vows of poverty taken by Franciscans led most investigators to believe that the missions could not have had many possessions and goods in the convento, rich furnishings in the church, or farms and herds in the area. Only chance observations have given us any information about the outbuildings of pre-Revolt missions outside the immediate area of the walls of the convento. The structural remains outside of the main Pecos mission complex, and similar structures at other missions, were generally attributed to the eighteenth or nineteenth centuries, or to Puebloan construction. These include such peculiar buildings as the “barrack-stable” at Awatovi,<sup>63</sup> the “low compound” at Las Humanas<sup>64</sup> (now Gran Quivira, a unit of Salinas Pueblo Missions National Monument), and an unnamed compound north of the church at Hawikuh.<sup>65</sup> For example, Montgomery assigned the “Spanish Barrack-Stable” at Awatovi to the post-Revolt period because of the “modernity of the plan,” the “meticulous care exercised in maintaining corner returns of 90 degrees, and because the “walls lacked the artless, unsophisticated plastic qualities of the stonework laid up in the mission” at Awatovi.<sup>66</sup> That is, Montgomery is arguing that the buildings are too good to have been built in the unsophisticated pre-Revolt period. This is part of the peculiar “primitive frontier” prejudice in thinking about the seventeenth century in New Mexico frequently encountered by anyone who works with the historical research of the twentieth century; the discussion in Chapter Five about the Square Ruin is another example of this. Only recent historical and archeological reevaluations have begun to improve our understanding of the economic system of the frontier mission, and the surprising level of wealth controlled by these seventeenth-century institutions.

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<sup>63</sup>Ross Gordon Montgomery, Watson Smith, and John Otis Brew, *Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Established at a Hopi Indian Town in Northeastern Arizona*, Reports of the Awatovi Expedition, Report No. 3, Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Vol. 36 (Cambridge, Mass.: Peabody Museum, 1949), pp.91-92, 229-38.

<sup>64</sup>“Low Compound”, south of Mound 17, on “Topographical Sheet,” NM/Q-4937, Gran Quivira National Monument, National Park Service, 1932, in the files of the Cultural Resources and National Register Program, Intermountain Regional Office, National Park Service, Santa Fe, New Mexico.

<sup>65</sup>Adolph Bandelier, “Hawikuh. Plan of the pueblo by Bandelier,” ca. 1881, in George Kubler, *The Religious Architecture of New Mexico* (Albuquerque: University of New Mexico Press, 1972), p. 164, fig. 50; Victor Mendeleff, “Hawikuh,” ca. 1885, in *A Study of Pueblo Architecture in Tusayan and Cibola* (Washington, D. C.: Smithsonian Institution Press, 1989), pl. 46 following p. 71.

<sup>66</sup>Montgomery, *Awatovi*, pp. 229-238.

## The Estancia, The Square Ruin, and The Mission Livestock Industry in New Mexico

The Estancia buildings and associated corrals and pens indicate that Pecos had a major involvement in ranching in New Mexico. The ranch was a prominent feature of the New Mexico colonial economic landscape. In fact, other than one or two hundred people who lived in the Villa de Santa Fe, most Hispanic settlers in the province lived on ranches.<sup>67</sup> New Mexico was settled during the period when the Spanish ranch in Mexico, usually called an *estancia*, was growing into the more complex and economically powerful *hacienda*. Although New Mexico continued the practice of calling the large ranch an “estancia,” rather than the newer term “hacienda,” during the seventeenth century, the New Mexico estancia showed a mixture of traits from both establishments. At the same time, according to François Chevalier, the mission establishments of New Mexico became the equivalent of haciendas, a pattern that was followed all across the frontier.<sup>68</sup>

Estancias were first established in Mexico soon after the Conquest; the earliest on record were created in the late 1520s. The rancher received a licence to use a particular place (*sitio*) for cattle, which amounted to a simple permit to exclude other ranchers. The usual sizes, fixed by Viceroy Luis de Velasco in 1563, were a one-league square (4,400 acres) for cattle, and a square two-thirds of a league on a side (1,936 acres) for sheep.<sup>69</sup> No permanent buildings were allowed, and farming grants to others could be made within these sitios as long as they were protected by a fence.<sup>70</sup> By the late sixteenth century, estancia use had stabilized into a fairly standard system. Small structures had become acceptable, but only jacals of temporary materials, and no permanent fencing. Gisela von Wobeser says that in the period from 1570 to 1620, estancias had virtually no infrastructure.<sup>71</sup> Von Wobeser considered this lack of permanent buildings the single most distinctive characteristic of the estancia.<sup>72</sup> Through continued use, eventually the word “estancia” came to mean one *sitio de ganado mayor* (of large livestock – cattle) or *menor* (of small livestock – sheep), as well as indicating a ranching and farming grant. An “estancia” became a grant of land for stock raising, usually as *estancias de ganado mayor* and *menor*, of

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<sup>67</sup>Scholes, “Civil Government and Society,” *New Mexico Historical Review* 10(April 1935):96n44, 102; David J. Weber, *The Spanish Frontier in North America* (New Haven: Yale University Press, 1992), p. 90.

<sup>68</sup>“In well-watered valleys in New Mexico and other northern provinces, the remains of mission enclosures, mills, stables, and workshops reveal that the missions were small economic and social units comparable to the haciendas,” Chevalier, *Land and Society*, p. 236

<sup>69</sup>A *league* was 5,000 *varas*, about 2.6 miles. A *vara* ranged in size from 2.74 feet in the early 18th century to 2.77 feet in the early 19th century; see Thomas C. Barnes, Thomas H. Naylor, and Charles W. Polzer, *Northern New Spain: A Research Guide*, Tucson (University of Arizona Press, 1981), p. 68.

<sup>70</sup>François Chevalier, *Land and Society in Colonial Mexico: The Great Hacienda* Lesley Byrd Simpson, ed., Alvin Eustis, tr. (Berkeley: University of California Press, 1966), pp. 88-92.

<sup>71</sup>Gisela von Wobeser, *La Formación de la Hacienda en la Época Colonial: El Uso de la Tierra y el Agua* (Mexico City: Universidad Nacional Autónoma de México, 1983), pp. 30-31.

<sup>72</sup>Von Wobeser, *La Hacienda*, pp. 31-32.

4,400 acres and 1,936 acres respectively, the same size as the *sitio de ganado mayor* and *menor*, as defined by Velasco in 1563.<sup>73</sup>

The hacienda began to be important in Mexico about the same time the New Mexico colony was established and in fact, says von Wobeser, many haciendas began as estancias. The word *hacienda* was first used for a ranching operation in 1579 in northern Mexico, and by 1620 such operations had become major elements of the Mexican economy. Although the term has seen some debate, in terms of ranching an hacienda has been defined as an operation that dominated the natural resources of an area, its work force, and the local and regional mercantile system, although the specific meaning varied considerably over time and place.<sup>74</sup> Walter Taylor, for example, said that the "definition of 'hacienda' used in my study of Oaxaca — a rural estate with a mixed economy of ranching and agriculture, permanent buildings, and some resident labor — was based on colonial usage of the term in southern Mexico."<sup>75</sup> Similarly, Leslie Offut considered it to be "a large estate characterized by extensive tracts of land and numerous buildings at some central location including residences for the owner, his mayordomo, and permanent laborers, storage facilities, barns, stables, and perhaps a chapel."<sup>76</sup> These descriptions indicate that as the estancia evolved more farming and permanent buildings, it began to be called a "hacienda." Using these definitions, the New Mexico estancias were indeed haciendas. It was a peculiarity of local usage that the New Mexico settlers kept the older name for this new phenomenon.

New Mexican estancias were the primary residence for most families, and from the beginning had a full self-supporting residential establishment. These estancias ranged from a very simple group of structures, such as Estancia Acomilla (LA 286),<sup>77</sup> through ranches with moderate complexity, like the Las Majadas site (LA 591),<sup>78</sup> to a large and complex set of

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<sup>73</sup>Lesley Simpson, "Foreword," p. vi-vii, in Chevalier, *Land and Society*; María Teresa Oliveros de Castro and Julio Jordana de Pozas, *La Agricultura de los Reinos Españoles en Tiempo de los Reyes Católicos* (Madrid: Ministerio de Agricultura, 1968); Barnes, Naylor, and Polzer, *Northern New Spain*, p. 69; Chevalier, *Land and Society*, p. 101.

<sup>74</sup>Herbert Nickel, *Soziale Morfologie der mexikanischen Hacienda* (Wiesbaden: Franz Steiner Verlag, 1979), pp. 9-10; von Wobeser, *La Hacienda*, p. 51.

<sup>75</sup>Walter Taylor, "Landed Society in New Spain: A View from the South," in Peter Bakewell, John Johnson, and Meredith Dodge, eds., *Readings in Latin American History, Vol I: The Formative Centuries* (Durham: Duke University Press, 1985), p. 109.

<sup>76</sup>Leslie Offut, "Hispanic Society in the Mexican Northeast: Saltillo at the End of the Colonial Period," *Journal of the Southwest*, 33:(Autumn 1991)3, p. 330-31

<sup>77</sup>Michael P. Marshall and Henry J. Walt, *Rio Abajo: Prehistory and History of a Rio Grande Province* (Santa Fe: New Mexico Historic Preservation Division, 1984), p. 199

<sup>78</sup>David H. Snow and A. H. Warren, *Cochiti Dam Salvage Project: Archeological Excavation and Pottery of the Las Majadas Site LA 591, Cochiti Dam, New Mexico*, Laboratory of Anthropology Note nos. 75, 75a (Santa Fe: Laboratory of Anthropology, 1973)

buildings such as the Sanchez site (LA 20,000),<sup>79</sup> but all had the same essential features. These were a dwelling, a barn or shed, and a corral. Although the term “hacienda” never became popular in New Mexico, some of these ranching establishments were large and influential enough that they certainly would have qualified.

By the end of the pre-Revolt period, the Rio Grande Valley had a number of private ranches. For example, Don Diego de Vargas specifically mentioned the ruins of eight ranches (which Vargas called haciendas), just in the area along the road between Socorro and Santa Fe.<sup>80</sup>

The farming and ranching compounds at Pecos form one of the most complex establishments yet found in the province of New Mexico – larger and more complex than LA 20,000. This large, multiple-building establishment supports Chevalier’s contention that in New Mexico the missions were the equivalent of haciendas. The strong resemblance between the Pecos estancia complex and the estancia at LA 20,000 (see Figure 11.14) leaves little doubt that both these structural groups were used for the same purposes. The additional developments of Square Ruin, the Enclosure, and the irrigated fields of Pecos that ran for two miles to the northwest along Glorietta Creek indicate the extent to which the Franciscans were willing to develop the resources of a pueblo.

It appears that the Pecos estancia complex and others like it are representations of a previously unsuspected category of estancia, those operated by the Pueblo Indians. Although it has been thought that all estancias in New Mexico were privately owned by Hispanic landowners, the evidence suggests that the Pueblos operated similar systems, under the direction of the missionaries in the mission associated with a pueblo, acting as the guardian of the pueblo’s interests as required by Spanish law.<sup>81</sup>

If this interpretation of the evidence is correct, then the mission/pueblo system would have been a principal land-owner and estancia operator in pre-Revolt New Mexico. Some of the evidence suggesting this may be found in two lists of estancias associated with particular pueblos and missions.<sup>82</sup> In the ca. 1642 list, for example, the mission at Santa Clara “[t]iene . . . ocho estancias y labores y su gente de servicio,” has eight estancias and farms and their people of service. The last phrase appears to be a specific reference to staff working the ranch and farm for the missionary. Another example is Sandia in 1663, where two friars are listed, one of which was a priest who administered the said pueblo, two *visitas*,<sup>83</sup> and thirty estancias. At Isleta in the

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<sup>79</sup>“Archaeological Site Map of ‘The Sanchez Site’: LA 20,000, 1982-1993 Excavations,” Smith Williamson and Associates. Excavations by Cross-Cultural Research Systems and Colorado College.

<sup>80</sup>John Kessell and Rick Hendricks, eds., *By Force of Arms: The Journals of don Diego de Vargas, New Mexico, 1691-93* (Albuquerque: University of New Mexico Press, 1992), pp. 375-87.

<sup>81</sup>James E. Ivey, “Another Look at Dating the Scholes Manuscript; A Research Note,” *NMHR*, 64(July 1989)3:346.

<sup>82</sup>Archivo General de Indias, *Mexico*, legajo 306, Fray Bartolomé Marquez, ca. 1641, “Certificacion de las noticias . . .,” pp. 85-88; Archivo General de Nacion, Mexico, *Museo Nacional*, Asuntos, no. 191, Fray Domingo Cardoso, 1667, “Certificacion,” folios 21-22v; both in bound photostats, Center for Southwestern Research, Zimmerman Library, University of New Mexico.

<sup>83</sup>A *visita* was a secondary mission without a resident priest, visited on a regular basis from the primary mission.

same year, there was one priest, who among other things had care of fourteen estancias. The lists give a total of about 25 estancias associated with the missions and pueblos about 1642, and about 60 in 1663, virtually all in the Rio Grande valley.

The available information is ambiguous — it is possible that these are privately-owned estancias in the general area of a mission, and that the list is indicating that the priest was responsible for the people who lived there, keeping records of their births, deaths, and marriages, hearing their confessions, and having them at mass at least once a year. If that were the case, there are far too few estancias. Perhaps 2,000 people were living on these private estancias scattered across New Mexico, suggesting something like 100 to as many as 400 estancias probably existed. In a few areas where we know of private estancias in operation outside the Rio Grande valley, especially in the areas of the Salinas missions near Quarai and Tajique, where we have references to six estancias, no estancias are mentioned in the mission lists.<sup>84</sup>

Moreover, the emphasis of the lists is not on the people of these estancias, but on their ranching and farming aspects. The only reference to people is in the Santa Clara listing of about 1642, which simply mentions “service people” in passing. It is extremely unlikely that a Franciscan from the Sandia mission, for example, visited thirty privately-owned estancias along with two visitas while conducting the main mission at the pueblo itself. If these were individually-owned estancias within the responsibility of the Sandia mission, then the individual land-owners and their staff would certainly have been expected to come to Sandia for mass and other church business, rather than to be visited individually by the priest — but it seems unlikely that these estancias would have been specifically mentioned if their families were simply part of the congregation at the mission, arriving on occasion for mass and an annual confession and communion.<sup>85</sup> The phrasing of the references to these estancias suggests that the better explanation is that they were ranches and farms belonging to the pueblo, and operated by the mission. In this case, the reference to the Sandia estancias in the 1663 list, for example, would indicate that the priest administered the pueblo mission, two visitas, and a ranch of thirty estancias (thirty square leagues) belonging to the pueblo. This would have amounted to 132,000 acres of granted or licenced land if the estancia was *de ganado mayor*. Most other mission/pueblo estancias were smaller.

There are comparative examples of precisely this sort of Franciscan ranch management on the northern frontier. Although we do not have a clear statement from seventeenth-century New Mexico about land law and how it was applied, we can examine a case from the settlement of Texas a century later, when the same general rules of mission land use were still in effect. In the area of San Antonio, Texas, three new missions, Concepción, San Juan, and Espada, were established in the San Antonio area in 1731. Fray Gabriel de Vergara, Father President of the Queretaran missions, reviewed the laws which defined their legal rights to land and water for Captain don Juan Antonio Perez de Almazan, commander of the Presidio de San Antonio de

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<sup>84</sup>James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, Southwest Cultural Resources Center, Professional Papers no. 15 (Santa Fe: National Park Service, 1988). p. 27.

<sup>85</sup>James E. Ivey, “*Ahijados*: The Rite of Communion and Mission Status on the Seventeenth-Century Northern Frontier,” *Catholic Southwest*, 11(2000):7-26.

Bexar and *alcalde mayor*, or chief judge, of the civilian settlement associated with the presidio.<sup>86</sup> Here, as at Pecos in the previous century, the mission ranches began operations adjacent to the mission.

Eventually, these mission ranches were moved away from the San Antonio River valley when population there became too dense. By the late 1760s, the missions had acquired grants for huge cattle and sheep ranches of 22,000 to 230,000 acres or more. Of these, only approximately five have been found recorded outside the province at the viceregal level, for which the owner would have been issued a deed. Had Texas lost all of its local records, as New Mexico did, only these five or so ranches would have been known to have existed out of thirty or more that were actually in operation.

The physical evidence suggests that a similar sequence occurred in New Mexico, with ranches administered from the convento area at first, and later a ranch headquarters was built farther away from the mission in areas where the population density grew. Pecos represents the earliest version of this, with the ranch headquarters next to the mission, and at Pecos the ranch never had to move out away from the mission, because the valley apparently remained unpopulated except for the pueblo throughout the pre-Revolt period. In the Rio Grande valley, however, crowding would soon have forced the missions to move their ranches away from the areas held by Hispanic ranchers. At Quarai, a reverse situation is known to have occurred: in 1633, while serving as the missionary at Quarai, Fray Estévan de Perea wrote that the governor allowed colonists to set up farms and ranches on the fields of the Indians. In some cases he even permitted encroachment on land used by the conventos. Perea specifically mentioned a colonist who had been allowed to establish a ranch near Quarai, where he built corrals and his residence on the cotton fields shared jointly by the "three neighboring pueblos," and ran his cattle and sheep in the area.<sup>87</sup> The "three neighboring pueblos" were Quarai, Tajique, and Chililí. Perea was probably describing the founding of the ranch of don Luis Martín Serrano or his wife, Doña Catharina de Zalazar, where the town of Manzano is now located.<sup>88</sup>

Additional ranch lands and estancias that may have been granted to missions for development, of course would technically belong to the pueblo. A pueblo would have received at least a governor's grant to the ranching land, and the grant would have been the property of the pueblo, not the mission — but the mission, as guardian of the pueblo, would have administered the grant. As in Texas in the next century, most of these grants would have been recorded only in the records within the province, and most evidence of such grants would have been destroyed by the Pueblo Revolt. Nonetheless, some references to mission/pueblo ranches should have been recorded in other records outside the province.

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<sup>86</sup>Fray Gabriel de Vergara to Captain don Juan Antonio Perez Almazan, "Escrito . . . para las tierras y aguas, 1731," May 31, 1731, Old Spanish Missions Historical Research Library, microfilm roll 9, frames 1299-1310.

<sup>87</sup>Hackett, *Documents*, p. 131; France V. Scholes, "Troublous Times, II," p. 389.

<sup>88</sup>Hackett, *Documents*, p. 131, 145, 151, 160-61, 224. Doña Catharina de Zalazar, also Doña Catalina de Salazar, was the wife of Luis Martín Serrano. Fray Angélico Chavez, *Origins of New Mexico Families in the Spanish Colonial Period* (Albuquerque: University of Albuquerque, 1973), pp. 71-72, 101; Ivey, *Loneliness*, p. 27 and n. 57.

Therefore, documentary evidence for or against the existence of mission/pueblo estancias undoubtedly waits to be found in the archival collections of Mexico and Spain. A large quantity of this material was collected by France Scholes and Lansing Bloom in the Center for Southwestern Research at the University of New Mexico in the form of microfilm and photostats, and may contain some of this evidence.

The ranches managed by the missions with their powerful trade connections would have dominated the New Mexican mercantile system. Whether such mission/pueblo ranches existed in pre-Revolt New Mexico is a critical question for understanding the economy and landscape management of the province. Equally as important, their existence would provide information about the early development of a mission practice that became more important on the northern frontier of New Spain as time passed, leading ultimately to the huge cattle and sheep ranches of Texas, New Mexico, Arizona and California.

### The Pueblo Revolt

Fray Agustín Vetancurt, who wrote the only known description of the structure of the huge pre-Revolt church, also wrote its epitaph:

*"Aqui revelados mataron al P[adre] Fr[ay] Fernando de Velasco . . . y quemaron el Templo."*

Here the rebels killed Father Fray Fernando de Velasco . . . and burned the church.<sup>89</sup>

During the Reconquest, the Pecos insisted that they did not kill Fray Velasco, the last Franciscan at Pecos before the revolt; they claimed they were rebelling not so much because of Franciscan and Spanish oppression, but because of the *maese de campo* Francisco Javier's enslavement of Apaches, even while they were visiting Pecos under a safe-conduct. Kessell said, "to the Pecos, who gained much of their livelihood from trade with Apaches, the treacherous act of Francisco Javier was grounds for rebellion."<sup>90</sup> The pro-Spanish faction at Pecos warned the Spanish government twenty days in advance of the coming of the revolt, but were ignored. When the revolt began, the pro-Spanish faction sent Fray Velasco to Galisteo in hope that he might survive, but the Tanos killed him there. The Pecos later stated that it had been the Tewas who burned the church and vestments during the revolt.<sup>91</sup>

As long as architects and historians thought that the standing post-Revolt building was the repaired pre-Revolt church, these statements about the burning of the church were questioned, because the standing church showed no traces of destruction by fire. William Witkind, who found clear indications of the earlier church under the standing building, thought that the original church had been partially destroyed and then rebuilt to about the same plan; he

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<sup>89</sup>Vetancurt, *Teatro Mexicano*, 3:278

<sup>90</sup>Kessell, *Kiva, Cross and Crown*, pp. 231-32.

<sup>91</sup>Kessell, *Kiva, Cross and Crown*, p. 291.

based his conjecture on traces of evidence of the burning of the church he found in March, 1940, when he dug four test trenches eastward from the apse of the standing building. Under the rubble of the fallen apse of the post-Revolt building, he hit a thick layer of ash and charcoal and the "remains of quite a thick adobe wall, badly broken down, that seems to run around east side of Mission . . ." <sup>92</sup> This was the fallen east facade wall of the pre-Revolt church, later confirmed by Alden Hayes. <sup>93</sup>

After the recognition of the destroyed church in June, 1967, Pinkley began clearing much of the rubble of the church away from the foundation, and remarked on the great masses of burned adobes, ash, and charcoal in this rubble. When Al Hayes began a trench east of the apse of the post-Revolt church in the summer of 1970 (fortunately missing the Witkind trenches in the same area), he knew that the pre-Revolt church had faced east, and was looking for any indication of a *camposanto* in front of the building. He found that the east facade wall of the church had fallen outward from the building, and suggested that "when the roof was fired a strong draft was created through the tunnel of the nave from the clearstory window over the chancel thereby blowing ashes out the door. The ash, which was clean and undisturbed, could not have been exposed for long. The east wall of the church must have fallen to protect it very shortly after the fire and is represented by the stratum of charcoal and adobe." <sup>94</sup>

The evidence from the various excavations makes it clear that the pre-Revolt church was burned out, destroying its roof, choir loft, interior woodwork, door and window lintels, and furnishings. Some portions of the building may have collapsed at that point, and other sections of the massive walls may have been torn down by the Pecos themselves during the Interregnum of 1680-1692. It is likely, however, that much of the massive outline of the building stood until the final leveling of the ruin after the Reconquest, as part of the preparation of the site for new construction. Certainly in the post-Revolt period no one was interested in attempting to rebuild this huge building.

#### Destruction of the Convento

An evaluation of the later plan of the convento, discussed below in Chapter 12, suggests that Room 2, the portería (Room 3) and the eastern row of rooms (Rooms 7-10), although damaged by fire, survived as standing walls to virtually their full first-story height, while Rooms 4-6 and the ramada in Area F were destroyed. In July, 1966, Pinkley found indications of fire in Rooms 4, 5, 6, and 9. <sup>95</sup> The western row of rooms burned out and partially collapsed but retained some walls on the southern portion, in Rooms 48 and 50. Witkind saw clear evidence of fire and roof collapse in these two rooms. <sup>96</sup> The area of Rooms 51, 52, and 53-54 that had

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<sup>92</sup>William Witkind daily journal, "The Excavation, Stabilization, and Reconstruction of Cicuye," March 13, 1940.

<sup>93</sup>Hayes, *Four Churches*, p. 22.

<sup>94</sup>Hayes, *Four Churches*, pp. 22-23, 32.

<sup>95</sup>Jean Pinkley, "Monthly Report, Pecos Archeological Project, July 1966," August 5, 1966, PNHP.

<sup>96</sup>Witkind, "Journal," March and May, 1940.

apparently been an unenclosed courtyard through the pre-Revolt history of the convento remained an empty space in the ruins. The cloister walk and the southern row of rooms were much more seriously damaged – Lentz saw traces of evidence of fire at the west end of Room 13 and in Rooms 16 and 17 in 1969. By the 1690s, the south row and south wall of the patio were reduced to barely visible ridges of collapsed adobe walls. As the walls of these rooms fell, much of the collapse seems to have been down-slope toward the south, covering the lower levels of the two buttresses (“Rooms” 18 and 20) and Rooms 19, 21, 22, 23, and 24 in a heavy layer of two stories of fallen adobe; it is possible that active destruction of some portions of the convento by the Pecos also occurred.

Hayes described it in this way: "When Vargas escorted Fray Diego de la Casa Zeinos to Pecos during the reconquest of New Mexico from El Paso del Norte, they found a low mound of rubble and melted adobe where the church had stood. The roofs and upper walls of the western rooms of the convento were missing and this may have been true of many others, but the great north wall was largely intact."<sup>97</sup> Although it is likely that most of the walls of the church stood to some height, the general picture given by Hayes is reasonable.

Outside the main convento, the destruction was thorough. Pinkley recovered evidence for fairly complete destruction throughout Areas B, C, D, E, and F. In June and July, 1966, while excavating in the southeastern corner areas, she found that a major fire had occurred in most of Areas D, E, and the northern area of Area F. The rooms of the eastern and southern sides of Area H were "heavily burned, fallen adobes, charcoal, ash." In August, 1966, while clearing Areas B and C, she found clear indications of fire here, too. In 1969, Robert Lentz realized that the stratigraphy of collapse in rooms 26-36 had been undisturbed until Pinkley's excavations, and concluded that the area had never been reused, but remained a low, rounded hill of rubble throughout the eighteenth and nineteenth centuries; he referred to the area as the "Southeastern Mound."<sup>98</sup> Hayes disagreed with this interpretation and in his *Four Churches* indicated his opinion that the entire convento had been returned to use. However, the sum of the evidence makes it clear that Hayes was wrong in this opinion and Lentz's interpretation was correct.

#### Destruction of other buildings

The Casa of the Estancia was burned and fell in during the destruction of the church and convento: Hayes found ash, charcoal, broken black adobes, and burned adobes scattered heavily along the north side of the Casa in August, 1970. The Corrales and Square Ruin were apparently simply abandoned. The ruined Pecos mission was not occupied by the Pecos, as some other missions were – Hawikuh, Awatovi, and San Marcos have clear evidence for Indian occupation of the convento rooms. Instead, the buildings were left to decay and collapse on their own.

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<sup>97</sup>Hayes, *Four Churches*, p. 35

<sup>98</sup>Robert Lentz, "Functional Analysis of Porciúncula de Pecos Convento and Church," August 20, 1969, xerox copy at PNHP, Rooms 28-36.

## Chapter Twelve

### The Eighteenth-Century Reconstruction at Pecos

#### Introduction

Don Diego de Vargas began the reconquest of New Mexico in the fall of 1692. He made an attempt to take back Pecos in September, 1692, but the Pecos, uncertain of his intentions, abandoned the pueblo and took refuge in the mountains.<sup>1</sup> On October 17, 1692, after negotiations at a distance, Vargas and a small squadron of soldiers returned to Pecos where, after a brief period of tension, the Pecos surrendered to him.<sup>2</sup> Vargas returned to El Paso for the winter, and came back to New Mexico in 1693 to stay. Not until 1694 did Vargas bring a new missionary to Pecos to reestablish the mission there.<sup>3</sup>

#### The Reestablishment of the Pecos Mission

On September 24, 1694, Diego de Vargas returned to Pecos to establish civil government and to place a resident missionary, Fray Diego de Zeinos. He said in his journal that the Pecos Indians promised "that they would build their church so that holy worship could be celebrated with the greatest propriety. They made preparations to build a chapel and at that time were readying the beams for the roof, which they showed me."<sup>4</sup>

Vargas "asked [the Pecos] the name of the patron saint of this chapel which is to be transferred to the church they will rebuild and erect anew in the coming year." The Pecos elected to keep the patroness of Nuestra Señora de los Angeles de la Porciúncula. The name was to be applied both to the chapel about to be built, and to the full-sized church to be built later, hopefully within a year or so. "In less than three weeks," says Kessell, Fray Diego de Zeinos "could boast a temporary church. Constructed by the Pecos, presumably under the supervision of the friar and Alcalde mayor [Sargento mayor Francisco de] Anaya [Almazan], it utilized the

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<sup>1</sup>Diego de Vargas, *To the Royal Crown Restored: The Journals of don Diego de Vargas, 1692-94*, edited by John Kessell, Rick Hendricks and Meridith D. Dodge (Albuquerque: University of New Mexico Press, 1995), pp. 192-93; Diego de Vargas, *By Force of Arms: The Journals of don Diego de Vargas, 1691-93*, edited by John Kessell, and Rick Hendricks, (Albuquerque: University of New Mexico Press, 1992), pp. 421-34; John Kessell, *Kiva, Cross and Crown: the Pecos Indians and New Mexico, 1540-1840* (Washington, D.C.: National Park Service, 1979), pp. 243-49; Alden C. Hayes, *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974), p. 8.

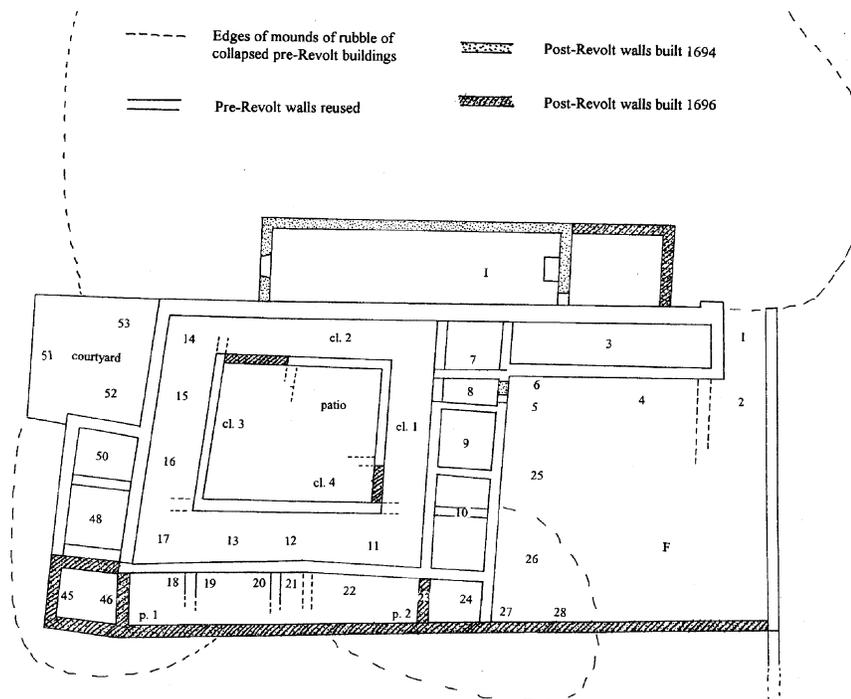
<sup>2</sup>Vargas, *To the Royal Crown Restored*, pp. 197-99; Vargas, *By Force of Arms*, pp. 510-12, 608; Kessell, *Kiva, Cross and Crown*, pp. 249-53; Hayes, *Four Churches*, pp. 8-9.

<sup>3</sup>Diego de Vargas, *Blood on the Boulders: The Journals of don Diego de Vargas, 1694-97*, edited by John Kessell, Rick Hendricks and Meridith D. Dodge (Albuquerque: University of New Mexico Press, 1998), pp. 398-99; Kessell, *Kiva, Cross and Crown*, pp. 272-74; Hayes, *Four Churches*, p. 9.

<sup>4</sup>Vargas, *Blood on the Boulders*, pp. 398-99; Kessell, *Kiva, Cross and Crown*, p. 272; See also Hayes, *Four Churches*, p. 9.

massive, still-standing north wall of the convento." This suggests a completion date of about October 15.<sup>5</sup>

The chapel the Pecos built for Fray Diego de Zeinos in September-October, 1694, ran west to east along the north side of the convento, using the south wall foundation of the destroyed church as the basis for the chapel's north wall and the north wall of the convento as its south wall. The building occupied the space formed by Area I, faced west, and was 19 feet wide and 68 feet long. It had a flat, viga supported earthen roof, and no altar platform, clerestory window, sacristy or baptistry. It is likely that the church was entered through a large doorway at its west end.



**Figure 12.1.** First post-Revolt construction at the Pecos mission, 1694-1696. Surviving walls of the pre-Revolt building were reused where possible.

On December 28, 1694, 1½ months after its completion, the temporary church was described by Zeinos as "a chapel, not large but decent and fitting for celebrating the Holy Sacrifice of the Mass."<sup>6</sup> A little more than a year later, in March, 1696, during the smaller revolt in that year, further references to the convento indicate that the resident priest, Fray Domingo de Jesús Maria, was using his cell as the storage space for the altar furnishings for the mass,

<sup>5</sup>Vargas, *Blood on the Boulders*, p. 399; Kessell, *Kiva, Cross and Crown*, p. 274.

<sup>6</sup>Kessell, *Kiva, Cross and Crown*, p. 277.

suggesting that the mission still had no separate sacristy.<sup>7</sup> In September, 1696, custodian Francisco de Vargas went to the pueblo of Pecos to supervise a remodeling of the temporary church that Zeinos had built. In a follow-up report on November 7, governor Vargas reported that the priest had celebrated the feasts of All Saints and All Souls, November 1 and 2, in the enlarged Pecos church. Vargas continued,

*reconosi que por su mandado y con la trasa que dio a d[ic]hos Yndios y asistencia que tubo su Alcalde Mayor abia añadido el Cuerpo de la Yglesia dandole mas altura para la claraboya y asimismo echo presviterio de dos gradas para el Altar maior y tener las paredes para la sacristia...*<sup>8</sup>

I noted that by his order and with the plan he gave those Indians and the assistance given by their alcalde mayor, he had added to the nave of the church, giving it more height for a clerestory, and also he had built a sanctuary of two steps for the main altar and to have walls for the sacristy...

This construction took place in September and October, 1696. Portions of the Zeinos chapel in its final form can be seen in the archaeological record and in photographs taken in the period from 1870 to 1911.

The reference to the walls of the sacristy indicate that this room was apparently begun at the same time, in September, 1696. The sacristy was constructed in the space where the pre-Revolt baptistry had been located between the early church and the convento and was probably the same width as the church. Zeinos had set up a baptistry area within the church;<sup>9</sup> a separate room for the baptistry apparently was not added until after the construction of the present church.

#### Construction of the Standing Church

John Kessell has said that throughout the eighteenth century the Franciscans tended to look at Pecos as a visita of Santa Fe, but "did superintend the construction of a proper new church. . . . Perhaps by sometime in 1705, [Fray José de] Arranegui [at Pecos from August, 1700, to August, 1708] had made a start."<sup>10</sup> This is based on the report by Custodian Juan Álvarez, dated January, 1706, where Álvarez makes his usual statement that "they are beginning to build the church."<sup>11</sup> Álvarez said the same thing about virtually every church in New Mexico,

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<sup>7</sup>March 21, 1696: "Indians had entered the cell and taken the [sacred] vessels, as well as the keys to the entire convento and church," Kessell, *Kiva, Cross and Crown*, p. 285; Vargas, *Blood on the Boulders*, p. 690.

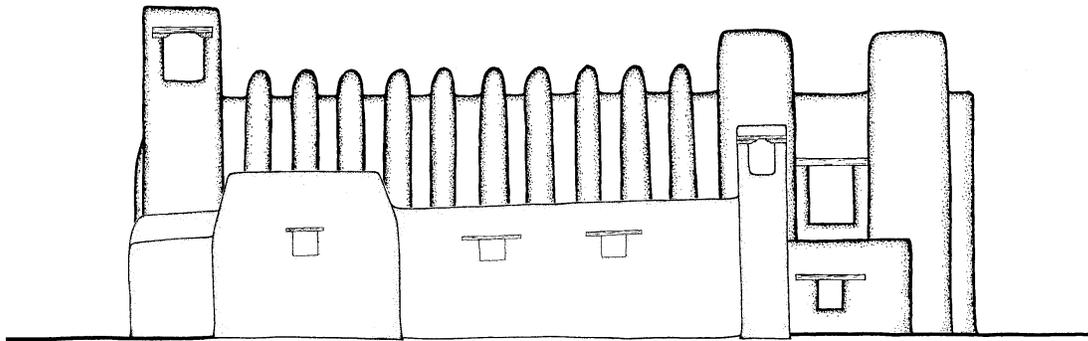
<sup>8</sup>Vargas, *Blood on the Boulders*, p. 1082; Diego de Vargas, November 23, 1696; AGI, Guadalajara 141, as quoted in John Kessell to Albert Schroeder, August 1, 1967, PNHP.

<sup>9</sup>Kessell, *Kiva, Cross and Crown*, p. 278.

<sup>10</sup>Kessell, *Kiva, Cross and Crown*, p. 305:

<sup>11</sup>Kessell, *Kiva, Cross and Crown*, p. 304

including those such as Ácoma where the pre-Revolt building was known to be standing to virtually its full height. In the absence of other statements suggesting the presence of a big church at Pecos, we can assume that this is just a generic remark, perhaps suggesting the layout of a foundation or some such, but without any need to consider that the work had seriously begun.



**Figure 12.2.** Relative sizes of the pre-Revolt and post-Revolt churches, in the same east-west locations to each other that their foundations have in the ground. The immense size of the pre-Revolt church is made clear by this comparison – the post-Revolt building could just about have been built inside the pre-Revolt structure

Fray Dominguez observed the name of a Franciscan friar on one of the vigas of the nave of the standing church of Pecos: “Frater Carolus,” by which it can be inferred, stated Dominguez, that some religious of this name had built the church “but it is not possible to identify him, because the individual is not distinguished by his surname.”<sup>12</sup> John Kessell determined that this had to have been Fray Carlos José Delgado, the only seventeenth-century Pecos missionary with the name “Carlos.” He was stationed at Pecos from about August, 1716, to about October, 1717. The name on the sanctuary beam means that Delgado was overseeing the construction as of the time of final roofing. This beam would have been placed prior to the construction of the main roof of the transept and sanctuary, so probably about six months before completion of the building. If it is assumed that the church was completed in mid-1717, about the middle of Delgado's tenure, and assuming construction took no more than about three years, unless major stoppages occurred, the probable beginning date is mid-1714.<sup>13</sup> Such beginning and ending dates

<sup>12</sup>Fray Francisco Atanasio Dominguez, “*La Provincia del S[ant]o Evang[eli]o de Franciscanos observantes de Nueva España, tiene en el Reyno del Nuevo Mexico, y á su cargo la Custodia de la Conversion de S[an] Pablo ...*,” Biblioteca Nacional de Mexico, casa 70, legajo 4, numero 65, bound photostats legajo 10, numero 43, part 3, in the Center for Southwestern Research, Zimmerman Library, University of New Mexico, Albuquerque, New Mexico, facsimile page 4341; Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956), p. 209.

<sup>13</sup>See also Hayes, *Four Churches*, pp. 11-12, 35, 37.

would indicate that the church was designed and begun by Fray Antonio Aparicio, who arrived at Pecos in 1714, and completed by Fray Carlos and Fray Jerónimo de Liñán (at Pecos from 1716 to 1718). These two shared the ministry at Pecos but Fray Carlos apparently concentrated more on the construction of the church, since only his name is mentioned as being on the sanctuary beam.

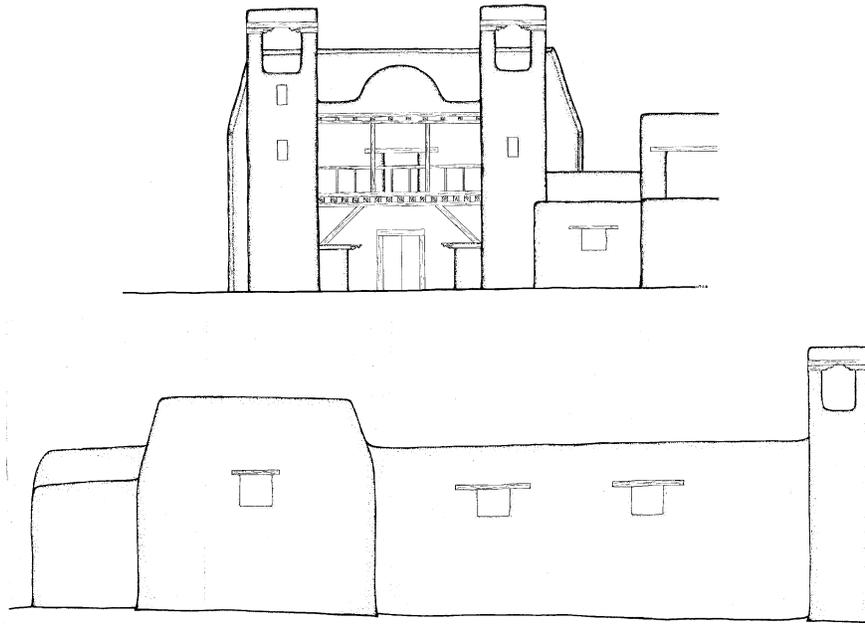
Fray Antonio Aparicio designed the new church to fit neatly onto the Zeinos chapel built in 1694. It left the old building standing, and incorporated the north and east walls of the chapel into the south wall of the nave and the west wall of the south transept of the new church. The roof of the chapel remained in place. Aparicio had to cut deeply into the mound of the rubble of the pre-Revolt church in order to lower the floor of the new church so that it was level with the ground surface at the entrance on the west end of the building. When this step was completed, the floor of the new church was four feet lower than the floor of the 1696 sacristy. Aparicio had the north half of the old sacristy torn down, and incorporated this space into the south transept of the new church. He kept the south half of the old sacristy as the sacristy for the new church, but still accessed through its original doorway from the old chapel. He may have shortened and reused the roof beams of the old sacristy to roof the new sacristy room.

Aparicio probably added a room to the west end of the old church to serve as a baptistry at this same time. He sealed the old main entrance to the chapel through its west wall, and built a new doorway that opened both westward into the baptistry and south into the convento cloister walk.

The new church was a moderately large, neat building, similar to the parochial church built a few decades later at Trampas, New Mexico, and something like the old pre-Revolt mission church at Quarai. It had side altars against the end walls of the transepts, and a tribune, or balcony, in the south transept about 15 feet above the floor, reached through a doorway at this level in the south transept wall. This doorway also served as a window to let sunlight into the building.

We know quite a bit about the structure and appearance of this new church. In addition to the information from archaeological investigations of Pecos and examination of the standing walls of the church, most of the structural details of the building as they were seen and described by Fray Francisco Dominguez in 1776 are on record in early drawings and photographs. Using the drawings and photographs, and the descriptions of Dominguez and others who visited the church while it was still standing, we can reconstruct the appearance of the church in some detail – the drawings accompanying this discussion are only simple depictions, leaving off much of the information available. Most of the details included on the drawings involved nothing more than making measurements on the pictures to arrive at a fairly accurate estimate of dimension for the various structural elements. The descriptions and early drawings can be compared to the plan of the church drawn by Nusbaum and Adams, and the HABS drawings of the ruins prepared by Walter Gatham in 1967, and used to compile a detailed image of the church. These records not only supply us with further information about the structures, their plan, details, and use, but also give evidence of the process of construction and deterioration of the mission. Using Dominguez's description as our guide, we will work our way through the interior of this new church.

In 1776 Dominguez said that the church was of adobes *con paredes gruesos estoy mas de vara*, with walls more than a vara thick.<sup>14</sup> Archaeology has found that the nave walls, for example, were about 5.5 feet thick on the north wall of the nave. Analysis shows that the red bricks made for the church used wheat straw as the binder as noticed by Bandelier.<sup>15</sup> So far, the wheat straw in these bricks are the only known appearance of this plant material in the archaeology of Pecos. None of the pre-Revolt bricks tested contain any recognizable materials from wheat.



**Figures 12.3 and 12.4.** Facade and north-side elevations of the post-Revolt church.

### The Facade

Several drawings of the church made in the mid-nineteenth century show its facade with the choir balcony and main entrance doorway. These are by James Abert, John Mix Stanley, and baron Balduin Möllhausen. In 1848, Lieutenant James W. Abert published an engraving of Pecos in his *Report of Lieut. J. W. Abert of his Examination of New Mexico, in the Years 1846-*

<sup>14</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4339; Dominguez, *Missions*, p. 209.

<sup>15</sup>Mollie S. Toll, "Plant Parts Found in Adobe Bricks at an 18th C. Spanish Mission, Pecos NM: III," 1995, p. 2, PNHP; Adolph Bandelier, "Report," p. 43.

1847.<sup>16</sup> This engraving shows the church and convento ruins from the southwest, but is so stylized that few details about the buildings can be trusted. The original drawing would undoubtedly show a great deal more detail, as did Abert's other depictions of the missions of New Mexico made on this trip<sup>17</sup> – but Abert's original has never been published. The published version of Abert's personal travel diary, *Western America in 1846*,<sup>18</sup> includes several sketches and watercolors from his sketch-book, but does not include a picture of Pecos. John Galvin, the editor and owner of Abert's journal and sketchbook, said that the sketchbook contained 137 drawings and watercolors, of which about 24 were of "landscapes or buildings, or details thereof," but the published journal only included seven of these drawings.<sup>19</sup>

The engravings in Abert's *Report* were based on the drawings in his sketchbook. Abert described the ruins of Pecos on September 26, 1846, and how he attempted to draw the building and catch the fleeting effects of the changing light on them: "For my part," he wrote in the journal, "I tried, and tried in vain."<sup>20</sup> The engraving of Pecos in Abert's *Report* was undoubtedly taken from this drawing, but left out virtually every detail that distinguished the church and convento of Pecos from others in New Mexico.

At present this original Abert drawing is unavailable,<sup>21</sup> but the western artist Seth Eastman apparently used it as the basis for an engraving of Pecos that he published in Henry R. Schoolcraft, *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, published in 1854.<sup>22</sup> Eastman went to work with Schoolcraft on the preparation of the *History* in Washington, D.C., in 1849, and was the illustrator for the six-

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<sup>16</sup>J. W. Abert, *Report of Lieut. J. W. Abert of his Examination of New Mexico, in the Years 1846-1847*, 30th Cong., 1st sess., House Ex. Doc. No. 41, Washington, D. C. Wendell and Van Benthuysen, 1848; reproduced as "Pecos, stylized and deserted, 1846. Abert, *Report*," in Kessell, *Kiva, Cross and Crown*, pp. 462-63. A copy of the Abert engraving is in the Museum of New Mexico, MNM # 6504.

<sup>17</sup>See, for example, the original watercolor of Abó prepared by Abert in Ivey, *Loneliness*, p. 256, as compared to the engraving in Abert, *Report*.

<sup>18</sup>J. W. Abert, *Western America in 1846-1847: The Original Travel Diary of Lieutenant J. W. Abert*, ed. John Galvin (San Francisco: John Howell Books, 1966).

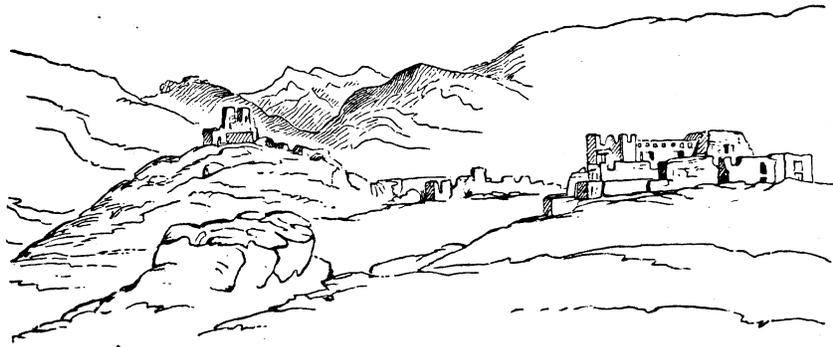
<sup>19</sup>John Galvin, ed., "Prefatory Note," in Abert, *Western America*, p. ix; Abert, "Sketches on a march to New Mexico with Gen. S. W. Kearny, Ft. Leavenworth to Santa Fe, 1846, when the U.S. Army, of 3,000 men, 'conquered New Mexico.' J. W. Abert," in the collection of John Galvin.

<sup>20</sup>Abert, *Western America*, p. 33.

<sup>21</sup>It is unclear what has happened to John Galvin's collection of books and papers.

<sup>22</sup>Lieutenant J. W. Abert, 1846, as copied by Seth Eastman in H. R. Schoolcraft, *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, Part IV, Bureau of Indian Affairs (Philadelphia: Lippincott, Grambo and Co., 1856), vol. 4, p. 29.

volume study, working with Schoolcraft on it through the mid-1850s.<sup>23</sup> Seth Eastman had never visited Pecos – he was stationed at Fort Snelling in Minnesota from 1841 to 1848, and in 1848 he was transferred to Texas, and on to Washington, D.C. to work with Schoolcraft in 1849.<sup>24</sup>



**Figure 12.5.** Seth Eastman's drawing of Pecos, probably copied from James Abert's 1846 drawing.

In the Pecos drawing Eastman prepared for Schoolcraft's book, the view of the ruins of the church and convento were simplified, but nonetheless Eastman showed several details that were peculiar to Pecos, and therefore could not have come only from the Abert engraving. Instead, the resemblance in the layouts of the Abert engraving and Eastman drawing of Pecos, and Eastman's inclusion of such details as the remains of the bell-towers, the semicircular *remate* at the top of the church facade, the slight hints of the front porch of the building, and the distinct taper of the upper portion of the transept walls, none of which were on the Abert engraving, indicate that Eastman must have used Abert's original drawing as the basis for his sketch included in Schoolcraft's book. In fact, the Eastman engraving probably shows most of the basic details of the Abert drawing, made from such a distance that Abert could not have included much more information. In 1888, Eastman's copy of the Abert drawing was itself copied as a new engraving and reproduced by William M. Thayer in *Marvels of the new West*.<sup>25</sup> Thayer's engraving is reasonably accurate, but obscures some structural details of the church and convento included by Eastman. As a result of this sequence of artists' exchanges, we probably have a fairly good reproduction of the Abert original, drawn in September, 1846.

<sup>23</sup>Dawn Hall, ed., *Drawing the Borderline: Artist-Explorers of the U.S.-Mexico Boundary Survey*. Exhibition Catalogue (Albuquerque: Albuquerque Museum, 1996), pp. 79-81; John Francis McDermott, *Seth Eastman: Pictorial Historian of the Indian* (Norman: University of Oklahoma Press, 1961), p. 63; Brian W. Dippie, *Catlin and His Contemporaries: The Politics of Patronage* (Lincoln: University of Nebraska Press, 1990), pp. 195-204.

<sup>24</sup>McDermott, *Seth Eastman*, pp. 32-49, 63-64.

<sup>25</sup>William M. Thayer, *Marvels of the New West: A Vivid Portrayal of the Stupendous Marvels in the Vast Wonderland West of the Missouri River...* (Norwich, Connecticut: Henry Bill Publishing Co., 1887), p. 186; see John Kessell, *Kiva, Cross and Crown*, p. 469 for an illustration of this engraving.

John Mix Stanley accompanied Lt. Col. W. H. Emory's expedition through New Mexico in 1846, and drew a view of the ruins of the church and convento in that year. The drawing was published in Emory's report in 1848.<sup>26</sup>



**Figure 12.6.** John Mix Stanley's 1846 drawing of the ruins of the Pecos mission. Photograph MNM # 6499, courtesy Museum of New Mexico.



**Figure 12.7.** The Möllhausen painting of Pecos, based on his field sketches from a visit in 1858. From John Kessell, *Kiva, Cross and Crown*, p. 475.

<sup>26</sup>John Mix Stanley, "Ruins of Pecos - Catholic Church." 1846. A photograph of the original pencil drawing is in the Museum of New Mexico collection as MNM # 6499; MNM # 40609 is a photograph of the lithograph by C.B.Graham, made from the original pencil drawing and published in Lt. Col. W. H. Emory, "Notes of a Military Reconnaissance from Fort Leavenworth, In Missouri, to San Diego, In California," 30th Congress, First Session, Ex. Doc. No. 41, 1848, p. 30. Reproduced in Kessell, *Kiva, Cross and Crown*, p. 470.

The baron Heinrich Balduin Möllhausen visited Pecos on June 15, 1858 while travelling to California. The similarities between his painting and the two other original representations from ten years before, by Abert and Stanley, indicate that he probably did a drawing on-site, and produced this painting later. The original was destroyed in World War II, and all we have is a black and white photograph of it.<sup>27</sup> These depictions by Abert, Stanley, and Möllhausen allow us to reconstruct the facade of the Pecos church in detail (Figure 12.3).

*La puerta principal ai esquinada con marco de palo por canseria, de dos manos atablereada, con su tranca, alta de tres v[ara]s y ancha de dos,* the main door was squared, with a wooden frame in place of masonry, of two leaves, paneled, with its crossbar, three varas (8.2 feet) high and two (5.5 feet) wide, so that each leaf was a rectangle of 8.2 by 2.75 feet.<sup>28</sup> Susan Magoffin described this as the "great door."<sup>29</sup> The Irish artist William Hinchey, who visited Pecos in November, 1854, and left a written description of the ruins, said that the entrance was "large, square."<sup>30</sup> The Stanley drawing shows the door as having two leaves each made of eight panels, four high and two wide, within the framing elements.<sup>31</sup>

*En el coro una [ventana] para un balcon como aquel de Nambe,* in the choir loft was a window to the balcony like the one at Nambe, said Dominguez.<sup>32</sup> Hinchey described "a window ... which must have shown light to the gallery [choir loft],"<sup>33</sup> and this window/doorway is shown on both drawings that look at the facade of the church. The remains of the lower part of this doorway is visible in a photograph by H. T. Heister made in 1872 (Figure 13.9).

*En ambas esquinas delanteras, arriba en la asotea, estan dos torrecitos, y en una, una campana chica, que dio el Rey,* at both front corners, above the flat roof, were two towers, and in one was one small bell that was given by the king (that is, bought with the royal stipend).<sup>34</sup> The area of the church about which we know the least is the bell tower tops. Several details about these were recorded but they vary somewhat and must be interpreted. The height of the towers must be estimated from drawings. Most of the drawings, however, agree on the relative height of the towers compared to the height of the nave parapet and the higher parapet of the

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<sup>27</sup>Kessell, *Kiva, Cross and Crown*, pp. 474-75.

<sup>28</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>29</sup>Susan Shelby Magoffin, *Down the Santa Fe Trail and Into Mexico*, Stella M. Drumm, ed. (Lincoln: University of Nebraska Press, 1982), p. 101.

<sup>30</sup>William James Hinchey, "An Irish Artist on the Santa Fe Trail," edited by Anna Belle Cartwright, *Wagon Tracks* 10(August 1996)4:12-22, p. 20.

<sup>31</sup>John Mix Stanley, "Ruins of Pecos - Catholic Church." 1846.

<sup>32</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>33</sup>Hinchey, "Irish Artist," p. 20.

<sup>34</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

transepts, allowing a fairly confident estimate of the actual height. The details of the topmost roof line and window locations at the tops of the towers are conjectural, rationalizing the various randomly-shaped openings shown in different drawings and presumptions about the original design of the towers as suggested by the graphic evidence.

The reconstruction of the appearance of the tops of the towers is based on the available plan of the towers, and their appearance in the early drawings of the facade. Dominguez says that one of the towers had a bell in it, which shows us that the towers were indeed used as bell towers. Because the standard practice in the eighteenth century was for the sacristan to stand beside the bell in order to ring it, the missionaries had to provide some method of physically approaching the bell in the tower.

Unfortunately, Dominguez did not mention the method of reaching the bells. Each tower was about ten feet square on the outside. A space six feet across on the interior, typical of a narrow spiral staircase, would give the tower walls about two feet thick. This is too thin for a structure thirty feet high. A space four feet across on the interior of the towers would allow walls three feet thick, about right for the tower height, but it would be difficult to arrange accessible ladder-like stairs in such a space from the ground level to the height of the bells. However, the drawings of the tower show window-like openings through the tower walls only above the height of the choir balcony. These openings indicate that spaces were present inside the towers at the height of the choir balcony for the use of mission staff, and suggest that the towers were solid from ground level up to the height of the choir loft balcony. With only the upper half of the tower hollow for a stairway, an interior space six feet across with walls two feet thick would be acceptable.



**Figure 12.8.** Seth Eastman's redrawing of Richard Kern's sketch of the ruins of the mission at Zuñi. Note the crown-like tops of the bell-towers where the roof has fallen, leaving only the supporting pillars. Compare this to the crown-like tops of the Pecos bell towers in the Möllhausen painting, Figure 12.7.

It is therefore probable that access to the bells was by means of ladder-like structures, perhaps in the form of notched logs (as was used at Mission San José y San Miguel de Aguayo or Nuestra Señora de Purísima Concepción de Acuña, both in San Antonio, Texas). These ran up through both towers to the bell level from the height of the choir balcony. The entrance to these stair rooms was probably through narrow doorways about 28 inches wide from the choir balcony outside the church. We know it was not through a narrow L-shaped passage within the

walls themselves from the choir loft inside the church, at least on the north tower, because the area where this doorway would open is shown without any such doorway in the H. T. Heister photograph of the choir loft in 1872 (Figure 13.9).

The tops of the bell towers had already fallen by 1846 but the stubs of corner columns are recorded in the Müllhausen painting and in the Abert drawing, leaving the building to look very much like the church at Zuñi (Figure 12.8), where the tower roofs and the upper parts of the adobe columns that had supported them had fallen, leaving crown-like remains at the top of the towers.<sup>35</sup> This indicates that the bell-rooms were probably no more than small spaces perhaps six feet square, each with a flat roof supported by square adobe columns at the corners of the towers. The surviving height of the bell towers was about the same as the height of the transept walls, so that the original height when the towers were complete was perhaps six feet higher.<sup>36</sup>

In the Stanley drawing the bell towers are shown from such an angle that the perspective does not allow an estimate of height relative to the transept, but it can be compared to the height of the facade. Stanley shows two small openings in the west face of the north bell tower, one above the other. The south belltower has a low, crescent-shaped opening at the top on the west face.<sup>37</sup>

Möllhausen showed two openings one above the other in the west face of the north tower like those shown by Stanley. Instead of Stanley's half-moon opening in the west face of the south tower, Möllhausen showed another small window similar to and at the same level as the lower window in the north tower. These two lower openings were shown at about head-height or a little higher above the level of the choir loft floor.<sup>38</sup>

Scaling from the Stanley and Möllhausen depictions show that they agree fairly well on the surviving height of the towers (Abert's drawing is too stylized to tell us much about this relationship). Both show the distance from the floor of the choir loft balcony to the top of the surviving portions of the bell towers to be a little more than the height of the choir loft balcony floor above the ground, or about 15 feet. The broken towers, then, stood about 32 or 33 feet high. This roughly agrees with the indication that the tops of the towers were about the same height as the transept parapet height, about 34 or 35 feet. When complete, the towers must have been about 38 to 40 feet high.

Abert depicted the facade of the church about 1846 with a semi-circular raised wall section at the top of the front parapet between the towers. Stanley showed a more irregular version of the same thing at the time of his visit in 1846, a crest-like semi-circular raised wall section above the choir balcony almost flush with the faces of the towers, in the same way that

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<sup>35</sup>"Pueblo of Zuñi," drawn by Seth Eastman, 1847, from a sketch by R. H. Kern, in Robert W. Fraser, *Forts and Supplies: The Role of the Army in the Economy of the Southwest, 1846-1861* (Albuquerque: University of New Mexico Press, 1983), p. 131.

<sup>36</sup>Abert, 1846 as copied by Seth Eastman, 1856.

<sup>37</sup>Stanley, "Ruins of Pecos - Catholic Church." 1846.

<sup>38</sup>Möllhausen, 1858.

Abert depicted it. Möllhausen showed the same structure, and all three agreed that this crest stood to about the height of the surviving portions of the bell towers, or about 33 feet.<sup>39</sup>

Stanley showed some elements of the choir balcony area.<sup>40</sup> He drew it with eight vigas in its roof away from the bell towers, where two more would have been located, for a total of ten, and vertical supports at 1/3 points. The vertical supports of the roof were located between the ends of the vigas in such a way that three vigas are on each side of the verticals, and two are between the verticals. It is possible that the verticals obscure two vigas, one behind each. The balcony railing is shown with spindles or balusters; only four can be seen, all in the northern 1/3. The floor of the balcony is shown with five viga ends away from the bell towers. The vigas that would have been against the bell towers are not shown, but we may presume their presence, so that Stanley recorded seven balcony vigas. However, the interior 1872 photos show fifteen choir vigas. Because the balcony vigas are the outer ends of the choir vigas, they would have been the same number – therefore, Stanley did not accurately record the number of choir balcony vigas, and we may consider that all of his fine detail is only approximate.<sup>41</sup>

Möllhausen showed the choir balcony as almost identical with the Stanley depiction but with only two spindles supporting the balcony railing between each vertical support. These were probably main spindles with thinner ones between that are not shown in the painting. The ends of the vigas holding up the roof of the choir balcony are just visible below the semi-circular crest.<sup>42</sup>

Stanley in 1846 showed diagonal supports extending from stub-walls on either side of the main door to help support the choir balcony. These stub-walls appear to be of stone with a short length of viga extending horizontally from each side at the tops of the stub walls. Nusbaum found a square stone base against each tower at the facade of the church as Stanley showed them. Hinchey described the same structures on the facade of the church in 1854: “Two towers rudely formed stood at the corners and against these on the inside were put some large posts seven feet from the ground. On the gable thus formed there was a platform [choir balcony] about which there were still some loose poles,” where he assumed the mission bells were hung. This is a confused description of the choir balcony with the stone columns (“large posts”) and the diagonal supports (the “gable”) below it. Möllhausen in 1858 does not show the diagonals, indicating that they had fallen or been removed by that date, or he simply left them off the finished painting.<sup>43</sup>

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<sup>39</sup>Stanley, "Ruins of Pecos - Catholic Church," 1846; Abert, 1846 as copied by Seth Eastman, 1856; Möllhausen, 1858.

<sup>40</sup>Stanley, "Ruins of Pecos - Catholic Church." 1846.

<sup>41</sup>Stanley, "Ruins of Pecos - Catholic Church." 1846.

<sup>42</sup>Möllhausen, 1858.

<sup>43</sup>Stanley, "Ruins of Pecos - Catholic Church," 1846; Hinchey, "Irish Artist," p. 20; Möllhausen, 1858.

Horizontal viga sections, like those that supported the diagonals on the facade of the church were set into the nave and apse side walls inside the church at the mouth of the nave and the mouth of the sanctuary, suggesting that the same diagonal supports were placed here.

### The Interior of the Church

From the front door to the mouth of the transept, said Dominguez, the nave was *treinta y seis varas de largo, nueve de ancho, y alto: de ai á la boca del Presb[iteri]o tiene el crucero nueve v[ara]s de largo, quince de ancho*,<sup>44</sup> thirty-six varas (98.6 feet) in length, nine (24.7 feet) in width and height; from there to the mouth of the sanctuary the transept was nine varas (24.7 feet) in length, fifteen (41.1 feet) in width. Measurements of the building as it is today, and as mapped by Nusbaum and Adams in 1915, gives a nave length of 74.5 feet. The measurement of about 99 feet was a mistake by Dominguez – it was the combined length of the nave and the width of the transept. The nave had a width of 23.5 feet. The transepts were 25.3 feet across and 42 feet wide. William Hinchey estimated the height of the church as having been about thirty-five feet, perhaps to the top of the parapet of the transept (about 33 feet above the fill, or about 35 feet originally) or the top of the bell towers.<sup>45</sup> Using H. T. Heister's 1872 photograph looking down the nave towards the sanctuary, we can show that the nave was about 25 feet high to the undersides of the vigas (23.1 feet from the surface of the fill within the church), while the transept was about 29 feet high to the underside of the vigas from the same surface, or about 31 feet originally.<sup>46</sup>

The transepts were *de alto sube lo que pide la claraboya*, as much higher as the clerestory demands.<sup>47</sup> Measurements on the photographs show that the transept roof was about six feet higher than the nave roof. The clerestory window was a small wooden frame 2.5 feet high by 6.5 feet wide with eleven spindles placed vertically across it to form a grill – each spindle was about 1.5 inches thick. It was still in place above the lower double vigas at the east end of the nave when H. T. Hiester photographed the ruined church in 1872.<sup>48</sup>

The sanctuary, said Dominguez, was *seis varas en quadro, y de alto al igual del crucero*, six varas (16.4 feet) square and with a height equal to the transepts.<sup>49</sup> The Nusbaum/Adams plan and measurements today show that it was 16.3 feet wide across the mouth, and 17 feet deep.

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<sup>44</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4340; Dominguez, *Missions*, p. 209.

<sup>45</sup>Hinchey, "Irish Artist," p. 20.

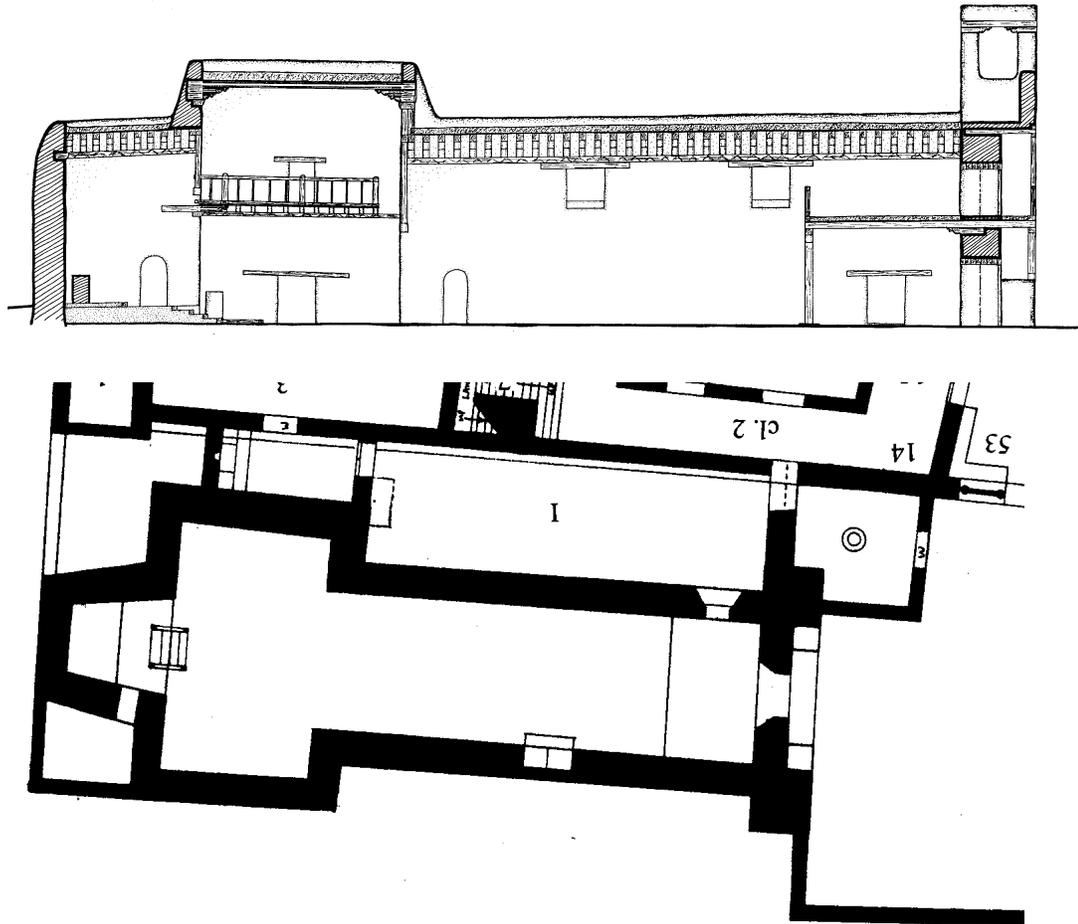
<sup>46</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>47</sup>Dominguez, "*Reyno del Nuevo Mexico*," ff. 4340-4341; Dominguez, *Missions*, p. 209.

<sup>48</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>49</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4341; Dominguez, *Missions*, p. 209.

Photographs show that it was actually the same height as the nave roof, six feet lower than the transept roof.<sup>50</sup>



**Figures 12.9 and 12.10.** Cross-section and plan of the post-Revolt church of Pecos. The cross-section is the appearance of the interior of the church about 1790, when the sacristy entrance had been cut into the south transept. No pulpit is shown in front of the pulpit doorway in the nave. The plan shows the layout of the church in 1776, again without showing the pulpit.

From the transept, one went up to the altar platform *por cinco gradas de bigas labradas, que ocupan vara larga en el crucero*, by five steps of carved wooden beams that occupied more than a vara (2.7 feet) in the transept.<sup>51</sup> These steps had *por ambos lados su barandalito, desde*

<sup>50</sup>Ben Wittick, MNM #15692; Melender #185. "The Old Temple from the East, Pecos Ruins." [*Kiva, Cross and Crown*, p. 478] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>51</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4341; Dominguez, *Missions*, p. 209.

*abajo*, a railing on each side, coming up from below, *pero no sigue con atraviaca en la ultima d[ic]ha [presbiterio]*, but the railings did not continue across the front of the sanctuary.<sup>52</sup> Scars on the corners of the mouth of the sanctuary suggest that these railings were later extended so that they *did* extend across the front.<sup>53</sup>

*Ai coro en su acostumbrado lugar, y es como los anted[ic]hos*, the church had a choir loft in its usual place (above the main door), and was like those described earlier in Dominguez's report.<sup>54</sup> Hinchey mentioned "the gallery [choir loft], the remains of which still hang" above the main door of the church, indicating that it was already partially gone in 1854.<sup>55</sup> Heister took a photograph of the remains of the choir loft in 1872 while standing on one of the choir loft vigas above the south door that went through the nave wall into the Zeinos church (Figure 13.9). The picture shows a great deal about the structure of the choir loft. The stub of the main support viga was visible on the north wall – it would originally have extended across the nave and would have been supported probably by two vertical posts based on stone foundations in the floor. The remains of fifteen corbels and vigas were visible across the front of the church, one corbel under each viga. Four corbels and vigas can be seen south of the doorway, seven corbel and viga sets above the main doorway itself, and two more corbel/viga pairs can be seen north of the doorway. Two more were against the north wall, but are hidden in the shadow of the surviving section of choir loft floor. Because the nave had a width of 23.5 feet, the choir beams were set at intervals of about 1.6 feet, center to center. The choir floor was made of planks resting on top of the vigas. This planked surface would have supported a floor of packed clay with perhaps a top surface of lime plaster. The clay and plaster floor layers above the planks had washed away, but the choir window had a sill about one foot high above the tops of the vigas. When the floor was in place, the sill of the choir window would have been at the level of the floor surface.<sup>56</sup> A Ben Wittick photograph shows the remains of the choir beams and corbels clearly enough that their construction and carved designs can be seen.<sup>57</sup> Dominguez did not mention how one got to the choir loft, and the photographs show no hint of a stairway or ladder in the parts of it that are visible.

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<sup>52</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4341; Dominguez, *Missions*, p. 209.

<sup>53</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>54</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4341; Dominguez, *Missions*, p. 209.

<sup>55</sup>Hinchey, "Irish Artist," p. 20.

<sup>56</sup>Melender #90, "Pecos Ruins; Man Standing Above Carved Woodwork Above Main Entrance to Temple," Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's," photo by H. T. Hiester, 1872. A second Heister photograph of 1872 has a xerox copy in Pecos NHP File "Historic Photos, late 1800's - Early 1900's;" the original photograph part of a stereo pair in Henry E. Huntington Library, photo file 1516. Ben Wittick, MNM#15697, "ca. 1880."

<sup>57</sup>Ben Wittick, MNM #86876. "Pecos Mission Ruins. Pecos, New Mexico, October, 1880."

*En la testera del crucero al lado derecho esta una ventana, que enrejada de palo, mira al Norte*, in the head of the transept on the right (as one faces west from the altar) was a window with a wooden grill, looking towards the north.<sup>58</sup> This window was later sealed with adobes, and is closed in all our pictures of it.<sup>59</sup> *En la otra testera una tribuna decente*, in the head of the other transept was a good tribune, or balcony.<sup>60</sup> The remains of this tribune were recorded on the HABS drawings. Its floor was at a height of fifteen feet above the church floor, and the very narrow space between the tops of the supporting vigas and the bottom of the entrance doorway/window in the south transept indicates that the floor was of wooden planks. It began three feet from the west wall of the transept, and extended eastward across the entire width of the south transept, where it then turned north in an L-section along the east wall of the transept, and ran to the edge of the sanctuary, another thirteen feet. Eleven vigas set on corbels into the south wall of the transepts at about two-foot centers held up the south leg of the tribune, and another six vigas and corbels set at about the same centers supported the L-section to the north. These corbels rested on bond beams set into the walls on the south and east sides of the transept. The tribune was about 3.5 feet wide, and had a balustrade of two rails, one about 6 inches above the tribune floor, and the other about 4 feet above it. Spindles must have connected the upper and lower rails. The two sockets for the ends of the rails above the sanctuary mouth can be made out in photographs.<sup>61</sup>

Although Dominguez did not mention it, access to the tribune was through a window-like doorway through the south transept from the roof of the sacristy. Dominguez mentioned this window only in passing: *Por el cuerpo ai tres ventanas en el lado de la Ep[istola] a q[u]e mirar al Sur*, in the body of the church (cuerpo usually means nave) were three windows on the Epistle side, which looked to the south.<sup>62</sup> Only two of these were in nave; the doorway to the tribune was the third window. There was also at least one, and probably two windows through the north wall of the nave, at least by the 1880s, as well as the larger window in the north transept. Dominguez did not mention the north wall windows in the nave, indicating either that he missed them or that they were added later. James Abert showed the two windows on the south nave wall and the doorway to the tribune through the south transept in his drawing made about 1846.<sup>63</sup> Surviving portions of the easternmost of the nave windows were still visible in 1872. The northern window was still complete, while in the south wall, at the broken edge of the limits of

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<sup>58</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>59</sup>For example, Ben Wittick, MNM #15692.

<sup>60</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>61</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>62</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>63</sup>James Abert, 1846, as copied by Seth Eastman, 1856.

adobe robbing of this wall, the ax-cut stubs of the lintels of the easternmost south window were still in place.<sup>64</sup>

*Todas las bigas del techo estan bien labradas, y encañadas*, all of the vigas of the roof were well-carved and on corbels.<sup>65</sup> The roof of the church was still in place in 1846, when Susan Magoffin described it: "The ceiling is very high and doleful in appearance; the sleepers [vigas] are carved in hiroglyphical figures."<sup>66</sup> Balduin Möllhausen in 1858 described the carved and painted beams and corbels, and remarked that the ceiling above them had begun rotting away, so that sunlight could be seen through the boards in places.<sup>67</sup> The nave roof vigas were plain, with one row of darts along the bottom edge, but the corbels were intricately carved.<sup>68</sup> The roofing used flat shake latillas instead of sticks.<sup>69</sup> In the photographs of 1872, fragments of roofing remained in place on the vigas above the two easternmost nave windows, showing that above the latillas was a layer of earth about six inches thick, perhaps with an upper surface sealed with lime mortar.<sup>70</sup> The corbels rested on bond beams set into the nave walls – these beam had an intricate zig-zag pattern carved onto their surfaces. The bond beams for the nave wall corbels survived as cut-off stubs one adobe brick course above the easternmost nave window lintels.<sup>71</sup>

A more decorated beam was across the mouth of the nave at the transepts, another was across the mouth of the apse, and the choir loft support beam was apparently also extensively decorated. On the beam across the mouth of the nave at the transepts, the carving visible on the face towards the camera is a series of diamonds with figuring in the middle of each, then some rectangular shape with wavy top and bottom edges, and then more diamonds. This looks like the pattern visible on the top beam of the corbel/viga/adobe construction across the mouth of the apse, that can be seen through the clerestory window. Several sections of beams were collected

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<sup>64</sup>Ben Wittick, MNM#15697, "ca. 1880."

<sup>65</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4341; Dominguez, *Missions*, p. 209.

<sup>66</sup>Susan Shelby Magoffin, *Down the Santa Fe Trail and Into Mexico*, Stella M. Drumm, ed. (Lincoln: University of Nebraska Press, 1982), p. 101.

<sup>67</sup>Kessell, *Kiva, Cross and Crown*, pp. 474-75.

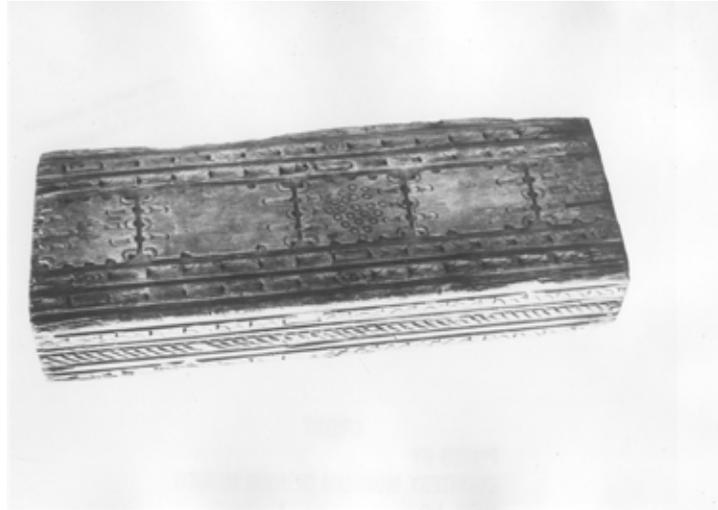
<sup>68</sup>George Kubler, *The Religious Architecture of New Mexico*, 4th ed. (Albuquerque: University of New Mexico Press, 1972), p. 64 fig. 24 a, b.

<sup>69</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>70</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872.

<sup>71</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872. MNM #6502, "Mission Ruins, Pecos, New Mexico." Photo by George C. Bennett #91 [#76]. Probably 2-3 September, 1880. Ben Wittick, MNM #86876. "Pecos Mission Ruins. Pecos, New Mexico, October, 1880."

from the mission in the late nineteenth century. Those in the Museum of New Mexico give us a closer look at this decorative carving. One, MNM #14308 (HS 4941), collected in 1869, has several of these wavy-edged rectangular decorations (Figure 12.11). These sections show that the rectangles were edged with a series of semi-circular cut-outs. This beam was 10.5 inches thick and 17.5 inches high, much larger than the roofing vigas, and was probably a piece of the choir loft support beam.<sup>72</sup>



**Figure 12.11.** A section of decoratively-carved viga from the roof of the Pecos church. Photograph MNM #14308 courtesy of the Museum of New Mexico.

The corbel design in New Mexico mission churches were very distinctive, and vary not only with the church, but with the time period in which they were carved. At Pecos, the design was related but different for each of the episodes of church construction. The Pecos carpenters carved an easily-recognized set of corbels for the roofing of the Zeinos chapel (Figure 12.12).



**Figure 12.12.** The corbel design used for the Zeinos chapel in 1694.



**Figure 12.13.** The corbel design used for the final church of Pecos begun in 1714.

<sup>72</sup>Melender #89. "Interior of the Old Temple." [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872. Ben Wittick, MNM#15697, "ca. 1880."

Twenty years later, in 1714 when the Pecos began the construction of the roof of the new church (the present building) they designed a new corbel that was a modification of the old one. It lacked the hook-like third extension at the end away from the wall, but the other darts and the rope design along the underside were kept (Figure 121.13).

Finally, the Pecos made a third variety of corbels for the north sacristy when it was added a few years later, in the late 1720s. Apparently this same design was eventually used in the south sacristy when it was added after 1776, although examples from the south sacristy are so badly damaged that this could obscure a fourth design that was not strongly different.

*Por el cuerpo treinta, y ocho [vigas]*, the nave had thirty-eight vigas,<sup>73</sup> which would make them at about 2-foot centers when set equally down the 74.5-foot length of the nave, with the first viga at the front against the wall, and two vigas at the mouth of the nave forming the support for the clerestory window and the central area of the transept vigas. Vigas for a church this size would typically be about 10 inches thick, side to side, and perhaps 12 inches high, top to bottom, so that the vigas would have had a space of about 14 inches (1.2 feet) between them. The corbels would have about the same cross section. Abert and Heinrich Möllhausen showed the ends of the nave corbels and vigas extending through the wall above the nave windows – the ends of the nave vigas were visible as flush with the outer face of the south wall. The apparent distance between the viga ends and the parapet suggests that the parapet on the nave walls was low, on the order of one foot high rather than four feet high. The top of the parapet was even with the section of parapet and the base of the semicircular crest above the top of the facade.<sup>74</sup>

*Por el crucero veinte [vigas]*, the transept had twenty vigas.<sup>75</sup> The transept was 42 feet long so these roofing beams were set at 2-foot centers, the same as the nave spacing. Magoffin described the church roof as though it were all still in place in 1846 but in 1854 Hinchey described some part of the roof of the church as "nearly all fallen in must have been very well formed once as the remains of it are supported by brackets [corbels] pretty well carved."<sup>76</sup> In 1858, Möllhausen showed the nave roof beams as all still in place, but depicted the tops of the walls above the clerestory window with a clear series of notches, where the roof beams of the transept had been removed or had fallen. The clerestory window and the transverse beam above it were still in place, as well as most of the adobes between the transept beams.<sup>77</sup> This indicates that the roof Hinchey described as fallen in 1854 must have been the transept roof. By the time the first photographs were taken of the church, 1872 to 1880, the top of the nave wall showed

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<sup>73</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>74</sup>Abert, 1846 as copied by Seth Eastman, 1856; Möllhausen, 1858.

<sup>75</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 209.

<sup>76</sup>Hinchey, "Irish Artist," p. 20.

<sup>77</sup>Möllhausen, 1858.

this crenellated effect where the vigas and corbels had been removed leaving the remains of the walls between them.<sup>78</sup>

*En el Presb[iteri]o dies [vigas]*, in the apse, ten vigas, stated Dominguez.<sup>79</sup> These vigas were set on 2-foot centers, like the transept and nave vigas. The corbels for these vigas rested on decorated bond beams set into the north and south walls of the apse, and a third beam extended across the east wall of the apse (Figure 13.8).<sup>80</sup> In 1872, the viga across the mouth of the apse was still in place with a bond-beam viga set into the wall about six courses of brick above it, on which the transept corbels rested.<sup>81</sup> The upper bond beam over the apse mouth extended the entire width of the transept, as at Quarai and Abó in the seventeenth century; the end of the beam is visible on the south face of the south wall of the transept, exposed by erosion.<sup>82</sup>

A bad erosion cut is visible down the east wall of the apse several feet from the north corner.<sup>83</sup> This indicates that the drainage failed in this area, causing the roof to develop a leak that eventually allowed rainwater to flow down the inside of the wall. This suggests that the drainage over the sanctuary was to the east – the roof would have sloped downward perhaps six inches from west to east. Measurements of the photographs suggest that the transept was lower by about a foot on the west side, and apparently had a mild slope down to the north as well, so that the transepts drained to the northwest. The nave roof vigas seem to have been about a foot lower on their north ends, indicating that the nave like the transept drained to the north away from the convento.

*En la [viga] que mira al cuerpo está este notulo Frater Carolus: de la que se infiere que algun religioso de este nombre fue quien trabajo la Yg[lesi]a pero no se puede atingia con el, pues no ai distintivo en individuo por el apellido*, on the viga that looks towards the nave is this inscription: “Frater Carolus;” by which it can be inferred, added Dominguez, that some religious of this name had built the church “but it is not possible to identify him, because the individual is not distinguished by his surname.”<sup>84</sup> Based on this statement by Dominguez, John Kessell

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<sup>78</sup>Melender #185. "The Old Temple from the East, Pecos Ruins." [*Kiva, Cross and Crown*, p. 478] Pecos NHP, File "Historic Photos, Late 1800's - Early 1900's." Photo by H. T. Hiester, 1872; Ben Wittick, MNM#15697, "ca. 1880."

<sup>79</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4341; Dominguez, *Missions*, p. 209.

<sup>80</sup>Melender #89. “Interior of the Old Temple.” [*Kiva, Cross and Crown*, p. 479] Pecos NHP, File “Historic Photos, Late 1800's - Early 1900's.” Photo by H. T. Hiester, 1872.

<sup>81</sup>MNM #6502, “Mission Ruins, Pecos, New Mexico.” Photo by George C. Bennett #91 [#76]. Probably 2-3 September, 1880; Ben Wittick, MNM #15692.

<sup>82</sup>Ben Wittick, MNM#15697, “ca. 1880.”

<sup>83</sup>MNM #6502, “Mission Ruins, Pecos, New Mexico.” Photo by George C. Bennett #91 [#76]. Probably 2-3 September, 1880.

<sup>84</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4341; Dominguez, *Missions*, p. 209.

determined that the church had to have been largely built by Fray Carlos José Delgado, at Pecos from about August, 1716, to about October, 1717.

No suggestion of this carved name can be made out on the beam faces we can see. Dominguez's phrasing and the fact that he mentioned this beam after describing the sanctuary suggests that he was speaking of the beam over the mouth of the sanctuary. The side towards the nave can be seen to be decorated, as described above, but no lettering appears to be on the beam. This lettering must have been reasonably large and clear for Dominguez to have been able to see and read it from ground level in the transept, so it should have been visible on the beam if it was on some part we can see in the photographs. This suggests that although the beam looked towards the nave, the carving was on the other side of it towards the sanctuary, or that the carving was on the upper beam, the bond beam beneath the transept corbels.

*La vista de la Yg[lesi]a que oy sirve alegrita, el piso de ella la pura tierra, y su adorno como sigue, the appearance of the church in use today is rather pleasant. The floor is nothing but earth, and its adornments are as follows: ALTAR MAYOR Sobre el pared, y poco arriba del medio esta un lienzo vieja de á dos v[aras] con su marco de palo pintado, y N[uestr]a S[eñor]a de los Angeles al oleo. Abajo de este esta otro, que aunque le iguala en tamaño, y marco, no es tan viejo, y tiene de buena pintura á N[uestr]a S[eñor]a de la Assumpcion . . . Por el circuito de los d[ic]hos estan ocho lienzos regulares, viejos, y al oleo, Main Altar: on the wall a little higher than the midpoint was an old painting two varas (5.5 feet) square with its frame of painted wood, and Nuestra Señora de los Angeles in oil. Below this was another of similar size and frame but not as old which has a good painting of Nuestra Señora de la Assumpción . . . around these were eight ordinary old paintings in oil.<sup>85</sup> Dominguez was usually fairly explicit in his descriptions of altar decorations and we should assume that there was no more to the altar than he described. Therefore, there was no carved wooden retablo here at the time of his visit in 1776, nor was there the design of a retablo painted on the wall.*

The evidence suggests, however, that sometime after Dominguez's visit a retablo was placed over the altar at Pecos. For example, when Susan Magoffin saw the altar in the church in 1846, she described it as "carved in hiroglyphical figures" like the ceiling beams.<sup>86</sup> This suggests that she was describing a carved *retablo*, rather than the altar table which would have been a plain structure with little decorative carving. The main altar was gone by 1854, but where it had been Hinchey saw "a large patch in the plastering, much in the form of a Gothic window extending from roof to floor." This may have been the scar left by a retablo above the main altar; if so, Hinchey's description gives us a general idea of the shape and height of this structure.<sup>87</sup>

*La mesa de altar es movable de madera con Ara . . . Abajo tarima de biguetas, the altar table was movable, and of wood with a portable altar stone . . . below it was a platform of small*

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<sup>85</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341-42; Dominguez, *Missions*, p. 210.

<sup>86</sup>Susan Shelby Magoffin stopped at Pecos on August 29, 1846. The church ceiling was still largely whole at the time of her visit. Susan Shelby Magoffin, *Down the Santa Fe Trail and Into Mexico*, Stella M. Drumm, ed. (Lincoln: University of Nebraska Press, 1982), p. 101.

<sup>87</sup>Hinchey, "Irish Artist," p. 20.

vigas. *Por el lado derecho en el Presb[iteri]o esta una puertecilla, que va á un quartito, el que sirve de guardar algo de la Yg[lesi]a, y arriba de esta puertecita esta un lienso viejo, mediano . . . en su frente esta otro, pero de anta, y tan viejo,* on the right (north)<sup>88</sup> side in the sanctuary was a small doorway, that went to a small room, which served to protect the things of the church, and above this little doorway was an old middle-sized painting; facing it (and therefore on the south wall) was another, but of hide and very old.<sup>89</sup>

The new storerooms or sub-sacristies were added after the initial construction of the church. The northeastern sacristy was built after the completion of the church in 1717, probably in the late 1720s as part of the new construction that added a second story to the convento. The southeastern sacristy was added after Dominguez's visit in 1776, probably during the brief resurgence of Pecos about 1790.

In the north sub-sacristy, the square carved westernmost viga and the latillas or boards on top of it against the west wall remain in place today. The bond beam and corbels of the south wall of the room could be seen in early pictures and fragments of these survive today. The north corbel of the surviving viga is still in place resting on the stub of the bond beam for the north wall. Its west end is still set in the main wall of the church.<sup>90</sup> The roof height of this northeastern sub-sacristy is quite high, 15.5 feet above its floor and the floor of the sanctuary. Since the room's dimensions were about 12 feet by 15 feet, this made it somewhat chimney-like.

The south sub-sacristy, added after 1776, had a roof at the same height as the main sacristy south of the transept, about 12 feet, some four feet higher than the sacristy described by Dominguez in 1776. The similarity of roof height between the new main sacristy and this new sub-sacristy suggests that they were built at the same time sometime after 1776. The photographic record shows that the corbels of the sub-sacristy roof rested on a bond beam set into the west wall of the room. The northernmost four feet or so of the east wall of the south apse sub-sacristy survived through the 1880s and the shelf on which rested the equivalent eastern bond beam is clearly visible, as is the socket into which it had fit in the south wall of the apse.<sup>91</sup>

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<sup>88</sup>Previously Dominguez had said of one transept that in the "crucero al lado derecho esta una ventana," in the transept on the right side is a window (*Reyno del Nuevo Mexico*, f. 4339). Because the window he was talking about was in the north transept, it is apparent that he gave these directions while standing at the altar and looking west. Since the north transept was on the right, the small doorway on the right opening to the sub-sacristy/storeroom must also be on the north side.

<sup>89</sup>Dominguez, *Reyno del Nuevo Mexico*, f. 4342; Dominguez, *Missions*, p. 210.

<sup>90</sup>Ben Wittick, MNM #15692.

<sup>91</sup>MNM #40589. "ca. 1881." On card on which photo is mounted: "Old Pecos Church." Photo by George C. Bennett (W. H. Brown), #345, 2-3 September, 1880; Adolph Bandelier, *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), pp. 77, 78, 80, 81; Bandelier, "Visit," pl. VI, is an engraving of this photograph; see also Kessell, *Kiva, Cross and Crown*, p. 479.

The more carefully plastered north interior wall of the sub-sacristy is clearly visible on the south face of the south wall of the apse below the scar of the roof line of this roof.<sup>92</sup>

The doorway into the apse is visible in many photographs of the 1870s and 1880s. Three adobe bricks forming the beginning of the arch of the doorway through the south wall of the apse of the church survived the collapse of the two arched apse doorways before 1872. These bricks, laid voussoir-like just above the east spring-point of the arched top of the doorway, invalidate Hayes's contention that these were not true arches originally and that Nusbaum created the arches through an incorrect reconstruction.<sup>93</sup> The scar of the east wall of the sub-sacristy at the east edge of the south apse wall is also visible.<sup>94</sup>

The ends of several latillas that once were part of the roof of the south sub-sacristy can be seen in some photographs from this same period. These could be flat boards or split cedar shakes. They are visible as shadow lines in the earlier Wittick and Bennett photographs of the southeastern corner.<sup>95</sup>

*CRUCERO Tiene dos altares, al del lado del Ev[angeli]o esta en la testera vajo de la ventana arriba d[ic]ha, es de S[an] Ant[oni]o de Padua cuya imagen esta en anta . . . Por su circuito estan cinco liensecitos al oleo, viejos. El otro altar esta debajo de la citada tribuna, es de N[uestra] S[e]ñora de Guadalupe en lienso de anta como al anted[ic]ho, y sus quatro liensecitos por los lados. Las mesas de estos altares de madera, y desnudas:* Transepts: they had two altars; the one on the Gospel [north] side was in the head of the transept below the window described above. This altar is to San Antonio de Padua, whose image is on hide . . . around it were five small, old oil paintings. The other altar is beneath the already-mentioned tribune,<sup>96</sup> and is to Nuestra Señora de Guadalupe in a painting on hide like the preceding, and four small paintings at its sides. The tables of these altars are of wood and bare.<sup>97</sup> The most striking thing about this description is that Dominguez places an altar against the south wall of the south transept, where the large doorway to the later sacristy is in all the photographs. This indicates a major change, part of the group of changes involving the main sacristy.

*El cuerpo de Yg[lesi]a tiene Pulpito mui bien echo de madera, y en su acostumbrado lugar,* the nave of the church had a very good pulpit made of wood, in its usual place.<sup>98</sup> The arched doorway to the pulpit is visible in most photographs of the south side of the building

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<sup>92</sup>Ben Wittick, MNM #15692.

<sup>93</sup>Hayes, *Four Churches*, p. 41.

<sup>94</sup>Ben Wittick, MNM#15697, "ca. 1880."

<sup>95</sup>J. R. Riddle, MNM #76030, "Ruins of old Pecos Church, NM, ca. 1884."

<sup>96</sup>This altar had to be against the south wall of the transept in order to mirror the position of the north altar. In mission churches on the north borderlands, side altars are always symmetrically placed.

<sup>97</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4342; Dominguez, *Missions*, p. 210.

<sup>98</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4342; Dominguez, *Missions*, p. 210.

taken before this section of the south nave wall fell between 1911 and 1915. Presumably if this pulpit doorway had been present when Dominguez conducted his visit he would have mentioned it since he was so approving of the pulpit itself and so careful in his description of the doorways from the old church. It is likely, then, that this doorway was built as part of the renovation to the entire main sacristy area that was carried out after Dominguez's visit.

*En el lado del Evangelio esta un bonito confesonario de madera sobre tarima,*<sup>99</sup> on the Gospel or north side was a good confessional of wood on a platform. Hinchey noted this as "one other recess for an altar in the nave of the church."<sup>100</sup> This recess into the north wall, into which the confessional was set, is visible in numerous photographs until this section of wall came down about 1890-1900. The niche for the confessional was subsequently found by the excavations of Nusbaum.

*Entrada la Yg[lesi]a, sobre la derecha, por debajo del coro, y pared afuera se pasa á una Yg[lesi]a vieja, que corre su antigua fabrica al Sur con su puerta como dejo d[ic]ho, y unida al conv[ent]o por el lado de la Ep[istol]a . . . que es tan grande, que caba dentro de el cuerpo de la [iglesia] que vama hablando, y esta cayendose,* entering the church, on the right under the choir loft and outside the wall is the entrance to an old church, that extends its old fabric along the south with its door as I said, and joined to the convento on the Epistle side . . . that is of such a size that it would fit within the nave of the church of which we have been speaking, and it is falling down.<sup>101</sup> This "old church" was the church built by the Pecos under the direction of fray Zeinos in 1694.

The old church was 67 feet long, about 20 feet wide on the interior, and stood about 17 feet high to the tops of the parapets. The scar of its east end wall is visible on the southwest corner of the transept of the new church and in fact has fallen away for several feet north of that corner, showing that it was a separate structure from the fabric of the corner of the transept itself. The corbels that supported the roof vigas of the old church were of the earlier design discussed above and rested on bond beams set into the side walls. There was only one corbel under each viga. In 1890 the stub of one viga of the roof of the old church was still in place at the east end of the building – this viga was round. The bond beam under the corbels was plain and undecorated – it had two grooves about an inch in from the top and bottom edges but nothing else.<sup>102</sup>

The roof was fourteen feet high to the undersides of the vigas, about two feet higher than the roof of the main sacristy in its last form, and six feet higher than the roof of the sacristy at the time of Dominguez's visit.<sup>103</sup> The new church was clearly built around the old one –

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<sup>99</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4342; Dominguez, *Missions*, p. 210.

<sup>100</sup>Hinchey, "Irish Artist," p. 20.

<sup>101</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4341; Dominguez, *Missions*, p. 210.

<sup>102</sup>Anonymous, MNM #142681, "Pecos Mission Ruins. Pecos, New Mexico. Ca. 1890."

<sup>103</sup>Ben Wittick, MNM#15697, "ca. 1880."

photographs show that the north wall of the old church was incorporated into the south wall of the new church. The lower fifteen feet or so of the south wall of the new church was built in two halves, visible in a number of photographs. The south half of the wall thickness was the original wall of the old church, built in 1694, while the north half was added beginning about 1715 to make the thicker wall of the new church (Figure 13.12).

*Como entramos está Yg[gleci]a vieja, sobre la isq[ui]erd]a queda pared afuera de ella la sacristia, que oy sirve; y sobre la derecha al Baut[isteri]o tambien pared afuera, oy sirve, y ambas piasas se mandan por d[ic]ha vieja [iglesia] . . . Adelante del gobierno de esta piasa [bautisterio], esta una gran puerta, que guia a lo claustro, as we enter this old church, on the left outside its wall was the sacristy in use today; and on the right to the baptistry also outside the wall, in use today, and both rooms are reached by the said old church . . . before the entrance to the baptistry is a large doorway, leading to the cloister.<sup>104</sup> This arrangement is clear on the Nusbaum/Adams map, with the doorway to the sacristy at the east end of the old church near its south corner (this was probably the door originally built here to go from the old church to its sacristy before the new church was built) and the doorway to the baptistry at the west end near its south corner. The doorway to the cloister forms an odd double doorway with the baptistry doorway.*

Dominguez described the sacristy in 1776: *esta á un lado de la Yg[lesi]a vieja de la que corre pared arriba de la que oy sirve, con ocho v[ara]s de largo, quatro de ancho, tres de alto, doce bigas con canes en el techo, ventana en un lado al Sur, y puerta regular de dos manos sin llave para lo d[ic]ho viejo,*<sup>105</sup> it is at one side of the old church, which runs along the higher wall of [the church] that serves today; eight varas [22 feet] long, four [11 feet] wide, three [8.2 feet] high, twelve vigas with corbels in the roof, a window in one wall to the south, and to the said old church a standard door of two leaves without a key. This sacristy was undoubtedly what was left of the larger sacristy built onto the Zeinos church in 1696. It had been somewhat reduced in size by the construction of the transept of the new church that extended across the north half of the 1696 sacristy. As described by Dominguez, the roof beams of this sacristy were set at 1.9-foot centers.

The Dominguez sacristy, however, is not the structure visible in the historical photographs and on the archaeological plans. This much larger, higher space was the result of a rebuilding of the sacristy area that occurred after the Dominguez visit and is discussed below in the section called “Changes After the Dominguez Visit of 1776.”

When Dominguez saw the baptistry in 1776 he described it as follows: *es piasa corta, con ventana, puerta, pilarcillo, y cagete como en otras partes ha d[ic]ho,*<sup>106</sup> it is a short room, with a window, door, little pillar and earthenware basin (the baptismal font) as has been described at other places. This baptistry was on the foundations of the seventeenth-century sacristy, and had probably been added as part of the construction of the final church standing

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<sup>104</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4341; Dominguez, *Missions*, p. 210.

<sup>105</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4342; Dominguez, *Missions*, p. 210-11.

<sup>106</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4341; Dominguez, *Missions*, p. 210.

today, about 1706-1717. Because of a chance remark by Witkind that this space apparently had no north wall that he could identify, Hayes decided that this must be the portería described by Dominguez.<sup>107</sup> However, such an assumption is invalidated by the Adams/Nusbaum plan of the convento which makes it clear that the portería was where it is shown on the plan in Figure 12.15. In 1846 the baptistry roof was at the same height as the floor of the second level of the convento and its window lintel was still intact, although Stanley does not show it as extending westward from the facade of the church (he apparently failed to shade its north wall).<sup>108</sup>

### The Rebuilding of the Post-Revolt Convento

The post-Revolt convento is the most difficult of the Pecos mission structures to reconstruct. The remains of this building were the topmost layer of the mounded ruins of the Franciscan compound and received the most damage from time, weather, sheep, pothunters, and archaeologists. The archaeological investigators expected that the ruins would all be more or less the same building, and usually never realized that the post-Revolt convento was effectively a new structure on top of the earlier ruins, making use of some wall sections and the general outline of the pre-Revolt convento. Their excavations were carried out with the assumption that they did not have to map the visible surface traces because wall tracing would make this plan clear and would be easier to survey. As a result, the scant archaeological evidence for the last convento was largely ignored, obscured by excavation, or destroyed.

Fortunately, the Bandelier, Nusbaum/Adams, and Witkind plans of the convento as it could be made out on the surface of the ruins recorded most of the last plan of the convento, overlaid by corral walls and sheep-pens after abandonment. Since most adobe wall lines on the plan as shown by the Nusbaum/Adams map accurately match major wall traces as later relocated through archaeology, it is safe to accept that this plan records actual, visible wall traces. It is the *only* plan of the majority of the post-Revolt structure of the convento. With a few additions from the other plans, photographs, drawings, and archaeological information, a map of the convento can be compiled that fits the Dominguez description quite well, and in an unexpected way.

The majority of the plan shown here follows the Nusbaum/Adams plan, after the deletion of the later sheep-walls (Figures 12.14 and 12.15). Many of the details of the convento, however, depend on the archaeological record. The most important of these details is the identification of the south wall of the structure.

The south wall of the main convento was among the least noticed and most damaged of the structural remnants of the final mission, and with the southwestern *torreon* was the most difficult to retrieve through research. The various sections of the wall were seen at different times by different excavators, and each section was fit into that excavator's proposed sequence of construction in a different way. The westernmost section of the wall, the southern wall of the room above Rooms 45 and 46, was still visible in 1915 but was not seen by Witkind in 1939. It had apparently slumped down the face of the southwestern corner mound by that year. The

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<sup>107</sup>Hayes, *Four Churches*, p. 51.

<sup>108</sup>Stanley, "Ruins of Pecos - Catholic Church," 1846.

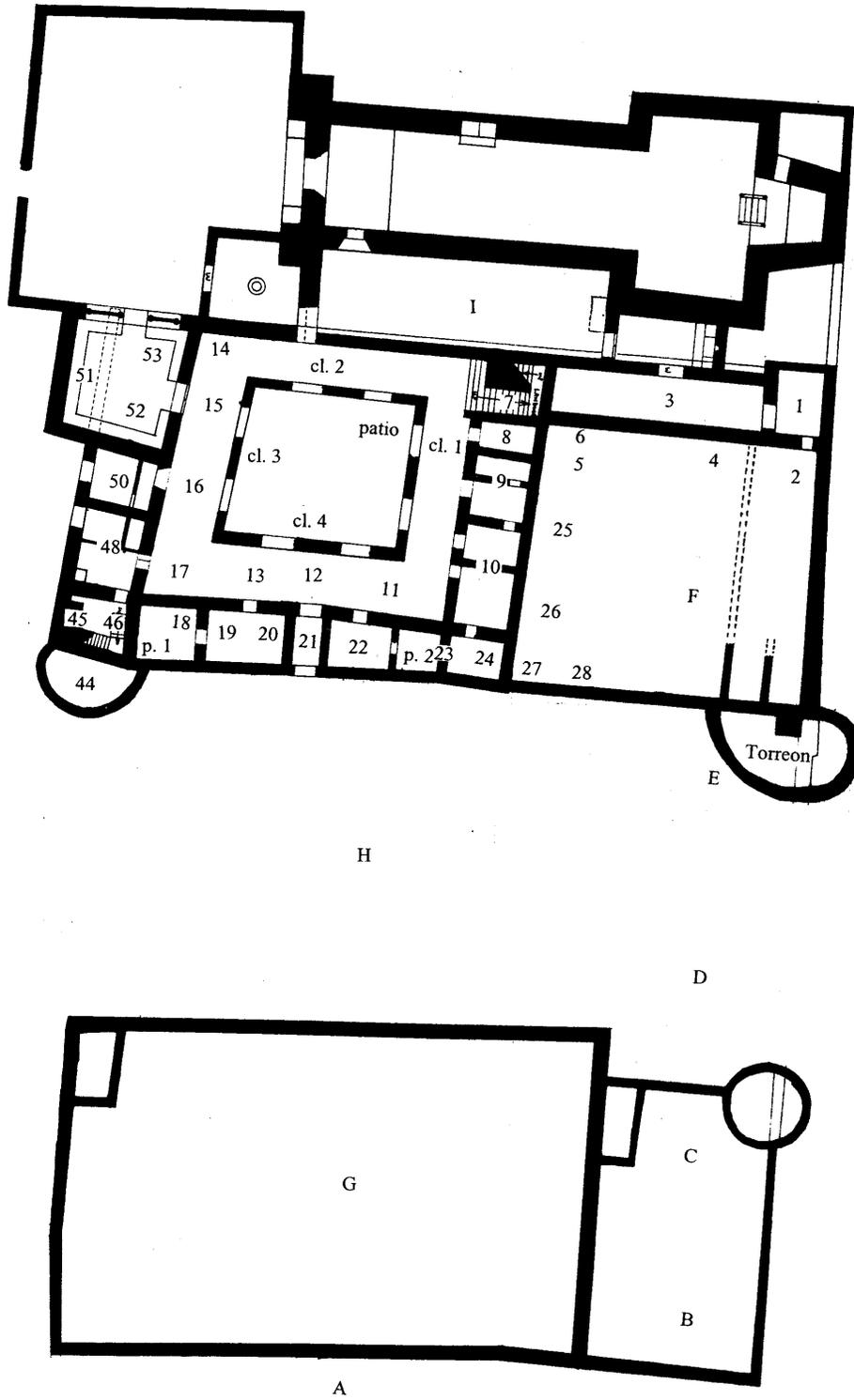


Figure 12.14. The plan of the Pecos church and convento in 1776.

south wall along the south row of rooms was seen by Witkind, Pinkley, and Hayes, but was considered to be the south wall of a passageway, the north wall of which appeared to be formed by the south wall of the pre-Revolt retaining wall structure along Rooms 18-22. These two walls, however, were not contemporaries; the north wall was built of black brick and purple mortar in the 1620s or 1630s, while the southern, red-brick wall was built after the Revolt, probably about 1696, as part of the construction of the south row of rooms of the new convento. The central portion of this section of the wall was destroyed by a series of intrusions: Witkind's wheelbarrow ramp across Rooms 22 and 11, general decay through time, foot traffic (both animal and human) and incaution. Only a small section survived, forming the southern part of the strange half red and half black brick wall at the east end of the south side of Room 22. The outer, southern half of this section of wall, made up of Type IIc red bricks with chips of white plaster in them, was available for detailed examination of its adobes and mortar, which allowed White to place it firmly in the post-Revolt period. The inner, black brick was in contact with the outer red wall only in this area, because of the slight difference in angle of the two walls, built seventy years apart.

From the east end of this section of wall to Area E, we have only Witkind's map showing a wall here (Figures 7.10, 7.11). However, Pinkley found a stub of the same wall running west from the southeastern corner in Area E, and it was plotted on the earliest version of the Arquero map. It originally ran all the way from the southeast corner of the convento yard westward to the southeast corner of the convento itself but had been cut on either side of the east wall of Room 28 by Pinkley's earliest major trenches. The wall within the torreón survives but the surviving sections between the east corner of Room 24 and the west corner of the torreón were removed by Pinkley as one of her "late" walls. Because of this, it was not there to be mapped in the 1967 revision of the Arquero plan.

Recognition of the south wall of the convento allows us to sort out the rest of the building with relative ease. First of all, after the Reconquest nothing was rebuilt south of the south wall until we reach Areas A, B, C and G. The heaps of collapsed wall and rubble that had been rooms 26-44 and Areas D and the south half of E remained rounded mounds through the eighteenth and nineteenth centuries until several walls were built across them as part of the sheep pens to which the ruins of the convento were converted in the 1870s and 1880s. Robert Lentz recognized that the rubble above these walls was undisturbed since the revolt when he wrote his room analysis in 1969, although Alden Hayes rejected most of his arguments and assumed that the rubble covering these walls dated from the collapse after abandonment in the 1830s.<sup>109</sup> The clear presence of the post-Revolt south wall of the mission running *over* these mounds, however, leaves no doubt about the actual sequence in time.

When governor Vargas brought Fray Diego de Zeinos to Pecos on September 24, 1694, he found that the Pecos "had rebuilt for [Zeinos] its very ample and decent convento and

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<sup>109</sup>Alden Hayes and Hans Lentz, "Pecos National Monument, Room Notes," Room 18, pp. 27-29, PNHP.

residence."<sup>110</sup> The plan of the post-Revolt building indicates where this reconstruction began: the east row of the convento, Rooms 7, 8, 9, and 10, and the southern two rooms, 48 and 50, of the west row (Figure 12.1). Almost unchanged from their pre-Revolt plan, these were apparently in the best condition after the destruction of 1680 and therefore most probably the rooms cleaned out and reroofed by the Pecos in early September, 1694. The south row of rooms and the new version of the central cloister walk and patio were probably built a little later, in 1696.<sup>111</sup> At this point the convento was one story high.

Within the convento, the layout was simpler than it had been in the previous century. The east and west rows were built from the remains of surviving rooms of the earlier convento, but the south row and the patio were built on a new plan. The south row occupied the line of buttressing and entrance structures outside the south side of the seventeenth-century convento. The south wall of the earlier building formed the north wall of this reconstruction and a new south wall was built along the south side of the mound of collapsed adobe.

In September and October, 1696, Father fray Francisco de Vargas added the portería to the convento: *serrado con pared el patio para la entrada de d[ic]ho convento*,<sup>112</sup> he enclosed the patio for the entrance of the said convento with a wall.<sup>113</sup> This indicates that Vargas created the portería in an area which had been a patio before this. Since Rooms 51, 52, and 53 became the portería, this indicates that they had no visible wall lines across this area before Vargas's construction of the portería, and Vargas's statement indicates that it had been an empty patio. This adds to the likelihood that the area had been a patio in the pre-Revolt convento as well, as discussed in Chapter Eleven.

About the same time, fray Vargas built a new patio in the center of the convento. He constructed it with its north and east sides following the lines of the last pre-Revolt patio, but the west and south wall lines following the foundations of the front walls of the south and west rows of pre-Revolt convento rooms. Traces of red Type IIc post-Revolt brick can be identified in pictures of the northeastern corner of the patio (the telltale chips of white plaster show up clearly in the black-and-white photographs), and the excavation notes indicate red brick along most of the north and east sides, including a new wall segment connecting the last pre-Revolt patio wall to the north face of the south row of pre-Revolt rooms. On the west side, one section of red brick survives at the southwestern corner of the new patio.

Before building the patio and portería, Fray Vargas constructed a drain from the center of his new patio area, very like the drain that had been built from the center of the pre-Revolt

<sup>110</sup>Vargas, *Blood on the Boulders*, p. 398-99; Kessell, *Kiva, Cross and Crown*, p. 272; See also Hayes, *Four Churches*, p. 9.

<sup>111</sup>This discussion of the Dominguez plan of the convento differs entirely from the plan and discussion by Alden Hayes, *Four Churches*, pp. 50-53. Hayes disregarded the Adams/Nusbaum plan of the last convento and assumed that the Dominguez plan had to fit somehow into the pre-Revolt plan of the building.

<sup>112</sup>Diego de Vargas, November 23, 1696, AGI, Guadalajara 141, as quoted in John Kessell to Albert Schroeder, August 1, 1967; Vargas, *Blood on the Boulders*, p. 1082.

<sup>113</sup>Kessell, *Kiva, Cross and Crown*, p. 292-93; see also Hayes, *Four Churches*, p. 11, 35.

flagstone patio. Because the surfaces were several feet higher and had a somewhat different slope, Vargas cut the drain through the buried adobe walls and foundations of the western row of pre-Revolt foundations, running through the west pre-Revolt cloister walk and room 15 and across the open area of Rooms 51, 52, and 53. The drain divided in Room 52, with the southern branch running across the northwest corner of Room 50, through Room 51, and out the west side of the convento retaining wall; the northern branch continued west through 53 into 51 and out to the west about ten feet farther north. Both branches ran beneath the main convento entrance doorway and the floor of the new portería, indicating that it was built before the portería. The two branches probably represent two episodes of drainage construction, one built during the initial construction in 1696 and the other added sometime after that construction, probably during the changes needed to add the second story in the late 1720s.

The first version of the new convento had a small corral, stables, and pens yard in Area F, which was the secular courtyard of the new convento. This was the area where mission supplies, equipment, milk-cows, chickens, goats, and mules were kept. The pre-Revolt portería, Room 3, had been repaired and re-roofed, and probably became the granary for the new mission. Traces of walls that had formed other rooms in the post-Revolt Area F were found by both Witkind and Pinkley, but Pinkley removed these. Two walls ran north from the south wall near the southeastern corner, and a third ran east from the east wall of the main convento. Room 8 apparently served as a passageway through which one went from the residential area of the convento to the eastern courtyard.

Later, south of the new convento, the walls of Areas D and G were rebuilt and became a large corral with smaller enclosures on the east end. A very simple version of Area G and the combined Areas B and C were in use early in the eighteenth century. The pre-Revolt wall foundations were apparently used to support new adobe walls. A small jacal structure was built in the northeastern corner of area G about the same time C-2 was added to the northwest corner of Area C, probably in the early 1700s. A masonry enclosure in the northwestern corner was added later, towards the end of the eighteenth century and the operating life of the mission.<sup>114</sup>

The corral group of Areas G and D were separated from the convento by an empty space about eighty feet wide. This arrangement suggests that in the eighteenth century the corrals of Areas G and D took the place of the larger corrals of the Square Ruin and the Estancia structures west of the convento in the seventeenth century, as well as those of the southern areas of the seventeenth-century convento.

When the new church with its tribune was finished about 1717, the missionaries converted Room 7 just north of the passageway (Room 8) to a stairwell. They partially tore down the walls, filled the room with earth, and built a flight of stairs over it, beginning in the northeastern corner of the cloister walk. This fourteen-foot-wide staircase ran from the cloister walk up to the roof of Room 3, probably in use as the granary. These stairs were typical of Spanish colonial stairways on the northern frontier, each step about one foot across the tread, and rising about eight or nine inches. The stairs continued up across room 7, a distance of 21.5 feet, to the west face of the west wall of Room 3. The stairs reached a height of about fifteen feet in

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<sup>114</sup>Arquero, "Pecos Mission Complex," September 26, 1967; Hayes, August 6, 1970.

this distance, which would take one to the roof of Room 3. From here, stairs on the roof would have led up to the roof of the sacristy, giving access to the doorway through the south transept wall onto the tribune inside the church.

The Franciscans built the second story of the new convento between about 1720 and 1730. The entire second story plan as Dominguez saw it in 1776 was in use by 1730, including the mirador on the west above the portería.<sup>115</sup>

The plan of the convento apparently changed little during the eighty years from its reconstruction to Dominguez's visit in 1776 – however, the uses and condition of many of the rooms did change. After 1730 as Pecos became more and more a visita of Santa Fe, deterioration set in, and by the time of Dominguez's visit the original eastern courtyard had gone out of use as the barnyard and stables area, probably as a result of the virtual absence of a resident priest from 1767 to the mid-1780s.<sup>116</sup> The convento apparently was so little used after 1767 that the friars saw no point in leaving their mules or horses in the old yard farther from the main entrance to the church than necessary, and converted two disused convento rooms to be the stables. The passageway through Room 8 was closed off and converted to a room and neither the eastern courtyard nor access to it were mentioned by Dominguez in 1776. By the time of Dominguez's visit the entire second floor was virtually abandoned as well.

#### The Convento and the Dominguez Visit

It is clear from Dominguez's description that the convento was badly deteriorated and mostly empty. Dominguez entered the convento through the portería at its northwest corner: *Portería, que por dentro del cem[enterio]o mire al Norte, y es un portal cuadrado en dies v[aras] por iguales partes, por lo que en medio del techo tiene una fuerte Madre, y en la boca dos pilares de madera, que las abren en tres arcos con barandales los laterales: sus asientos de adobes por el circuito, y en medio del pared del centro su puerto de dos manos, regular, y con tranca*, the portería faces toward the north within the cemetery, and is a *portal* ten varas [27½ feet] square with equal sides; in the middle of the roof it has a strong beam, and at its mouth two columns of wood which form three arches, the two at the sides with railings; seats of adobe line the walls, and in the middle of the center wall a standard door of two leaves, with a crossbar.<sup>117</sup> Archaeology shows that this room measured about 26½ by 27½ feet with a slightly trapezoidal plan. Its north side faced into the area of the cemetery in front of the church. Dominguez mentioned a major roof beam in the ceiling of the room; this would have ran north to south on the alignment of the west wall of Rooms 48 and 50, and was been the beam that supported the west wall of the second story above the portería. The rest of the portería ran westward from the alignment of the main wall of the west face of the convento and formed a one-story section extending to the west from the two-story face – the remains of it can be seen in the Abert drawing of Pecos made about 1846 (Figure 12.5). This probably formed the mirador on the west

<sup>115</sup>Kessell, *Kiva, Cross and Crown*, p. 326; BNM, leg. 7, no. 24, July 5-Sept. 27, 1730.

<sup>116</sup>Kessell, *Kiva, Cross and Crown*, pp. 342-43, 501-02.

<sup>117</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4343; Dominguez, *Missions*, p. 212.

side of the convento described by Dominguez when he reached the second story, discussed below. The "*pared del centro*," the wall in the center, sounds as though it should be the wall opposite the entranceway – that is, the wall on the south side of the room. However, this was not the case – the doorway into the convento was to the left as Dominguez entered the *portería*, in the east wall of the room. It was located in the center of this wall and was a fairly large opening with a door of two leaves. The opening can be seen in the John Mix Stanley drawing of the ruins of the convento in 1846 (Figure 12.6). Witkind saw the same doorway early in his exploration of the western hall. He marked it on his map of May 8, 1939. By the time detailed investigation of the fabric of the wall was conducted beginning in the 1990s, it had weathered to the point that most of the traces of the opening were gone, although White noticed a gap in the uppermost courses of the surviving original adobes of this wall.<sup>118</sup> It opened into the cloister walk near its northwestern corner.

Upon leaving the *portería* Dominguez described twelve rooms in the convento. Using the identifying numbers on the plan of the convento in Figure 12.16, these were: 6,7) two stables; 9) a stairwell at the southwest corner of the cloister walk; 10, 11) a cell; 12) a passageway to a *torreon*; 13, 14) a second cell; 15-20) six rooms, one of which is a *dispensa*, a sort of pantry and pharmacy storeroom; the other five had no identified use. These six rooms Dominguez said were all on the east side of the convento running up to the stairway in the cloister walk. In practice this should be taken to mean that the doors giving access to them open onto the east cloister. The Nusbaum/Adams map showed seven rooms besides the *portería*. Some of these spaces were undoubtedly divided into smaller units but Nusbaum and Adams were unable to see the cross-walls. A reconstruction of the plan, using the Nusbaum/Adams map and later archaeology, is given in Figures 12.14 and 12.15.

Using the present room numbers on Figure 12.14, the first two rooms south of the *portería* on the west row were 50 and 48. South of these was a room on the corner shown on the Nusbaum and Adams map as above pre-Revolt Rooms 45 and 46. On the east row Nusbaum and Adams showed four rooms, Rooms 8, 9, 10, and 23-24. Room 10 was probably divided by a partition wall separating the northern third from the southern two-thirds. Witkind included this partition in his early plan of the convento at the beginning of his excavations. Nusbaum and Adams drew no partition walls in the south row on their original field map, all that is available to us, but the copy drawn by Clyde Arquero of the Nusbaum/Adams map (Figure 6.23) indicates that they eventually decided that cross-walls had been built along the tops of several of the pre-Revolt stone foundations in the area of this row. Archaeology found traces of post-Revolt red brick only along the tops of the north and south walls of this row and at its east and west ends. As many as thirteen reasonably-sized rooms had fit into the spaces shown on the Nusbaum/Adams map.

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<sup>118</sup>See the Witkind plan, Figure 7.10 in Chapter 7, and Joseph Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," Pecos National Historical Park, May, 1993, Room 53.

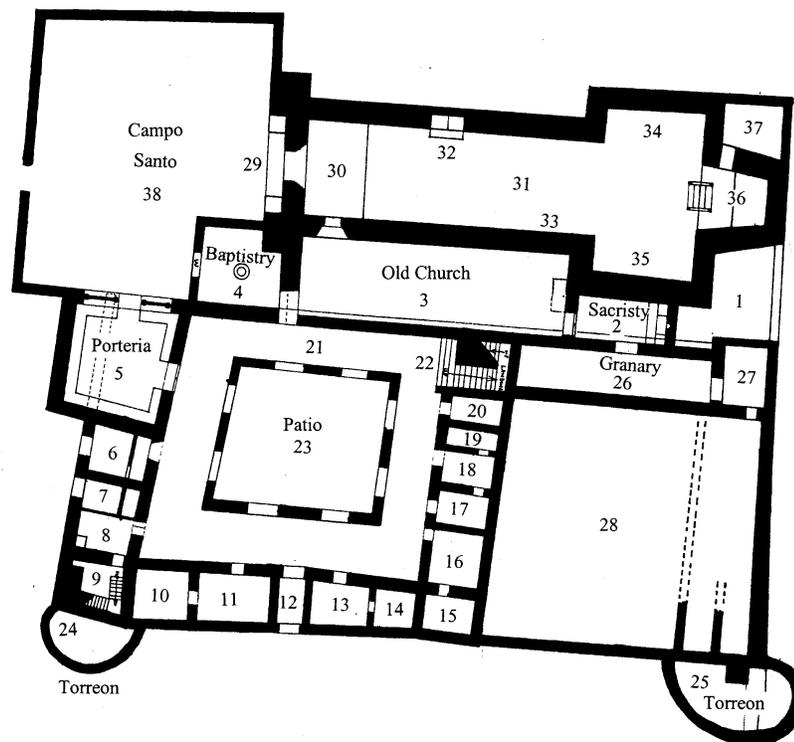


Figure 12.15. The convento of Pecos at the time of the visit by Fray Dominguez.

#### A Guide to the Dominguez Church and Convento at Pecos

- |   |   |
|---|---|
| 1. Open area (south sub-sacristy after 1776)        | 20. "Six rooms," #6                               |
| 2. The sacristy of 1776                             | 21. The cloister walk                             |
| 3. The "Old Church"                                 | 22. The stairway in the cloister walk             |
| 4. The baptistry                                    | 23. The cloister patio                            |
| 5. The porteria                                     | 24. Southwestern torreon                          |
| 6. First stable room                                | 25. Southeastern torreon                          |
| 7. Second stable room                               | 26. Probable granary, not mentioned by Dominguez  |
| 8. Entrance to second stable room and to stair well | 27. Probable convento storeroom                   |
| 9. Stairwell  | 28. Eastern courtyard                             |
| 10. First cell, bedroom                             | 29. Entrance and choir balcony                    |
| 11. First cell, main room                           | 30. Choir loft                                    |
| 12. Passageway, access to torreon                   | 31. Nave  |
| 13. Second cell, main room                          | 32. Confessional set into north wall of nave      |
| 14. Second cell, bedroom                            | 33. Pulpit  |
| 15. "Six rooms," #1                                 | 34. North transept and north side altar           |
| 16. "Six rooms," #2                                 | 35. South transept, south side altar, and tribune |
| 17. "Six rooms," #3                                 | 36. Sanctuary and main altar                      |
| 18. "Six rooms," #4                                 | 37. North sub-sacristy                            |
| 19. "Six rooms," #5                                 | 38. Campo Santo                                   |

The problem with Dominguez's description, in other words, is not to find enough room to hold all the spaces he describes. Rather, it is where he says the corners were in the sequence of descriptions that makes the job difficult. However, comparing Dominguez's descriptions of other conventos with their actual plans, such as at Zuñi, Acoma, and Laguna, shows us that his descriptions were quite literal and should be treated that way at Pecos.<sup>119</sup>

### The Ground Floor

After leaving the portería Dominguez entered the cloister walk at the northwestern corner of the convento. In the cloister walk Dominguez first turned to the right and walked southward down the western cloister hallway. Witkind found two other doorways along this hall south of the doorway into the portería. The first was a large, double-splay doorway opening into Room 50, and the second a standard parallel-sided doorway with a stone sill going into Room 48. These two openings are still present and have been documented by White.<sup>120</sup> Dominguez said that the first thing he passed on the right were *dos hermosas caballerisas*, two nice stables, each with its straw loft and "one of them making a corner around to the next side [of the cloister]."<sup>121</sup> Figures 12.14 and 12.15, showing one possible interpretation of these statements, places the two caballerisas, rooms 6 and 7 on figure 12.15, in Rooms 50 and 48, with access from the south end of Room 48 into the stairwell south of it, in the southwest corner room over the pre-Revolt Rooms 45 and 46.

Witkind found clear indications of a complex construction of wood with multiple levels in his Room W-13, which we have identified as Room 48.<sup>122</sup> Witkind found the collapsed remains of at least two layers of flooring and roofing in Room W-13 (48), while Room W-14 (50) he decided had apparently been badly disturbed by treasure hunters who destroyed the wall between the two spaces. Witkind found a small fireplace in the southwestern corner of Room W-13 (48). The other structures he saw in his Room W-14 (50) were below the level of the post-Revolt floor and therefore pertained to the pre-Revolt convento. The Dominguez report suggests that Witkind's wooden structures were the remains of stable partitions with a straw-loft above, and the second floor above that.

It was not a usual practice for the Franciscans to include stables in the main convento enclosure; it is likely that this was a later adaptation of rooms that had been used for some other purpose earlier. Presumably the rooms would have had stable doors opening to the outside through the west wall, to avoid walking horses or mules through the portería and down the

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<sup>119</sup>Dominguez, "*Reyno del Nuevo Mexico*," Laguna, ff.4314-15, Acoma, ff. 4322-4323, Zuñi, f. 4330; Dominguez, *Missions*, pp. 185, 192-93, 199-200.

<sup>120</sup>White, "Documentation," Room 48.

<sup>121</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4344; Dominguez, *Missions*, p. 212.

<sup>122</sup>Hayes proposed that Witkind's room 13 was fairly likely to have been a stairwell, but thought that Witkind's room 13 was only in the present Room 50. See the appropriate sections of the discussion of Witkind's excavation in Chapter 7.

cloister walk (somehow it seems to me that this would have violated the rules of enclosure, although they only forbid secular people, not secular horses).

In the corner of the cloister "opens a *cubo con escalera* [a room with stairs], which leads to the upper floor."<sup>123</sup> The way Dominguez worded his description leaves the location of the corner relative to these rooms open to question. He said first that one of the two stables formed the corner of the cloister, "in which angle," he continued, opens the stairwell. The stairs were not a staircase in the cloister hall – when he reached the second stairway at the northeastern corner of the convento, Dominguez took pains to describe it as *en el mismo claustro*, in the cloister hall itself,<sup>124</sup> in contrast to this first staircase which he says was in a room opening from the angle of the cloister hall.

Because by the time of Witkind's excavations this southwestern room had effectively eroded away from above Rooms 45 and 46, he and later excavators saw no physical traces of the southwestern stairway and virtually nothing of the room it had been in. Little more can be said about it than that it was probably in the room built over Rooms 45 and 46 and that the archaeology suggests that there was a doorway to it through the east end of the south wall of Room 48.

From the stairwell, said Dominguez, *siguen una celda*, next is a cell.<sup>125</sup> This probably means that the entrance to a friar's cell was the next thing one passed after the entrance to the stairwell in the corner of the cloister. I have placed this cell in the space above Rooms 18, 19, and 20. Because only two cells and a passageway take up the entire south row of the convento, the plan presented here assumes that both this *celda* and the second one Dominguez passed farther down the hall were double cells – that is, they each consisted of a main room and a smaller second room entered from the first and used as a bedroom. This was common in the eighteenth century and was the usual arrangement in the missions of San Antonio, Texas, for example. It also seems to be the general pattern followed at Abó and Quarai in the seventeenth century.<sup>126</sup> The first cell is shown as divided into two rooms, with the first room above Rooms 18 and 19, and the second above Room 20.

"Next," said Dominguez, was "a passageway . . . it goes to a *torreon* that is on one side of the convento and in it is placed a *pedrero*."<sup>127</sup> The passageway appears to have been above Room 21. A *pedrero* was a small cannon usually called a "stone mortar" in English translation – that is, a cannon that fired a stone ball. However, in Texas and probably along the entire frontier about this time, the word was no longer used to refer to a stone-firing cannon but to a small swivel-gun (rather like a large-caliber musket mounted on a post) firing either a small

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<sup>123</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p. 212.

<sup>124</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p. 212.

<sup>125</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p. 212.

<sup>126</sup>Ivey, *Loneliness*, pp. 43, 123.

<sup>127</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p. 212.

solid shot or used like a shotgun. The gun Dominguez was describing appears to be a somewhat smaller version of this sort of weapon. The plan indicates that there were two torreones, one on each of the southern corners of the convento (discussed below), but neither was near the general location of the passageway as indicated by Dominguez. Presumably he meant that if one went down this passage one could reach a torreón eventually, rather than that it went directly into one. This passageway probably gave access to the convento yard east of the residence area proper, taking the place of the old passageway, Room 8, that had been converted to one of the rooms on the east row. The torreón described by Dominguez was probably one of those built about 1750 by governor Tomás Vélez Cachupín.

### The Torreones of Vélez Cachupín

It seems likely that the torreones of the Pecos convento were built, not in the 1830s or 1840s as Hayes suggested, but in the 1750s.<sup>128</sup> They were almost certainly constructed by governor don Tomás Vélez Cachupín. In March, 1750, in a letter to the viceroy, Vélez Cachupín said that he had fortified Pecos and Galisteo with "earthworks (*trincheras*) and towers (*torreones*) at the gates."<sup>129</sup> Kessell suggested that Vélez Cachupín's torreones may have been the late "guardhouse kivas" constructed at strategic points along the walls of the North Pueblo, but the plan of the convento shows that clearly Vélez Cachupín directed the construction of defenses for the mission as well.

The torreones have been a point of confusion since the Dominguez description was published in 1956. The southeastern torreón was a large structure shown on most of the plans of Pecos, but the southwestern torreón is not shown on any published plan of the mission. The question of the Dominguez torreón has been peculiarly difficult, largely as a result of the archaeological loss of the southern wall of the convento. This left the southeastern torreón afloat, as it were, along the east wall of the pre-Revolt convento with its shape having no particular relationship to the plan of the building as it was preserved by the Park Service and its stratigraphic location having no apparent connection to the history of the construction of the rest of the convento. The recognition of the Adams/Nubaum plan, however, resulted in the retrieval of the actual south wall of the convento and made the odd torreón a structure built on a corner. In this form the southeastern torreón suddenly makes sense as part of the defenses of the convento built by governor Tomás Vélez Cachupín in the mid-1700s.

Symmetry and the logic of defending a building suggested that a second torreón should have been located on the southwestern corner of the convento. Physical remains in this area seem to support the idea of a southwestern torreón. These traces were located by Robert Lentz in 1969 but were never plotted on any map. Lentz described the structural evidence in the room notes for Room 44 where he found the remains of what he called a "cistern" and included an oblique sketch plan of the structure. What Lentz saw was probably the flagstone floor and stone foundations of the walls of the southwestern tower. He gave the dimensions as 10.6 feet east to

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<sup>128</sup>Hayes, *Four Churches*, pp. 14-15, 53-59.

<sup>129</sup>Kessell, *Kiva, Cross and Crown*, p. 381.

west and 9.6 feet north to south – these would have been interior measurements – and showed part of the curve of the wall foundation passing under the western buttress. The roof of this torreon would have formed a porch for the convento rooms at the southwestern corner of the second level, and probably formed the *mirador* on the south side of the convento mentioned in Dominguez's description of the second level, discussed below.

The two torreones resemble Guardhouse Kiva H in general shape and combined with the high walls of the church would have given as much protection to the convento as the Guardhouses did to the North Pueblo.<sup>130</sup> It is probable that Vélez Capuchin built a third torreon on the northeastern corner of the Area G corrals at the same time. Possibly a fourth torreon had been at the southwestern corner of the Area G corrals, on the peculiar and ill-defined group of walls at the west end of Area A. Traces of this possible torreon may survive next to or beneath the foundations of the registration house, later the National Park Service contact station, built here by Witkind in 1940.<sup>131</sup>

#### The South and East Rows of Convento Rooms

After the passageway to the torreon, Dominguez continued along the south row of convento rooms. The second cell apparently occupied the space of Room 22, Passage 2, and half of 23. It was probably divided into an office and sleeping alcove by a wall on the foundation between Room 22 and Passage 2.

Dominguez said that the second cell made a corner and after turning this corner there followed six rooms up to the corner against the side of the old church. "Of all these six rooms," said Dominguez, "only one, which serves as a nice dispensary, has a door . . ."<sup>132</sup> On the east row, the first five of these rooms occupied Rooms 8, 9, and 10, with Rooms 9 and 10 each apparently divided into two rooms by partition walls. One of these was shown by Witkind on his map of May 12, 1939, Figures 7.10 and 7.11. The two rooms made from Room 9 and the north half of Room 10 were probably the dispensa described by Dominguez. Room 24 may have been a kitchen, as it was in the pre-Revolt period. If so, the south half of room 10 had probably been the refectory for the convento before its decline in the 1760s. Room 24 probably had a doorway to the south, through the south wall of the convento, so that kitchen staff could enter without violating enclosure.

The ground-floor cloister was separated from the patio by an adobe wall, pierced by windows opening onto the patio. Two windows were on each side of the patio wall, making eight in all.<sup>133</sup> Undoubtedly there were one or two doorways into the patio as well, but Dominguez did not mention any doorway.

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<sup>130</sup>Kessell, *Kiva, Cross and Crown*, pp. 381-82; Kidder, *Pecos*, pp. 219-226.

<sup>131</sup>Witkind, "Journal," June 5-July 8, 1940; photographs MNM 6570, 6579, 6581, 6582.

<sup>132</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4344; Dominguez, *Missions*, p. 212.

<sup>133</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4344; Dominguez, *Missions*, p. 212.

### The Northeastern Stairway

Dominguez described the stairway in the northeast corner of the cloister walk: *En este rincon, y en el mismo claustro esta otra escalera, que guia como la anted[ic]ha á lo de arriba,*<sup>134</sup> in this corner, and in the cloister walk itself, is another stairway, that goes to those [rooms] of the second floor, like the one described earlier. The original staircase had been rebuilt in the late 1720s to be two flights of stairs. The first flight rose to a landing at the west wall of Room 3, about ten steps and a rise of a little more than six and a half feet. A second flight of seven steps continued up to the west over the north half of Room 7 to the second floor of the convento. This construction required that the first three steps of the lower flight, in the cloister walk, would cover the full width of stairway space and the rest of the stairway up to the landing would cover the north half of the space.

### The North Cloister

After reaching the stairway in the cloister walk, at its northeast corner, Dominguez returned in his description to the doorway in from the portería and this time turned north. At this point he became somewhat confused. Dominguez's description fits the archaeological information and the Nusbaum/Adams plan with no difficulty: the portería, baptistry, old church, sacristy, and the stairway "in the cloister itself" are all easily recognizable and have the general spatial relationship given by Dominguez. It is clear, however, that upon turning to the north from the portería doorway in the cloister walk, Dominguez became confused about directions and where he was relative to the church rooms. He says that after he turned north up the cloister hall, "on the left . . . the wall of the baptistry is followed to the corner of the old church, and turning against the said old church up to that corner of the six rooms. In this corner, and in the cloister itself, is another stairway . . ."<sup>135</sup> Actually, when he went left from the portería, he walked north along the portería wall until he reached the northwest corner of the cloister at the baptistry wall. Turning east, he walked down the north cloister and along the wall of the baptistry up to the doorway from the old church and then along the wall of the old church to the next corner, where the eastern row of six rooms reached the side of the church at the northeastern stairway. Dominguez was describing the same series of rooms as the plan shows, but was confused about which room he was beside at any point and where the corner was relative to these rooms.

### The Second Floor

Dominguez then proceeded to the upper floor of the convento and gave a perfunctory description of this level. *Por qualesquiera de las citadas escaleras, que se suba, se ven puestas, a estan sobre las d[ic]has abajo, mas advierto, que las que estan sobre lo de portería con sus lados, se hallan maltradas, lo mismo las que voltean al Poniente: solo las que miran al Sur con gobierno por la escalera del rincon en claustro estan sevibles. En estas del Sur y en las del*

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<sup>134</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p.212.

<sup>135</sup>Dominguez, "Reyno del Nuevo Mexico," f. 4344; Dominguez, *Missions*, p. 212.

*Poniente ai sus miradores mui bueno, uno en cada parte; el del Sur tiene su buen barandal, el otro eriaso se halla . . . El claustro de arriba es abierto con barandales entre pilares de madera.* By whichever of the said stairs we might go up, we see rooms that are over those described on the first floor; those that are above the portería and [the rooms] to its sides are badly maintained, as well as those that go around to the west; only those that look south with access by the stairway in the corner of the cloister are serviceable. Those [rooms] of the south and those of the west have very good miradores, one on each side; that on the south has a good railing, the other is bare . . . the cloister on the second floor is open with railings between columns of wood.<sup>136</sup>

Dominguez described the room above the portería with its mirador and the other rooms on the west side of the second floor as being in poor condition. This mirador over the portería is the one without railings, indicating that it was no more than a flat porch-like area in front of the mirador opening. Dominguez stated clearly that only the southern row of rooms were usable. Kessell suggests that this is why he did not bother to describe the other rooms.<sup>137</sup> Even in the south row, there were apparently no furnishings or other equipment and the individual rooms were not described other than the mirador facing south. This mirador had a wooden railing, and, as mentioned above, may have been on the roof of the southwestern ground-level torreón.

Dominguez does not mention a northern row in any way. The second-floor cloister continue around all four sides of the patio, directly above its ground-floor version, with wooden columns supporting the roof of the second-floor cloister walk above the walls of the patio and railings between the columns. The description and the height of the "old church" makes it clear that the convento had second floor rooms only on three sides – the west, south, and east – and did not have rooms above the "old church," the baptistry, or the sacristy.

### The Convento in Drawings

The convento was still standing in some parts when the first drawings of the mission were made in 1846. Because the artists were unfamiliar with the ruins it is difficult to sort out much detail from these drawings, but several important elements can be recognized. Abert's drawing shows that the second floor roof had fallen in and most of the second story openings visible were missing their lintels. The portería extended to the west beyond the face of the western wall of the convento and the western face of the portería and most of the west wall of the second floor had apparently collapsed. Judging from this drawing and Stanley's picture, discussed below, the south wall of the room above the portería extended to the line of the west wall of the convento south of the portería (Figure 12.5).

A large doorway, the entrance to the portería, was visible through the north wall of the convento west of the baptistry. What may be one of the supporting pillars mentioned by Dominguez could be seen near its eastern edge while the equivalent western pillar seems to be missing. Stanley, like Abert, showed the western wall and part of the north wall of the portería as fallen (Figure 12.6). Inside the portería a large doorway opened eastward and wall scars

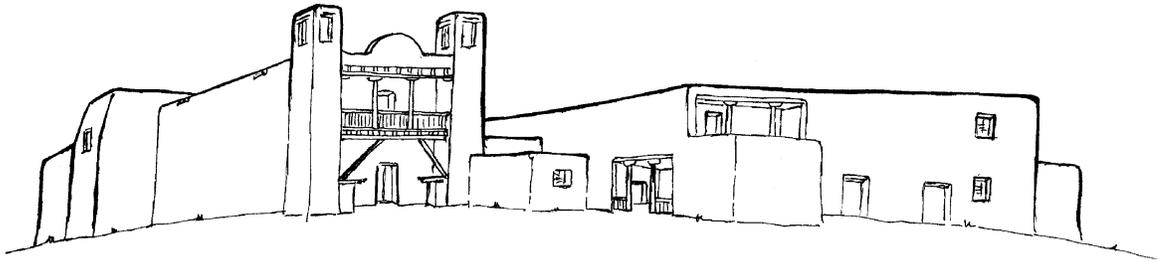
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<sup>136</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4344; Dominguez, *Missions*, p. 212.

<sup>137</sup>Kessell, *Kiva, Cross and Crown*, p. 309.

indicated an abutment between the eastern and western portions of the south wall. A few of the easternmost of the portería roofing vigas were still in place, but the rest to the west were gone. The convento was again an irregular mass, although it is clear that the building once had two stories from the visible stubs of vigas. The west wall of the first floor was still present with a window towards its south end, but the second floor western wall had fallen, leaving viga stubs all along this face. A complex series of faces and gaps appeared at the southwestern corner of the convento. These generally resemble the same area in Abert's drawing and apparently showed some of the interior walls of the second story rooms in the southwestern corner – the western torreon had been torn down about 1800. Stanley drew nothing to the east of the western wall fragments of the building, probably in an attempt to simplify the already-confusing structural depiction.

In 1854 Hinchey was able to explore the convento as a series of rooms still largely standing.<sup>138</sup> Möllhausen's painting showed that the convento had gone from a still-standing, explorable ruin at the time of Hinchey's visit in 1854 to nondescript mounds of rubble in 1858, suggesting that the convento had been visited heavily by scavengers (Figure 12.7).



**Figure 12.16.** The general appearance of the Pecos mission in 1776. Based on the drawing by Horace T. Pierce.

#### The Southeastern Corner of the Convento Yard

In Abert's drawing, the south wall of the main convento was broken by several gaps, but the rooms at the southeast corner reach the same two-story height as does the rest of the convento. The roofing and window lintels were still intact in this part of the building, as shown by the dark windows within the surrounding walls. What appears to be the southeastern torreon was visible at the easternmost edge of the convento, or it had fallen, leaving wall scars and window and doorway openings exposed – the vagueness of the shape and texture of the walls here makes it unclear as to which alternative had happened. The general level of detail indicates that Abert was recording only a general impression of the structure without worrying about the fine details.<sup>139</sup>

<sup>138</sup>Hinchey, "Irish Artist," p. 20.

<sup>139</sup>Abert, 1846 as copied by Seth Eastman, 1856.

### What Dominguez *Does Not* Tell Us About the Convento

When compared to the other conventos in his visitation report, the Dominguez description of the Pecos convento tells us that Pecos is in fairly bad condition. He does not describe any furniture in the cells. He does not mention a kitchen, refectory, or storerooms other than the dispensa. He describes probably two main convento rooms used as stables and makes no mention of the usual second courtyard where the stables, barns, sheds, pens, corrals, chicken coops, granary and mission workshops would have been. This is all apparently because Pecos was a visita at the time and had been since about 1770.<sup>140</sup> It was partly abandoned and subject to a certain amount of “appropriation;” for example, the railings from the western mirador above the portería had been taken by the *alcalde* Vicente Armijo and installed in the *casas reales*.<sup>141</sup> As a result of this sort of redistribution, the convento had far fewer items of furnishings than in a normal residence mission.

### Other Structures at Pecos Described by Dominguez

Dominguez said that the convento had five plots of land within a quarter-league of the pueblo.<sup>142</sup> Plot 1 was the kitchen garden, a “temporal” garden, supplied with water by rainfall alone. Dominguez described this garden as below and west of the cemetery with an enclosing wall attached to and entered from the cemetery. Plot 2 is a larger field just north of the kitchen garden, also temporal. This was undoubtedly the “Enclosure,” watered by runoff from the mesilla top; probably built in the 1600s, it was still in use in the 1700s. Plot 3 was north of this and had been irrigated. This apparently was along Glorieta Creek, and was probably part of the much larger pre-Revolt irrigated fields of Pecos. West of the kitchen garden was another large temporal field, plot 4. Plot 5 was a temporal field south of the kitchen garden, possibly in the area of the ruined Estancia buildings. In 1776 these fields were being used by the Pecos since there was no resident missionary. The physical locations of the last two plots are uncertain.

The pueblo had other irrigated fields “to the north, partly east” on the Pecos River. These were probably the fields now forming the farmlands of the village of Pecos.<sup>143</sup> These had not been used for a while – by 1776 drought and danger from the Comanche Indians was keeping the Pecos from operating the irrigation system. Most of these fields are outside the “Pecos League,” the square of land that extends one league, or 2.6 miles, in the four cardinal directions from the mission church, as described in Emlen Hall’s history of the mission lands, *The Four Leagues of Pecos*.<sup>144</sup> However, that dead-square four-league tract is a legal fiction – it is highly

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<sup>140</sup>Kessell, *Kiva, Cross and Crown*, pp. 342, 501-02; Levine, *Prayers*, p. 24; Dominguez, *Missions*, p. 212.

<sup>141</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4344; Dominguez, *Missions*, p. 212.

<sup>142</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4345; Dominguez, *Missions*, p. 213.

<sup>143</sup>Dominguez, “*Reyno del Nuevo Mexico*,” f. 4345; Dominguez, *Missions*, p. 213.

<sup>144</sup>G. Emlen Hall, *The Four Leagues of Pecos: A Legal History of the Pecos Grant, 1800-1933* (Albuquerque: University of New Mexico Press, 1984).

unlikely that the Pecos would have accepted the grant laid out in that manner. A grant of this sort was molded to the landscape, so as to include as much useful land (usually irrigable farm land and resource land for ranching, herding, and resource gathering) and to avoid wasting the grant on useless land or land no one else would bother to claim, such as rough mountainous country. Such shaping of the outline of a land grant to the countryside was a standard procedure. It involved increasing the extent of the grant in one or another cardinal direction while subtracting these increases from the other cardinal directions. The best published example of this is in John Kessell's history of the mission of Tumacácori, *Friars, Soldiers, and Reformers*. On page 211 is an illustration of the Tumacácori mission grant made in 1807, and the description of the survey process makes it clear how this was carried out.<sup>145</sup> Such a narrow, extended land grant along the irrigable land of a river was typical; the same procedures were used in the missions of San Antonio, Texas, in the 1730s, and derive from legal provisions cited at the time extending back well into the sixteenth century.<sup>146</sup> As a result, although the Pecos village farmlands are outside the idealized square league of Pecos, they were undoubtedly within the actual Pecos land grant.

In various directions from the pueblo were other temporal fields, but the more distant of these were also too dangerous to use. The lack of enough rain for the last few years had resulted in a shortfall of harvests. The raiders had left only eight cows of the Pecos herd, but the governor had donated twelve to make a herd of twenty that was apparently being pastured close to the pueblo for the protection of the cattle. The pueblo also had twelve horses, all that were left of "a very great number."

#### Changes After the Dominguez Visit of 1776

A number of details mentioned above during the discussion of the comparison of the archaeological, artistic, and photographic evidence and Dominguez's description all indicate that the church was remodeled after 1776.

Most of the evidence is for a major change to the sacristy area at the southern transept of the church. In 1776 Dominguez described the side altars in the two transepts as at the heads of each transept—that is, against the end wall. However, the Franciscans later cut a doorway through the south end wall of the south transept into the sacristy to allow the usual access to the sacristy from the transept of the church, instead of the roundabout route to the sacristy in use when Dominguez visited in 1776. The side altar had to have been moved, probably to the east wall of the south transept, to allow the creation of this doorway. The north side altar was probably moved at the same time to its east wall.

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<sup>145</sup>John Kessell, *Friars, Soldiers, and Reformers: Hispanic Arizona and the Sonora Mission Frontier, 1767-1856* (Tucson: University of Arizona Press, 1976), pp. 209-212.

<sup>146</sup>Fray Pedro de Vergara to Captain Juan Antonio Perez de Almazán, "Escrito . . . para las tierras y aguas, 1731," May 31, 1731, Old Spanish Missions Historical Research Library, Our Lady of the Lake University, San Antonio, Texas, Celaya microfilm, roll 3, frames 3560-3565. A second copy of this review is in the Celaya microfilm, 9:1299-1310.

Dominguez gave the width of the main sacristy in 1776 as 11 feet, the same width as the sacristy on the Nusbaum/Adams plan, but 8 varas, or 21.9 feet long, almost ten feet shorter than the later length of 31.5 feet. In fact, the earlier wall would have blocked the eastern part of the splayed doorway built through the south transept wall. The sacristy was therefore rebuilt after 1776, moving the end wall to the east.

Dominguez said that the roof of the sacristy in 1776 had 12 vigas, and was 8.2 feet above the floor.<sup>147</sup> The bond beams and corbels of the roof of the main sacristy are visible on the south side of the church. The viga sockets visible in photographs and on the building today are at 2-foot centers, which would allow 12 vigas in the length he gives the room, including one viga against each end wall. These vigas were 12 feet high to their undersides. This allows two possibilities: 1) when the sacristy was rebuilt after 1776, a new, higher roof was built over the space rather than the old, lower roof being extended to cover the longer new sacristy space; or 2) the first twelve vigas on the west end of the roof of the later main sacristy were the original roof of the earlier sacristy, built about 1714-1717, and extended for the enlarged sacristy.

Evidence supports this second view: in the early photographs, the north bond beam beneath the corbels set into the south wall of the transept of the church shows a joint under the thirteenth corbel and beam, at a distance of 26 feet from the west wall of the sacristy, where an extension was pieced into this beam to make it longer (see Figure 13.16, for example). The odd coincidence that this joint is just east of the twelfth beam is striking. The evidence indicates that on its west end this bond beam extended through the two-foot-thick west wall to its west face. If this was the original bond beam for the old roofing corbels and vigas and its east end had originally done the same thing, then the old location of the east face of the east wall would have been two feet east of the twelfth corbel and viga, which would give the original length of the room as 23.7 feet, or 8.6 varas, close enough to make this a reasonable hypothesis.

If the new sacristy was a remodeling of the old sacristy with the roof left in place and extended, then how do we explain the large difference in roof height? It appears that the floor level of the sacristy area had been higher than the floor level of the church, and that when the doorway was cut through the transept, connecting the interior of the church directly with the sacristy area, the Franciscans had had the sacristy floor dug out and lowered until the two floors were even with each other, a distance of about four feet. This implies that the sacristy floor had originally been about four feet higher than the floor level for the nave of the Zeinos church. We know that the Zeinos church had an altar platform and a clerestory added to it in 1696, about the same time its sacristy was built. This suggests that the sacristy was built with its floor at the level of the higher altar platform rather than the lower nave floor as one might expect. When the new church was built it was cut into the mound of rubble of the pre-Revolt church so that the floor of the nave and transepts at the east end of the church up to the stairs to the sanctuary was only a little higher than the nave floor at the front entrance on the west and the old sacristy, although cut into, was left walled off at the higher level. Most of the interior arrangements of the sacristy were undoubtedly changed by the addition of the transept doorway and the enlargement of the sacristy, and we have no idea how the later sacristy was furnished.

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<sup>147</sup>Dominguez, "*Reyno del Nuevo Mexico*," f. 4342; Dominugez, *Missions*, p. 210-11.

Dominguez mentioned no southeastern sacristy in his inventory. This room was added after the 1776 visitation. The empty space south of the apse was enclosed in walls and roofed at the same height as the new main sacristy roof, and a new door was cut through the south wall of the apse, symmetrically with the doorway on the north, and given an arched top. It was probably part of the same episode of construction as the changes to the main sacristy.<sup>148</sup>

About this same time access to the pulpit was improved by cutting a doorway through the south wall of the nave near the south transept, so that the pulpit could be entered from the Old Church rather than from the nave of the new church. A similar pulpit entrance was built at the mission church of San José de Tumacácori in Arizona in the 1820s, for example.<sup>149</sup> The angled braces at the front of the church, the east end of the nave, and the mouth of the sanctuary may all have been added after Dominguez's visit to counteract developing sags in these major beams.

In the convento it appears that the square buttresses along the south wall were added after the Dominguez visitation to counteract the usual slippage problem here. The west buttress of the convento was found to have a worn 1784 coin in mortar between the stones of its foundation. Therefore, it was built well after 1784 and was probably built over the foundations of the west torreon after it was torn down, leaving about a foot and a half of fill. It was probably part of a later post-1776 renovation than the renovation of the sacristies suggested above. The evidence suggests that the buttresses were added on the south side of the convento about 1800.

All these changes occurred after Dominguez's visit in 1776 and indicate a major series of renovations of the mission after that year. Kessell's discussion of the history of the mission and pueblo shows that Dominguez made his visit during the worst of a decline that Pecos had entered about 1770, encouraged by Comanches hostilities as mentioned by Dominguez in 1776. This decline continued through the early 1780s, reinforced by a smallpox epidemic in 1780-81.<sup>150</sup> Pecos was officially made a visita of Santa Fe in 1782, accepting a *de facto* condition that had been in effect since the early 1770s.<sup>151</sup> The physical evidence, however, clearly indicates that a recovery began at Pecos about 1786 that lasted until the late 1790s or 1800.<sup>152</sup>

This recovery is reflected in the historical record, although it did not seem strong enough to Kessell to describe it as such. As Dominguez pointed out, Pecos had been suffering severely from Comanche pressure since the late 1760s. Spanish authorities in New Mexico finally arranged a treaty with the Comanche on February 28, 1786. The subsequent peace brought back a moderate prosperity to Pecos for the next fifteen years. In August, 1790, Pecos was again made

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<sup>148</sup>Ben Wittick, MNM#15697, "ca. 1880."

<sup>149</sup>James E. Ivey, "Historic Structure Report, Tumacácori, Calabazas, and Guevavi Units, Tumacácori National Historical Park, Arizona," manuscript in the files of Tumacácori National Historical Park, Tumacácori, Arizona, 2004.

<sup>150</sup>Kessell, *Kiva, Cross and Crown*, pp. 342-43, 347.

<sup>151</sup>Kessell, *Kiva, Cross and Crown*, p. 349.

<sup>152</sup>Kessell, *Kiva, Cross and Crown*, pp. 403-410.

a *cabacera*, a condition that lasted until 1811. Kessell says Pecos was not assigned a resident missionary during this period, and includes supporting information in his table of priests at Pecos, where no permanent missionary is listed at Pecos for the period from 1794 to 1802. However, it appears that some of the priests Kessell considered as visitadors only, were instead more or less permanent. For example, Fray José Pedro Rubín de Celís, stated to be the "minister in charge of the Pueblo of Pecos" in 1794, was assigned as the resident priest at Pecos in that year and seems to have remained there until about 1802. Kessell does not mention Fray Celís in his discussion of the last years of Pecos. He indicates instead that Fray Buenaventura Merino, assistant pastor at Santa Fe, visited the pueblo every few months during the 1790s.<sup>153</sup> Clearly though, the physical evidence shows that someone was in residence at Pecos during these years, and directing a major rebuilding of the church during that time. Fray Celís, as the only person in Kessell's list who is suggested to be minister at Pecos, is the candidate for the effort, and the construction work therefore occurred between 1794 and 1802. The work on the church would most likely have occurred early in this period, the first few years after 1794, say 1794-98. Changes to the convento probably occurred after work on the church had been completed, probably after 1798.

By 1800 the new expectations apparently began to fade. The establishment of San Miguel del Vado in 1794 (although it had no settlers until 1798) began a shift in emphasis for trade and started the encroachment of Spaniards on the Pecos lands. Fray Diego Martínez Arellano became missionary to Pecos in 1802, and remained until 1804, when he was replaced by Fray Francisco Bragado y Rico, there from 1804 to 1810.<sup>154</sup> The minister of Pecos was stationed at San Miguel after 1811.

With the dropping population of Pecos Pueblo, the increasing population of Hispanic settlers just south of the Pecos land, and the moving of the minister to the Hispanic settlement, the pueblo and the mission began to slide faster into ruin. The Pecos Indians left the half-ruined pueblo sometime in the 1830s – the traditional date is 1838. The church went out of use, its books and furnishings were removed, and no maintenance would have occurred after that date. The settlement of a Hispanic town at the old fields of the pueblo on the Pecos River quickly started up and “borrowing” of structural material from Pecos pueblo and the mission began. In the mission the convento was scavenged first, because its materials were easier to get to and remove. Soon the mission was showing gaps in its fabric and the final collapse had begun.

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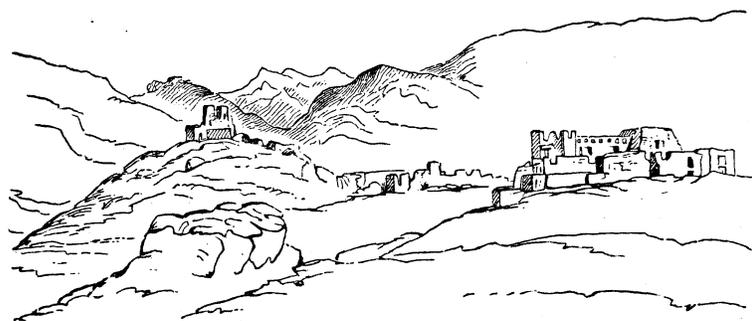
<sup>153</sup>Kessell, *Kiva, Cross and Crown*, pp. 420-422.

<sup>154</sup>Kessell, *Kiva, Cross and Crown*, pp. 502-03; 420-422

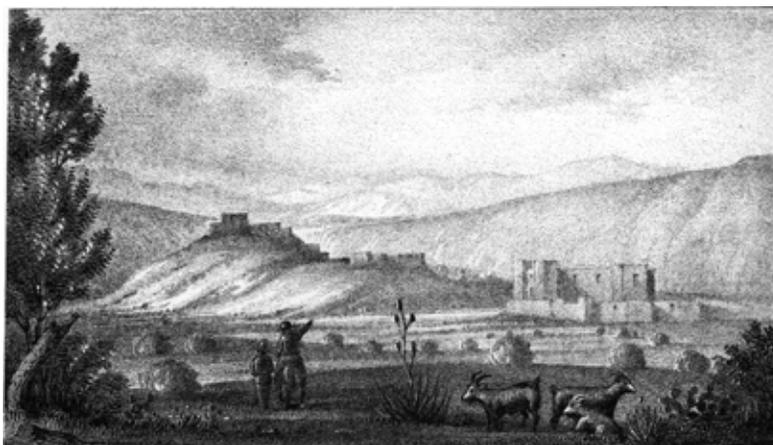
## Chapter Thirteen

### The Decay and Collapse of the Pecos Mission

After the mission was abandoned, not long after 1800, scavengers began removing woodwork and roof beams from the convento, slowly opening the rooms to the weather. In 1846, about thirty years after the last priest left the mission, we get our first evaluation of the condition of the buildings since Dominguez's detailed description of the mission seventy years before. This evaluation comes from the written description of Susan Magoffin, and the drawings of James Abert and John Mix Stanley, described in Chapter 12.<sup>1</sup>



**Figure 13.1.** Seth Eastman's drawing of Pecos, probably copied from James Abert's 1846 drawing.

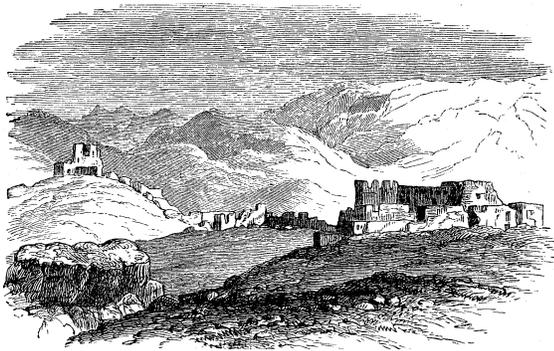


**Figure 13.2.** The engraved illustration of Pecos in Abert's published report, taken from his 1846 field sketch. The similarities between the buildings in this engraving and in Eastman's drawing in Figure 13.1 are obvious.

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<sup>1</sup>Susan Shelby Magoffin, *Down the Santa Fe Trail and Into Mexico*, Stella M. Drumm, ed. (Lincoln: University of Nebraska Press, 1982), p. 101; Seth Eastman, about 1856, in H. R. Schoolcraft, *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, Part IV, Bureau of Indian Affairs (Philadelphia: Lippincott, Grambo and Co., 1854), p. 29; John Mix Stanley, "Ruins of Pecos - Catholic Church." 1846, in Lt. Col. W. H. Emory, "Notes of a Military Reconnaissance from Fort Leavenworth, In Missouri, to San Diego, In California," 30th Congress, First Session, Ex. Doc. No. 41, 1848, p. 30.

As of 1846, the church ceiling was still largely whole. Abert's drawing shows the roof lines of the nave and transept to be still intact. The interior of the church was also apparently intact; Magoffin remarked on the intricately-carved altar. The tops of the bell towers had fallen, leaving crown-like remains at the top of the towers.



**Figure 13.3.** The 1887 William M. Thayer engraving based on Eastman's drawing of Abert's 1846 field sketch of Pecos.



**Figure 13.4.** Stanley's 1846 drawing of the ruins of the Pecos mission.

The convento, however, was in much worse condition. Scavenging and decay had clearly begun on these rooms some time earlier, probably in the 1810s. The second floor roof of the convento had fallen in or been removed, most of the west wall of the second floor had collapsed, and most of the second story openings visible were missing their lintels. The roofing of the second floor was still more or less intact in the area of the southeastern corner of the convento, as shown by its dark windows within the surrounding walls in Seth Eastman's copy of Abert's drawing, Figure 13.1. Stanley's drawing shows that the western and northern walls of the campo santo had partially fallen, leaving an irregular series of wall fragments on the north, and part of the west wall with its entrance gate intact, Figure 13.4. The baptistry was in good condition, with its dark window indicating that its roof was still in place. The portería entrance opened through the north wall of the convento just west of the baptistry, but its western face had fallen. A few of the easternmost vigas of the portería roof were still in place, but the rest of the ceiling to the west was gone.

Our next look at the structures was in 1854, eight years after the group of 1846 visits. By the time William Hinchey visited Pecos in November, 1854, the roof of the church had "nearly all fallen." This would have been mostly the ceiling of the church falling in between the vigas, but perhaps some removal of the beams of the transept roof had begun. Parts of the choir loft and choir balcony floors had also fallen, probably from decay. In the church, the main altar was gone, but Hinchey saw what was apparently its outline on the wall: "a large patch in the plastering, much in the form of a Gothic window extending from roof to floor." Parts of the convento could still be explored as a building rather than as a ruin. Hinchey described "a deep recess some seven feet high and three broad and at either side within there were horizontal slits

for holding shelves but the shelves were no more." This was perhaps the niche in the north wall of the north cloister a few feet west of the entrance from the Zeinos Church and baptistry.<sup>2</sup>

In the period from 1830-1860 herdsmen began making use of some of the convento ruins, sealing doorways and making stock enclosures of the standing walls. The two walls across Area H were built about this time, enclosing it again and attaching the ruined convento walls to the corrals of Areas G and D. This use of the convento as animal pens would have been well underway at the time of the John Mix Stanley drawing of 1846 that showed herdsmen with their goats in front of the ruins of the church and convento. By 1858 the walls of the convento had collapsed to below a useful level (being helped by treasure hunting, adobe robbing, vandalism, and goat hooves), and soon afterward the last stone corral walls were built around the convento and across the tops of the decayed convento walls.



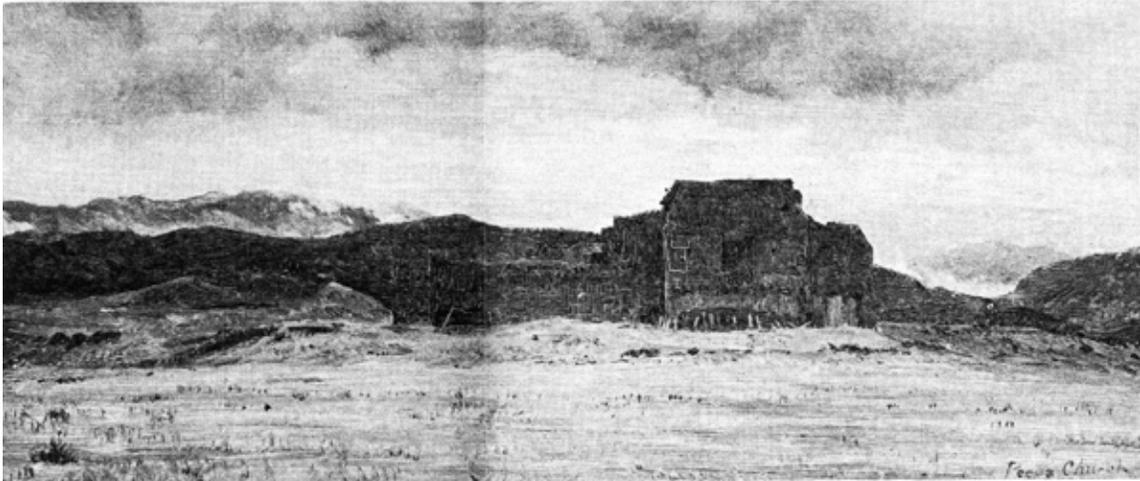
**Figure 13.5.** The Mollhausen painting of Pecos, based on his field sketches from a visit in 1858.

In the interval of four years from 1854 to 1858, a great deal of damage was done to the mission buildings. The transept beams were almost entirely removed – the tops of the walls above the clerestory window had a clear series of notches, where the roof beams had been removed. However, the clerestory window and the transverse beam above it were still in place. Some irregularities in the central area of the top of the south nave wall suggest that perhaps one or two nave vigas had also been removed. The choir balcony was still in place, but the diagonal braces beneath it were gone. Even more destruction had occurred south of the church. The convento was nothing but an area of mounds of rubble, with no significant survival of walls still standing. All of the south-side rooms, the “old church,” the main sacristy, and the southeast sub-

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<sup>2</sup>William James Hinchey, "An Irish Artist on the Santa Fe Trail," edited by Anna Belle Cartwright, *Wagon Tracks* 10(August 1996)4:12-22, p. 20

sacristy, had been unroofed and their south walls removed down to about half their original height.<sup>3</sup> It is likely that the choir loft and tribune were removed about this time.



**Figure 13.6.** "Pecos Church, New Mexico," painting by Worthington Whittredge, 1866, in *Kiva, Cross and Crown*, pp. 476-77.

The rate of removal remained high for the next eight years, from 1858 to 1866. Most of the roofing beams of the church were removed, and after that adobes began to be salvaged from the western half of the nave. The majority of this probably happened in the period from 1858 to 1862. The vigas and corbels of the nave were removed, leaving only the easternmost four or five vigas near the transept. The adobes from the upper ten feet of the nave walls were removed, from the west edge of the easternmost nave windows, westward to the front of the church. At the front of the church, the bell towers were torn down to about the same height, leaving about five feet of wall above the choir loft and choir balcony floors. The eastern windows looked very much like they did in the earliest available photographs by Hiester six years later, with the north window still complete, but the south window half gone. The arched tops of the pulpit doorway and the southeastern sub-sacristy doorway were still intact and in place.<sup>4</sup>

Not much happened to the church between 1866 and 1872. By 1869, the thin north wall of the "confessional" fell out, but its lintel remained in place, leaving an opening like a doorway. The east wall and part of the north wall of the northeastern sub-sacristy had fallen or been removed, and apparently most of its roof was gone.<sup>5</sup>

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<sup>3</sup>Painting by Heinrich Balduin Möllhausen, in Kessell, *Kiva, Cross and Crown*, p. 475.

<sup>4</sup>"Pecos Church, New Mexico," painting by Worthington Whittredge, 1866, in Kessell, *Kiva, Cross and Crown*, pp. 476-77.

<sup>5</sup>Pencil drawing by H.W.E., September 6, 1869. Photograph of drawing, Pecos neg. #4279, PNHP.



**Figure 13.7.** Pencil drawing by H.W.E., September 6, 1869. Photograph of drawing in the photograph collection at Pecos N.H.P.

The first photographs of the ruin were taken by H. T. Hiester three years later in 1872. The north nave wall and bell tower were no lower than they had been in 1866. The north wall of the northeastern sub-sacristy still stood to most of its height, but the east wall had fallen or been removed and all but the last two or so vigas at the west edge of the roof have been cut out (Figure 3.10).<sup>6</sup> The photographs showed that all but the northernmost of the choir loft vigas had been removed at some earlier time, each cut at the tip of its corbel (Figure 3.8). The stub of the north end of the main support viga was still in place on the remains of its corbel; both had been cut at the narrowest point, or neck, of the lowest corbel. The lower five feet or so of the choir window was still present. The tribune in the south transept had been cut out some time before.<sup>7</sup>

Some adobes had been taken since 1866 from the south side of the nave. The south bell tower was somewhat lower. The wall looked as though it had fallen in from above the door to the old church through the south nave wall, under the choir loft.<sup>8</sup> The south nave wall had lost another ten feet or so of adobes between this doorway and the east edge of the eastern nave window, leaving only the lowest seven feet or so of this wall.

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<sup>6</sup>Melender #185. Photo by H. T. Hiester, 1872, "The Old Temple from the East, Pecos Ruins," File "Historic Photos, Late 1800's - Early 1900's," PNHP; Kessell, *Kiva, Cross and Crown*, p. 478.

<sup>7</sup>Melender #90. Photo by H. T. Hiester, 1872, "Pecos Ruins; Man Standing Above Carved Woodwork Above Main Entrance to Temple," File "Historic Photos, Late 1800's - Early 1900's," Pecos neg. #2, PNHP.

<sup>8</sup>Heister, H. T., 1872, File "Historic Photos, late 1800's - Early 1900's." Pecos neg. #4308, PNHP Original photograph part of a stereo pair in Henry E. Huntington Library, photo file 1516.



**Figure 13.8.** H. T. Hiester's 1872 photograph of the nave of the Pecos church, taken from the ruined choir loft, Figure 13.9. Pecos neg. #1.



**Figure 13.9.** The remains of the choir loft in 1872. The decoratively-carved beam under the corbels can be seen above the doorway of the church. One floor beam survives in place against the north wall. H. T. Hiester, 1872, Pecos neg. #2.



**Figure 13.10.** The Pecos church from the east, 1872. H. T. Hiester photograph, PHNP.



**Figure 13.11.** The Pecos church from the southeast in 1872, looking across the mounds of the collapsed convento rooms. H. T. Hiester photograph, Pecos neg. #4308, PNHP.

Little additional wood removal had occurred in the church. The clerestory window was still in place above the lower double vigas at the east end of the nave and about three nave vigas remained in place to the west of the clerestory. Fragments of roofing above the east nave windows survived on these vigas. Perhaps three transept vigas remained in place. The roof and vigas were gone in the apse, but the main support beam at the west front of the apse still survived and all the bond beams were still in place. Four corbels on the south side of the apse remained on the bond beam here.<sup>9</sup>

No pictures are known after the Hiester series of photographs until an abrupt flurry of photographic activity eight years later in September, 1880, by W. P. Bliss, George C. Bennett, and Ben Wittick. Again there is little change in the condition of the church. Two vigas remained in place in the transept and a third viga had fallen at one end. The viga supporting the wall above the mouth of the apse was still in place with the bond-beam viga about six courses of brick above it. Shadows showed that the corbels and fragments of two transept vigas were still in place at the south end of the transept. The bond beam and the upper several feet of wall were gone at the east end of the apse, but the bond beam on the north nave wall was still there. Several more courses of adobes had been removed from the front walls above the choir loft and

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<sup>9</sup>Melender #89. Photo by H. T. Hiester, 1872, "Interior of the Old Temple," File "Historic Photos, Late 1800's - Early 1900's," Pecos neg. #1, PNHP; Kessell, *Kiva, Cross and Crown*, p. 479.

the tops of the bell towers, especially from the south bell tower and from along the north nave wall in this area.<sup>10</sup>



**Figure 13.12.** The interior of the church at the time of Bandelier's visit, September, 1880. Photograph MNM # 6502 courtesy Museum of New Mexico.



**Figure 13.13.** Bandelier's carriage parked in Area I, September 1880. Photograph MNM #6506 courtesy Museum of New Mexico.

During the next two months from September to October, 1880, more adobes were taken from the front quarter of the nave of the church. This brought the front walls and bell towers down to about the level of the bottom of the choir loft window, telling us that someone had carried out a major episode of brick-robbing just after Bandelier's visit. The choir loft beam stubs and corbels were gone from the front of the church. The north wall top above the choir loft main viga was lower by five courses of adobe brick, but little had changed around the surviving vigas at the east end of the nave above the remains of the easternmost nave windows, although weathering was clearly affecting this area.<sup>11</sup> A year or two later the bond beam over the mouth of the apse was still in place as well as at least two corbel ends still set into the adobe

<sup>10</sup>W. P. Bliss, MNM #119597, "Ruins, Pecos Mission, Pecos, New Mexico," ca. 1880; George C. Bennett #91 [#76], MNM #6502, "Mission Ruins, Pecos, New Mexico," probably 2-3 September, 1880; George C. Bennett (W. H. Brown), #345, MNM #40589. "ca. 1881;" on card on which photo is mounted: "Old Pecos Church," 2-3 September, 1880; Bandelier, "Visit," pl. VI, published an engraving of this photograph; see also Kessell, *Kiva, Cross and Crown*, p. 479..

<sup>11</sup>Ben Wittick, MNM #86876, "Pecos Mission Ruins, Pecos, New Mexico, October, 1880;" Ben Wittick, MNM #15684, perhaps October, 1880.

bricks above it. The "confessional" lintel on the north wall of the church remained, under a number of courses of adobes.<sup>12</sup>



**Figure 13.14.** Looking west from about the stairs of the altar platform. Ben Wittick photograph dated October, 1880. MNM #86876 courtesy of Museum of New Mexico.

By the mid-1880s, the upper bond beam over the apse mouth and the main viga over the east end of the nave remained in place. The broken stub of the corbel and viga that had supported the choir loft still survived in the north nave wall, but no trace of the stubs of the choir loft floor beams remained. One lintel of the south nave window still survived at the broken edge of the south wall, apparently flush with the outside face of the wall.<sup>13</sup> A little later in the mid-1880s, the last of the transverse roof beams had been removed. The lintel of the "confessional" in the north wall, however, was still in place. A number of fallen corbels littered the interior of the nave.<sup>14</sup> A major clean-up of the site took place a year or two after this. All of the fallen beams and corbels were cleared away. Rubble was removed so that the south wall of the nave stood cleanly above the fill of the nave itself, unlike in earlier pictures, including Randall #56155, where rubble slopes up to its top. The tops of the arches over the north and south sub-sacristy doors had fallen in, leaving only three adobe bricks forming the beginning of the arch

<sup>12</sup>Ben Wittick, MNM #15692.

<sup>13</sup>Ben Wittick, MNM#15697, has "ca. 1880" written on the back, but clearly dates from the mid-1880s.

<sup>14</sup>A. Frank Randall, MNM #56155, "Interior - Old Pecos Church," mid-1880s.

on the east edge of the doorway through the south side of the apse of the church.<sup>15</sup> Weathering began to alter the surviving walls severely. By 1890, the north nave wall over the "confessional" was still standing and the easternmost window of the north nave wall still had one of its lintel beams in place, but the walls looked badly weathered. The wall from the transept corner to the confessional fell about 1900 and many of the adobes from this rubble and from the surviving tops of the bell towers were removed. By 1911, only low mounds remained to mark the outline of the nave.<sup>16</sup> Archaeology and photographs show that the surviving section of the east wall of the apse fell outward to the east during this same period.

The pattern of disappearance of structural materials from the mission can best be explained as the results of scavenging adobes and wood from the convento and church over the years after the abandonment of the mission in the early 1800s. Directly involved in this scavenging was Martin Kozlowski, who has, in fact, been blamed for all of it. Incorporating Kozlowski's career in the area into the history of the decay of the mission makes these events clearer.

#### Martin Kozlowski and the Destruction of the Pecos Mission

Although most historians who have described the history of the Pecos mission have condemned Martin Kozlowski as the man who single-handedly did the most damage to the mission buildings, the story of Martin Kozlowski and his activities at his ranch just southeast of the ruined church and convento of Nuestra Señora de los Angeles de Porciúncula de Pecos has never been clearly told. The confusion surrounding Kozlowski's tenure at Pecos is striking. Kozlowski was caught up in the huge, bitter controversy over the ownership of the Pecos Grant and was among a number sued by the U. S. for damages for occupying Indian land.<sup>17</sup> This was part of the ongoing Pecos land dispute so well described in Emlen Hall's book, *Four Leagues of Pecos*. Considering the number of illegal and fairly shady events in that and other land claim conflicts in New Mexico, perhaps we should become suspicious about the number of documents attested to exist by disinterested people at the time, but now unlocated.

The suspicious nature of the pattern of missing documents suggests that illegal episodes of document tampering have affected the records. Is it just coincidence that when in 1873 T. B. Catron filed his first challenge to the right of non-Indians to occupy Pueblo lands, a case expected to go to the United States Supreme Court, he named Kozlowski as sole defendant and the Pecos Pueblo grant as the land occupied? Emlen Hall describes this action: "it is still a mystery why Catron elected to begin [this case] ... in the most moribund of New Mexico's twenty confirmed Pueblo Indian land grants." He suggests, "Catron and Martin Kozlowski had crossed political paths before. Catron may have selected him out of spite." Hall added, "[i]f

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<sup>15</sup>J. R. Riddle, MNM #76030, "Ruins of old Pecos Church, NM, ca. 1884," late mid-1880s.

<sup>16</sup>Anonymous, MNM #142681, "Pecos Mission Ruins, Pecos, New Mexico, ca. 1890."

<sup>17</sup>E. Donald Kaye, "Who Done It? (And did Bishop Lamy say it was o.k.?)" in *La Crónica de Nuevo México*, March, 1996, p. 2; Territory of New Mexico, United States District Court, First Judicial District, The United States of America v. Martin Kozlowski, F. 69½, New Mexico Supreme Court; Hall, *Four Leagues*, pp. 121-138.

local politics motivated Catron's choice of Kozlowski, it is difficult to understand why" he picked Kozlowski over the better-known non-Indian Pecos Pueblo grant claimant, Donaciano Vigil – unless, of course, Catron especially wanted to do harm to Kozlowski.<sup>18</sup> Catron went on to become famous in various ways and by 1912 was United States senator from the new state of New Mexico.<sup>19</sup>

The situation has been made worse, rather than clearer, by the contributions of historians.<sup>20</sup> The description that has formed the basis for most historical discussions of Kozlowski's alleged plundering of materials from the mission of Pecos is that of Adolf Bandelier. In his published account of his examination of the ruins of the pueblo and mission of Pecos in 1883, Bandelier said: "Mrs. Koslowski (wife of a Polish gentleman, living two miles south on the arroyo) informed me that in 1858, when she came to her present home with her husband, the roof of the church was still in existence. Her husband tore it down, and used it for building out-houses [out-buildings of Kozlowski's stage stop]; he also attempted to dig out the corner-stone, but failed..."<sup>21</sup> In his account of the actual events in his daily journal, Bandelier described his visit to the Kozlowski ranch: "September 2 [1880]: Went to Mrs. Kozlowski. Has been living here well over 22 years.... September 3:...Mrs. Kozlowski...saw the houses [of Pecos Pueblo] still perfect. The church was with its roof and complete. Kozlowski tore parts of it down to build stables and houses."<sup>22</sup>

The publication of Bandelier's journal for this period of his work in New Mexico included very brief biographical sketches of many of the people Bandelier met, compiled by A. J. O. Anderson. Anderson mentioned Bandelier's visit to the Kozlowski ranch and for some reason gave Kozlowski's first name as "Andrew."<sup>23</sup> Where Anderson got the name is unknown, but it is not mentioned anywhere else except in those who drew on Anderson's note in the published *Journal*. Bandelier himself does not mention an "Andrew" Kozlowski. He refers to Mrs. Kozlowski's husband simply as "her husband," or "Kozlowski." John Kessell, in *Kiva, Cross, and Crown*, follows Anderson and Bandelier and says that it was Andrew Kozlowski who

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<sup>18</sup>Hall, *Four Leagues*, pp. 121-22.

<sup>19</sup>Hall, *Four Leagues*, p. 207.

<sup>20</sup>See, for example, John Kessell, *Kiva, Cross and Crown*, pp. 474-76, and Emlen Hall, *Four Leagues of Pecos: A Legal History of the Pecos Grant, 1800-1933* (Albuquerque: University of New Mexico Press, 1984), pp. 122-27 and notes 41, 44, 45, 46; Francis C. Kajencki, *Poles in the 19th Century Southwest* (El Paso, Texas: Southwest Polonia Press, 1990), pp. 3-4, 6, 47-66.

<sup>21</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. I, part 2 (Boston: Cupples, Upham and Co., 1883), pp. 42,43.

<sup>22</sup>Adolph Bandelier, *The Southwestern Journals of Adolph F. Bandelier, 1880-1882*, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966), pp. 77, 80.

<sup>23</sup>Bandelier, *Journal*, pp. 411-12.

arrived in 1858, squatted on land near the pueblo, and whose widow told Bandelier the story.<sup>24</sup> Marc Simmons also said “Andrew” in 1981, apparently getting his information from John Kessell and Anderson’s biography in the Bandelier journal.<sup>25</sup> In his later writings on Pecos, Simmons changed Kozlowski's name to Martin, after his own research and an article published by Francis Kajencki in 1986 showed that this was Kozlowski’s correct name.<sup>26</sup> This is not the only time Kozlowski’s first name was confused. In 1881, the *Santa Fe New Mexican* called him Joseph Kozlowski, and Thomas S. Edrington and John Taylor say his name was Napoleon in their book, *The Battle of Glorieta Pass, A Gettysburg in the West, March 26-28, 1862*.<sup>27</sup>

Simmons summarized the now-accepted picture of Kozlowski’s activities at Pecos: “Martin Kozlowski was actually a squatter, and he laid claim to a large block of surrounding land that included the remains of Pecos. Unhappily, he used the ancient mission church as a source of building materials, hauling away adobes and roof timbers to construct his own ranch house, barn and corrals.”<sup>28</sup>

The evidence, however, indicates that this straightforward picture of the events that lead to severe damage to the church and convento of the mission of Pecos is far too simple, and too quick to call Kozlowski a squatter and give him all the blame for the destruction of the Pecos buildings. Indeed, Kozlowski acquired the stage stop from a previous owner, James Gray, who had operated the inn called “Roseville” at the springs of Pecos during the early 1850s, and it was Gray who apparently carried out at least some of the scavenging of Pecos material for the stage stop buildings.

#### James Gray and Roseville

The earliest reference to James Gray available so far is as Santiago Gray, who was involved in a lawsuit at Taos in 1855.<sup>29</sup> He subsequently appeared in the business letters of John M. Kingsbury, who first mentions his dealings with Gray on October 13, 1856. Gray apparently owed Kingsbury a debt, and had given him notes of money owed Gray as compensation. Kingsbury remarked in a letter to his partner James Josiah Webb that he had not yet had a chance

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<sup>24</sup>Kessell, *Kiva, Cross and Crown*, p. 474.

<sup>25</sup>Marc Simmons, “Pecos Pueblo on the Santa Fe Trail,” in *Exploration: Annual Bulletin of the School of American Research. Pecos Ruins, Geology, Archaeology, History, Prehistory* (Santa Fe: School of American Research, 1981), p. 4; Kajencki, *Poles*, p. 43.

<sup>26</sup>Marc Simmons, “Waystop on the Santa Fe Trail,” in *Pecos-Gateway to Pueblo and Plains*, Joseph Sanchez and John Bezy, eds. (Santa Fe: Southwest Parks and Monuments Association, 1988), p. 97.

<sup>27</sup>*The Santa Fe New Mexican*, March 15, 1881; Thomas S. Edrington and John Taylor, *The Battle of Glorieta Pass, A Gettysburg in the West, March 26-28, 1862* (Albuquerque: University of New Mexico Press, 1998).

<sup>28</sup>Simmons, “Waystop,” p. 97.

<sup>29</sup>District Court Records, Taos County, Criminal Cases, 1855, in State Archives and Records Center, Santa Fe, New Mexico; James Ross Larkin, *Reluctant Frontiersman: James Ross Larkin on the Santa Fe Trail, 1856-1857*, Barton H. Barbour, ed. and annotator, (Albuquerque: University of New Mexico Press, 1990), p. 115, n. 90

to try to collect on Gray's notes. "Should James Gray ask about the notes he gave me to collect, tell him I have had no time to do anything with them yet."<sup>30</sup> Subsequently he found that the notes were uncollectible and wrote Webb that Gray should not be given any credit for them.<sup>31</sup>

About this same time, James Ross Larkin, a sickly but well-to-do traveler from Saint Louis going to the Southwest for his health, came down the Santa Fe Trail and spent the night at the inn south of the ruins of Pecos on Nov. 14, 1856. "We stopped at Jim Greys house," he said in his journal, "a very comfortable place, where we enjoyed very good fare."<sup>32</sup> Six weeks later, heading back eastward towards Las Vegas, Larkin wrote on December 31, 1856, "Arrived at Grey's or 'Roseville' about 5 oclock P.M., & remained over night."<sup>33</sup> Larkin passed through the same place again a few days later, on January 6, 1857, on his way back to Santa Fe: "to Jim Grey's (Roseville), where we arrived about dark, & passed quite a pleasant evening, the hostess being quite agreeable."<sup>34</sup> At this point James Gray disappeared from the available records as the owner of "Roseville," the stage stop south of the mission of Pecos,.

After a period of four years, John Kingsbury again began mentioning the Pecos inn in his business correspondence with Josiah Webb. On February 10, 1861, he stated to Webb: "You will see in the last list of Notes one against Mr. Kozlowski for \$321.32. This man keeps the house on the road that Jim Gray had near Pecos Chirch. I have give my best to collect it & am tired with his promises. He owes the house I shall put this note in next court (which is in March) and try to make the money in that way."<sup>35</sup> This is the earliest known reference to Martin Kozlowski operating his inn near Pecos. The terms of Kingsbury's statement suggests that Kozlowski had already been present at the site for some time, long enough to convince Kingsbury to let him run up the rather large debt of over three hundred dollars, the equivalent of several thousand dollars today.

Kingsbury made good on his intent to file suit against Kozlowski. On March 3, 1861, he informed Webb that "I have commenced suit on note against Kozlowski. It is in San Miguel district & will get it to trial at the end of this month. Have no doubt but that I will get a judgement on it and think the money can be made." However, things did not work out as Kingsbury hoped. On March 30, 1861, he had to tell Webb that "I have got a judgment against Kozlowski for the amt. of his note and interest. Ashurst [the judge on the case] writes me that he has ordered a stay of execution untill 18<sup>th</sup> of June, being assured that the money will be

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<sup>30</sup>John M. Kingsbury, *Trading in Santa Fe: John M. Kingsbury's Correspondence with James Josiah Webb, 1853-1861* Jane Lenz Elder and David J. Weber, eds. (Dallas: Southern Methodist University Press, 1996), p. 44.

<sup>31</sup>Kingsbury, *Trading in Santa Fe*, p. 48.

<sup>32</sup>James Ross Larkin, *Reluctant Frontiersman: James Ross Larkin on the Santa Fe Trail, 1856-1857*, Barton H. Barbour, ed. and annotator, (Albuquerque: University of New Mexico Press, 1990), p. 101.

<sup>33</sup>Larkin, *Reluctant Frontiersman*, p. 112

<sup>34</sup>Larkin, *Reluctant Frontiersman*, p. 115.

<sup>35</sup>Kingsbury, *Trading in Santa Fe*, p. 273-74.

forthcoming at that time, and a poor show to make it now. The house & fixtures he finds were deeded to his boy [probably Joseph Kozlowski] at the time of purchase, so that we cannot touch it. So after all we must wait his pleasure.”<sup>36</sup>

Later, about March, 1862, during the Civil War engagement at Glorieta Pass, we hear that “Kozlowski’s Ranch, identified as Gray’s Ranch by several of the soldiers, had an excellent spring, wood, and flat, grassy slopes for grazing animals and camping.”<sup>37</sup>

There can be no doubt James Gray existed, and that he owned the stage stop at Pecos called “Roseville” during his operation of it. No deeds or other records of any sort dealing with James Gray in the records of San Miguel County have yet been located; certainly there is no deed for his acquisition of the Pecos inn, nor is there any record that Gray transferred the inn to Martin Kozlowski or any of the other persons that Kozlowski later said he had bought the land from. Kozlowski appears in early 1861 as the owner of the place, and already in debt to Kingsbury. This indicates that he acquired the place at least in 1860, if not a year or two earlier, but no record of such a transfer is on file in the San Miguel courthouse.

Martin Kozlowski had entered the U.S. Army in 1853, and had been discharged on March 2, 1858, in New Mexico,<sup>38</sup> and it is likely that he did not acquire “Roseville” until after the date of his discharge. This narrows the range of possible acquisition of the ranch by Kozlowski to the period from March, 1858 to sometime in 1860. I have yet to find any record of a lawsuit between Kingsbury and Kozlowski in the records of San Miguel County or the New Mexico State Archives. Although the result of Kingsbury’s lawsuit indicates that the court was satisfied that Kozlowski had legal ownership of the Pecos land and that he had legally deeded it to his son, no deeds or other records of any of these actions by Kozlowski are on record in the files of San Miguel County. Again, records dealing with Kozlowski’s land known to have existed are now vanished.

### The Construction of Roseville

James Gray built the stage stop inn at the springs south of the mission of Pecos probably about the end of 1855, some time before Kozlowski entered the picture. Tree ring dating of wood used in the construction of the main building and its outbuildings as they stand today indicate that at least one piece of wood still in the buildings could date to the period of the 1850s.<sup>39</sup> Gray undoubtedly did some of the early damage to the Pecos church and convento.

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<sup>36</sup>Kingsbury, *Trading in Santa Fe*, p. 280.

<sup>37</sup>Don E. Alberts, *The Battle of Glorieta, Union Victory in the West* (College Station: Texas A&M University Press, 1988), p. 43.

<sup>38</sup>Kajencki, *Poles*, pp. 49, 55. Kajencki includes a copy of Kozlowski's enlistment papers on p. 49.

<sup>39</sup>Jeffrey S. Dean, “Tree Ring Dating Report,” in Catherine Colby, Jake Ivey, and Tom Windes, *Fabric Investigation at Kozlowski’s Trading Post, Pecos National Historical Park*, draft report, 1998, p. 8, on file at Pecos National Historical Park, appendix I, pp. A-1 – A-10.

The review of the history of removal of material from the Pecos mission buildings in the first part of this chapter indicates that salvaging of the woodwork and perhaps adobes of the convento had been going on for some time before this, but the major episode of wood and adobe salvage from the convento occurred in the period from 1854 to 1858. There is clear evidence that some of this was carried out by James Gray to construct the Roseville buildings.

A physical examination of the walls of the stage stop building, carried out by myself and historical architect Catharine Colby in 1996, shows that red-brown bricks, some including wheat straw and others with chips and flecks of white wall plaster, were used in the construction of the earliest parts of the building.<sup>40</sup> The bricks with wheat straw are identical to the bricks made at Pecos to build the standing church, and those with white plaster flecks are identical to those made from the rubble of the pre-Revolt convento and used to build the new convento walls of the 1690s and early 1700s. The evidence of these bricks strongly suggest that at least the earliest portions of the present Kozlowski buildings were built of adobes taken from the mission of Pecos by James Gray.

The plan of the structures, as compared to the earliest available photograph, taken sometime before 1906,<sup>41</sup> indicates that there were several episodes to the construction of the stage stop buildings before the structures standing in the pre-1906 photograph reached that form. The physical evidence shows that portions of at least two earlier structures at a slightly different orientation were reused when the present buildings were built.<sup>42</sup> The tree-ring dates tell us only about the most recent re-roofings and additions of this complex building, and merely hint at some possible activity the middle 1850s.

As we have seen in the discussion of the graphic and documentary evidence in the first part of this chapter, the transept beams were removed from the church between 1854 and 1858, and usable vigas, window lintels, and other wood was almost completely scavenged from the convento, as probably were some of its adobes. Martin Kozlowski arrived at Pecos sometime after March of 1858 at the earliest, and possibly not until a year or two later. It is not likely that he had removed beams and adobes from the convento and church before June, 1858, when Möllhausen made the drawings for his painting of the Pecos church. It is clear that other salvagers had already removed wood and adobes from the church and convento before Kozlowski's tenure.

### Kozlowski at Roseville

Kozlowski acquired Roseville about 1860 in some unrecorded way that the San Miguel county court considered legal in 1861. A favorite topic of historians trying to illustrate how illegitimate Kozlowski's ownership appears to have been point out the severe disagreement between various statements Kozlowski made about the size of his ranch. Francis Kajencki, who

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<sup>40</sup>Colby, Ivey, and Windes, *Kozlowski's Trading Post*, p. 8.

<sup>41</sup>See the photograph of Kozlowski in front of his inn, published in 1906 and reproduced in Kajencki, *Poles*, p. 61. Kozlowski moved to Albuquerque in 1898, suggesting that this picture was taken before that year.

<sup>42</sup>Colby, Ivey, and Windes, *Fabric Investigation*, figure on p. 6, "Possible Construction Phases up to 1925," phase 1.

clearly is an apologist for Kozlowski, says he bought 600 acres near Pecos from Johan Pizer in mid-1861, and placed his home on the south bank of Glorieta Creek near a spring about a mile from the Pecos River. Emlen Hall, who is antagonistic towards Kozlowski, outlined much the same history of Kozlowski's arrival in New Mexico as that given by Kajencki, but pointed out that some of the surviving paperwork only indicated a 160-acre tract, or a tract of no given size. Hall described the size of Kozlowski's land as "ephemeral," and even implied that the appearance of "Andrew" Kozlowski in earlier historians' narratives of the events at Pecos was somehow further deceit on the part of Kozlowski, rather than error a century later on the part of A. J. O. Anderson and the historians who made use of Anderson's work.<sup>43</sup>

The actual situation is neither as clear as Kajencki would have it, nor as ephemeral as Hall makes it seem. When Kozlowski acquired the Pecos ranch and its size are certainly both unanswered questions. His wife, Ellen, told Adolph Bandelier that they had moved onto the site in 1858. The deed Kajencki cites as his proof that Kozlowski acquired 600 acres in 1861 in actuality states no size for the land. Kajencki says that Martin Kozlowski transferred this ranch of unstated size to his wife Helen Kozlowski on June 27, 1861, in Deed Book 4, p. 243, in the San Miguel County Courthouse at Las Vegas, New Mexico. Emlen Hall, on the other hand, says this deed is located in Book 9, pp. 346-47, and is dated June 24, 1861.<sup>44</sup> Perhaps we should extend Kozlowski's conspiracy to include influencing not only A. J. O. Anderson, but also Kajencki and Emlen Hall himself.

However, this particular confusion, at least, can be cleared up. First of all, according to the index book 9 contains no such deed. The index to the San Miguel County Deed Records, however, *does* list a deed from one Martin Kzrelachoski to his wife Elena Celerian,<sup>45</sup> recorded in Book 4, pp. 293-94, dated June 27, 1861—the deed was received at the courthouse on July 8, 1868. Although Book 4 was (of course) missing from the deed records, at least when I visited the courthouse, a xeroxed copy had been filed in the State Archives.<sup>46</sup> The deed itself said it was from Martin Kaslosqué to his wife Elena Celenan, and surprisingly (considering how many missing documents we have searched for so far in this enquiry), was copied from Book 4 at the pages listed in the index. In spite of their errors in listing the location of this deed, Kajencki and Hall had both been able to find the actual deed record, and each gave a fairly similar version of the boundaries of the ranch, translated from the Spanish text as it appeared in the deed book.

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<sup>43</sup>Kajencki, *Poles*, p. 63; Hall, *Four Leagues*, p. 124.

<sup>44</sup>Kajencki, *Poles*, pp. 55-56 and n. 17; Hall, *Four Leagues*, p. 122-23 and n. 44.

<sup>45</sup>Kajencki reads this name as Elena Celenan, and suggests that it is a misspelling of Callanan or Callahan; Kajencki, *Poles*, p. 52.

<sup>46</sup>San Miguel County Courthouse, Deed Record Book 4, pp. 293-94; xerox copy in New Mexico State Archives, "History Files, Persons," Box #103, I-L, folder "Persons-K."

*...siendo los linderos del terreno por el Norte, el alto del Arrollo de Pecos; por el Sur el alto del mismo arrollo; por el Oriente la salida del arrollo al Rio sin tocar terreno mas allá; y por el Poniente la Cerca que hasta ahora hay...*<sup>47</sup>

...the boundaries of the land being: for the north, the height of the Arroyo de Pecos; for the south, the height of the same arroyo; for the east the outflow of the arroyo into the [Pecos] River without touching the land beyond; and for the west the enclosure [a wall or fence] that is there today...

The Arroyo de Pecos was apparently the same as today's Glorieta Creek. This description claims essentially the flood plain of Glorieta Creek from its conjunction with the Pecos River westward up the creek for some unknown distance. If the arroyo floor was considered to average 575 feet wide, 160 acres would neatly reach from the mouth of Glorieta Creek to the Pecos church 2.3 miles upstream. The size of the ranch seems to vary between 160 and 600 acres according to which of Kozlowski's statements we use – but, of course, it is perfectly possible that he claimed several different tracts, of different sizes at different times.

The land, of no stated acreage, as described in the 1861 transfer from Martin to his wife does not mention the ruined mission or pueblo, but does state that Kozlowski acquired the land from one Johan Pizer or Piser.<sup>48</sup> Kajencki suggests that "Kozlowski gave his government bounty land warrant of 160 acres to Pizer in payment for the ranch." Certainly he transferred his warrent to *someone* for *something*, because it was eventually used by one John C. Julian in 1903 near Little Rock, Arkansas.<sup>49</sup>

A mortgage deed to Frank Chapman in 1879 says that the 160-acre ranch was along Glorieta Creek "near the Pecos church." The deed was very badly copied, and as written is from Martin Kozlowski and his wife "Elleace Kozloiski;" in the signature line, her name is given as "Ellene Kozlowski." Kozlowski says that he acquired the property from "Juncis Mahaax," which Emlen Hall read as "Julius Mahan," and the boundaries are given as "the ranch of Martin Kozlowski on the Arroyo de Pecos and in a southerly de Martin [Hall reads this as "direction"] near the Pecos church containing one hundred and sixty acres of land."<sup>50</sup>

Emlen Hall says that neither Johan Pizer nor Julius Mahan appears in any record of New Mexico other than these references by Kozlowski, and considers them to be a product of Kozlowski's imagination.<sup>51</sup> However, this may be an excessively harsh judgement. Note that

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<sup>47</sup>Hall, *Four Leagues*, n. 46 p. 316-17; Kajencki, *Poles*, p. 55.

<sup>48</sup>Kajencki, *Poles*, p. 56; Hall, *Four Leagues*, p. 123. The deed itself says Jolhan Piser.

<sup>49</sup>Kajencki, *Poles*, p. 56 and n. 17, 18.

<sup>50</sup>Martin Kozlowski to Frank Chapman, Book 11, p. 42, June 19, 1879, San Miguel County Courthouse, Las Vegas, New Mexico; Hall, *Four Leagues*, p. 123; Kajencki, *Poles*, pp. 55-56.

<sup>51</sup>Hall, *Four Leagues*, p. 123.

the first name of John C. Julian almost matches the first name of Johan Pizer, while Julian's last name almost matches the first name of the purchaser as Kozlowski gave it in 1879: Julius Mahan. It could be that Kozlowski did transfer his warrant to John Julian for some consideration, possibly land near the ruins of Pecos, and that Kozlowski later could not recall the man's name. Considering how bad the transcriptions are for these records, it is perfectly possible that Kozlowski remembered the name correctly, and that it was James Gray, but that this was misread and transcribed utterly wrong, as Julius Mahan, Junius Mahaax, or Jolhan Piser.

Perhaps the astute reader who so far has managed to keep track of this tangled sequence of events and subsequent historical interpretations has noticed that no deed appears to be on record that indicates Kozlowski actually owned or had any right to the ruins of the church and convento of Pecos. Again, although such a document is not, apparently, a matter of record, an item published in the Las Vegas *Daily Optic* on February 8, 1883, seems to indicate that it did exist and supported Kozlowski's claim to the church: "We were today shown a deed to the old Pecos ruins from Bishop Lamy to Martin Coslowsky. The consideration was one hundred dollars and the date of the instrument, which is undoubtedly legal, is Santa Fe, July 8th, 1863. However, it was not filed for record in the county clerk's office until a few days ago."<sup>52</sup> Adolph Bandelier described this as a "concession" to Kozlowski. It was apparently a permit purchased by Kozlowski to remove \$100 worth of timbers and adobes from the ruined mission. As might be expected by now, no such deed or permit can be found in the Index of the county records and the book being used to record deeds during early 1883 is (perhaps not surprisingly) presently unlocated in the courthouse.

It is odd that this unconfirmed deed allegedly did not appear until 1883, after questions had been raised in various publications about the legitimacy of Kozlowski's claim to the church – odd enough to trigger suspicions of conspiracy again. However, there is independent confirmation that the deed existed. In his report on Pecos, written in 1880 but published in 1883, Adolph Bandelier said that "[t]he Roman Catholic Archbishop of New Mexico [Lamy] has finally stopped such abuses by asserting his title of ownership; but it was far too late. It cannot be denied, besides, that his concession to Kozlowski to use some of the timber for his own purposes was subsequently interpreted by others in a manner highly prejudicial to the preservation of the structure."<sup>53</sup> This makes it clear that as of 1880, Bandelier was aware of (or at least had been told by Kozlowski's wife about) a legal agreement between Lamy and Kozlowski (made in 1863, according to the *Daily Optic*) for Kozlowski to remove building material from the mission, but one less than a title to the mission, and that Lamy had subsequently rescinded this permission, sometime before 1880. The nature and tone of Bandelier's statements suggest that this information was generally known, rather than available only from Kozlowski's wife, Ellen or Elena. Bandelier indicated that Archbishop Lamy stopped the destruction of the Pecos buildings by "asserting his title of ownership" to the church.

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<sup>52</sup>Las Vegas *Daily Optic*, February 8, 1883.

<sup>53</sup>Adolph F. Bandelier, "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. 1, part 2 (Boston: Cupples, Upham and Co., 1883), pp. 42, 43.

Bandelier's testimony and the *Daily Optic* article of 1883 make a reasonable case that Kozlowski had been given permission to remove some roof timbers and adobes, rather than having outright ownership of the site, and that other scavengers had carried out much more of the damage. Bandelier, as a disinterested observer who actually had visited the site and had spoken to several of the principal parties, should be considered to have presented the most accurate summary of the situation, in the absence of any other evidence. Therefore, it is reasonable to conclude that regardless of the present lack of record of ownership of the Kozlowski ranch (only part of the incredible muddle of the ownership of the entire Pecos land grant), Martin Kozlowski had indeed been given permission by the Archbishop to remove wood and adobes from the Pecos church and convento.

Bandelier called this destruction of the church vandalism,<sup>54</sup> and in 1881, the *Daily New Mexican* took the same position. Speaking of him as "Joseph Kaslowski," (actually Martin's son) the newspaper stated, "[t]hinking that the church was his property, he destroyed the records of its antiquity, tore down its beams and used its adobes for building purposes." The newspaper implied that divine retribution stopped Kozlowski's depredations on the church: "Kaslowski's son, while engaged in the same work of Vandalism was struck and killed by lightning . . . the father became insane and killed his only remaining son, for which crime he was tried, convicted, and sentenced to two years imprisonment."<sup>55</sup>

Although the story as presented in the newspaper is wrong in most of its details, Martin Kozlowski was indeed imprisoned for murder; he had killed José Dolores Archuleta during a fight between Archuleta and Kozlowski's two sons, Thomas and Joseph, in January, 1878. He was absent from his ranch at the time of Adolph Bandelier's visit in September, 1880, not because his wife was a widow, as John Kessell suggested, but because he was in the San Miguel County jail from March, 1879 to March, 1881.<sup>56</sup> His son Joseph was not dead, either, but living with his wife Eutemia Ruiz in the town of Pecos.<sup>57</sup> Kozlowski's sons had been involved in an argument with Archuleta, and Martin claimed that he had fired his pistol at Archuleta when he thought that the two boys were in danger.<sup>58</sup> It appears, however, that Thomas Kozlowski had

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<sup>54</sup>Bandelier, "Visit," p. 42.

<sup>55</sup>*Santa Fe Daily New Mexican*, March 15, 1881; Hall, *Four Leagues*, p. 124 and n. 52.

<sup>56</sup>1880 Census, enumeration district 14, Las Vegas, 2 June 1880, NMSRCA.

<sup>57</sup>1880 Census, enumeration district 36, p. 4, Town of Pecos, NMSRCA.

<sup>58</sup>Manuel Varela, Justice of the Peace, in criminal case no. 921, San Miguel County, January 28, 1878, New Mexico State Records Center and Archives (NMSRCA); *Las Vegas Gazette*, February 2, 1878; *Santa Fe Weekly New Mexican*, February 9, 1878; *Santa Fe Weekly New Mexican*, March 22, 1879; Criminal Case no. 898, Territory of New Mexico vs. Martin Kozlowski, March 1879 term, San Miguel County District Court, NMSRCA; "Court Proceedings of San Miguel County," *Santa Fe Weekly New Mexican*, March 22, 1879; Criminal Case no. 898, Commitment and Execution, U.S. vs. Martin Kozlowski, NMSRCA; Writ of Sheriff Hilario Romero, March 11, 1881, Criminal Case no. 898, San Miguel County District Court Records, NMSRCA; E. Donald Kaye, "Who Done It? (And did Bishop Lamy say it was o.k.?)" in *La Crónica de Nuevo México*, March, 1996, p. 2; Emlen Hall, *Four Leagues*, p. 124.

originally assaulted Archuleta.<sup>59</sup> When Kozlowski was released two years later, the *Santa Fe New Mexican* announced his return to society, with the maximum amount of sensationalism and minimal accuracy.<sup>60</sup>

In spite of all the legal and public uproar about the ownership of the Pecos land and the destruction of the Pecos church, Kozlowski lived at Roseville with his wife until her death in 1895, and continued at the ranch until 1898, when he moved to Albuquerque; he died in 1905. Archbishop Lamy died in February, 1888, in Santa Fe.<sup>61</sup>

#### Did Kozlowski Do It?

A comparison of this history of the activities of James Gray and Martin Kozlowski at Roseville with the history of the destruction of the Pecos mission given in the first part of this chapter gives us the following table:

1840-1854	Salvaging of most of the wood and some adobes from the convento and south church buildings. The church was aging, the tops of the bell towers had fallen, and its ceiling was falling in, but little salvaging within the building had occurred. The majority of this scavenging occurred before anyone was at "Roseville," the Pecos stage stop, and therefore was carried out by other settlers in the area, and in Pecos.
1854-1858	All the woodwork of the convento and south church buildings – the "old church," main sacristy, and southeastern sub-sacristy – was removed in this period, and these structures were mounds of ruins with a few wall stubs showing. It is likely that the northeastern sub-sacristy woodwork was removed during the same time. Major scavenging of wood from the church began. Within the church, the choir loft and tribune beams were probably cut out in this period. James Gray began the construction of Roseville about the end of 1855. He left sometime after January, 1857. By June, 1858, the transept beams had been removed and perhaps one or two of the nave beams.
1858-1866	Kozlowski acquired Roseville about 1858-1860. He was first mentioned as having been there for a while in February, 1861. Supposedly he had permission from Lamy to remove wood and adobes from the mission beginning July 8, 1863. Most of the wood of the church was removed during the period between 1858 and 1866. All but one or two transept beams, all but three or four nave beams, and all the apse beams were taken out of the building. Adobes began to be scavenged from the walls of the nave and bell towers of the church, lowering the walls by about ten feet west of the easternmost nave windows.

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<sup>59</sup>*Santa Fe Weekly New Mexican*, July 20, 1878; Kajencki, *Poles*, p. 62.

<sup>60</sup>*The Santa Fe New Mexican*, March 15, 1881.

<sup>61</sup>*New Catholic Encyclopedia* (New York: McGraw-Hill Book Company, 1967), vol. 8, p. 355.

- 1866-1872 The rate of removal of adobes dropped considerably, suggesting Bishop Lamy stopped the scavenging about 1870. A section of the south wall of the nave was removed, lowering it another eight to ten feet, and some removal from the top of the south bell tower occurred, but little else.
- 1872-late 1880s The rate of removal of adobes remained low. Kozlowski was in jail from March, 1879, to March, 1881. Only two or three feet of adobes were removed from the front half of the church, mostly on the south bell tower. The remaining roof beams decayed and began to fall in on their own. The ruins were cleaned up and much of the rubble removed from around the walls in the late 1880s. Lamy died in 1888.
- Late 1880s-1910 The last of the woodwork was removed from the building, except for the lintels of the north transept window, the south transept window/door, the main sacristy doorway, the confessional, and one lintel beam of the easternmost nave window in the north wall. About 1900 the rest of the north nave wall fell or was adobe robbed, and the last part of the east wall of the apse fell to the east.

This tabulation suggests that Lamy stopped the removal of material from Pecos about 1870, and that scavenging remained fairly low from then until his death in 1888. After his death, the removal of materials from the church began again. Photographs show that scavenging continued through the 1890s until the church was stripped of all usable wood and most of the easily removed adobes by 1900. Lamy apparently had managed to slow down the removal of materials from the church for about twenty years.



**Figure 13.15.** The Pecos church about 1890. Anonymous, photograph MNM #142681 courtesy of Museum of New Mexico.

### The Last Days Before Excavation and Stabilization Began

A series of photographs by Jesse Nusbaum illustrate the condition of the church before stabilization began on the church of Pecos. About the time of his visit to Pecos with Alfred Kidder in 1911, Nusbaum took a photograph from the front of the church towards the apse, showing that since 1890, the north nave wall had fallen to grade as far east as the stub of the nave wall where it intersected the transept.<sup>62</sup> The eastern part of the south nave wall and arched pulpit doorway were still standing (Figure 13.15). The next photographs that show any structural detail were taken during the excavations by Nusbaum in 1915. The last surviving section of the south nave wall, including the arched pulpit doorway, collapsed about 1914, taking the west wall of the south transept down with it. The west wall of the north transept came down during Nusbaum's efforts to support it and stabilize its foundations in 1915, as I have described in Chapter 6.

With this, we have clearly reached the limits of the historical, archaeological, and photographic record, barring the discovery of new bits of evidence to fit into the puzzle, like Barbour's transcription of the Larkin journal, or Elder and Weber's publication of the Kingsbury-Webb correspondence. I have little expectation that missing deeds or court records will miraculously reappear. What we have seen, however, suggests that blaming Kozlowski for everything from the missing beams and adobes of the Pecos church to the missing deed records in the San Miguel county courthouse and the confusion of Kozlowski names is neither justified nor good historical methodology. A great deal happened in northern New Mexico during the second half of the nineteenth century and a number of people could see benefit from mining construction material from abandoned churches (even other churches could see this benefit, like the church in Las Colonias, a small town east of Pecos, which still has a number of corbels from Pecos in its roof), or from confused or disappeared land records. Kozlowski was very likely not the one who did most of the scavenging of Pecos or created the confusion in the records.

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<sup>62</sup>Jesse Nusbaum, MNM #139056, "Mission Ruins, Pecos, New Mexico, 1912." There is some confusion about the date of the photograph; it appears to be more likely to have been taken during Nusbaum's visit to the ruins with Kidder in 1911.



**Figure 13.16.** The ruins of the Pecos church in 1911. Jesse Nusbaum, photograph MNM #6631 courtesy Museum of New Mexico.



## Chapter Fourteen

### **Pecos in the Context of the New Mexico Missions**

#### Introduction

We have spent the last thirteen chapters examining the Pecos mission buildings, their appearance, and their development over the almost two hundred years the mission was in use. In this final chapter, we will look at Pecos among the other missions of New Mexico, and of the northern frontier of New Spain.

As unusual as the vast pre-Revolt church of Pecos was, it was not “unique in all respects,” as Jean Pinkley described the place. Most of its characteristics had been developed elsewhere, although Pecos is without a doubt the most extreme use of these characteristics. In fact, the discovery of the great church at Pecos changed our understanding of a good many things about pre-Revolt architecture, and the context within which these churches were built.

#### The New Mexico Architectural Characteristics of the Mission of Pecos

The architectural historian George Kubler criticized Ross Montgomery’s synthesis of how the Franciscans lived in the convento at Hawikuh with the statement that Montgomery failed to discuss “the relationship of Hawikuh to the rest of Pueblo Mission architecture.”<sup>1</sup> In order to avoid a similar criticism of this study, we will examine the architectural place of Pecos among the pre-Revolt missions of New Mexico.

The presence of the remarkable pre-Revolt adobe church at Pecos demonstrated a number of important but previously unrealized elements of the pre-Revolt mission enterprise. Probably the single most important step of understanding that can be made by looking at this building is that it showed that there was a dynamic, creative, imaginative spirit at work in New Mexico in that period, a process of development of the design of the churches, and a willingness to experiment, all while keeping the same basic elements of flat-roofed (or “trabeated,” as Kubler called it) design. Even Kubler had not recognized the presence of this animating force until about 1970 when he heard of the discovery of this unlikely building. This may have been because such ideas did not fit comfortably with his paradigmatic position that New Mexico missions were built using only Indian techniques, a position that, although out of date, has yet to be clearly revised by other architectural historians of the southwest.<sup>2</sup>

The evidence of this dynamic development reconfigures our perception of the New Mexico churches, and allows us to recognize the explosion of new church forms soon after 1610, and the creation of the Great Churches, of which Pecos is one. These were not experiments in the basic methods of construction – the New Mexico churches remained the same trabeated

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<sup>1</sup>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*, vol. 20, *Contribution from the Museum of the American Indian* (New York: Heye Foundation, 1966); Kubler, *Religious Architecture*, p. xii.

<sup>2</sup>This topic is addressed in James Ivey, “George Kubler and the Prime Object at Pecos,” thesis, University of New Mexico, 2003.

buildings throughout the seventeenth century. Rather, the experiments were in what could be done with such construction, how far this sort of building could be taken. They attempted the nearly impossible in church construction, and the Pecos church undoubtedly marks the limit of that experimentation.

The changes to the buildings at Pecos indicate that they were responding to the same province-wide pressures that I have identified at other missions in New Mexico. During the formative period of 1598-1610, the few more permanent churches of New Mexico were all rather long and narrow flat-roofed buildings without transepts or transverse clerestory windows. During the period from 1610 to 1620 this simple church continued to be used at many new missions – the “Lost” church at Pecos, built about 1617, is an excellent example of this sort of simple church. The experimentation with larger, more complex churches began in this period, and the Great Church at Pecos, planned and started at the end of the decade, is the best known example.

George Kubler considered the transverse clerestory window to be a defining characteristic of the “style” of the New Mexico mission church, but they were actually rare in the seventeenth century. Of these churches, only Abó, Quarai, Acoma, and Guadalupe in present Juárez are known to have had such windows. The idea of the transverse clerestory window with its higher transept and apse arrived in New Mexico from the south apparently about the mid-1620s, and so far as we know was first used at Quarai, begun in 1626.<sup>3</sup> It may have come associated with the concept of the transepted mission church, and again Quarai is our earliest known example. I suspect that all the transepted churches had clerestory windows, but without specific descriptions saying so (descriptions that may yet be found in the records of New Spain), this must remain only a suspicion. After the clerestory was first used on transepted churches, it was later applied to the single-naved church – the best example of this sort of clerestoried single-naved Great Church is Acoma. Archaeological evidence in the form of fragments of broken windows lying on the main altar stairs, apparently fallen from above, suggests that the later single-naved mission churches at San Marcos and Hawikuh also had clerestory windows, continuing the general design first seen at Acoma.

Recent research supports the idea that the transverse clerestory window developed in the last decades of the sixteenth century somewhere in northern Mexico.<sup>4</sup> For example, architectural historian Jorge Olvera found a late sixteenth-century transverse clerestory window on a church in Leon, Guanajuato.<sup>5</sup> Olvera described the building as a fortified chapel with a transverse clerestory window, “very similar to the religious architecture of New Mexico ... the southernmost example of the style of the missions of New Mexico,” and possibly among the prototypes of the “New Mexican” style. Olvera’s conclusions are supported by the research of Gloria Gifford, who

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<sup>3</sup>Ivey, “George Kubler and the Prime Object at Pecos,” p. 187.

<sup>4</sup>George Kubler, *The Religious Architecture of New Mexico*, 4th ed. (Albuquerque: University of New Mexico Press, 1972), p. 133; George Kubler, *Mexican Architecture of the Sixteenth Century*, 2 vols. (New Haven: Yale University Press, 1948), vol. 2, p. 274.

<sup>5</sup>*Southwestern Mission Research Center Newsletter* 20(May, 1986)66:8.

found a transverse clerestory church in Madera, Chihuahua, dating to the sixteenth or seventeenth century.<sup>6</sup>

Although the plan of the Pecos church, with its heavy transept-like form and the probable towers at the eastern edges of the sacristy and side chapel, provided ample opportunity to build a clerestory at the west end of the nave, forty feet above the floor of the sanctuary, the tentative chronology of the use of the transverse clerestory window in New Mexico indicates that Pecos would not have had a clerestory window. In Figure 11.9 the church is shown without one. Pecos's sister church at Giusewa, built at the same time, had a similar relationship of nave to side chapels, and the surviving remains prove definitively that it had no such window. This suggests that Pecos and Giusewa were somewhat similar in their general massing, with a long, low profile broken by the six towers at Pecos and the single bell-tower above the apse at Giusewa. It appears that they continued the pre-clerestory method of using a continuous-level flat roof, and they give us the suggestion of a stylistic change from the Great Church with a flat roof to the somewhat smaller experimental church with transepts and clerestories about 1625. A third church, San Gregorio de Abó, was built from a smaller "frontier" type church beginning about 1645 and has a strong resemblance to Pecos and Giusewa but had a clerestory window.<sup>7</sup>

In the early 1630s, a sudden optimism arose as the result of the success by the Franciscans in their negotiations for a royal support and supply contract, approved in 1631. The contract provided for an increase in friars in the province, expected to be the first of several. The conventos in a number of missions were rebuilt with an increase in rooms that appear to be residential cells about this time, and the convento at Pecos was rebuilt and enlarged during this period.

About 1640 the Franciscans began building separate baptistries at or near the fronts of existing churches of New Mexico. Prior to ca. 1640, the baptistry had been placed under the choir loft at one side of the main entrance door, but after this date, the baptistry was always in a separate room to one side of the nave or entrance in virtually every church for which we have any information. At Pecos the baptistry was added to the church during the use of black brick for construction, before the advent of red-brick construction about 1645. The change in the location of the baptistry seems so widespread that I suspect a general order went out to all Franciscan missions in New Mexico, or possibly all over the New World, but without more comparative information and perhaps historical research in the Franciscan archives, this remains conjectural. However, looking through George Kubler's *Mexican Architecture of the Sixteenth Century*, I find that many of the sixteenth-century mission churches did not have separate baptistry rooms built at the front of the church, and of those that did, most look suspiciously like later additions.

Beginning about 1655, the Franciscans of New Mexico experienced a rebirth of the optimism of the 1630s, and during the period from 1655 to 1660, the province saw an increase in the number of friars, returning to the count of the early 1630s. At many missions a period of

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<sup>6</sup>Personal communication, Gloria Gifford to James Ivey, August 10, 1993.

<sup>7</sup>James E. Ivey, *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, *Southwest Cultural Resources Center, Professional Papers* (Santa Fe: National Park Service, 1988), pp. 66-91.

new construction and redesign ensued, during which second stories were added to some missions, including Pecos.<sup>8</sup>

The period of severe famine in the late 1660s and early 1670s produced specialized construction at some missions, where a secure room was built adjacent to the kitchen, with very limited, controlled access. Such an episode may well have happened at Pecos during the last of the sequence of pre-Revolt construction with the changes to Rooms 34-36, on the south side of the convento next to the kitchen.

Many of the post-Revolt mission churches of New Mexico were rebuilt from the ruined church of the pre-Revolt mission at the site. The least amount of rebuilding happened at Acoma, where apparently only the clerestory window fell in during the twelve years of the Interregnum. Socorro and Isleta are examples of the middle range of this reuse, where the roof and upper walls disappeared during the revolt and in the years afterwards. Here, the damaged walls were built back up and the churches re-roofed. San Miguel in Santa Fe falls towards the far end of the range, where very little of the original building was reused. Here, although the walls stood almost to full height at the time of the reconquest, by 1710 only a few feet of the wall survived. They were leveled off to a height of about four feet, and the church was rebuilt on that low remnant, following the same plan as the last pre-Revolt building. Pecos was at the extreme end of the range of reuse. Probably large sections of the walls of the church stood to some height at the time of the reoccupation, but the church was much too large for it to be rebuilt in its original form. I suspect that such a reconstruction may have been considered, while the convento was repaired and the small church in Area I was built and used, but ultimately the surviving walls of the building were leveled and the new church built on the platform created by this leveling. The south wall foundation of the church served as the foundation for the south wall of the new church, but that was the limit of the reuse of the walls of the pre-Revolt building.

The eighteenth century church of Pecos was a graceful, well designed building. In fact, it is one of the better post-Revolt churches, and has some resemblance to the other churches built new in the eighteenth century. The parochial church built at Trampas is of this same general appearance. The plan of Pecos actually resembles La Purísima Concepción at Quarai, enough to suggest the possibility that surviving pre-Revolt churches may have formed the models for new churches in the province.

### The Frontier Church

Comparing Pecos to the wider range of mission buildings all across New Spain produces further interesting points to consider. Probably the most interesting is the archetypical building I call the "frontier church." This discussion will recapitulate the events of the development of the mission church and convento in New Mexico from the viewpoint of the development of the mission on the broader northern frontier of New Spain.

As I have said above, the pre-Revolt church at Pecos was an extreme example of the Great Churches of New Mexico, that began to be built at some pueblos soon after the change of the province to a Royal administration in 1610. The Great Churches were themselves unusually large and elaborate versions of the typical New Mexico flat-roofed church. According to George

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<sup>8</sup>Ivey, *Loneliness*, p. 31.

Kubler and all subsequent architectural historians, all these churches supposedly developed in New Mexico as copies of Puebloan buildings. Kubler wrote *The Religious Architecture of New Mexico* with the underlying conviction that the seed from which New Mexico mission style developed was the architecture of the Pueblo Indians. He considered the "trabeated construction of the Pueblo Indians" to be the system from which the entire basic building style of the Franciscans derived.<sup>9</sup> The style reflected the "limited materials and aboriginal techniques" of the Indians, and resulted from the refusal of the Indians to learn any other building methodology, what he referred to as the "passive resistance of a native race."<sup>10</sup> "The ancient technical habits of the Indians were not easily replaced with new ways of doing things," he argued.<sup>11</sup> These assumptions, that the Franciscans arrived at their New Mexico mission style by borrowing Pueblo Indian building methods, and that they worked with virtually no technical knowledge or methods, color all of Kubler's analysis, and are repeated by most of those who use his work.

It is clear, however, that the "typical New Mexico flat-roofed church" was not a development localized in New Mexico, but rather had been brought to the province by the Franciscans in an already-developed form. That form was the "frontier church," a standardized small flat-roofed building that was used almost everywhere in the Spanish New World.

The familiar simple, flat-roofed mission church is commonly encountered across the northern frontier outside of New Mexico in Texas, Arizona, California, and in the provinces to the south, in modern Mexico.<sup>12</sup> These were the generic, back-country churches of Mexico. By the late sixteenth century, as the effort to establish a colony in New Mexico was begun, the elements of these churches had become part of a frontier mission design, such as at San Francisco de Asís de Tlahuelilpan, near Tula in Hidalgo, Santa Escuela de Tlalmanalco, Estado de Mexico, San Pedro y San Pablo de Jilotepec, Estado de Mexico, or La Huatapera de Uruapan, Michoacan.<sup>13</sup>

The characteristics of these simple buildings are easily seen. They were single-nave churches, without transepts or side aisles, and were relatively small buildings, perhaps eighteen to twenty-five feet wide, and sixty to one hundred and ten feet long, with flat, viga-supported roofs. Such a church was frequently called the "*iglesia interin*," the interim or temporary church. The building was the solution to the Franciscan need for a fairly large, fairly long-lived church at their missions that would serve until they could get a stone-built, vaulted final church constructed.

George Kubler contributed significant new information about Spanish colonial planning and construction methods with the publication of his *Mexican Architecture of the Sixteenth*

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<sup>9</sup>Kubler, *Religious Architecture*, p. xiii.

<sup>10</sup>Kubler, *Religious Architecture*, p. xiii, 6.

<sup>11</sup>Kubler, *Religious Architecture*, p. 132.

<sup>12</sup>The following discussion is adapted from Ivey, "George Kubler and the Prime Object at Pecos."

<sup>13</sup>Kubler, *Mexican Architecture*, pp. 173, 232; Rafael López Guzmán, et al., *Arquitectura y Carpintería Mudejar en Nueva España* (Grupo Consorcio de Fabricaciones y Construcciones, 1992), pp. 98, 113, 116, 120, 140.

*Century* in 1948, eight years after he published *The Religious Architecture of New Mexico*, and discussed these simple churches. Since then, Mexican research on the flat-roofed mission churches of Mexico has continued, most recently described by Rafael López Guzmán in *Arquitectura y Carpintería Mudejar en Nueva España*.<sup>14</sup> Among the other churches with wooden roofs, this work discussed flat-roofed frontier churches at a number of places in Mexico, with construction dates in the sixteenth century.

The frontier church was therefore not developed in New Mexico at all, but had been the standard procedure for almost eighty years in Mexico before New Mexico was settled. In fact, Guzmán says that "*los modelos más inmediatos*," the most immediate models for this type of church, derived from Andalucía as it was being returned to Christianity after eight centuries under Islam.<sup>15</sup> Ross Montgomery in 1940 proposed a similar idea, that rather than being a design peculiar to New Mexico, the prototypes of the New Mexico mission buildings "may be . . . readily found in the primitive Franciscan convents dotting the hills and vales of Tuscany and Umbria, or in those of Spain."<sup>16</sup>

In Mexico, the vaulted church did not become a standard feature of mission churches until after about 1550, and usually only at the more prosperous missions in significant towns near Mexico City. Before this date, the principal buildings were not vaulted, although some major buildings were constructed with a vault over the sanctuary or sacristy. The most familiar of these is Acolmán, an Augustinian mission built in the mid-sixteenth century that originally had a flat wooden roof. The vaulting of the nave and sanctuary and the various buttresses along the exterior of the building were added in a series of construction episodes through the sixteenth and seventeenth centuries, partially covering wall paintings in the nave and sanctuary.<sup>17</sup> Farther away from the large populations and already-existing expertise in stone-cutting of central Mexico, the missionaries did not attempt even these large but wooden-roofed structures; instead, they settled for much smaller, simpler buildings.

It appears that as the mission frontier in Mexico moved northward through the sixteenth century, mission churches away from major centers became fairly standardized in the general form that became this typical frontier church. This sort of church was usually covered with a simple wooden roof, usually flat, that could be built before any extensive training program in stone carving had begun for the local labor force, and require no stone cutting or collecting for vaults or massive buttresses. At the same time, vaults and buttresses could be added later, when time or money permitted. These churches may be found along the northern frontier of Mexico in the late 1500s. As the frontier moved farther north, the same church design came to be built in New Mexico, Texas, Arizona, and California Baja and Alta in the seventeenth, eighteenth, and nineteenth centuries at both Jesuit and Franciscan missions. If this sort of church had appeared

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<sup>14</sup>Guzmán et al., *Mudejar*, pp. 122-27.

<sup>15</sup>Guzmán et al., *Mudejar*, pp. 89-90.

<sup>16</sup>Ross Montgomery, "Book Review: The Religious Architecture of New Mexico in the Colonial Period and since the American Occupation." *The New Mexico Quarterly* 10(1940)4:273-74.

<sup>17</sup>Kubler, *Mexican Architecture*, p. 503; Guzmán et al., *Mudejar*, p. 95.

only in New Mexico, Kubler would have clear support for his assumptions about the origins of New Mexico style, but its appearance all along the frontier indicates that the style of the mission church in New Mexico was not "Puebloan," but the standard frontier church.

The Franciscans arrived in New Mexico with nearly eighty years of experience in using trabeated construction methods to build smaller churches in the New World, and they simply adapted the Indians' own experience in this construction to the building of the New Mexico churches. The Indians had to adjust to the making and use of adobe brick, larger room and structure sizes, thicker walls, scaffolding, the use of a prepared plan, and more precise control of vertical and horizontal surfaces and roofing slopes for drainage, but they adopted these methods easily, as easily as they quickly learned the methods of cutting, hauling, sawing, carving, finishing, and placing large roof-beams and other woodwork for the churches, using a variety of European tools and methods.<sup>18</sup> At Pecos, for example, the Indians "apply themselves to the trade of carpentry; and they are good craftsmen, since their minister brought them masters of this craft to teach them."<sup>19</sup> The problem with New Mexico construction methods was not in the "resistance" of the Pueblo Indians to new construction ideas, as Kubler had described it in *Religious Architecture of New Mexico*. Instead, it appears to have that although the Franciscans brought masters of most of the other basic skills and crafts to New Mexico, they did not bring master masons to direct cut-stone construction and to train the Indians in stone-working.

Considering this history of the use of the frontier church before New Mexico, and in New Mexico during the seventeenth century, I suggest that the simple frontier churches were the standard structures that missionaries themselves built *when no master mason was available*. Because no master masons were available to the missionaries in the remote provinces far from Mexico City, the churches had to be built by the Franciscans, using familiar techniques. As a result, the churches were large versions of the convento rooms and other buildings usually built by Franciscans, utilizing standardized trabeated construction.

#### The Frontier Church in New Mexico

This simple style of building was brought to New Mexico as the first fairly substantial church to be used at the new missions of the province. From 1598 to 1610, the New Mexico expedition was strongly military, and there was little emphasis on an effective evangelical program. The churches built from 1598 to 1610 were temporary: small, shed-like structures, little more than shacks in which mass could be said. They were adapted pueblo rooms, or small flat-roofed structures built of stone or adobe, with no visible characteristics of a church at all, other than the interior arrangements. One example from this earliest period in New Mexico

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<sup>18</sup>Fray Alonso de Benavides, *The Memorial of Fray Alonso De Benavides, 1630*, trans. Emma Burbank Ayer (Chicago: Edward E. Ayer, 1916), p. 67; Frederick W. Hodge, George P. Hammond, and Agapito Rey, *Fray Alonso de Benavides' Revised Memorial of 1634* (Albuquerque: University of New Mexico Press, 1945), p. 67; Ivey, *Loneliness*, pp. 35-37.

<sup>19</sup>Benavides, *Benavides 1634*, p. 67; John L. Kessel, *Kiva, Cross and Crown: The Pecos Indians and New Mexico, 1540-1840* (Washington, D. C.: National Park Service, U. S. Department of the Interior, 1979), pp. 132-33; Ivey, *Loneliness*, p. 39.

survives, the small church and dwelling that formed the core structure at the mission of San José de Giusewa. The roofing beams of this section have tree ring dates of ca. 1599.

With the change of the Province of New Mexico from proprietary, under Oñate, to a Royal colony in 1609, support for the Franciscan program increased greatly. The arrival of a new group of missionaries brought a burst of new mission foundations, and the Franciscan frontier began expanding rapidly from the 1609 establishment of San Gabriel and its three visitas. These new missions followed the pattern already set, where either small temporary churches and residences were built at the pueblo receiving the new mission, or pueblo rooms were purchased and used as the residence and a small church while a more permanent interim church was constructed. The simple frontier church design was used for this interim structure.

From 1609 to 1620, the Franciscans built eleven new churches, and all of them for which we have any record were typical frontier missions. They were all relatively narrow, ranging from twenty to twenty-eight feet wide, and between sixty-seven and one hundred fifteen feet long. All had either polygonal or shouldered apses and flat, beam-supported roofs; there is no evidence for the use of transverse clerestory windows in these first simple buildings. At the missions already established, the Franciscans built this sort of church. We have information on one of these early buildings in the central missions, the church at Santo Domingo, which became the church for the headquarters mission of the province in 1610. It was typical for this period, about ninety feet long and twenty-five feet wide.<sup>20</sup> Another example, one for which a detailed plan is available, is the first church of San Miguel, built about 1610 in Santa Fe for the Mexican Indian barrio on the south side of the Santa Fe River. It was 67.4 feet long and 22.2 feet wide, with a square-shouldered apse.<sup>21</sup>

During this same period, though, some of the newly arrived Franciscans (perhaps young radicals infected with the new ideas of the Baroque intellectual revolution sweeping through Europe) while accepting the limitations imposed by the absence of master masons in New Mexico, decided to try pushing these limitations with experiments in trabeated church design. Missionaries responsible for churches at some of the important pueblos designed these buildings in a new style much larger than the typical frontier church to replace their original small structures. These churches embodied experiments with other building plans than the simple, small single-nave church, and other roofing designs than the basic flat viga-supported structure.

The earliest of these churches for which some record survives was Sandia, built about 1612. The building was about 126 feet long and 33 feet wide on the interior, with an *artesonado* roof; an elaborate version of this sort of roof may be seen at Asunción de Nuestra Señora de

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<sup>20</sup>Adolph F. A. Bandelier, *A History of the Southwest: Supplement to Volume I*, Ernest J. Burrus, ed.. (St. Louis: Jesuit Historical Institute, 1969), plate XIX, "Plan of Santo Domingo, NM."

<sup>21</sup>Stanley A. Stubbs and Bruce T. Ellis, *Archaeological Investigations at the Chapel of San Miguel and the Site of La Castrense, Santa Fe, New Mexico*, vol. 20, *Monographs of the School of American Research* (Santa Fe: Laboratory of Anthropology, Museum of New Mexico, 1955).

Tlaxcala today.<sup>22</sup> Sandia was a huge church, completely unlike anything known to have been built in the province before, and this is the only known example of an artesonado roof in the province. It may well be that there were other churches of this size built along the Rio Grande during these years for which neither the remains nor a description happen to survive, but the existence of Sandia is enough to indicate that the new vigor of 1610 brought more than a few new missionaries; it also brought a whole new set of ideas and enthusiasm about how to make the New Mexico missions into impressive structures.

The Franciscans at Pecos soon followed the example set by Sandia. The smaller church, begun in 1617, was a typical frontier church, of the same design as that built at San Miguel in 1610, but the larger church, designed and begun about 1620 and completed about 1625, followed the lead of the Sandia church.

This new approach was clearly well-received: in 1621, a year after the new Pecos church was begun, the Franciscans started construction on San José de Giusewa at the place now called Jemez Springs State Park, using the same sort of idea. The plan of Giusewa at Jemez Springs has a generic resemblance to Los Angeles at Pecos in that it is very large and its plan has the appearance of being cruciform while actually being a single-naved church. At the same time, when its original appearance is worked out, the building incorporates a distinctive grace of line and proportion that can be recognized in the fabric of the other experimental pre-Revolt churches that survive, and that very likely was expressed in the Pecos church as well.

In 1626 somewhat smaller churches of another new type were designed at both Quarai and Socorro. These two churches were rather plain when compared to the spectacular structures of Los Angeles at Pecos and San José at Giusewa, but they are the earliest known churches with a true cruciform plan in New Mexico; and Quarai is the first for which we can demonstrate the existence of a transverse clerestory window.

As the evangelical effort spread through the Pueblo territories of New Mexico, the developmental steps were recapitulated at new pueblos. At both Pecos and Las Humanas, archaeology has found the first convento and church for the pueblo. At Pecos, the convento and church were placed in a rebuilt pueblo ruin south of the main pueblo compound about 1620, while at Las Humanas, the Franciscans acquired a group of rooms at the west end of Room Block 7 about 1629; these rooms may have been in use by an Indian family when the Franciscans arrived.<sup>23</sup>

At both Pecos and Las Humanas, the Franciscans then built larger, more permanent church buildings. At Pecos, historians have only a single reference to a *jacal* church (possibly at the south end of South Pueblo) in use in the 1620s while the very large final church was under construction. The Las Humanas interim church has been located and is the smaller, narrow building south of Room Block 7, San Buenaventura I.<sup>24</sup>

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<sup>22</sup>Fray Francisco Atanasio Dominguez, *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956), p. 139 and n. 4.

<sup>23</sup>Ivey, *Loneliness*, pp. 157-67.

<sup>24</sup>Ivey, *Loneliness*, pp. 167-76.

At Pecos the large church was completed and put into use about 1625. At Las Humanas, however, the final church was never completed, and the interim church remained in use until the abandonment of the pueblo. A similar sequence can be seen at Awatovi, but here the Franciscans built a small convento and church building quite similar to the one built in 1599 at Giusewa, rather than permanently occupying and remodeling a group of pueblo rooms.

The phasing of the evangelical program (that is, when the Franciscans began the effort to a given "Indian Province" such as the Piro, or the Zuni) dictated the building program. Broader considerations of the age of the mission and the relative wealth of the pueblo in which it was placed determined the ability of the mission to purchase better santos, vestments, and equipment. A combination of this relative wealth and the population and importance of the pueblo apparently determined the position of a given mission in the power and dependency hierarchy of the missions of the province, and this probably strongly influenced the architectural program at a pueblo.<sup>25</sup> Among other things, the relative wealth of a mission determined whether it could buy imported retablos for the altars of the sanctuary. Those that could not, but which were still moderately well-to-do, commissioned local artisans to make painted wooden replicas of the imported retablos.<sup>26</sup>

Kubler considered the Franciscans to have had to work under difficult conditions: "wood without tools to work it, stone without equipment to move it, and clay without kilns to fire it."<sup>27</sup> This, however, was a false set of assumptions, inspired by the view that the seventeenth-century missions were poor, ill-equipped, and without access to expertise of any sort that pervaded most writing about the missions in the twentieth century. Kubler himself was even aware of some of the information countering this picture. Elsewhere in his study, for example, he described the fired brick used in the seventeenth century for the steps at Giusewa.<sup>28</sup> The hauling of multi-ton roof beams for such churches as Sandia, Giusewa, and especially Pecos, and the lifting of those beams to heights of over 40 feet, indicates that moving stone would have presented little problem.<sup>29</sup> An analysis of the structural strength of the flat roof of Quarai tells us that the Franciscans understood very well the forces on such a roof, and carefully built the structure to manage these forces effectively.<sup>30</sup> The buttressing system at Pecos appears to derive from the

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<sup>25</sup>James E. Ivey, "Ahijados: The Rite of Communion and Mission Status on the Seventeenth-Century Northern Frontier," *Catholic Southwest* 11(2000):7-26.

<sup>26</sup>James E. Ivey, "'Ultimo Poblado Del Mundo' (the Last Place on Earth)," in *El Camino Real De Tierra Adentro, Volume Two*, ed. June-el Piper, Gabrielle G. Palmer, and Stephen L. Fosberg (Santa Fe: Bureau of Land Management, 1999), pp 177-195.

<sup>27</sup>Kubler, *Religious Architecture*, p. 131.

<sup>28</sup>Kubler, *Religious Architecture*, p. 25 n. 13. The fired brick at Giusewa (areas of broken brick may still be seen at the site) shows that the Franciscans knew how to make this material, and that the manufacture of fired brick was carried out at least once New Mexico. It is unclear why the Franciscans did not use fired brick more extensively.

<sup>29</sup>Ivey, *Loneliness*, pp. 49-50, 52-53.

<sup>30</sup>Ivey, *Loneliness*, pp. 389-398.

application of this same expertise to build a solid roof at the extreme limits of such a structural system.

Furthermore, Kubler's contention that good woodworking tools were not available in New Mexico was simply not true. The Franciscans regularly ordered tools along with their other supplies to be delivered on the wagon train from Mexico every three years. For example, large saws appear to have been rare in New Mexico, but were certainly available. A saw 5.4 feet long with its file and holder was listed as being shipped on the wagon train in 1609, two large two-handed saws with stirrups (*estribos*) were sent in 1612, and a large saw in 1624.<sup>31</sup>

#### Master Masons and New Mexico

The major question suggested by the evidence of imported craftsmen (such as master carpenters to Pecos) is, why were no master masons brought to New Mexico? The Franciscans apparently had easy access to virtually any expertise they wanted; why were no masons included among them? It may have been nothing more than an economic reason: master masons were too expensive, and would have to wait until the missions reached a higher level of production and income. With the interruption of the Revolt, this higher level never arrived for most of the missions. At Guadalupe in El Paso/Juarez, however, which escaped the destruction of the Revolt and continued its development, a portal of carved stone was added to the adobe building in the eighteenth century, probably showing what the Franciscans hoped to do with the other New Mexican churches. At Cocóspera, in northern Sonora, the Franciscans even managed to have a vaulted roof built onto the adobe church in the late eighteenth century.

#### The Convento

One curious aspect of the development of the missions on the northern frontier is the changing plan of the convento through time. The convento plans of New Mexico in the seventeenth and eighteenth centuries, of which Pecos had several variations, and Texas in the eighteenth century are very similar to those found all over Mexico in the sixteenth and seventeenth centuries. In late eighteenth-century California, however, a square enclosed convento structure was used, but was distinctly different from the plan found in Mexico, New Mexico, and Texas. So far, no precursor for this plan has been identified. Seventeenth-century Florida had its own distinct plan for the mission. The buildings were of *jacal* with thatched roofs, and the convento was a stand-alone building near the church, but apparently without any enclosed convento yard. This plan resembled that used for the wooden missions of east Texas, built in the late seventeenth and early eighteenth centuries, and curiously, the late adobe mission built near the presidio of Tucson was of a similar plan. Again, where this plan originated is unclear, but the evidence suggests that there were several different schools of thought on how a mission should be laid out.

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<sup>31</sup>Archivo General de Indias, *Contaduría*, legajo 711, LBB # 48, p. 100, in Special Collections, Zimmerman Library, University of New Mexico; AGI, *Contaduría*, legajo 714 (LBB 59), p. 136; AGI, *Contaduría*, legajo 726 (LBB 235), p. 340.

### Archaeology and History

Beyond the relationships between Pecos and the other missions of the frontier, Pecos raises broader questions about the actual process of analyzing these structures. This study has repeatedly demonstrated that the documentary record of the history of Pecos was not abundant, especially before the Pueblo Revolt, and that without archaeological information, we would have very little understanding of the development of this important site in the history of Spanish colonial New Mexico. John Kessell's *Kiva, Cross and Crown* made use of the available documents and was able to assemble a remarkable biography of the mission and pueblo – but his work included very little information about the physical appearance and development of the mission. What there was came from the limited archaeological information available to him at the time he wrote the study, completed in 1975. That archaeological information was principally from Alden Hayes's *Four Churches of Pecos*, the manuscript of which was completed in 1971, and the drawings of Brother Hans Lentz, somewhat modified to show the convento with two stories.<sup>32</sup> Although Hayes attempted a detailed examination of the physical history of the mission in 1971, he was hampered by the lack of the historical information only available upon the completion of Kessell's study, and the lack of final reports or even usable field notes from the two principal archaeological investigators, William Witkind and Jean Pinkley.

This archaeological information was limited because of the peculiar history of the investigations at Pecos, beset with unusual difficulties. Among these was the same absence of historical information that make Hayes's efforts so difficult. Not until all the information, both historical and archaeological, from Kessell, Hayes, Pinkley, Witkind, and Kidder, was available, as well as the very detailed new analyses of the physical remains of the mission complex by Metzger and White, could the physical history of the mission be written.

The lack of final reports from Witkind and Pinkley (and Hayes, for that matter) should not have been a critical problem. Any good assessment of the architectural history of a site looks much deeper than the published report, if one is available – the field notes, laboratory notes, and other analyses should always be examined for such a study. In the case of the Witkind and Pinkley field work there were unusual problems interfering with their direct, simple use. However, these problems yielded to careful long-term analysis.

Intense exploration of the archaeological field notes for other missions has had similar results. I wrote the structural and material history of the Salinas missions in the same way, with similar results. It is likely that both the Awatovi and Hawikuh excavations of the early twentieth century would produce equally rewarding results with such a reexamination of their field records.

In the process of working out an understanding of the excavation records left by those who conducted archaeology of one sort or another on the Pecos historical structures, an unexpected characteristic of this intensive particularistic research became apparent. The archaeological information was not only critical to our knowledge of the dates of use and sequences of construction of the buildings at the site, but also added to our knowledge of the history of the Pecos mission in areas that the historical records alone were silent. This is not an intuitive conclusion – it rather tends to surprise most people.

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<sup>32</sup>Kessell, *Kiva, Cross and Crown*, p. 127.

In 1964, Ivor Noel Hume referred to historical archaeology as the “handmaiden to history” – where “handmaiden” meant “something whose essential function is to serve and assist...”<sup>33</sup> Noel Hume reviewed the reasons for doing “historical site archaeology” and concluded that “the only reason for archaeological interest in the historical period is to obtain, not relics, but information.” This information was not new historical data, whereby archaeology would be another source of information like documentary history, but rather could be used to help “to reconstruct and interpret the social history” of a given period. Beyond this, archaeology and history complemented each other, he said – “the two disciplines combine to give the past a new dimension.” That is, “by accepting and using the techniques and products of archaeology the historian is ... able to broaden his own knowledge,” while at the same time making “his studies more readily acceptable to the general public” by giving the historian’s text-based research a physical aspect in terms of sites, building remains, and the artifacts of daily life of a time or person.<sup>34</sup>

This concept expressed by Noel Hume in 1964 that archaeology was principally a technique that would “serve and assist” the historian was a restatement of the perception of the relationship between archaeology and history encountered throughout most of the twentieth century in this history of the archaeology and architecture of Pecos. That is, the historical documents revealed everything important about a site, and archaeology simply provided artifacts and structures from the lives of those who lived at the site, while at the same time preparing it for public display. The possibility that archaeology could be a separate and powerful source of historical information was simply not a part of the thinking of most of those involved in historic sites research.

As we have seen, however, no documentation adequately records the history of a place. Even in a document-rich environment like the history of the missions of San Antonio, Texas, or the mission system of California, a great deal has to be inferred beyond the specifics of the documentary record. At San Antonio, for example, the physical record of the construction and changes to the missions, as revealed by an intensive examination of the surviving structures of the mission buildings, and the archaeological evidence for structural change found in the ground, allowed an interpretation of the architectural history that was not possible from documents alone.

I call the use of archaeological and architectural data as a source of historical information “material history,” and regard it as at least equal to, if not superior to, documentary evidence about a place. I say “superior” as a result of the following thought experiment. If the documents all agree that a well at a particular building was in the southwest corner of the courtyard, and archaeology finds there was no well there, but discovers one in the northeast corner of the courtyard, which would we accept as the better representation, the archaeological plan or the one made from the historical record?

Certainly, as Noel Hume says, “the two disciplines [of documentary history and material history] combine to give the past a new dimension.” The two viewpoints offered by

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<sup>33</sup>I. Noel Hume, “Archaeology: Handmaiden to History,” *North Carolina Historical Review*, 41(1964)2:215-225; *Webster’s Third New International Dictionary of the English Language, Unabridged* (Springfield, Massachusetts: G. and C. Merriam Co., 1961), p. 1027.

<sup>34</sup>Noel Hume, “Handmaiden,” pp. 216, 219, 220.

documentary sources and material sources give a perspective on the past of a place that neither source could achieve alone. It is unfortunate that the training of historians does not usually include a familiarization with archaeological methods and results. Noel Hume, in his article on archaeology as the “handmaiden” of history, argued strongly for this sort of training even from within the very restricted context of his view of the relationship between the two disciplines, and a much stronger argument in favor of such training could be developed today.

Beyond these basic considerations, the status of mission archaeology and historiography remains an ongoing problem. In the Introduction I made it clear that we lack any extensive knowledge of the archaeology of Spanish colonial missions – only Awatovi and Hawikuh have been reported in any detail. My studies of Abó, Quarai, and Las Humans, the Salinas missions, have made the results of fieldwork at these structures available, and now Pecos may be added to the list of missions moderately well-understood by archaeology as a result of this present study.

### Conclusion

New Mexico mission development can be characterized as an exploration of the design possibilities of the trabeated frontier church, and the determination of the most impressive and time-effective structure using that building style. These experiments in style were conducted throughout the seventeenth century. The process was a refinement and enlargement of an already century-old type of building; the development was not the adaptation of a Puebloan building style and methods to European baroque aesthetics, as Kubler argued in *Religious Architecture*, but a pragmatic search for the most meaningful use of the frontier church design in New Mexico.

Kubler said that the New Mexico missions were built in a unique Puebloan style; that there was a brief period of experimentation during the early seventeenth century, and no change after that; and suggested that Pecos was the “prime object,” the example that best expressed the elements of the New Mexico mission style. I have shown instead that the missions were built using a combination of Puebloan and traditional Spanish construction methods, and a design adapted for use in the New World and brought to New Mexico by the Franciscans; that there was extended experimentation throughout the seventeenth century; and that Pecos was not the source of the design of the New Mexico missions. Pecos was not the “prime object” of the New Mexico church style, repeated thereafter, but instead was the most extreme of the experiments in the possible modifications of the trabeated frontier church. Ultimately, Kubler’s premise of the New Mexico missions as replications of a “prime object” simply does not fit the process we find at work when we examine the history, architecture, and archaeology of the buildings in more detail. Kubler only had five years to carry out his research, from 1935 to 1940, and very little effective archaeology to tell him about the development of the buildings. This is too short a time, and he had access to too limited a set of information. I suspect that had Kubler written his *Mexican Architecture of the Sixteenth Century* first, he would have reached far different conclusions about New Mexico church architecture, and would have recognized the Mexican frontier church in the basic design seen in New Mexico.

I doubt, though, that he would ever have agreed with Ross Montgomery’s “pragmatic Franciscan” paradigm. Montgomery argued in 1940 that the Franciscans “knew nothing of modern aesthetics, and cared less,” that they “were neither esoterics nor conscious aesthetes.” The

evidence accumulated in the years since the Awatovi report was published in 1949 supports Montgomery's thesis, that the Franciscans "were pragmatists – not patrons of the arts ... their architecture [in New Mexico] was simple and utilitarian."<sup>35</sup> However, the evidence does not invalidate Kubler's essential ideas about the esthetics of the Franciscan design process. The original thinking expressed in the design of these buildings (especially the Great Churches), the peculiarly satisfying forms and lines of the buildings that survive (the curves of the edges of the bell-tower buttress at Abó are a work of art in their own right, for example), suggest that there was more to them than simple utilitarianism. Abó, Quarai, Giusewa, and Acoma, the pre-revolt churches in New Mexico that preserve enough of their fabric to let us see them as they were, achieve a striking minimalist artistry.

I suggest that the experimentation through the seventeenth century had as its goal the discovery of a satisfying esthetic of design that could be incorporated into these buildings while remaining within the constraints of the fabric and building methods of that place and time, and that this effort succeeded a number of times during the century, giving us some delightful churches among those that survive. Based on its plan and what can be surmised of its appearance from that plan, Pecos was, not the "prime object," the most representative example of the New Mexico mission style, but the greatest achievement of that design esthetic. It was not "unique in all respects," as Jean Pinkley described it, but was certainly unique in many respects. I regret that I have little more than my imagination to attempt to recreate the appearance of the seventeenth-century church at Pecos from its plan, and I hope this study has allowed you, the reader, to see what can be retrieved of this remarkable building in all its permutations through time along with me.

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<sup>35</sup>Montgomery, "Book Review," p. 273.



## Bibliography

### Archives and Collections

Laboratory of Tree-Ring Research, Pecos files, University of Arizona, Tucson, Arizona.

Museum of New Mexico (MNM), Santa Fe, New Mexico

Governor's Palace, History Library

Manuscript Collection

Photographic Collection

New Mexico State Monuments Files

Laboratory of Anthropology (LA)

Archives

Site Files, LA 625

Site Files, LA 625, flat files

Site Files, LA 4444

Site Files, LA 4444, flat files

Office of the Chief Historian, Files, National Park Service, Washington, D. C.

Peabody Museum Collections, Harvard University, Cambridge, Massachusetts.

Pecos National Historical Park (PNHP)

Files

Map Collection

Photographic Collection

Alfred V. Kidder Collection

San Miguel County Courthouse, Deed Records, Las Vegas, New Mexico

Southwestern Archeological Center Files, Globe, Arizona.

State Archives and Records Center (SARC), Santa Fe, New Mexico.

District Court Records, Taos County, Criminal Cases, 1855.

District Court Records, San Miguel County

First Judicial District Records, New Mexico Supreme Court, United States District Court, Territory of New Mexico

History Files, Persons

Newspaper Microfilm Files

Tumacácori National Historical Park Files, Tumacácori, Arizona.

United States National Archives and Records Centers (NARC)

National Archives and Records Center, Denver  
National Archives and Records Center, Fort Worth

University of New Mexico  
Special Collections, Zimmerman Library (UNMSC)

### Primary Documents

1880 Census, enumeration district 14, Las Vegas, 2 June 1880, in State Archives and Records Center, Santa Fe, New Mexico.

Adams, J. P. "Elevations," Kidder Notes, Miscellaneous Notes, 41/28b, PNHP.

"Archaeological Site Map of 'The Sanchez Site': LA 20,000, 1982-1993 Excavations," Smith Williamson and Associates; excavations by Cross-Cultural Research Systems and Colorado College. PNHP.

Archivo General de Indias, *Contaduría*, legajo 711, (LBB 48), UNMSC.

Archivo General de Indias, *Contaduría*, legajo 714 (LBB 59), UNMSC.

Archivo General de Indias, *Contaduría*, legajo 726, (LBB 235), UNMSC.

Archivo General de la Nacion, Inquisición, numero 507, UNMSC.

Biblioteca Nacional de Mexico, legajo 7, numero 24, UNMSC.

Arquero, Clyde. "Pecos Ruins," ca. 1966, Division of Engineering, Southwest Regional Office, PNHP.

— . "Pecos Mission Complex," NM PEC/2304-A and 2304-B, September 26, 1967, PNHP.

Bandelier, Adolph F. Journal, 1880, in Manuscript Collection, Box 71, "Bandelier Collection, M73-5/9 box 7." MNM.

Bauer, Brian. "Grain-Size Analysis Reports," Grand Junction Laboratories, October 27, 1992, in J. Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," CRM Technical Series Report no. 3, 1993, manuscript on file at PNHP.

Cardoso, Fray Domingo. Archivo General de Nacion, Mexico, *Museo Nacional*, Asuntos, no. 191, Fray Domingo Cardoso, 1667, "Certificacion," folios 21-22v, bound photostats, Center for Southwestern Research, Zimmerman Library, University of New Mexico.

Colby, Catherine, Jake [James E.] Ivey, and Tom Windes, *Fabric Investigation at Kozlowski's Trading Post, Pecos National Historical Park*, draft report, 1998, PHNP.

Dean, Glenna. "Pollen Analysis of Adobe and Mortar Samples from Pecos National Historical Park, San Miguel County, New Mexico," December 11, 1992, in J. Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," CRM Technical Series Report no. 3, 1993, manuscript on file at Pecos NHP.

Dean, Jeffrey S. "Tree Ring Dating Report," in Catherine Colby, Jake Ivey, and Tom Windes, *Fabric Investigation at Kozlowski's Trading Post, Pecos National Historical Park*, draft report, 1998, PHNP.

Dominguez, Fray Francisco Atanasio. "*La Provincia del S[ant]o Evang[eli]o de Franciscanos observantes de Nueva España, tiene en el Reyno del Nuevo Mexico, y á su cargo la Custodia de la Conversion de S[an] Pablo ...*," Biblioteca Nacional de Mexico, casa 70, legajo 4, numero 65, bound photostats legajo 10, numero 43, part 3, in the Center for Southwestern Research, Zimmerman Library, University of New Mexico, Albuquerque, New Mexico.

Gilmore, Kathleen K. "Non-Aboriginal Artifacts from the South Pueblo and Vicinity, Pecos National Monument," April, 1989, LA 625, folder 24, "Reports."

Gunnerson, James H. "Preliminary Report of 1970 Archaeological Investigations by Northern Illinois University," in the files of the Intermountain Cultural Resource Center.

Hayes, Alden C. "Log--Pecos--Hayes--July-Aug 70," field notes, 1970, PNHP.

— . "Pecos, T[est] T[rench] 70-2," field notes, 1970, PNHP

— . "The Four Churches of Pecos." Typescript, 1971, PNHP.

— . "Early Church," ca. 1971, PNHP.

— . "Earlier Mission, Second Stage of Construction, 2," ca. 1971, PNHP.

Hayes, Alden C., and Robert (Friar Hans) Lentz. "Pecos National Monument, Room Notes," PNHP.

Ivey, James E. "Draft Historic Structure Report, Tumacácori, Calabazas, and Guevavi Units, Tumacácori National Historical Park, Arizona – History Data Section," in the files of Tumacácori National Historical Park, Tumacácori, Arizona.

Ivey, Jake [James E.]. Plan, "Reused Bricks in South Wall of Room 48," September 24, 1993, PNHP.

Kessell, John. "The Pueblo de los Pecos: A Documentary History, 1540-1838." Typescript, 1977, in National Park Service Library, Santa Fe, New Mexico.

Lentz, Robert (Friar Hans). "Functional Analysis of Porciúncula de Pecos Convento and Church," August 20, 1969. Includes typescript of Alden Hayes and Robert (Friar Hans) Lentz, "Pecos National Monument, Room Notes." PNHP.

— . "Robert Lentz's Interpretation of Dominguez," 1971, in "Church and Convento Planviews and Profiles, pre-1992" folder, Historical Sites drawer, flat files, PNHP.

— . "Notes on Minor Excavation Project at the South End of the South Pueblo, June-July, 1968," June 15, 1971, PNHP.

Madrid, Francisco de. "Francisco de Madrid et al., deposition to Governor Juan de Miranda," Santa Fe, April 22, 1664, Archivo General de la Nacion, Inquisition, no. 507, ff. 343-46.

Marquez, Fray Bartolomé. Archivo General de Indias, Mexico, legajo 306, Fray Bartolomé Marquez, ca. 1641, "Certificacion de las noticias . . . ," folios 85-88, bound photostats, UNMSC.

Matlock, Gary, Larry Nordby and William Cruetz, "A Stabilization History of Pecos National Monument: 1974 and Before," 1975, PNHP.

Metzger, Todd. "Draft Ruins Preservation Guidelines, Pecos National Monument, New Mexico," March, 1990, PNHP.

Morgenstein, Maury. *Petrographic, Geochemical and X-Ray Diffraction Analysis of Adobe and Mortar Samples, Pecos National Nistoric Park, Pecos, New Mexico* (Boulder City, Nevada: Geosciences Management Institute, January, 1995), PNHP.

— . *Petrographic Analysis of Adobe and Mortar Samples, Pecos National Nistoric Park, Pecos, New Mexico* (Boulder City, Nevada: Geosciences Management Institute, June, 1994), PNHP.

Nordby, Larry. "Room-by-room Plans and Stabilization Information, 1976/1977," no date, PNHP.

Nordby, Larry, and William Cruetz. "Test Excavations at Square Ruin, Pecos National Historical Park, 1982," March 9, 1993, PNHP.

Posada, Fray Alonso de. "Declaration of Posada," Santa Fe, May 24, 1664, Archivo General de la Nacion, Inquisición, numero 507, folios 347-58v, UNMSC.

Reed, Eric. "Supplementary Report on Pecos State Monument, New Mexico," December, 1940, with photographs taken November 27, 1940, PNHP.

Schroeder, Albert. "Al Schroeder's Interpretation of Dominguez description of Convento at Pecos," 1971, in "Church and Convento Planviews and Profiles, pre-1992" folder, Historical Sites drawer, flat files, PNHP.

Toll, Mollie S. "Plant Parts Found in Adobe Bricks at the Spanish Mission of Pecos, NM," November 24, 1992, in J. Courtney White, "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," CRM Technical Series Report no. 3, 1993, PNHP.

— . "Plant Parts Found in Adobe Bricks at the Spanish Mission of Pecos, NM, II," 1994, PNHP.

— . "Plant Parts Found in Adobe Bricks at an 18th C. Spanish Mission, Pecos, NM: III," February 16, 1995, PNHP.

"Topographical Sheet," NM/Q-4937, Gran Quivira National Monument, National Park Service, 1932, in the files of the Division of Cultural Resources, National Park Service, Santa Fe, New Mexico.

"Transcripts of Hearings before the Subcommittee on Parks and Recreation, Committee on Interior and Insular Affairs, United States Senate," June 9, 1965, files of the Division of Legislation and Regulation, National Park Service, Santa Fe.

United Aerial Mapping, San Antonio, Texas. Photography flown on July 31, 1966. PNHP.

— . Map of twenty-five sheets. PNHP.

Vargas, Diego de. November 23, 1696, Archivo General de Indias, Guadalajara 141, as quoted in John Kessell to Albert Schroeder, August 1, 1967, PNHP.

Vergara, Fray Pedro de. To Captain Juan Antonio Perez de Almazan, "*Escrito . . . para las tierras y aguas, 1731*," May 31, 1731, Celaya Archives microfilm, roll 3, frames 3560-3565, Old Spanish Missions Historical Research Library, Our Lady of the Lake University, San Antonio, Texas.

Wilson, Frank. "Administrative History of Pecos National Monument, 1969, PNHP.

White, Joseph Courtney. "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1988-1992," CRM Technical Series Report no. 3, 1993, PNHP.

—. "Documentation of Original Architectural Fabric in the Church/Convento Complex at Pecos National Historical Park, 1993," CRM Technical Series Report no. 5, 1994, PNHP.

—. "A History of the Preservation and Archeological Activities In the Spanish Convento At Pecos National Historical Park, 1939 to Present," 1994. PNHP.

Witkind, William. "The Excavation, Stabilization, and Reconstruction of Cicuye," daily journal, January 1939 to August, 1940, PNHP.

### Secondary Documents

Walter, Paul A. F. "The Pecos Pueblos and Mission," *Old Santa Fe Magazine*, vol. 2, no. 5 (July, 1914).

Abert, J. W. "Sketches on a march to New Mexico with Gen. S. W. Kearny, Ft. Leavenworth to Santa Fe, 1846, when the U.S. Army, of 3,000 men, 'conquered New Mexico.'" in the collection of John Galvin.

—. *Report of Lieut. J. W. Abert of his Examination of New Mexico, in the Years 1846-1847*, 30th Cong., 1st sess., House Ex. Doc. No. 41, Washington, D. C. Wendell and Van Benthuysen, 1848.

—. *Western America in 1846-1847: The Original Travel Diary of Lieutenant J. W. Abert*, ed. John Galvin (San Francisco: John Howell Books, 1966).

Adkins, Lynn. "Jesse L. Nusbaum: A Transitional Period Archaeological Photographer in the Maya Region of Guatemala, Honduras and Mexico," Master's Thesis, University of New Mexico, 1985.

Alberts, Don E. *The Battle of Glorieta, Union Victory in the West* (College Station: Texas A&M University Press, 1988).

Anonymous. "The Personal Side," p. 4, *El Palacio*, vol. 1, no. 4-5 (February-March, 1914).

Anonymous. "The Personal Side," p. 4, *El Palacio*, vol. 1, no. 6-7 (April-May, 1914).

Anonymous. "Pecos Repairs Begun," *El Palacio*, 45(October, 1938).

Anonymous. "Archeologists in the Army," *El Palacio*, 50(February, 1943).

Anonymous. "Archeologists in the Army," *El Palacio*, 51(June, 1944).

Anonymous. Note, p. 74, *El Palacio*, 53(March, 1946).

Bakewell, Peter, John Johnson, and Meredith Dodge, eds. *Readings in Latin American History, Vol I: The Formative Centuries* (Durham: Duke University Press, 1985).

Bandelier, Adolph F. "A Visit to the Aboriginal Ruins in the Valley of the Rio Pecos," *Papers of the Archaeological Institute of America*, American Series, vol. I, part 2 (Boston: Cupples, Upham and Co., 1883).

— . *The Southwestern Journals of Adolph F. Bandelier*, vol. 1, 1880-1882, Charles H. Lange and Carroll L. Riley, eds. (Albuquerque: University of New Mexico Press, 1966).

— . *A History of the Southwest: Supplement to Volume I*, Ernest J. Burrus, ed.. (St. Louis: Jesuit Historical Institute, 1969), plate XIX, "Plan of Santo Domingo, NM."

Bandelier, Adolph F., and Fanny R. Bandelier. *Historical Documents Relating to New Mexico, Nueva Vizcaya, and Approaches Thereto, to 1773*, English translations edited with introduction and annotations by Charles Wilson Hackett, vol. 3. (Washington, D. C., Carnegie Institution of Washington, 1937).

Barnes, Thomas C., Thomas H. Naylor, and Charles W. Polzer, *Northern New Spain: A Research Guide*, Tucson (University of Arizona Press, 1981).

Benavides, Fray Alonso de. *Fray Alonso de Benavides' Revised Memorial of 1634*, Frederick Webb Hodge, George P. Hammond, Agapito Rey, tr. and ann. (Albuquerque: University of New Mexico Press, 1945).

— . *The Memorial of Fray Alonso De Benavides, 1630*, trans. Emma Burbank Ayer (Chicago: Edward E. Ayer, 1916).

Berg, Erik. "The Eagle and the Anasazi: The Lindbergh's 1929 Aerial Survey of Prehistoric Sites in Arizona and New Mexico," *Journal of Arizona History* 45(Spring 2004)1.

Castaño de Sosa, Gaspar. *A Colony on the Move: Gaspar Castaño de Sosa's Journal, 1590-1591*, Albert H. Schroeder and Dan S. Matson, editors (Santa Fe: School of American Research, 1965).

Chavez, Fray Angélico. *Origins of New Mexico Families in the Spanish Colonial Period* (Albuquerque: University of Albuquerque, 1973).

Chevalier, François. *Land and Society in Colonial Mexico: The Great Hacienda* Lesley Byrd Simpson, ed., Alvin Eustis, tr. (Berkeley: University of California Press, 1966).

*Colorado Springs Gazette*, Colorado Springs, Colorado.

*Daily Optic*, Las Vegas, New Mexico, in State Archives and Records Center, Santa Fe, New Mexico.

Dippie, Brian W. *Catlin and His Contemporaries: The Politics of Patronage* (Lincoln: University of Nebraska Press, 1990).

Dominguez, Fray Francisco Atanasio. *The Missions of New Mexico, 1776: A Description by Fray Francisco Atanasio Dominguez, with Other Contemporary Documents*, Eleanor B. Adams and Fray Angelico Chavez, tr. and ed. (Albuquerque: University of New Mexico Press, 1956).

Edrington, Thomas S., and John Taylor. *The Battle of Glorieta Pass, A Gettysburg in the West, March 26-28, 1862* (Albuquerque: University of New Mexico Press, 1998).

Elliot, Melinda. *Great Excavations: Tales of Early Southwestern Archaeology, 1888-1939* (Santa Fe: School of American Research Press, 1995).

Ely, Albert G. "Field Work At Pecos," *El Palacio*, 46(June, 1939):124-26.

Emory, Lt. Col. W. H. "Notes of a Military Reconnaissance from Fort Leavenworth, In Missouri, to San Diego, In California," 30th Congress, First Session, Ex. Doc. No. 41, 1848.

Fraser, Robert W. *Forts and Supplies: The Role of the Army in the Economy of the Southwest, 1846-1861* (Albuquerque: University of New Mexico Press, 1983).

Galvin, John. "Prefatory Note," p. ix, in Abert, J. W. *Western America in 1846-1847: The Original Travel Diary of Lieutenant J. W. Abert*, ed. John Galvin (San Francisco: John Howell Books, 1966).

Givens, Douglas R. *Alfred Vincent Kidder and the Development of Americanist Archaeology* (Albuquerque: University of New Mexico Press, 1992).

Gunnerson, James H. and Dolores A. Gunnerson. "Evidence of Apaches at Pecos," *El Palacio*, 76(June, 1970)3.

Guzmán, Rafael López, et al. *Arquitectura y Carpintería Mudejar en Nueva España* (Grupo Consorcio de Fabricaciones y Construcciones, 1992).

Hall, G. Emlen. *The Four Leagues of Pecos: A Legal History of the Pecos Grant, 1800-1933* (Albuquerque: University of New Mexico Press, 1984).

Hall, Dawn, ed., *Drawing the Borderline: Artist-Explorers of the U.S.-Mexico Boundary Survey*. Exhibition Catalogue (Albuquerque: Albuquerque Museum, 1996).

Hayes, Alden C. *The Archeological Survey of Wetherill Mesa, Mesa Verde National Park, Colorado*, Archeological Research Series no. 7-A (Washington: National Park Service, 1964).

— . *The Four Churches of Pecos* (Albuquerque: University of New Mexico Press, 1974).

Hayes, Alden C. *et al. Excavation of Mound 7, Gran Quivira National Monument, New Mexico*, Publications in Archeology 16 (Washington: National Park Service, 1981)

Head, Genevieve, and Janet Orcutt. *From Folsom to Fogelson: The Cultural Resources Inventory Survey of Pecos National Historical Park*, two volumes, Intermountain Cultural Resources Management Professional Paper no. 66 (Santa Fe: National Park Service, 2002).

Herkenham, Norman B. *Pecos State Monument: an Area Investigation Report* (Santa Fe: Region 3 Office, National Park Service, March, 1962).

Hewett, Edgar L. "Studies on the Extinct Pueblo of Pecos," *American Anthropologist* 6(1904)4.

Hewett, Edgar L., and Reginald G. Fisher. *Mission Monuments of New Mexico*, Handbooks of American Archaeological History Series, The University of New Mexico and the School of American Research (Albuquerque: University of New Mexico Press, 1943).

Hewett, Edgar L., and Wayne L. Mauzy. *Landmarks of New Mexico*, Handbooks of American Archaeological History Series, The University of New Mexico and the School of American Research (Albuquerque: University of New Mexico Press, 1940).

Hewett, Edgar L. "Hispanic Monuments," *El Palacio*, 45(September and October, 1938).

Hinchey, William James. "An Irish Artist on the Santa Fe Trail," edited by Anna Belle Cartwright, *Wagon Tracks* 10(August 1996)4.

Ivey, James E. *Archaeological Survey and Testing at Rancho de las Cabras, Wilson County, Texas*, Center for Archaeological Research, Survey Report no. 104 (San Antonio: University of Texas at an Antonio, 1981).

— . *In the Midst of a Loneliness: The Architectural History of the Salinas Missions*, vol. 15, Southwest Cultural Resources Center, Professional Papers (Santa Fe: National Park Service, 1988).

— . "Another Look at Dating the Scholes Manuscript; A Research Note," *NMHR*, 64(July 1989)3.

— . "Convento Kivas in the Missions of New Mexico." *New Mexico Historical Review* 73(1998)2.

— . "'Ultimo Poblado Del Mundo' (the Last Place on Earth)," in *El Camino Real De Tierra Adentro, Volume Two*, ed. June-el Piper, Gabrielle G. Palmer, and Stephen L. Fosberg (Santa Fe: Bureau of Land Management, 1999).

— . "Ahijados: The Rite of Communion and Mission Status on the Seventeenth-Century Northern Frontier," *Catholic Southwest*, 11(2000).

— . "George Kubler and the Prime Object at Pecos," MA thesis, University of New Mexico, 2003.

Kajencki, Francis C. *Poles in the 19th Century Southwest* (El Paso, Texas: Southwest Polonia Press, 1990).

Kaye, E. Donald. "Who Done It? (And did Bishop Lamy say it was o.k.?)" in *La Crónica de Nuevo México*, March, 1996.

Kenyon, Kathleen M. *Beginning in Archaeology* (New York: Frederick A. Praeger, Inc., 1952).

Kessel, John L. *Kiva, Cross and Crown: The Pecos Indians and New Mexico, 1540-1840* (Washington, D. C.: National Park Service, U. S. Department of the Interior, 1979).

— . *Friars, Soldiers, and Reformers: Hispanic Arizona and the Sonora Mission Frontier, 1767-1856* (Tucson: University of Arizona Press, 1976).

Kidder, Alfred V. *An Introduction to the Study of Southwestern Archaeology; With a Preliminary Account of the Excavations at Pecos*, (New Haven: Yale University Press, 1924).

— . *Pecos, New Mexico: Archaeological Notes*, Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 5 (Andover: Phillips Academy, 1958).

Kingsbury, John M. *Trading in Santa Fe: John M. Kingsbury's Correspondence with James Josiah Webb, 1853-1861* Jane Lenz Elder and David J. Weber, eds. (Dallas: Southern Methodist University Press, 1996).

Kubler, George. *The Religious Architecture of New Mexico*, 4th ed. (Albuquerque: University of New Mexico Press, 1972).

— . *Mexican Architecture of the Sixteenth Century*, 2 vols. (New Haven: Yale University Press, 1948).

LaBelle, Jason M., and Jeffrey L. Eighmy. *1995 Additions to the List of Independently Dated Virtual Geomagnetic Poles and the Southwest Master Curve*, Colorado State University

Archeomagnetic Laboratory, Technical Series No. 7 (Fort Collins: Colorado State University, May, 1995).

Lancaster, James A., Jean M. Pinkley, Philip F. Van Cleave, and Don Watson. *Archeological Excavations in Mesa Verde National Park, Colorado, 1950*, Archeological Research Series, no. 2 (Washington: National Park Service, 1954).

Larkin, James Ross. *Reluctant Frontiersman: James Ross Larkin on the Santa Fe Trail, 1856-1857*, Barton H. Barbour, ed. and annotator, (Albuquerque: University of New Mexico Press, 1990).

*Las Vegas Gazette*, Las Vegas, New Mexico, in State Archives and Records Center, Santa Fe, New Mexico.

Lentz, Friar Hans, O.F.M. "Franciscan Missiology in Seventeenth-Century New Mexico," MA thesis, Duns Scotus College, Southfield, Michigan, 1969.

Magoffin, Susan Shelby. *Down the Santa Fe Trail and Into Mexico*, Stella M. Drumm, ed. (Lincoln: University of Nebraska Press, 1982).

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

McDermott, John Francis. *Seth Eastman: Pictorial Historian of the Indian* (Norman: University of Oklahoma Press, 1961).

Mendelevff, Victor. *A Study of Pueblo Architecture in Tusayan and Cibola* (Washington, D. C.: Smithsonian Institution Press, 1989).

Möllhausen, Heinrich Balduin. *Reisen in die Felsengebirge Nord-Amerikas bis zum Hoch-Plateau von Neu-Mexico* (Leipzig: Otto Purfurst, 1860?).

Montgomery, Ross G. "Book Review: The Religious Architecture of New Mexico in the Colonial Period and since the American Occupation." *The New Mexico Quarterly* 10(1940)4.

Montgomery, Ross G., Watson Smith, and John Otis Brew. *Franciscan Awatovi: The Excavation and Conjectural Reconstruction of a 17th-Century Spanish Mission Established at a Hopi Indian Town in Northeastern Arizona*, Reports of the Awatovi Expedition, Report No. 3, Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Vol. 36 (Cambridge, Mass.: Peabody Museum, 1949).

National Park Service. *Master Plan Brief* (Santa Fe: Southwest Regional Office, National Park Service, October 1965).

— . *The National Survey of Historic Sites and Buildings* (Washington, D. C.: National Park Service, Department of the Interior, September 1963).

*New Catholic Encyclopedia* (New York: McGraw-Hill Book Company, 1967).

Nickel, Herbert. *Soziale Morfologie der mexikanischen Hacienda* (Wiesbaden: Franz Steiner Verlag, 1979).

Noel Hume, Ivor. "Archaeology: Handmaiden to History," *North Carolina Historical Review*, 41(1964)2.

Nusbaum, Jesse. "Burials Within the Church," pp. 199-202, in 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*, vol. 20, Contribution from the Museum of the American Indian (New York: Heye Foundation, 1966).

Nusbaum, Rosemary. *Tierra Dulce: Reminiscences from the Jesse Nusbaum Papers* (Santa Fe: the Sunstone Press, 1980).

Offut, Leslie. "Hispanic Society in the Mexican Northeast: Saltillo at the End of the Colonial Period," *Journal of the Southwest*, 33:(Autumn 1991)3.

Oliveros de Castro, María Teresa, and Julio Jordana de Pozas. *La Agricultura de los Reinos Españoles en Tiempo de los Reyes Catolicos* (Madrid: Ministerio de Agricultura, 1968).

Osborne, Douglas. "A Prologue to the Project," in Alden C. Hayes, *The Archeological Survey of Wetherill Mesa, Mesa Verde National Park, Colorado*, Archeological Research Series no. 7-A (Washington: National Park Service, 1964).

Parezo, Nancy J., ed. *Hidden Scholars: Women Anthropologists and the Native American Southwest*, (Albuquerque: University of New Mexico Press, 1993).

Piper, June-el, Gabrielle G. Palmer, and Stephen L. Fosberg, editors. *El Camino Real De Tierra Adentro, Volume Two* (Santa Fe: Bureau of Land Management, 1999).

Robinson, William J., Bruce G. Harrill, and Richard L. Warren. *Tree-Ring Dates from New Mexico J-K, P. V, Santa Fe--Pecos--Lincoln Area*, Laboratory of Tree-Ring Research. Tucson: University of Arizona, 1973)

*Santa Fe New Mexican* Santa Fe, New Mexico, in State Archives and Records Center, Santa Fe, New Mexico.

*Santa Fe Daily New Mexican*, Santa Fe, New Mexico, in State Archives and Records Center, Santa Fe, New Mexico.

Santamaria, Francisco J. *Diccionario de Mejicanismos*, (Mexico: Editorial Porrúa, 1959).

Scholes, France V. "Civil Government and Society," *New Mexico Historical Review* 10(April 1935).

Schoolcraft, H. R. *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, Part IV, Bureau of Indian Affairs (Philadelphia: Lippincott, Grambo and Co., 1854)/

Simmons, Marc. "Waystop on the Santa Fe Trail," in *Pecos-Gateway to Pueblo and Plains*, Joseph Sanchez and John Bezy, eds. (Santa Fe: Southwest Parks and Monuments Association, 1988).

— . "Pecos Pueblo on the Santa Fe Trail," in *Exploration: Annual Bulletin of the School of American Research. Pecos Ruins, Geology, Archaeology, History, Prehistory* (Santa Fe: School of American Research, 1981).

Simpson, Lesley. "Foreword," pp. vi-vii, in François Chevalier, *Land and Society in Colonial Mexico: The Great Hacienda* Lesley Byrd Simpson, ed., Alvin Eustis, tr. (Berkeley: University of California Press, 1966).

Smith, Watson, Richard B. Woodbury, and Nathalie F. S. Woodbury. *The Excavation of Hawikuh by Frederick Webb Hodge: Report of the Hendricks-Hodge Expedition, 1917-1923*, vol. 20, Contribution from the Museum of the American Indian (New York: Heye Foundation, 1966).

Snow, David H., and A. H. Warren. *Cochiti Dam Salvage Project: Archeological Excavation and Pottery of the Las Majadas Site LA 591, Cochiti Dam, New Mexico*, Laboratory of Anthropology Note nos. 75, 75a (Santa Fe: Laboratory of Anthropology, 1973).

*Southwestern Mission Research Center Newsletter* 20(May, 1986)66.

Stanley, John Mix. "Ruins of Pecos - Catholic Church," 1846, in Lt. Col. W. H. Emory, "Notes of a Military Reconnaissance from Fort Leavenworth, In Missouri, to San Diego, In California," 30th Congress, First Session, Ex. Doc. No. 41, 1848.

Stubbs, Stanley A., and Bruce T. Ellis. *Archaeological Investigations at the Chapel of San Miguel and the Site of La Castrense, Santa Fe, New Mexico*, vol. 20, *Monographs of the School of American Research* (Santa Fe: Laboratory of Anthropology, Museum of New Mexico, 1955).

Stubbs, Stanley A., Bruce T. Ellis, and Alfred E. Dittert, Jr. "'Lost' Pecos Church." *El Palacio* 64(1957)3, 4.

Taylor, Walter. "Landed Society in New Spain: A View from the South," in Peter Bakewell, John Johnson, and Meredith Dodge, eds., *Readings in Latin American History, Vol I: The Formative Centuries* (Durham: Duke University Press, 1985).

Thayer, William M. *Marvels of the New West: A Vivid Portrayal of the Stupendous Marvels in the Vast Wonderland West of the Missouri River...* (Norwich, Connecticut: Henry Bill Publishing Co., 1887).

Thomas, Chester A. "Jean McWhirt Pinkley, 1910-1969," *American Antiquity*, 34(October, 1969).

Tolson, Hillory A., et al. *Historic Listing of National Park Service Officials* (Denver: National Park Service, 1991).

Toulouse, Joseph H., Jr. *The Mission of San Gregorio de Abo: A Report on the Excavation and Repair of a Seventeenth-Century New Mexico Mission*. vol. 13, Monographs of the School of American Research (Albuquerque: University of New Mexico Press, 1949)

U. S. Congress. *Congressional Record*, 89th Congress, Session 1, Vol. 111, part 1 (Washington, D. C.: Government Printing Office, 1965).

U. S. Senate. *Authorizing the Establishment of the Pecos National Monument, N. Mex.*, Senate Miscellaneous Reports on Public Bills, 89th Congress, First Session, Vol. 2, Senate Reports 183-378 (Washington, D. C.: Government Printing Office, 1965), Report 321.

U. S. House of Representatives. *Authorizing the Establishment of the Pecos National Monument, N. Mex.*, House Miscellaneous Reports on Public Bills, 89th Congress, First Session, Vol. 2, House Reports 213-328 (Washington, D. C.: Government Printing Office, 1965), Report 234.

Vargas, don Diego de. *By Force of Arms: The Journals of don Diego de Vargas, 1691-93*. John Kessell and Rick Hendricks, eds. (Albuquerque: University of New Mexico Press, 1992).

— . *To the Royal Crown Restored: The Journals of don Diego de Vargas, 1692-94*, edited by John Kessell, Rick Hendricks and Meridith D. Dodge (Albuquerque: University of New Mexico Press, 1995)

— . *Blood on the Boulders: The Journals of don Diego de Vargas, 1694-97*, edited by John Kessell, Rick Hendricks and Meridith D. Dodge (Albuquerque: University of New Mexico Press, 1998)

Vergara, Fray Gabriel de, to Captain don Juan Antonio Perez Almazan, "Escrito . . . para las tierras y aguas, 1731," May 31, 1731, frames 1299-1310, microfilm roll 9, Old Spanish Missions Historical Research Library.

Vetancurt, Fray Agustín de. *Chronica de la Provincia del Santo Evangelio*, volume 3 of the *Teatro Mexicano: Descripción Breve de Los Sucessos Exemplares de la Nueva-España en el Nuevo Mundo Occidental de las Indias*, José Porrúa Turanzas, ed., Colección Chimalistac de Libros y Documentos Acerca de la Nueva España, vol. 10 (Madrid: José Porrúa Turanzas, 1961).

von Wobeser, Gisela. *La Formación de la Hacienda en la Época Colonial: El Uso de la Tierra y el Agua* (Mexico City: Universidad Nacional Autónoma de México, 1983).

Walter, Paul A. F. "New Mexico Mission Churches," *El Palacio* 5(1918)8.

Weber, David J. *The Spanish Frontier in North America* (New Haven: Yale University Press, 1992).

*Webster's Third New International Dictionary of the English Language, Unabridged* (Springfield, Massachusetts: G. and C. Merriam Co., 1961).

*Weekly New Mexican*, Santa Fe, New Mexico, in State Archives and Records Center, Santa Fe, New Mexico.

White, Joseph Courtney. "Adobe Typology and Site Chronology: A Case Study From Pecos National Historical Park," *Kiva* 61(1996)4:347-63.

Whitehead, Richard. *Citadel on the Channel: The Royal Presidio of Santa Barbara, its founding and construction, 1782-1798* (Santa Barbara: Santa Barbara Trust for Historic Preservation, 1996), pp.155-56.

Willey, Gordon R., and Jeremy A. Sabloff. *A History of American Archaeology*, 2nd ed., (San Francisco: W.H. Freeman and Co., 1980).

Woodbury, Richard B. *Alfred v. Kidder* (New York: Columbia University Press, 1973).

— . *Sixty Years of Southwestern Archaeology: A History of the Pecos Conference* (Albuquerque: University of New Mexico Press, 1993).