

**THE INFLUENCE OF LOCAL AND IMPORTED FACTORS ON THE DESIGN  
AND CONSTRUCTION OF THE SPANISH MISSIONS IN SAN ANTONIO,  
TEXAS**

A Thesis

by

NANCY E. CROWLEY

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2005

Major Subject: Architecture

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**ABSTRACT**

The Influence of Local and Imported Factors  
on the Design and Construction of the Spanish Missions  
in San Antonio, Texas. (December 2005)

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San Antonio, Texas, is home to several eighteenth-century Spanish Franciscan missions, which represent some of the best examples of Spanish colonial mission architecture in the United States and which together comprise the city's historic Chain of Missions. This study traces the history of four of these missions: Mission Nuestra Señora de la Purísima Concepción de Acuña, Mission San Jose y San Miguel de Aguayo, Mission San Juan Capistrano, and Mission San Francisco de la Espada.

Founded by Franciscan friars, who traveled from Spain to Mexico and ultimately to Texas to christianize native populations of the Americas, and built by craftsmen transplanted from Mexico, the missions are an amalgam of diverse cultures and decades of evolving architectural styles. This study examines the cultural, religious, and environmental factors that influenced the design and construction of the original mission structures. Specifically, it analyzes the vernacular architecture of eighteenth-century Spain and Mexico, as well as the traditions of local Native American groups of the

period, and studies the effect of these cultures and San Antonio's environmental conditions on the resulting vernacular construction of the San Antonio missions.

Each of the four missions in this study is examined within the context of three main factors: (a) the unique combination of broad cultural factors—both local and imported—that influenced the architectural forms of the missions; (b) the religious prescriptions of three cultural groups and their effect on the structure of the missions; and (c) the impact of the specific environmental conditions of the San Antonio area. The goal of this study was to identify the multiple forces that contributed to the creation of a vernacular architectural form—Spanish mission architecture—in Texas. The findings suggest that the design and construction of the San Antonio Missions were most strongly influenced by Mexican religious factors, followed by Spanish cultural factors. Environmental conditions of the area were not highly influential.

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## CHAPTER I

### INTRODUCTION AND SIGNIFICANCE

The overall goal of this study is to trace the history of the builders of four of San Antonio's eighteenth-century Spanish missions—namely Mission Nuestra Señora de la Purísima Concepción, Mission San Jose y San Miguel de Aguayo, Mission San Juan Capistrano, and Mission San Francisco de la Espada (hereafter collectively known as the missions)—in order to identify the specific factors that influenced the design and construction of the missions, resulting in a vernacular architecture on the Texas frontier. These four missions, along with Mission San Antonio de Valero—better known today as the Alamo—comprise San Antonio's historic Chain of Missions. This study aims to examine the *original* structures and functions of the missions, and, as such, it will not include an examination of the Alamo. The remaining four San Antonio missions are the focus of the study, as they represent the original mission structures (and, while they no longer function as missions, each of their churches or chapels is still in use for services today). In the past two and a half centuries, the Alamo has undergone many different historical interpretations, many focusing on its military role in the Texas Revolution. As a result, the extant Mission San Antonio de Valero structures no longer resemble their original state, and the Alamo's role as a mission rather than as the site of the defining

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This thesis follows the style and format of *ARRIS: Journal of the Southeast Chapter of the Society of Architectural Historians*.

moment in Texas military history has been lost to more romantic and heroic visions of history.

From a cultural-historical perspective, the San Antonio missions represent the best of Spanish colonial architecture in the United States;<sup>1</sup> they are, therefore, an excellent starting point for further studies that can lead to greater understanding of American culture and of immigrants' impact on American architecture. Such studies can also lead to improvements in historic preservation practices through in-depth analyses of the intent of the builders as well as their use of materials and construction techniques.

The San Antonio missions have long been recognized for the beauty of their architecture and their success within an eighteenth-century mission system. Additionally, individual researchers have examined and described various discrete aspects of the San Antonio missions (Gelernter 1999; Guerra 1982; Habig 1997; Quirarte 2002; Rapoport 1969; San Antonio Bicentennial Heritage Committee 1976; University of Texas Institute of Texan Cultures 1972). Yet to this researcher's knowledge, there have been few studies undertaken to examine the missions as a unique form of vernacular architecture,<sup>2</sup> expressing a combination of a multitude of cultural styles and influences. Nor have studies been done to analyze the interrelationships among these aspects as a means of forwarding our understanding of the impact of cultural and religious factors of Spanish and Mexican peoples, as well as those, if any, of local populations such as the Coahuiltecan Native Americans, on the San Antonio missions.

The objectives of this study are to identify, describe, and analyze the influence of local and imported factors on the design and construction of the four San Antonio

missions as a means to increasing the current knowledge base regarding Spanish colonial mission architecture. Specifically, this study attempts to provide an in-depth examination of the multiple forces that contributed to the creation of a vernacular architectural form—Spanish mission architecture—in Texas.

With the results of this study, a host of future research efforts may be possible. For example, an examination of past restoration and preservation efforts at the missions, and a comparison to this study's findings, can reveal adherence to preservation standards as well as important cultural and architectural practices and can lay the groundwork for future restoration efforts (Crowley 2004; Crowley and Geva 2004). More broadly, similar studies can be made of other Spanish missions, such as those in California and Arizona, and comparisons between and among these missions and those of Texas can contribute to a broader understanding of the cultural impact of the missions and their architecture on the American landscape. Even more broadly, this study can reveal and clarify potential cultural misperceptions that can affect public policy decisions in our multicultural, globalized society.<sup>3</sup>

## CHAPTER II

### BACKGROUND AND LITERATURE REVIEW

“San Antonio will be the headquarters . . . the heart from which we will go out to establish additional missions.”

—Antonio Margil de Jesus, O. F. M., 1719 (Guerra 1982: 5)

In 1519, Hernan Cortez began the Spanish conquest of Mexico to create Spanish colonies in the New World and to expand their empire. Shortly after the conquest was complete, Franciscan missionaries established the first *colegio*—a school for the training of native missionaries—in Mexico. By the seventeenth century, Texas had become a buffer zone between Spanish-held Mexico and the French and English claims in the eastern part of the New World. With the French presence on the border of present-day Louisiana and Texas, the Spanish decided to push northward from Mexico to colonize Texas, beginning with eastern Texas (Guerra 1982; Habig 1997). They established four missions in eastern Texas; these missions, however, struggled to survive amidst threats by the French, hostile Indian incursions, disease, and difficult farming and food-production conditions. With such a great distance between their power base in Mexico and their outposts in eastern Texas and fearful that they might not be able to maintain control over this vast territory, the Spanish decided to build a settlement halfway between the two, in San Antonio (Guerra 1982; Habig 1997; San Antonio Bicentennial Heritage Committee 1976; University of Texas Institute of Texan Cultures 1972).

According to missionary diaries and military reports, San Antonio was seen as “an ideal location for missions to serve as refueling points and rest havens” (Guerra 1982: 2). Between 1718 and 1731, five missions were established along the San Antonio River within a twelve-mile radius of the present city, beginning with Mission San Antonio de Valero (along with the presidio of San Antonio). They were strategically located along the river to be near the presidio, which offered military protection (Guerra 1982; Habig 1997; San Antonio Bicentennial Heritage Committee 1976). The overarching goal of these missions was to christianize the local Indians and to make them useful subjects of the Spanish crown; ultimately, the Spanish hoped, these new subjects would become spiritually and economically self-sufficient (Guerra 1982; Habig 1997; San Antonio Bicentennial Heritage Committee 1976).

As mentioned above, Mission San Antonio de Valero was the first mission to be founded, in 1718, followed by Mission San Jose y San Miguel de Aguayo in 1720. The remaining three area missions were among those originally founded in east Texas and moved to San Antonio (essentially re-established, as only the moveable goods were transferred to San Antonio). Mission Nuestra Señora de la Purísima Concepción was founded in 1716 in Nacogdoches County and moved to San Antonio in 1731. Similarly, Mission San Juan Capistrano, which began its life in Nacogdoches County as Mission San Jose de los Nazonis in 1716, was re-established—and renamed—in San Antonio in 1731. Mission San Francisco de la Espada, officially the oldest of the area missions, was founded in 1690 in Houston County as Mission San Francisco de los Tejas, was moved to Cherokee County in east Texas in 1721 and renamed Mission San Francisco de los

Neches, and finally was re-established in San Antonio under its present name in 1731 (Habig 1997).

Franciscan missions were built according to a general plan based on necessity, and the San Antonio missions were believed to be no exception. In general, housing for the friars and the Native Americans was built first, followed by the stone walls to protect the compound; next, the planting fields and irrigation system were set up, including an *acequia*, for the missions could not survive if they could not produce their own food; the granary was built next, followed by the workshops, store rooms, and stable; the church was usually the last to be built, which allowed for more time to be spent creating ornamental sculptures, woodwork, and decoration (Guerra 1982).

By all accounts, each of the missions was successful in accomplishing their main goals. Large numbers of Native Americans were converted to Christianity; the Native Americans received education in Spanish customs, laws, language, and religion, as well as in music, domestic skills, ranching, agriculture, weaving, and building skills; the inhabitants reportedly enjoyed a high quality of life; and each mission was well self-sustained<sup>4</sup> (Habig 1997).

As monuments of Spanish colonial architecture in the New World, the missions of San Antonio have been the subject of much literary attention. Perhaps the most has been written about Mission San Antonio de Valero or, as it is more popularly known, the Alamo. The bulk of writings about the Alamo, however, seem to have focused on its role in the military history of Texas. Mission San Antonio de Valero is not included in this study; therefore, this review will not address these writings. Of the four San Antonio

missions under study here, Mission San Jose has received by far the most literary attention. Perhaps it is its reported status as the “Queen of the Missions,” (Habig 1997) the most beautiful of all the San Antonio missions, that has spurred this outpouring of attention; perhaps it is due to its success as a mission on this new frontier or the fact that it was one of the first of the chain of missions to be founded. Whatever the impetus, it seems that more records related to Mission San Jose have survived (as compared to the other three missions), more texts have been written about this mission (for example, *San Antonio’s Mission San Jose* by Marion A. Habig, O.F.M. [1968]; *San Jose Mission, Its Legends, Lore, and History: Story of the “Queen of Missions”* by Wilma Madlem [1934]; and *San Jose, Queen of the Missions* by John Ilg, O. F. . [1938]), and, incidentally, more architectural preservation efforts have gone on at Mission San Jose than at any of the other three San Antonio missions under study here.

Next in line in popularity seems to be Mission Nuestra Señora de la Purísima Concepción. The remaining two missions under study, Mission San Juan Capistrano and Mission San Francisco de la Espada, seem to have been the subject of significantly fewer writings. Perhaps this dearth of textual recordings is due to their perception as lesser architectural gems. It may be that their physical locations as the most southern of the chain of missions (furthest from the presidio and the town center) somehow made them easier to overlook. Regardless of the cause, relatively little seems to have been recorded about these last two missions.

For detailed accounts of the history of the missions, the best sources are the manuscripts of original documents and reports compiled by Marion A. Habig, O. F. M.,

and translated by Benedict Leutenegger, O. F. M., including *Management of the Missions in Texas* (1788), 1977; *Journal of a Texas Missionary* (1767–1802), 1977; and *The San Jose Papers, Part I* (1719–1791), 1978; as well as Leutenegger's *Guidelines for a Texas Mission* (1760), 1976. These compilations include detailed accounts of the missions during their active years, as recorded by visiting Franciscans, and they describe the working and living conditions at the missions. They also include descriptions of the architecture of the missions, with each visiting missionary recording what structures were present at the time of their stay, resulting in an architectural timeline of the missions throughout the eighteenth century.

Habig's book *The Alamo Chain of Missions: A History of San Antonio's Five Old Missions* (1997) is a key resource for any study of the history of the San Antonio missions. Indeed, it is the pinnacle of all histories of the missions—its significance is attested to by the number of times it is referenced in other works—and it is the one resource that any scholar (or lay person, for that matter) should not do without. It is particularly useful for those without access to the original manuscripts, as Habig has gleaned the essential information from the original sources, capturing all the important details and weaving a rich story of mission life in the eighteenth century. Its short biographical sketches on ninety-three Franciscan missionaries of the period as well as its extensive bibliography serve as an excellent foundation for further study.

Another good source for beginning to understand the history of the missions, albeit in an encapsulated form, is Mary Ann Noonan Guerra's *The Missions of San Antonio* (1982). The primary value of this short book is its detailed chronology of the



missions, which lists key events in the lives of the missions, ranging from the 1718 founding of Mission San Antonio de Valero to the 1981 establishment of the Bexar County Historical Foundation (founded to provide funds for restoration of the missions). The book also contains a decent bibliography, but overall it cannot be considered to be a detailed source for the missions' history; rather it is a means to ground oneself in the basics of the San Antonio mission system. For specific descriptive accounts of the missions' history, the definitive resource, aside from the original manuscripts, is most certainly Habig's *The Alamo Chain of Missions* (1997).

Excellent sources for information on both the cultural and architectural history of the San Antonio missions are the various archaeological reports that have been written over the years. Of particular note are John W. Clark Jr.'s report on archaeological investigations at Mission San Jose (1974) and Dan Scurlock and Daniel E. Fox's report on studies conducted at Mission Concepción (1977), both published by the Texas Historical Commission in Austin. Clark and Scurlock and Fox provide not only well-researched, extensive historical backgrounds for each of these missions but also thorough, detailed descriptions of the structural composition of the extant architecture. Their findings are enhanced by their archaeological work, which often uncovers information about building foundations, irrigation ditches, construction materials, and the like that are unavailable to other researchers, and their reports are meticulous in their detail. Other good publications have been produced by the Center for Archaeological Research at the University of Texas at San Antonio, such as *Archaeological Investigations at Four San Antonio Missions: Mission Trails Underground Conversion*

*Project* by I. Wayne Cox et al. (2001). While this publication necessarily focuses on the archaeological findings of these investigations, it also provides some good historical information about each mission, from their founding to the early twentieth century.

Of all the texts written about any of the four San Antonio missions under study, however, only a few make a brief mention of the origins of the missions' architectural forms. Fewer still attempt to compare the missions to other religious architecture of the period or to trace the history of the builders of the missions or of the mission forms themselves.

This study attempts to fill this gap by examining the three groups that were involved in the building of the missions— Spanish Franciscan missionaries, Mexican craftsmen, and local Native Americans—to determine what, if any, influence they had on the missions' vernacular form and construction. The analyses will look at the cultural background of the builders, their religions, and the physical environmental conditions of San Antonio. Moreover, this study will examine the combination of these factors and their interrelationships, as studied by individuals such as Glassie (1999), Geva (1995, 2002), and Rapoport (1969), whose studies of vernacular architecture have focused on the retention of cultural traits, the impact of the environment and building types, and the situational factors that influence form, respectively.

### **Cultural Background of the Builders**

The individual Franciscan missionaries who built the San Antonio missions first arrived in Mexico in the late seventeenth century; many of them arrived from central Spain (San Antonio Bicentennial Heritage Committee 1976). As such, they were exposed to the architecture of their native region, which by the eighteenth century when the San Antonio missions were built was characterized by the unique qualities of Spanish Baroque (Booton 1966). Spanish Baroque has part of its roots in Spain's long history of a passion for decoration. Many buildings reference the past in interesting ways, and the Spanish penchant for blending architecture and ornamental sculpture in unusual ways created structures that displayed a "distinct decorative unity" between contrasting elements of the "simple and [the] complex" (Baird 1962:2). It was this type of art and architecture that Baird believes provided most of the inspiration for style and fashion in eighteenth-century Mexico (1962).

In the early- to mid-1700s, Spanish designers rebelled against the reserved nature of the Classical-based Baroque architecture and created a new style of elaborate surface decoration often referred to as Churrigueresque, named for the Churriguera family who originated it (Gelernter 1999). This style is marked by overwhelming sculptural compilations of Classical elements, often piled on top of one another in rich, sensual compositions of pure ornament, ultimately overturning the rational sensibilities of Classicism. These writhing forms (Baird's "complex") were often attached to the exterior of a plain building (Baird's "simple") surrounding the main entry. Indeed,

according to Baird, the Churriguera family was instrumental in developing the architectural styles of central Spain, particularly in Madrid and Salamanca (1962). By the time the mission structures under study were built, the Franciscans had resided in Mexico for a number of years (Guerra 1982), but they brought with them the styles of their native land, which they employed in their own buildings (Gelernter 1999).

As Spanish Baroque was flourishing in central Spain in the eighteenth century, particularly in expressions of the Churrigueresque style, it was also in fashion in central Mexico at that time. Mexican designers were absorbed with the concept of grandeur in their buildings (*la grandeza mexicana*), a Baroque ideal, and focused on creating highly ornamental facades and *retablos*. While many scholars have applied the name “Churrigueresque” to the architecture of central Mexico as well, according to Baird the term can only be appropriately used if qualified with the additional term of “Mexican” (as in “Mexican Churrigueresque”). The Churriguera family was active primarily in central Spain, but Baird (1962) believes that the Baroque influence that appears most notably in central Mexico has its roots in the southern Andalucía region of Spain, in cities such as Sevilla and Granada, where the seventeenth-century *salomónica* (a twisted column that was a predecessor of some of the Mexican Churrigueresque building blocks) was often employed. Some examples of this southern Spanish Baroque may be seen in Cadiz Cathedral, the sacristy of La Cartuja in Granada, and Murcia Cathedral (Baird 1962).

Baird states that Andalusian architects such as Lorenzo Rodríguez were influenced by such structures and carried their styles to central Mexico. Rodríguez was

born in Guadix, Spain, in 1704 and received his architectural training in southern Spain. Although the extent of his architectural practice in Spain is unknown, he is credited with being a major force in the development of the architectural style of central Mexico in the mid-eighteenth century (specifically from 1730 to 1780); he is especially known for his work on the Sagrario Metropolitano. Rodríguez, in turn, was strongly influenced by the work of Francisco Hurtado Izquierdo y Fernández, the leading architect of Granada in the early eighteenth century. Although there is incomplete documentation of his work in Mexico, Rodríguez is believed to have been one of the most prolific architects of the period, and one who contributed to the elaboration of the “Mexican Churrigueresque” style of architectural decoration, particularly in his introduction of the *estípite* (Baird 1962).

Baird defines the *estípite* as a “special pillar or pilaster made up of a base, inverted obelisk, various blocks and moldings (sometimes medallions as well), and crowned with a Corinthianesque capital. . . . [The *estípite*] became a type of ‘order’ in mid- and later eighteenth-century Mexico” (1962: 64). According to Early, the *estípite* consisted of “a variety of angular, faceted elements; it suggests in its lower sections an upside-down obelisk and in its entirety an abstract version of an atlante or caryatid figure, as it ascends from its feet at the base through swelling legs, tight waist, broadened shoulders, and narrow neck, to its substantial head, or capital” (1994: 167).

Another influential Spanish-born Mexican architect of the period was Jerónimo de Balbás. Balbás was born in Zamora circa 1670, lived in Madrid for three years, and moved to Andalucía, where in 1706 he designed a *retablo* for the *sagrario* of the

Cathedral of Sevilla (the retablo was demolished in 1824). Balbás's Retablo de los Reyes in the Cathedral of Mexico in Mexico City is similar in form to the one he designed for Sevilla (Early 1994).

Before they arrived in Texas, the Franciscan missionaries lived and worked in Mexico for many years. Shortly after their arrival in Mexico, the Franciscans had created two *colegios*, the College of Zacatecas and the College of Queretaro, each based in central Mexico, and they spent much of their time in Mexico City and its surrounding towns (Gelernter 1999; Habig 1997). During these years, the Franciscans were exposed to the architectural styles and fashions of the area, which were often characterized by not only the qualities of Spanish Baroque discussed, but also by a blending of Spanish and Mexican ideals, a *mestizo* quality. When the Franciscans traveled to San Antonio to build the missions under study, they brought with them some of these *mestizo* craftsmen (Baird 1962; Guerra 1982; Habig 1997).

The third cultural group who was involved in the building of the missions was the Coahuiltecs, the Native American peoples who had been taken in by the Franciscan missionary system. Of the many Native American tribes in Texas during the eighteenth century, the Coahuiltecs were a widely scattered, diverse group of several small, autonomous tribes, who each spoke their own dialect, located mainly in southern Texas and northern Mexico. They were nomadic bands of hunter-gatherers who wandered the rough, arid landscape in search of food. The men used bows and arrows as well as traps to hunt small game such as rabbit and javelina. There were often not enough animals to sustain the tribes, so the women would forage for whatever they could

find, including cactus, roots, nuts, plants, and mesquite beans. When food was particularly scarce, they would eat ants, worms, lizards, snakes, and even rotten wood (La Vere 2004; San Antonio Bicentennial Heritage Committee 1976; University of Texas Institute of Texan Cultures 1970).

Since the Coahuiltecs were a nomadic people who lived off the land—as compared to those Native Americans who were farmers and who were therefore tied to a particular piece of land for a long period of time—they had little need for sophisticated tools, and they had no agricultural knowledge. Everything they needed had to be portable, including their housing. The Coahuiltecs, therefore, had no knowledge of building technology; their makeshift homes were small, low, circular huts often made by placing reed mats and sometimes animal hides over bent saplings, and were designed to be quickly rolled up and carried away. This transient lifestyle also resulted in a lack of significant material culture; for instance, they had little need for cumbersome, more permanent pottery for use as containers, so they did not develop pottery-making skills. Instead they made flexible reed baskets and nets for carrying items from camp to camp. Their weapons, tools, and utensils were mostly made of stone, bone, wood, or clay (La Vere 2004; Newcomb 1961; San Antonio Bicentennial Heritage Committee 1976; University of Texas Institute of Texan Cultures 1970).

With so little advanced technology of any sort, the Coahuiltecs often found themselves at the mercy of the more aggressive, warring bands of Native Americans, particularly the Apaches and Comanches of the area. And while they enjoyed the freedom to go wherever they wanted, whenever they wanted, their status as a sort of prey

on the frontier coupled with their inability to provide themselves with consistent food and shelter reportedly made the Franciscan missions attractive alternatives to their relatively primitive existence. The Coahuiltecan's main purpose in life was survival, and the Franciscan missions offered both protection against the warrior Apache and Comanche, as well as a consistent source of food (Guerra 1982; La Vere 2004; Newcomb 1961; San Antonio Bicentennial Heritage Committee 1976; University of Texas Institute of Texan Cultures 1970).

### **Religions**

In 1209 St. Francis founded the First Order of Friars Minor, or Franciscans, who commit themselves to a life of poverty, obedience, and chastity. Still today, the Franciscan missionaries go to wherever they are sent to spread the teachings of Christianity, following a literal observance of the Gospel (Habig 1997). In order to achieve their spiritual goals, Franciscan missionaries have certain requirements, not the least of which is appropriate architectural structures within which to perform their duties. A successful Christian mission needs the following components, which are in many ways symbiotic—a mission cannot survive, much less thrive, if it contains some of these elements and not others (Clark 1974; Guerra 1982; Habig 1997).

The mission must have a church structure. Within the church there must be a nave or central space where worshipers may congregate. There must be a sanctuary containing an altar, which serves as the focus for the practice of the Christian ritual.



There must also be a place to baptize the converted; often times this ritual took place in the sacristy, although strictly speaking, the sacristy is traditionally used as a place to store vestments and liturgical furnishings as well as for priests to vest in preparation for the Mass (Baird 1962).

The mission must also contain a friary or, in the case of the Franciscan missions, a *convento* to house the friars. Since the friars take vows of poverty, obedience, and chastity, the *convento* should be designed accordingly, as simple structures fit for plain living (Habig 1997; Perry 1992).

In order for the friars to guide the spiritual and educational processes of their native converts, there must be housing provided for the Native Americans so that they can become active, contributing members of the mission system (Habig 1997).

For the mission to achieve its goal of self-sustainability, it must contain the means to produce its own food as well as other necessary items, such as clothing, utensils, furniture, and the like. It would, therefore, need adequate amounts of land for agriculture, a water supply, an animal husbandry area, and any types of workshops as may be appropriate. It would also require storage areas in which to house supplies of food and materials, as well as a kitchen to prepare meals for the inhabitants. In addition, the mission would need a refectory or dining hall where its occupants could sit down to meals (Clark 1974; Habig 1997).

Although the Franciscan mission was a spiritual venture, it was also, in some sense, a business, in that it required record keeping and administrative functions. A

successful mission, therefore, would need to contain an office for these purposes (Habig 1997).

In keeping with the Christian beliefs in the ritual burial of the dead and in life after death, the mission should also have an area set aside as a cemetery, where funerary rituals may be performed according to Christian customs (Habig 1997).

Mexican missionary and religious architecture exhibited plans and forms specific to its purpose. According to Gelernter, “The first religious buildings followed the medieval model of the Catholic monastery, with a longitudinal church focused on an altar at one end, a walled courtyard, and simple accommodations for the friars” (1999: 45). Native Americans in this model were housed in separate single-room dwellings. Such a construction can be seen in the 1570s church and *atrio* complex at Atlatláuhcan, Mexico (Gelernter 1999; McAndrew 1965; Perry 1992). In this type of fortress monastery, “the walled atrium was an essential component of the fortress style, designed to emphasize the ascendancy of the new Catholic religion over the ancient gods” (Perry 1992: 15).

In these early missions the walled *atrio* formed a square around the complex; the walls sometimes spanned up to five hundred or six hundred feet per side. “Though designed for Christian purposes and traceable to some rare Christian precedents, the *atrio* was recognized by visitors as a striking Mexican phenomenon” (Early 1994: 15). At each corner of the *atrio* were small rectangular stone chapels with altars called *posas*, at which a friar would pause during ritual processions through the *atrio*. *Posas* were simple, small-scale architectural forms with the sole purpose of sheltering a small

altar. Most were ten-by-twelve-foot rectangular blocks; some had flat roofs, others featured pyramidal roofs, while others sported merlons on their roofs. Some displayed little ornamentation, and others were highly decorated with figural sculptures, columns, pilasters, and religious symbols, in keeping with the style of the primary mission structures (McAndrew 1965).

In addition, a unique Mexican feature of the *atrio* was the open chapel, which allowed large numbers of natives to gather and participate in Christian rituals (Gelernter 1999; McAndrew 1965). The open chapel was often physically a part of the *convento*, “sunk like a deep loggia or apse in [its] façade” (McAndrew 1965: 344), or it was sometimes a freestanding structure adjacent to the *convento*. Its purpose was to provide a place to house an altar (for Mass could not be celebrated without an altar) within the spacious *atrio* so that large numbers of Native Americans could celebrate the Mass. Indeed, “its use made it functionally a part of the *atrio*, or vice versa, for it served as the sanctuary of the open-air church[, or of the monastic church,] of which the *atrio* was the roofless nave” (McAndrew 1965: 344). The *atrios* also “served daily as open air religious schools and as places for varied ministry to the Indians” (Early 1994: 16).

Throughout the sixteenth, seventeenth, and eighteenth centuries, religious architecture in Mexico underwent significant changes. And while the scope of this study does not allow for a complete examination and analysis of Mexican religious architecture other than that of the eighteenth century (given that the San Antonio missions were themselves built in that period), it is worth a brief look at the evolution of

this genre of Mexican architecture as a means to understanding some of the forms and structures as they appeared in the eighteenth century.

Baird (1962) traced the development of Mexican religious architecture over the periods of 1530 to 1580, 1630 to 1680, and 1730 to 1780. Each grouping corresponds with a particular type of religious architecture, namely monastic churches, cathedrals, and parish and pilgrimage churches, respectively. This discussion will look at some of the characteristics of monastic churches and parish and pilgrimage churches.

The monastic church was boxlike, with or without a transept, without any aisles or flanking chapels. It had a choir loft or *coro* above the church entrance and a carved and gilded *retablo* or great screen, often featuring ornamental sculpture, behind the altar. The walls were usually plain rather than frescoed. The roof was typically vaulted, either with rib vaulting or a barrel vault. The façade was a “principal focus of ornamental enthusiasms” (Baird 1962: 24) with perhaps a rose window above the portal, Plateresque columns, or a combination of forms such as skulls, crosses, and angels’ heads in a rectilinear frame that was attached to a plain structure (Baird 1962).

The friary was attached to the church and was comprised of “austere cubicles” for the monks’ cells. It was organized around a cloister and had its entrance in a *portería* or arched porch. Before the church was a spacious courtyard or *atrio* that was enclosed by “battlemented walls” (Baird 1962: 24).

The parish or pilgrimage churches of eighteenth-century Mexico were basically characterized by a proportionally higher boxlike church with particularly tall façade towers and tiled dome. “The impetus to a lofty silhouette and a dazzling interior with

gilded altar screens, related to a dramatic frontispiece or façade with twin towers framing the central elements, gradually developed also” (Baird 1962: 29).

Many parish churches, like the monastic churches, did not have flanking chapels, but almost all of them had wide, squared transepts and apse. In addition, special chapels were also popular, particularly in the eighteenth century. Such chapels included Rosary chapels and *camarines* (“a special, small room for robing an image and storing its adornments”) (Baird 1962: 29). “These were usually adjacent to the church and were meant to be related, though not structurally integral, elements of a total plan” (Baird 1962: 29).

While many of the individual elements of Baird’s monastic or parish churches can also be found in churches throughout Europe, it is the arrangement of these elements and structures into functional mission compounds that can be identified as characteristically Mexican. The specific configurations of these elements and structures, in combination with other Mexican elements such as the *atrio*, *posas*, and special chapels, met the needs of the Franciscan missionaries and created a uniquely Mexican architectural expression.

As the object of the Franciscan missionaries’ efforts at christianization, the Coahuiltecs were forced to surrender their own religious and spiritual beliefs in favor of those of Roman Catholicism. The Coahuiltecs were animists, believing in a powerful Creator who provided everything on the earth with a spirit that could interact with humans. Their deities and ceremonies revolved around animals, such as the wolf, and they sought power from animal guardians. They believed that the world was filled

with powerful spirits, and they relied on ritual and ceremony—often performing circle dances in celebration of the circle of life—to attempt to harness this great power. Since they had no architecture, and certainly no monumental structures, these ceremonies took place in open areas, often involving hundreds of individuals (La Vere 2004; San Antonio Bicentennial Heritage Committee 1976). The Coahuilteicans relied on the spiritual leadership of shamans, and they put great stock in visions and dreams. Their lives were also dictated by an overwhelming concept of honor in all aspects of life—one must honor one’s kin, honor killed animals by thanking them for giving their lives, honor the spirits. In order to maintain harmony and balance in life, the Coahuilteicans believed in “living a correct life in which one did what was expected in relation to other people and to spirits” (La Vere 2004: 48). It was perhaps this last characteristic that reportedly made them such willing participants in the Franciscan mission system.

The *mitote* was the central ritual ceremony of the Coahuilteicans. *Mitotes* were held to “inaugurate a communal hunt, to celebrate the beginning of summer. . . . to celebrate a victory, or to terminate a war. The *mitote* consisted of dancing, singing, drinking, and feasting, the celebration lasting varying periods of time. . . .” (San Antonio Bicentennial Heritage Committee 1976: 16). As many as six hundred to seven hundred individuals would participate in one *mitote*, which were held at night in the summer months in large outdoor areas. Organizing these celebrations was no small feat, especially considering that the Coahuilteicans were a nomadic people who stored no food; large amounts of food, therefore, needed to be killed or gathered in a short period of time. The participants painted their bodies with red ochre, chalk, indigo, and carbon;

adorned themselves with bones, shells, animal hides, and feathers; and sometimes wore masks representing sacred animals. The *mitotes* were more than just religious gatherings; they also served as important social events that bound together individuals in common celebration (Guerra 1982; San Antonio Bicentennial Heritage Committee 1976).

### **Physical Environmental Conditions of San Antonio**

“The padres were not trained engineers or architects. Their building plans incorporated features they remembered from the churches in Spain and Mexico, adapted by rule of thumb and harsh necessity to the unique conditions of the outpost. They had to create the building materials out of the soil on which they stood and the trees that shaded them.”

—Dr. Joe B. Frantz, historian (Guerra 1982: 15)

As Rapoport states in his study of vernacular architecture titled *House Form and Culture*, house form is not the result of one single causal factor, but rather of a combination of factors, which include “climatic conditions (the physical environment which makes some things impossible and encourages others) and . . . methods of construction, materials available, and the technology (the tools for achieving the desired environment)” (1969: 47). In his studies, Rapoport focuses exclusively on the development of *house* form, although many of his ideas and conclusions can be more

universally applied. Given limitations in technology, materials, or site, builders will adapt to these conditions to create forms that are best suited to the environment (Rapoport 1969).

Immigrants often bring with them the designs and forms of their homeland, which they are reluctant to give up, even if those forms are unsuited for their new environment (Geva 1995, 2002; Rapoport 1969); this application of a familiar model is what Glassie (1975, 1999) refers to as immigrants' adherence to their mental template. Fortunately for the Spanish and the Mexicans, the climates of central Spain, central Mexico, and central Texas are all characterized by hot summers, moderate winters, high numbers of sunny days, and average amounts of rainfall, so in each new location they were able to employ familiar forms that were also well suited to the climate (Clark 1974; Mack and Gibson 1930). For instance, according to Gelernter, the Spanish in Mexico "constructed courtyard houses, a familiar and ancient Mediterranean type quite appropriate for the similar hot climate in the new land (1999: 45). Architectural features such as courtyards and arcades were still appropriate, if not necessary, elements of their religious structures in the New World; courtyards, for example, allowed the use of outdoor space in the frequent warm, pleasant weather of these locales, and arcades were key tools in escaping the burning heat of the summer sun.

There were limitations, however, when building the San Antonio missions. The Franciscan missionaries were not architects. They brought with them skilled craftsmen from Mexico who had some architectural and building knowledge. In addition, the local Coahuiltecan, who were to become the converted, had no knowledge of building



technology and so could not contribute to the technological design of a new mission; they were, however, enlisted to build the mission structures, thereby learning construction skills in the process. The Franciscans and Mexicans, therefore, employed designs and elements of designs of religious structures with which they were familiar (Guerra 1982; Habig 1997). Because of these serious limitations in knowledge, any imitations of large, elaborately designed structures needed to be modified and simplified to better suit the capabilities of the mission's builders (Gelernter 1999).

As mentioned above, Franciscan missions required certain basic architectural components in order to function; they also needed to be built on appropriate sites to enable them to successfully meet their goals. The San Antonio area provided the Franciscans with ideal locations to establish their mission communities. Specifically, each of the four missions under study benefited from its proximity to a water source, the San Antonio River; the availability of suitable building materials (a limestone quarry was located just outside the walls of Nuestra Señora de la Purísima Concepción, and oak and other trees were plentiful); the presence of sufficient tracts of land for agriculture; the availability of sufficient land for building necessary structures and for ministering to the Native Americans; and their proximity to the presidio of San Antonio, which was located upriver near Mission San Antonio de Valero (the presidio, as a military structure, offered the missions military protection and supplied the missions with soldiers when necessary) (Clark 1974; Early 1994; Habig 1997; San Antonio Bicentennial Heritage Committee 1976). Indeed, according to a report by Lieutenant General Captain Juan Valdéz in 1720, "... the land offered such rich pastures and plentiful woods for beams,

quarry stones, and firewood. There are excellent exits and entrances along the river for the cattle, sheep, goats, and horses” (Valdéz 1968 [1720] as quoted in Cox et al. 2001).

Given this background, it seems likely that the Franciscans did not have any architectural training or backgrounds in construction. Indeed, historian Dr. Frantz stated that they were not architects (Guerra 1982), and there seems to be no evidence—historical documents, reports, personal correspondence, or the like—indicating that the missionaries had any formal architectural training. Through their missionary training, however, and the years spent both in their native Spain and in Mexico, the Franciscans would have become very familiar with how a successful mission would need to be organized, as well as how the buildings should be laid out and perhaps what some of their architectural elements (e.g., domes, towers, arcades) should look like. In the building of the San Antonio missions, therefore, it is likely that the Franciscans’ role was not that of designer, as we understand the term today, but rather that of organizer/planner/administrator, who indicated how the mission buildings should be arranged and who communicated to the skilled craftsmen their ideas for some of the details. For instance, the sculptured façade of the church at Mission San Jose contains images of the Tree of Jesse, traditionally understood as the genealogy of Christ (Quirarte 2002). The Franciscans would have used this imagery as a teaching tool for the Native Americans, and it is likely that they communicated their ideas to the craftsmen to depict (personal communication with National Park employees at the Mission San Jose site 2005).

It has been well documented that the Franciscans brought with them to Texas skilled craftsmen from Mexico to help them build the missions (Baird 1962; Guerra 1982; Habig 1997; Quirarte 2002). These craftsmen would have been trained in a variety of skills—masonry, sculpture, painting, woodworking, metalworking, and architectural construction, among others. In fact, an anonymously authored “guide” for journeymen architects, titled *Architectural Practice in Mexico City*, believed to have been written between 1794 and 1813, describes some of the skills that were taught to aspiring Mexican designers around the eighteenth century (Schuetz 1987). The transplanted craftsmen, therefore, would likely have been responsible for designing the more sophisticated elements of the missions, such as domes, groin vaults, and arches, as well as for executing the sculptural decoration of the missions.

Although the Coahuiltecs did not have any architectural knowledge, they were instrumental in physically building the San Antonio missions. The Coahuiltecs provided necessary labor to construct the mission buildings, while learning valuable skills from the Mexican craftsmen. This process is, in fact, integral to the Spanish mission system; the Native Americans not only build the structures in which they will live and work, but they also gain knowledge that, in the eyes of the Franciscans, contribute to their growth as subjects of the Spanish crown (Guerra 1982; Habig 1997).

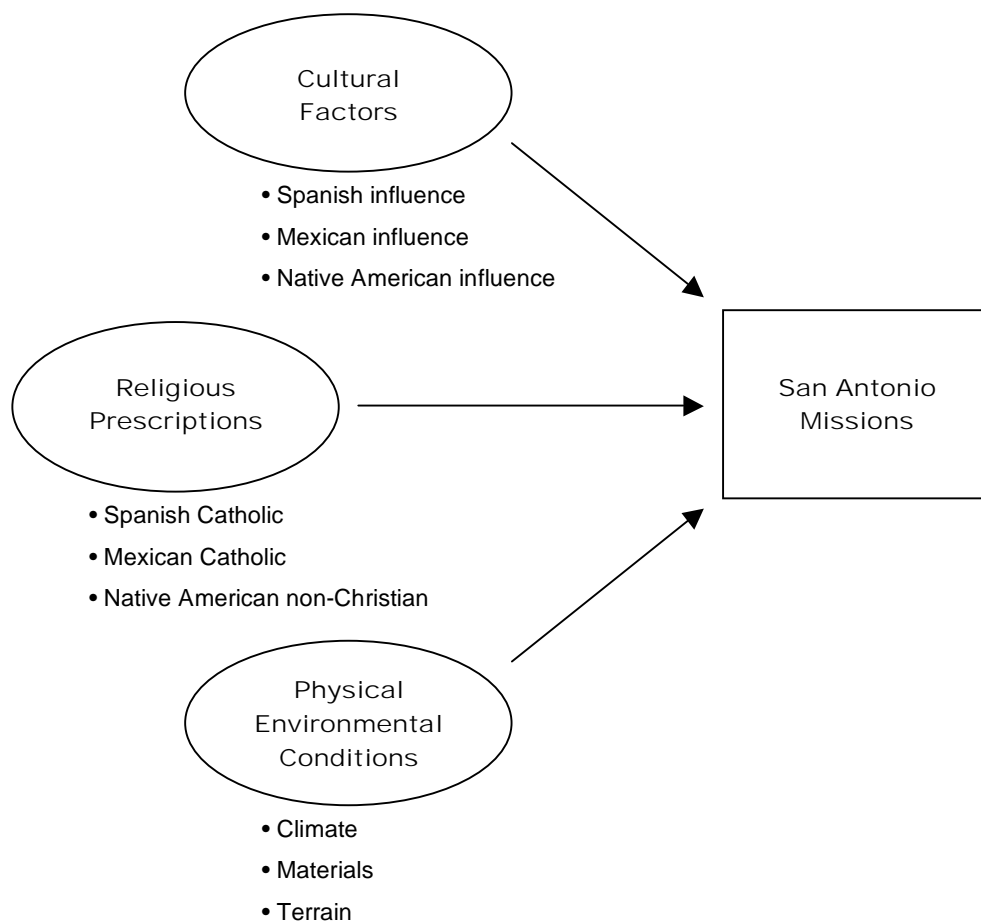
It is important to keep in mind these discrete roles and this division of labor regarding the design and construction of the missions. The Franciscans in their role as builders were likely responsible for planning and overseeing the process; the Mexican craftsmen as builders were responsible for much of the design and execution of

sophisticated structures; and the Native Americans as builders provided unskilled labor to literally construct the mission buildings.

### CHAPTER III

## CONCEPTUAL MODEL AND HYPOTHESES

The following conceptual model was drawn from the literature review and employed for this study.



**Fig. 1. Conceptual model for thesis study.**

Figure 1 illustrates the following propositions: Three main factors influenced the design and construction of the San Antonio missions—cultural factors, religious prescriptions, and environmental conditions. Within the cultural factors there are three primary influences: a Spanish influence, a Mexican influence, and a Native American influence that represent the groups of builders involved in the construction of the missions. Within the religious prescriptions there are three primary influences: Spanish Catholic influences, Mexican Catholic influences, and Native American non-Christian influences. Within the physical environmental conditions there are three primary areas of consideration: the climate of San Antonio, the construction and finish materials available, and the local terrain.

Based on the literature review and the conceptual model, this study was framed by the following hypotheses:

*Hypothesis 1:* Architectural influences of three different cultures (Spanish, Mexican, and Native American) will appear in the missions' designs.

*Hypothesis 2:* The religious beliefs and practices of three different cultures (Spanish Catholic, Mexican Catholic, and Native American non-Christian) will manifest themselves in the architecture of the missions.

*Hypothesis 3:* Environmental factors (climate, materials availability, and terrain) will play a small role in the design and construction of the missions, since they are similar to the original environments of the builders.

## **CHAPTER IV**

### **METHODS EMPLOYED FOR THE STUDY AND BRIEF HISTORY OF THE MISSIONS**

In pursuing the goals of this study and in testing its hypotheses, this study focuses on four of the San Antonio missions, namely Mission Nuestra Señora de la Purísima Concepción de Acuña, Mission San Jose y San Miguel de Aguayo, Mission San Juan Capistrano, and Mission San Francisco de la Espada.

#### **Notes on Data Collection**

Data for this study was collected from a variety of sources, including historic texts, scholarly journals, books, archives (such as the Alexander Architectural Archive at the University of Texas, Austin; the Built in America collection of the Historic American Buildings Survey; and the collections of the San Antonio Conservation Society), historic photographs, and personal field trips to the missions.

#### **Method of Analysis**

Each of the four missions in this study are examined within the context of three main factors that influenced the original design/construction of the missions: (a) the unique combination of broad cultural factors—both local and imported—that influenced the

architectural forms of the missions; (b) the religious prescriptions of three cultural groups and their effect on the structure of the missions; and (c) the impact of the specific environmental conditions of the San Antonio area. Each factor considers the major components that reflect the involvement of the groups responsible for building the missions: Spanish, Mexicans, and Native Americans.

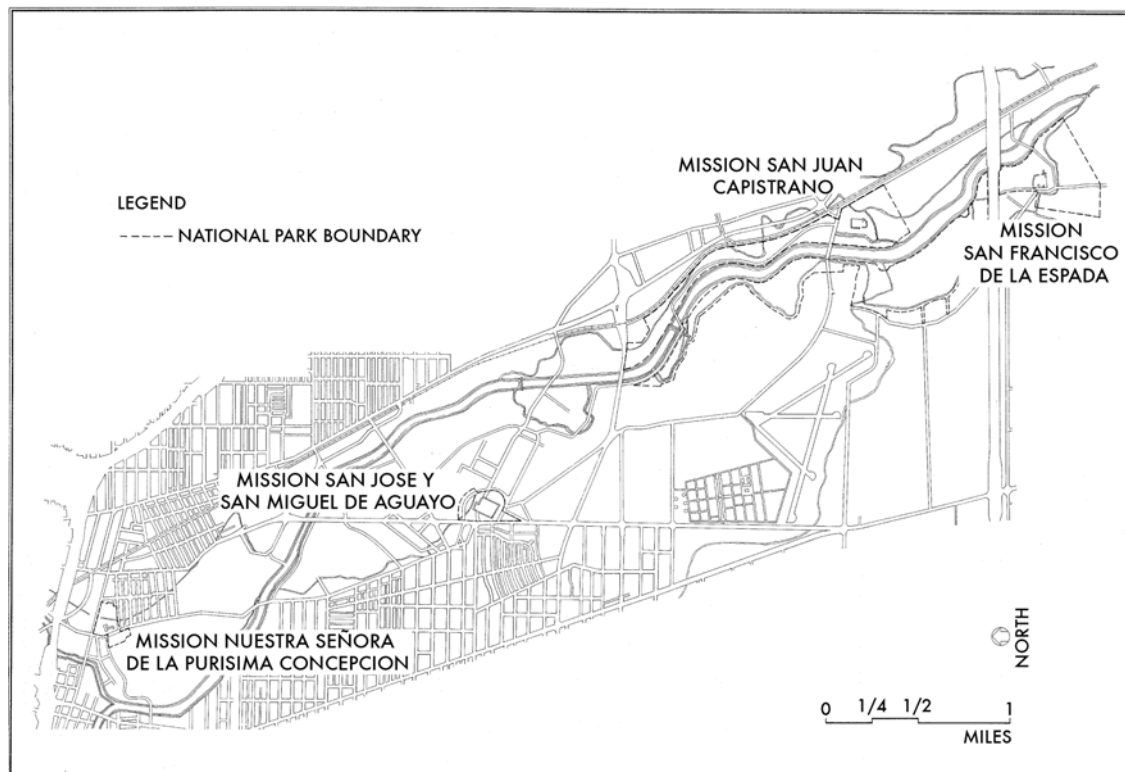
The analyses are conducted for each mission, and the results are reported in tables summarizing the findings. The analyses and findings are presented for each mission according to its geographic location in the chain of missions, beginning with the northernmost mission and continuing south (see fig. 2). The findings are then interpreted to explore the interrelationships among the main factors and the three cultural groups as they affected the design and construction of the San Antonio missions.

It is important to note that the present churches of Mission San Jose and Mission Concepción were intended to be the final, finished structures at these locations, whereas those at Mission San Juan and Mission Espada, it appears, were likely intended to serve as temporary churches while permanent, perhaps more finished, buildings were constructed. In addition, as will be examined in the Discussion and Conclusions section of this study, each mission's relative location to the presidio of San Antonio as well as their dates of construction could have affected the resulting structures at each site. For instance, the two most remote missions, Mission San Juan and Mission Espada, contained the least sophisticated churches (which, as mentioned above, were probably also intended to be temporary structures); Mission San Jose's church, as the latest of the



churches to be built, featured more elaborate and higher quality sculptural elements.

With this understanding, each of the missions can be examined and compared.



**Fig. 2. Map of the San Antonio chain of missions. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,6-, measured drawing sheet 1 of 1.)**

## **Brief History of Each of the Missions**

### *Mission Nuestra Señora de la Purísima Concepción de Acuña*

Mission Nuestra Señora de la Purísima Concepción de Acuña was originally founded in 1716 in east Texas, in Nacogdoches County. While at that location the mission endured much hardship—drought, disease, lack of provisions, threats of French incursion—and in 1719 was temporarily abandoned; the inhabitants relocated to Mission San Antonio de Valero. In 1721, along with the Marqués de Aguayo and his soldiers, the missionaries and settlers returned to the east Texas location of Mission Concepción, where they enjoyed somewhat improved conditions. The improvement didn't last long, however, and supplying the east Texas missions with soldiers was deemed too expensive. In 1730, Mission Concepción was moved to the Colorado River, but, for reasons that are unclear, this site did not prove adequate, and the mission was moved, for the final time, to its present site on the San Antonio River (which was the site of the failed Mission San Xavier de Nájera, abandoned in 1726). At this time, the mission received the name of Mission Nuestra Señora de la Purísima Concepción de Acuña, in honor of Juan de Acuña, Marqués de Casafuerte, viceroy of New Spain (Cox et al 2001; Garner 1969; Habig 1997; Scurlock and Fox 1977).

The mission inhabitants erected temporary shelters with thatched roofs, and by 1745 construction had begun on the extant stone church, which was completed in 1755 (Cox et al 2001; Garner 1969; Habig 1997; Scurlock and Fox 1977). This study will

focus on the mission structures after 1755, as the church is one of the key components of the mission.

By the 1770s, Mission Concepción consisted of a stone and mortar church with an adjoining sacristy with an infirmary, a one-story *convento* with “three good private rooms and several offices” (Habig 1997: 132), a *porteria*, an arcaded cloister, a kitchen, a refectory, three stone soldiers’ houses, a stone granary, a carpenter shop, a blacksmith shop, a chicken coop, two corrals, and stone houses for the Native Americans (reports indicate that there were twenty-three or twenty-four total Native American houses [Habig 1997; Quirarte 2002; Scurlock and Fox 1977]). The Native American housing was arranged in two parallel rows on the north and south sides of the church, and the entire complex was enclosed by a stone-and-mortar wall, which formed a rectangle. An *acequia* ran through the mission square and fed the farm and orchard that lay just outside the mission walls. In addition, the mission ranch, which housed cattle, sheep, pigs, horses, and oxen, was located several miles to the east (Garner 1969; Habig 1997; Scurlock and Fox 1977).

The present church at Mission Concepción has been described as the best preserved and least altered mission church in Texas<sup>5</sup> (Habig 1997; Scurlock and Fox 1977); it is the oldest church of the Immaculate Conception of the Blessed Virgin Mary in the United States (Habig 1997: 131) (see fig. 3). And although its appearance has apparently never rivaled that of the church of Mission San Jose, it has still been noted for its own beauty: A 1777 report by Fr. Morfi states, “The church is beautiful. . . . The sacristy is likewise a handsome room” (Habig 1997: 136). Fr. Dolores in 1762 stated that

the church was “very well painted and elegant” (Quirarte 2002: 104). In 1789 Fr. López reported that “[t]he sacristy and the church . . . are both very notable for this country, because of the two towers and the beautiful cupola” (Habig 1997: 138). And a visitor in 1841 wrote, “The Mission of Concepción is a very large building with a fine cupola; and, though plain, magnificent in its dimensions and in the durability of its construction” (Habig 1997: 148).



**Fig. 3. Mission Concepción west elevation, showing church and *convento*. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,1-15.)**

*Mission San Jose y San Miguel de Aguayo*

Constructed as the second of five San Antonio missions, Mission San Jose occupied two sites along the San Antonio River before settling into its present location (Guerra 1982; Habig 1997). This study focuses on the mission structures at this third and final site, specifically as they appeared after 1768, which was when construction began on the present restored church—one of the key components of the mission.

The Mission San Jose complex was comprised of several buildings enclosed by four stone walls, the corners of which corresponded with the compass points. San Jose's fortress-like compound walls formed a square around the site; each stone wall measured 611 feet long and was reported to be approximately eight feet high and three feet thick. Each wall contained a main gate with a tower or rampart over each one; over time, smaller gates were added along the walls to accommodate the greater number of Indians who resided at the mission (Guerra 1982; Habig 1997; Quirarte 2002). By the 1770s, the mission contained a church with sacristy; a *convento* or friary with arcaded cloisters, a courtyard, and a *portería* (the main entrance to the friary, which was used as a temporary church while the main church building was being built); Indian houses (which comprised the compound walls); a refectory; a kitchen; a granary; a carpentry workshop; a blacksmith shop; a textile shop; a tailor's shop; a masonry shop; at least two round tower bastions at two corners of the compound walls; soldiers' quarters; offices; storage rooms; an *acequia* or irrigation ditch; and a well. A few structures were located outside the compound walls, including a gristmill, a sugar mill, a corral, and three kilns used for

burning lime and brick. In addition, the area north of the walls was used for agriculture, and a ranch, named El Atascosa Ranch, was located thirty miles south of the mission complex (Clark 1974; Guerra 1982; Habig 1997; Quirarte 2002).

Mission San Jose was considered by many to be the most successful and the most architecturally beautiful of the San Antonio missions (Habig 1997) (see fig. 4). Indeed, in 1768 Father Gaspar José Solís wrote that “this mission is so pretty and in such a flourishing condition, both materially and spiritually, that I cannot find words or figures with which to express its beauty” (Habig 1997: 94); and in 1777 Father Juan Agustín Morfi stated that Mission San Jose “is, in truth, the first mission in America, not in point of time, but in point of beauty, plan, and strength, so that there is not a presidio along the entire frontier line that can compare with it” (Habig 1997: 97). It is from Morfi that the mission received its appellation as “Queen of the Missions” (Guerra 1982; Habig 1997).



**Fig. 4. Mission San Jose church façade. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT,V,5E-3.)**

### *Mission San Juan Capistrano*

Mission San Juan Capistrano's early history was similar to that of Mission Concepción. Mission San Juan was originally founded in Nacogdoches County in east Texas as Mission San Jose de los Nazonis in 1716. When the French forced the Spanish out of east Texas in 1719, the inhabitants of the mission abandoned it and fled to Mission San Antonio de Valero. They returned to east Texas in 1721, but in 1730 the mission was relocated to the Colorado River. In 1731, the mission was moved for the final time to its present location, and because there was already a Mission San Jose in San Antonio, the mission was renamed Mission San Juan Capistrano for the Franciscan saint John Capistran (Habig 1997).

The first buildings at the new site were crude, temporary structures; by 1740, the church reportedly had a straw roof, and the Native American houses were "inadequate, but better quarters were being built" (Habig 1997: 166). In a 1745 report by Fr. Ortiz, the church was "still merely a large hall made of brush, plastered with mud, and roofed with straw; but it was well kept and very clean, and it had a tower with two bells" (Habig 1997: 166). At this time there was also a stone-and-mortar *convento* at the mission, with two private rooms and additional offices; a granary; and carpenter and blacksmith workshops. When Fr. Ortiz visited again in 1756, the mission contained a church with sacristy, both built of stone and mortar, as well as a stone granary. The *convento* had been enlarged to contain three private rooms, an office, a refectory, and a kitchen. There was also a textile workshop. The huts for the Native Americans were arranged in two



rows along the east and west walls of the compound (Cox et al 2001; Habig 1997; Quirarte 2002). Since the stone church, a key component of Mission San Juan, had been completed by 1756, this study will focus on the mission structures after this date.

By 1762, the *convento*, which was located next to the church, featured an “open gallery with graceful arches” (Habig 1997: 169). The Native American houses were made of adobe, with thatched roofs of grass or hay, “but it was planned to build Indian houses of stone and lime” (Habig 1997: 169). On a visit to the mission in 1777, Fr. Morfi noted that the church “is neat and in good order, though it does not compare with those described [the churches of missions San Antonio, Concepción, and San Jose] as far as the building is concerned. . . . The pueblo or Indian quarters do not compare with those of the preceding ones” (Habig 1997: 171–2). Sometime between 1762 and 1789 (or between 1772 and 1779, according to some reports) construction of a new stone church was begun, but this church was never finished due to lack of Native American workers (Cox et al 2001; Habig 1997; Quirarte 2002). The new church was located on the south end of the east wall, extended beyond the wall, and faced west; it had a sacristy that was octagonal in plan (Habig 1997; Quirarte 2002).

Mission San Juan was never considered to be as architecturally significant as other San Antonio missions, as evidenced by comments of visitors throughout the years, such as William Corner, who in 1890 described the mission as “less remarkable and distinguished than [Mission Concepción and Mission San Jose]”; but, Corner goes on to say, it did have its “points of interest” (Habig 1997: 183). “The Chapel of San Juan,” Corner continues, “is very plain and simple in construction. Just four walls—the tower

being merely an elevation of a portion of the East wall with open arches in it for bells”  
(Habig 1997: 183) (see fig. 5).



**Fig. 5. West elevation of Mission San Juan church. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,3A-2.)**

*Mission San Francisco de la Espada*

As the oldest of the San Antonio missions, Mission San Francisco de la Espada was founded in 1690 in Houston County as Mission San Francisco de los Tejas. The mission ultimately failed in this location, due to epidemic and mutiny, and it was abandoned and burned in 1693. The mission was moved to east Texas in 1716 and renamed Nuestro Padre San Francisco de los Tejas. This new location proved to be inadequate—due to disease, abandonment by soldiers, and a lack of Native Americans—and when the French drove the Spanish out of east Texas in 1719, the mission inhabitants abandoned the mission and fled to Mission San Antonio de Valero. Along with Mission Concepción and Mission San Juan, Mission San Francisco was re-established in east Texas in 1721, this time with the name of Mission San Francisco de los Neches. In 1731, the mission was moved for the final time to its present location and was renamed Mission San Francisco de la Espada (Habig 1997).

The mission's early structures were temporary and crude, but by 1745 construction on a new limestone-and-mortar church had begun. A report by Fr. Ortiz noted that the sacristy had already been finished and was being used as a chapel while the church was under construction (Habig 1997). At this time the mission also contained a stone granary and a two-story stone-and-mortar *convento*, with two rooms on each floor. The Native American houses were *jacales* of brush, mud, and straw (Habig 1997).

On his second visit to Mission Espada in 1756, Fr. Ortiz discovered that the church construction had been completed (Habig 1997). Given that the church is a key

component of the mission, this study will focus on the architectural structures at the mission after 1756.

By 1762 construction had begun on a new, larger church, but the building process had been stalled by the lack of Native American workers and materials. The *convento* now contained three rooms on the first floor and four rooms on the second floor, with offices, a kitchen, store rooms, and a textile workshop (Habig 1997; Quirarte 2002). The *convento* was fronted by a five-arch arcade. The Native American houses were now made of stone and lime mortar and were arranged in three rows around the mission square, built against the mission walls (Habig 1997).

At some point before 1777, the new church that had been under construction had been completed. But it had been poorly built and was threatening to collapse, so it was torn down (Habig 1997; Quirarte 2002). On a visit to the mission in 1777, Fr. Morfi also noted that the compound was enclosed by a stone wall, which served to close up the areas in which there were no Native American houses (Habig 1997).

As the furthest south and most isolated of the San Antonio missions, Mission Espada endured many raids from hostile Apaches, most of which resulted in stolen horses and livestock (Habig 1997; Quirarte 2002). But Mission Espada was considered to be a successful mission, and its buildings were admired. The church and sacristy, in particular, were highly valued, “on account of their superior construction and their ornaments and furnishings” (Habig 1997: 216) (see fig. 6). The mission is also notable for its irrigation system, which consisted of a ditch and aqueduct that carried water over

two miles from the San Antonio River to the mission; the aqueduct is still standing today and is registered as a National Historic Landmark (Habig 1997).



**Fig. 6. Mission Espada church façade. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,2-A-2.)**

## CHAPTER V

### ANALYSES AND RESULTS

This chapter presents the analyses of the data collected for each mission and the results of those analyses. As mentioned in the previous chapter, three factors—cultural, religious, and environmental—were examined for each mission.

#### **Mission Nuestra Señora de la Purísima Concepción de Acuña**

##### *Examination of Cultural Factors*

##### **Spanish Influence**

According to Habig, Fr. Benito Francisco Fernández de Santa Ana was the missionary in place at Mission Concepción when the present stone church was under construction; Fr. Fernández resided at Mission Concepción from 1733 to 1749. He was succeeded by Fr. Francisco Cayetano del Aponte y Lis, under whose direction the church was completed (Habig 1997). It is unclear from where Fr. Fernández originated, but Fr. Cayetano was born in Pontevedra, Spain, and came to Mexico in 1730, where he joined the Franciscan Province of Michoacán. In 1740 Fr. Cayetano joined the College of Queretaro; he was a Franciscan missionary for fifty-one years, ten of which he spent in Texas at Mission Concepción (from 1748 to 1757) (Habig 1997).

Mission Concepción's structures, particularly the church, were not characterized by a marked exuberance of decoration, as was the church at Mission San Jose, which will be discussed later in this chapter. The church's façade did not feature the riotous sculptural carvings typical of the Churrigueresque. The façade also shows no sign of the *salomónica* or *estípite*, as described by Baird. It does express the Spanish penchant for placing nonstructural decorative elements on a plain surface, although in a somewhat reserved fashion (Baird 1962). And although its design does not readily fall into a strict category that is illustrative of Spanish design, it does bear some resemblance to the Renaissance Plateresque style that preceded the appearance of the *salomónica* or *estípite*, particularly in regard to its pilaster design (Baird 1962). Additionally, the niche that does appear directly above the portal is designed with a sculpted shell motif, which "symbolized the sacrament of baptism and was a favorite expression of Spanish faith" (Guerra 1982: 12).

The Plateresque style was at its peak in Spain in the sixteenth century (Baird 1962; Bevan 1938), combining "especially late Gothic and Renaissance elements, with some Mudejar features" (Baird 1962: 67), creating ornamentation reminiscent of the work of Spanish silversmiths or *plateros* (Baird 1962; Bevan 1938). This decorative style was particularly popular in areas of central Spain, such as Salamanca, Toledo, and León (Bevan 1938). Bevan describes what he considers to be the "epitome of Renaissance Plateresque," the façade of the Convent of San Marcos near León, which "displays all the points, both good and bad, of this thoroughly Spanish style: sculpture in low relief, Italian ornament applied with very little sense of proportion, but the whole

characterized by at least a fertile imagination” (1938: 144). A more purist or calmer Plateresque can be seen in the work of architect Alonso de Covarrubias, such as the Capilla de los Reyes Nuevos as well as the patio and stairway at the Palace at Alcalá de Henares, both in Toledo (Bevan 1938).

Another architect who successfully employed the Plateresque style was Enrique de Egas. His hospital at Santiago and the hospital of Santa Cruz at Toledo are excellent examples of Renaissance Plateresque, or *obras del romano*, as it was often termed (Bevan 1938). Indeed, Bevan believes the Toledo hospital to be Egas’s masterpiece: “The portal is one of the finest and most picturesque examples of Plateresque surviving” (1938: 143).

There is little evidence of the use of the Plateresque style in the northwestern area of Pontevedra, Spain, the birthplace of Fr. Cayetano (although Egas’s hospital at Santiago was located in this region). And although the origins of Fr. Fernández are unclear, it may be possible that either or both of these men, as the missionaries in charge of the building of the Mission Concepción church, were influenced by the architecture of central Spain. Unfortunately, there seem to be few historical records that describe the lives of these two men.

### **Mexican Influence**

Both Fr. Cayetano and Fr. Fernández were members of the Queretaran college of the Franciscans. As such, their work in Mexico was conducted in the central region of the



country, in and around Mexico City and the Province of Michoacán, where they saw the regional architecture (Gelernter 1999; Habig 1997).

Much of the architecture of the central Mexico area consisted of sixteenth-century monastic churches as well as eighteenth-century parish or pilgrimage churches (Baird 1962). But not all architecture in Mexico could be classified as typical of a particular period or style (as was the case in Spain, where one could often readily identify a Baroque building or a Renaissance building). As McAndrew states, regarding sixteenth-century monastic structures: “Stylistic elements did not necessarily reappear in the same sequence they had followed in Spain, because different friars would build less from any well-informed partiality for current modes than from ill-informed memories. Thus gothic and renaissance are contemporaneous rather than successive in Mexico, and appear side by side on one façade as blurred reflections of Spanish buildings hundreds of miles and hundreds of years apart” (1965: 169). He goes on to describe the effect of the added native element, whose “brown hands . . . were giving tangible form to the uncertain European memories” (1965: 169).

Mission Concepción, especially the church façade, seems to reflect this ideal of blending styles from different periods. Although the church was built when the Baroque style of decoration was popular in Spain (and, as seen with the church at Mission San Jose, in parts of Mexico, such as Mexico City, which, according to McAndrew, as the cultural capital, must have displayed the “latest imported styles . . . first” [1965: 173]), it does not feature the characteristic elements of Mexican Churrigueresque, the *salomónica*, the *estípite*, or the niche-pilaster. Its columns are more closely related to the

Renaissance Plateresque style in Mexico (Baird 1962). Yet it is considered to be an example of architecture from the end of the Baroque period in Mexico, with variations (Quirarte 2002).

As is seen in the Mission San Jose church, the Mission Concepción church also featured a dome, a common element of Mexican church architecture, as well as a brightly decorated façade—two stylistic components or techniques that were found throughout central Mexico (Early 1994).

### **Native American Influence**

Since the Coahuiltecs had no knowledge of building technology, it is unlikely that they made any tangible contributions to the design and construction of Mission Concepción or to any of the missions under study here. Unlike the pueblo natives of the New Mexico region, who did have knowledge of building technology and whose interaction with Europeans resulted in a direct blending of architectural cultures, the Coahuiltecs were only in a position to accept the architectural culture of the missionaries and their craftsmen (Kubler 1990). No evidence has surfaced to indicate that the Coahuiltecs' culture or religious beliefs contributed to the design of the San Antonio missions. Individual elements of the missions' designs may have made the missions somewhat more attractive to the natives, thereby making it easier for the Franciscans to convert the natives; for instance, a walled courtyard would have provided protection against attacks by hostile native groups and may have appealed to the Coahuiltecs' fondness for large communal gatherings. However, given the lack of

supporting evidence, it seems clear that aside from providing unskilled labor, the Coahuiltecan did not contribute to the design of the missions.

### *Examination of Religious Factors*

#### **Spanish**

Mission Concepción met the architectural requirements of a Spanish Franciscan mission, as described in chapter II (Guerra 1982; Habig 1997; Quirarte 2002; Scurlock and Fox 1977). Its church was a single-nave building, cruciform in plan, not unlike many sixteenth-century churches of central Spain, such as the Bernadas de Jesús church in Salamanca (Kubler 1948). The church contained a sanctuary with altar, a sacristy, and a baptistry. In addition to containing rooms for the missionaries, the *convento* also had other rooms and offices, as well as a large room that served as a textile workshop. The mission also included a refectory, a kitchen, and masonry and carpentry workshops to provide its inhabitants with necessary goods and supplies. Its housing for the Native Americans was arranged in rows surrounding the mission structures and formed the stone walls that enclosed the compound. The mission was adequately self-sufficient: just outside the wall was a farm and orchards to supply the mission with food; an *acequia* ran through the mission courtyard, feeding the crops; a granary stood inside the compound walls and was used to store food. Its ranch to the east housed animals to be used for food and labor. The mission also contained a cemetery for ritual burying of the dead, according to Christian custom (Habig 1997; Quirarte 2002; Scurlock and Fox 1977). In

addition, traditional (medieval Europe) Christian custom dictates that the church and nave should have an east-west orientation, with the sanctuary placed at the eastern end and the main entrance of the church at the western end (Baird 1962; Kubler 1990).

Mission Concepción follows this traditional orientation.

### **Mexican**

Based on previous discussion of Baird's examinations of monastic and parish/pilgrimage churches in Mexico, Mission Concepción's church exhibits elements of both of these forms. In keeping with the structure of the typical monastic church, Mission Concepción's church was boxlike, but with a transept, and with a single nave. It contained a choir loft or *coro* above the main entrance, and its roof was vaulted. The interior and exterior walls, however, were heavily frescoed, while the walls of monastic churches were usually plain (Baird 1962; Guerra 1982; Kubler 1948; Quirarte 2002). And despite its somewhat reserved appearance (especially when compared to the façade of Mission San Jose's church), Mission Concepción's church façade was indeed the "principal focus of ornamental enthusiasms" (Baird 1962: 24), with Plateresque pilasters, a window (albeit not a rose window) above the portal, and decorative carvings in a rectilinear frame attached to a plain structure (Baird 1962).

Elements of the parish or pilgrimage church also appear in the design of the Mission Concepción church, with its high boxlike structure, tall façade towers, and dome (Baird 1962). The church seems to be consistent with Baird's description of a "dramatic frontispiece or façade with twin towers framing the central elements" (1962: 29),

although in this case, perhaps, the drama of the façade arises more from fresco decoration than from an abundance of riotous sculpture. In addition, the Mission Concepción church had the characteristic wide, squared transepts and apse of the parish church, and it lacked flanking chapels (Baird 1962).

The design of the Mission Concepción complex as a whole has much in common with that of many monastic or open-air churches of sixteenth-century Mexico (McAndrew 1965). Indeed, as Baird describes, the *convento* was attached to the church and was comprised of “austere cubicles” for the friars; it was organized around a cloister and featured a *porteria*. There was also a large courtyard or *atrio* that was enclosed by “battlemented walls” (Baird 1962: 24).

The sixteenth-century monastic or open-air church was unique in its arrangement and use of the *atrio* in relation to the church building and the *convento* with its arcaded *porteria*. “Unlike the church and monastery block, the third component of the friary scheme, the forecourt with its auxiliary architecture, was not an immigrant European form: it was a new element, synthesized locally from older models in order to satisfy new demands. Thus it was the most striking novelty in the ensemble, without true parallels in Spain or anywhere else in Europe” (McAndrew 1965: 202). (The “new demands” McAndrew speaks of refer to the need to preach to and convert hundreds of natives at one time, thereby requiring a large open space—the *atrio*—and other elements to facilitate the new process.) This unprecedented construction consisted of the *atrio*, the open chapel, and four *posas* or small chapels at each corner of the *atrio*.

The *atrio* would accommodate large numbers of outdoor worshipers; the open chapel, which was sometimes housed in an arcaded *portería*, provided a location for the altar and the central rituals of the church; and the *posas*, containing smaller altars, offered native worshipers, who were often fond of ritual processions, places to pause and pray during such processional ceremonies (McAndrew 1965).

In addition, McAndrew describes features of the open-air church, which also appear in the church at Mission Concepción: the small windows located “inaccessibly high” (1965: 139), the church’s east-west orientation, the choir loft lighted by a façade window (which was often a feature of the façade, as at the church at Molango, in central Mexico), the vaulted ceilings, the bare exterior (with the only decoration around the portal and window), and the frequent use of the Plateresque decorative style. Many also featured merlons along their rooflines, giving them the appearance of military structures, as well as exterior buttresses (McAndrew 1965). Also, “the ornamented doorway and window were not generally combined in a coherent design” (McAndrew 1965: 152).

Many of the architectural components of Mission Concepción resemble those of central Mexico open-air churches of the sixteenth century. Similar recessed windows directly above the portal can be seen in the church at Tlaxiaco, the church at Oaxtepec, and the church at Tula (although at Tula the window is hexagonal rather than circular) (Kubler 1948; McAndrew 1965). More ornamental window treatments appear at the church at Yecapixtla, the church at Coixtlahuaca, and the church at Cholula (Kubler 1948; McAndrew 1965). Triangular pediments were employed at the church at Tlaquiltenango, the church at Yecapixtla, the church at Tepoztlán, the church at San

Gerónimo Tlamaco, and the church of Cuernavaca (McAndrew 1965). The use of half-octagonal doors can be seen at the Concepción church in Mexico City, the Congregación church in Querétaro, and the Basilica of Guadalupe north of Mexico City (Early 1994; Quirarte 2002). The placement of an arcaded *porteria* (although not functioning as an open chapel) adjacent to the church and parallel to its façade is similar to open chapels at Cuautinchán, Tepoztlán, Atlatláuhcan, and Acolman (Kubler 1948; McAndrew 1965). The church's somewhat unusual carved-out roofline along the north and south walls is reminiscent of a wall treatment at Cuautinchán (McAndrew 1965). And its use of merlons and buttresses gives it an appearance similar to that of the churches at Atlatláuhcan, Tepoztlán, Yecapixtla, Acolman, Oaxtepec, Cholula, and Huaquechula (Kubler 1948; McAndrew 1965).

Mission Concepción reportedly did not have corner defensive bastions, which were reminiscent of sixteenth-century *posas* (Habig 1997; Quirarte 2002; Scurlock and Fox 1977). Interestingly, however, a typical *posa* design may have influenced the design of the Mission Concepción church façade. Baird has postulated that the façade decoration of the central Mexico church of Tepoztlán—specifically its pedimented portal design—“is nothing more than a flattened *posa*” (1962: 118). Indeed, upon examination this portal design does strongly resemble that of many *posas* of central Mexico, such as those at Huejotzingo and Calpan (McAndrew 1965). In this light it is possible to envision the pedimented portal design of Mission Concepción's church as reminiscent of a typical sixteenth-century *posa* design (see fig. 7).



**Fig. 7. Mission Concepción church portal. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,1A-8.)**

### **Native American**

Although Mission Concepción's large *atrio* could have suggested to the Coahuiltecas that the Franciscans intended to continue to carry out the natives' ceremonial processions and other important elements of their religious practice, thereby making the missions more attractive to the natives, no evidence has surfaced to indicate that the



Coahuiltecan's religious practices or beliefs contributed to the design of Mission Concepción.

### *Examination of Environmental Factors*

As was previously discussed, the Franciscans themselves were not trained architects; they needed to bring with them craftsmen from Mexico who were skilled in the trades required to build such large-scale structures as those of Mission Concepción. The resulting buildings—their design and construction—would depend heavily on the abilities of these craftsmen (Gelernter 1999).

A need for simplification could have influenced their choice of a single-nave church, although the fact that the church was cruciform in plan, with transept, apse, and dome suggests that the builders were knowledgeable enough to span the space that such a construction would require. (It is also testament to their skill that the original church structure is still standing today.) The somewhat reserved ornamentation of the church façade—a sort of simplification, as it were—may have been the result of a lack of skill in creating decorative sculptural carvings.

The mission structures were built mainly from limestone—or *tufa*, specifically, which was a somewhat soft, porous limestone that hardened with exposure to the elements—that was quarried from the site itself, on the western side of the complex, and lime mortar. The church was completed in 1755; its walls were filled with stone rubble and adobe between facings of solid limestone (Habig 1997; Scurlock and Fox 1977).

“Door and window arches and the corners of the church towers were constructed of ashlar masonry” (Scurlock and Fox 1977: 16), as was the practice when building sixteenth-century monastic churches; these areas were designed to be chip-resistant (McAndrew 1965). A 1756 report by Fr. Ortiz stated that the church was “a cruciform building of stone and mortar, having a vaulted roof with a cupola, and two similar towers topped by crosses of iron” (Habig 1997: 131). The dome of the church was reported to have been constructed of unreinforced concrete, which was poured into wooden frames<sup>6</sup> (Scurlock and Fox 1977). Other materials, such as fired-clay bricks, were used to build some arches as well as to make repairs to the church and other mission structures. Limestone and an unspecified type of wood were used to build the exterior stairway that led to the upper portion of the towers and the choir loft or *coro* (Scurlock and Fox 1977).

The stone-and-mortar sacristy was adjacent to the southern transept of the church and was reported to be a large room with an arched ceiling (Habig 1997; Scurlock and Fox 1977). Above this room was a second room reportedly used as a guest room and as an infirmary for sick friars (Scurlock and Fox 1977).

The *convento*, also constructed of stone and lime mortar, was adjacent to the south tower of the church, parallel to its façade, facing west (Habig 1997; Scurlock and Fox 1977). It was a long one-story building with four rooms, each with vaulted ceilings, and it was fronted by an arcaded *porteria*. At the southern end of the *convento*, another two rooms projected westward into the courtyard; they were reported to be a textile workshop and storerooms (Habig 1997; Quirarte 2002; Scurlock and Fox 1977).

The houses for the Coahuiltecan were arranged in rows forming a square around the complex. In 1756 Fr. Ortiz reported that “[m]ost of the Indian houses in the mission square are of adobe, and the rest are *jacales*, huts of wood and tule” (Habig 1997: 132). To the south of the church was a large stone-and-mortar granary with a flat roof (Habig 1997). According to a 1789 report by Fr. López, the compound walls had “three ample openings . . . and gates of carved wood with good locks. . . . [It] serves as a wall for houses of the same material. These furnish ample shelter for the Indians. In fact, there are 23 rooms [Indian houses], with flat roofs” (Habig 1997: 137–8). It seems, then, that by this time the Native American *jacales* houses had been replaced with ones of stone-and-mortar.

Scholars believe that the exterior of the Mission Concepción church was richly decorated with colorful frescoes, as was that of Mission San Jose’s church, discussed later in this chapter (Guerra 1982; Habig 1997; Quirarte 2002; Scurlock and Fox 1977). The façade was visually divided into three sections through the use of color and differentiation of design (Quirarte 2002; Scurlock and Fox 1977). Such painting was also used to add the illusion of architectural features, such as “stone masonry frames and voussoirs” (Quirarte 2002: 121). In addition, to the right and left of the central round window of the façade were paintings of the sun (to the left) and the moon (to the right) (Quirarte 2002; Scurlock and Fox 1977). The dome of the church, unlike Mission San Jose’s dome, was not painted (Habig 1997; Quirarte 2002; Scurlock and Fox 1977).

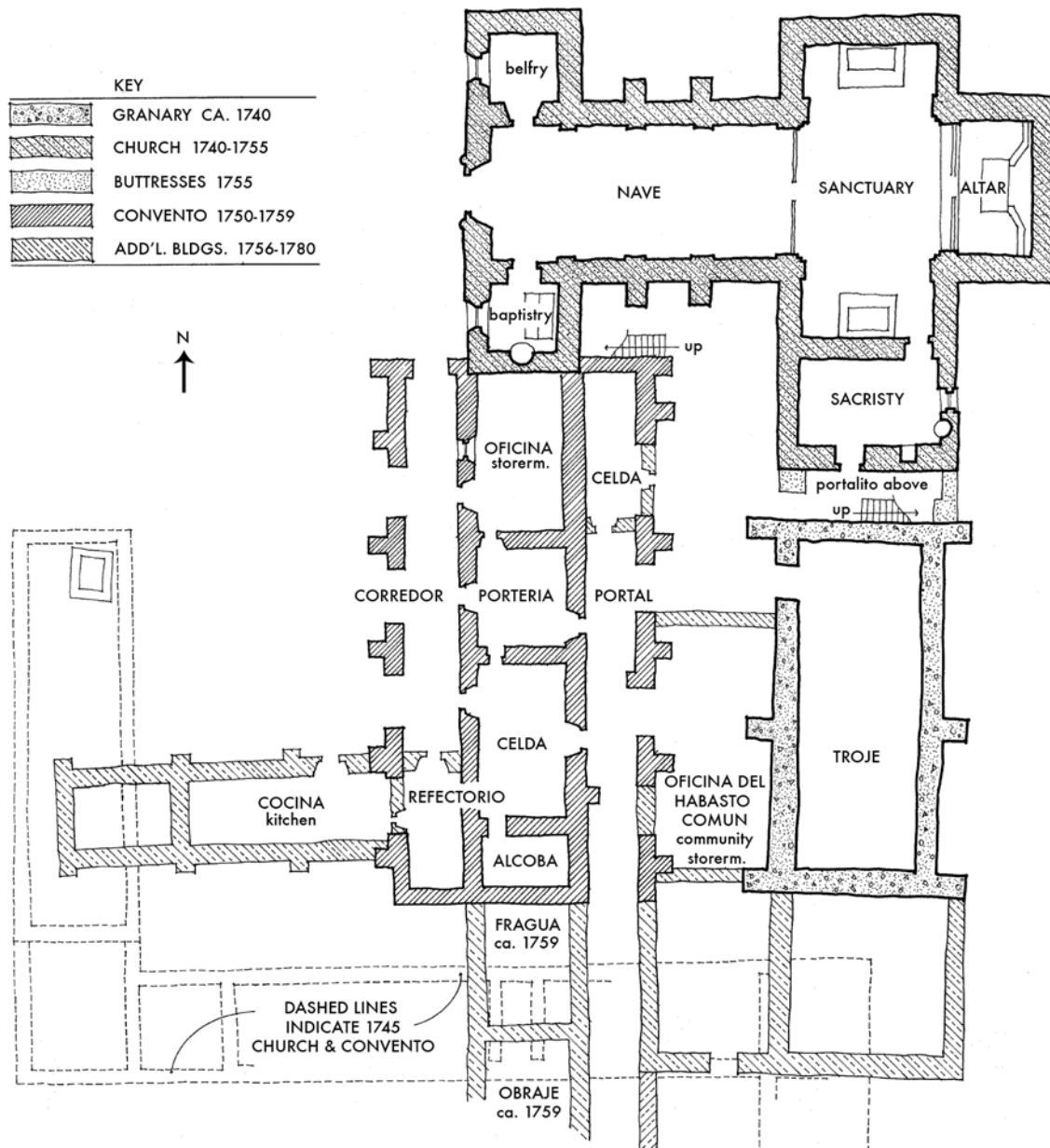
To accommodate the hot climate, the builders employed several key design strategies (see fig. 8). To keep hot temperatures out during the summer (Lechner 2001:

design strategy VIII), they built attached houses to minimize the number of exposed walls (see sacristy, *convento*, and Native American houses); they used few and small windows to keep heat out (see the church façade); and they used light-colored roofs and walls to reflect the sun's heat (see all structures).

To allow natural ventilation to both cool and remove excess moisture in the summer (Lechner 2001: design strategies V and VI), they used high ceilings for vertical air movement (see the church); and they used porches to create cool outdoor spaces and to protect open windows from sun and rain (see the arcaded *porteria*).

To protect from the summer sun (Lechner 2001: design strategy IV), they built attached houses or clusters to minimize the number of exposed walls (see the church and sacristy, and Native American housing); they minimized the size and number of any east and west windows that are necessary (see recessed windows of the church façade); they shaded not only windows but also east and especially west walls (see the arcaded *porteria* fronting the *convento*); and they used highly reflective building surfaces (see all structures).

To avoid creating additional humidity during the summer (Lechner 2001: design strategy X), they avoided pools and fountains.



**Fig. 8. Plan of Mission Concepción structures, illustrating some of Lechner's design with climate strategies. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,1-, measured drawing sheet 12 of 12 [detail].)**

The tables on the following pages illustrate and summarize the findings related to the cultural and religious features that influenced the design and construction of the four missions. Each of these tables consists of eight cultural features and thirty-three religious features. Each of these features is examined relative to the Spanish and Mexican impact.

Table 1 lists the cultural and religious features of Mission Concepción. It illustrates the number of religious features (31) that appear in and influence the design of the mission, as compared to the number of cultural features (5) that are present. It shows that there are a limited number (10) of religious features—those required for Spanish missions, as enumerated in chapter II—that are of Spanish influence, but that there are more elements of Mexican religious architecture (21) present in the mission. The table also shows the characteristic elements of the sixteenth-century Mexican monastic church that appear in the design of the mission (14), such as the walled *atrio*, the Native American housing, the *convento*, and the monastic church form itself. Mission Concepción also included characteristic elements of the eighteenth-century Mexican parish church (7), as illustrated in the table, which influenced its design.

Table 1. Cultural and religious features of Mission Concepción.

Culture and Religion Mission Concepción	Spanish	Mexican	Total
<i>Cultural features</i>			5/8
Churrigueresque			
Baroque	X		
Plateresque	X	X	
Niche-pilaster			
Tilework			
Sculpted shell motif	X		
Decoration on plain surface	X		
Horseshoe arch			
<i>Religious features</i>			31/33
Church	X		
<i>Convento</i>	X		
Native American housing	X		
Self-sustainability (farm, water, ranch, shops, etc.)	X		
Kitchen	X		
Storage/granary	X		
Refectory	X		
Offices	X		
Cemetery	X		
East-west church orientation	X		
<u>Monastic church traits</u>			
Boxlike/longitudinal		X	
Single nave plan w/no transept		X (with transept)	
<i>Coro</i>		X	
Vaulted roof		X	
Façade ornament		X	
Altar at end of church		X	
Walled courtyard/ <i>atrio</i>		X	
Attached friary/ <i>convento</i>		X	
Native American housing		X	
Cloister		X	
<i>Porteria</i>		X	
Open chapel		X	
<i>Posas</i>			
Façade window		X	
Plateresque columns		X	
<u>Parish church traits</u>			
High boxlike church		X	
Tall façade towers		X	
Tiled dome		X (not tiled)	
Dramatic façade		X	
No flanking chapels		X	
Wide squared transepts		X	
Wide squared apse		X	
Special chapels			

**Table 2. Summary of cultural and religious features of Mission Concepción.**

<b>Culture and Religion Mission Concepción Summary</b>	<b>Spanish</b>	<b>Mexican</b>
Cultural features	50%	13%
Religious features	30%	64%

Table 2 lists a summary of the cultural and religious influences on the architecture and construction of Mission Concepción. It shows that five out of a possible eight *cultural* features (or 50 percent) were of Spanish influence and one of eight features (or 13 percent) were of Mexican influence. It also illustrates that ten of a possible thirty-three *religious* features (or 30 percent) were of Spanish influence and twenty-one of thirty-three features (or 64 percent) were of Mexican influence. Through this illustration, we can see that overall the most influential factors on the design of Mission Concepción were Mexican religious prescriptions, followed by Spanish cultural factors.

A discussion of these findings and a comparison among the missions is provided in chapter VI.



## Mission San Jose y San Miguel de Aguayo

### *Examination of Cultural Factors*

#### **Spanish Influence**

The mission was founded in 1720 by Father Antonio Margil de Jesus. The first buildings at Mission San Jose were simple structures, with walls of stakes thrust into the ground infilled with brush and mud, and straw roofs. Between 1724 and 1727, the mission was moved to a second location, on the west bank of the San Antonio River, lower in elevation and closer to the river. The buildings at the second site were made primarily of adobe bricks, which were not considered permanent materials. In 1739, a smallpox and measles epidemic occurred, nearly wiping out the entire Indian population at San Jose. Blaming their low-lying location on the river for their devastating losses, in 1740 the surviving inhabitants decided to move the mission for a third, and final, time to the higher elevation of its present site, where construction of permanent buildings was begun. In 1768 construction began on the site's present church under the guidance of Father President Pedro Ramírez de Arellano, who, beginning in 1759, spent about seventeen of his thirty years as a missionary at Mission San Jose, where he died in 1781 (Guerra 1982; Habig 1997).

It is unclear from what part of Spain Fr. Ramírez came to the New World, but many Franciscan missionaries of this time period arrived from central Spain, in the Castilian region (San Antonio Bicentennial Heritage Committee 1976). As such, they

were exposed to the architecture of that region, which in the eighteenth century was characterized by the unique qualities of Spanish Baroque—“powerful exuberance” that resulted in “the most unorthodox, theatrical compositions[,] . . . enveloped in a mass of seething ornament unified by light and shade” (Booton 1966: 78)—specifically, the Churrigueresque style.

An excellent example of this style is the 1722 Hospicio de San Fernando in Madrid, which features elaborate sculptural compositions that surround the main entry of the building, rising to the roofline at the center of the façade. As is typical of the Churrigueresque, this bold ornamentation is placed on a plain surface and is intended for decorative purposes only; it serves no rational, logical, or structural function and if removed would not alter the building’s form (Gelernter 1999). Other examples of the Churrigueresque are the 1724 Puente de Toledo in Madrid; the 1733 Plaza Mayor in Salamanca; and the 1732 Transparente at Toledo Cathedral, considered to be one of the finest displays of this riotous style (Booton 1966; Bottineau 1971).

A similar ornamental treatment can be seen at Mission San Jose (see fig. 9). Around the church’s main entry is a spectacular collage of sculptural elements that seem to writhe and thrust off the very surface of the building in true Churrigueresque style. This bold and complex ornamentation is placed on a plain and simple structure and holds no structural significance but is purely decorative. As the self-imposed planners of the mission, therefore, the Franciscan friars who came from central Spain brought with them the popular styles of their homeland, which they employed in their own building (Gelernter 1999).

According to Gelernter, the builders who employed this decorative technique may have been inspired by “the elaborate decorative systems of the ancient Native American civilizations, with which the Spanish were well familiar through their colonies”<sup>7</sup> (1999: 95). In addition, these builders—again, the Franciscan friars—brought with them craftsmen from central Mexico who were influenced by the styles, art, and architecture of their homeland, which also found their way into the design of Mission San Jose.



**Fig. 9. Mission San Jose church portal. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT,V,5E-6.)**

## **Mexican Influence**

Before being assigned to the Texas missions, the eighteenth-century Franciscan missionaries lived and worked in Mexico for many years, Christianizing many native populations. Father Ramírez, the builder of the Mission San Jose church, and his contemporaries were members of the *colegio* or College of Zacatecas, based in Zacatecas in central Mexico. They also spent time in other parts of central Mexico, such as Mexico City and its surrounding towns (Gelernter 1999; Habig 1997). Just as in their homeland of central Spain, where they were exposed to the art and architectural styles of the day, the Franciscans also experienced the culture and style of the architecture of central Mexico while they were stationed there. This immersion into the architectural styles and fashions of eighteenth-century central Mexico served as inspiration for the builders of Mission San Jose.

Around 1765 a new development appeared in the Mexican Churrigueresque style, which Baird describes as “an entirely *ornamental* articulation replacing architectural or pseudoarchitectural articulation by columns and pilasters” (1962: 39). This new progression of the style was the niche-pilaster. These decorative elements usually appeared on either side of an entry and took some sort of columnar form, utilizing the niches that were ever-present on church facades (Baird 1962). Use of the niche-pilaster was somewhat sporadic, but an excellent example of this particular branch of the Mexican Churrigueresque appears just north of the central Mexico town of Guanajuato at San Cayetano de La Valenciana (1778) (Baird 1962). Here statuary was placed inside the niches flanking the portal and above it, and smaller doors were cut into

the larger doors of the main entry, two stylistic elements that were employed at Mission San Jose.

As the niche-pilaster became more popular, the treatment of these elaborate ornamental facades and *retablos* loosened. In the *sagrarios*, the façade decoration had been confined within a strict rectangular frame that spanned two stories of the façade. With the loosening of these boundaries, the second-story decoration was not usually treated in the same manner as the first. Above the entablature line, the decorative elements no longer spread to the edges of the rectangle but instead tapered as they rose toward the top center of the façade. In addition, the individual sculptural pieces themselves became less rigid (less Classical), taking the form of more fluid, curving scrolls and moldings. This new treatment can be seen in the façade of the Balvanera Chapel of the church of San Francisco in Mexico City. It is also apparent in the façade of Mission San Jose (Early 1994) (see fig. 9).

In central Mexico, many buildings used color, often in the form of tile work, to accentuate their designs. In the Puebla area, brightly colored tiles were applied in diverse patterns to the exterior surfaces of structures. At the 1777 Chapel of the Well in the town of Guadalupe, the roof and dome were covered in a blue-and-white zigzag pattern of tiles (Early 1994). A similar decorative pattern originally appeared on the dome of Mission San Jose, as depicted by Ernst Schuchard; the mission may have been colorfully ornamented with Moorish designs as a way to “catch the eye of the Indian” (Guerra 1982: 19; San Antonio Bicentennial Heritage Committee 1976).

Also at this time (around 1765), Spanish ideas began to be integrated into Mexico City architecture. A group of like-minded designers (*mestizos*) gathered there, and the designers left Mexico City and traveled to the north-central region of Mexico, carrying their *mestizo* ideas with them. One of these north-central towns, Aguascalientes, was the home of Pedro Huízar, a Mexican craftsman who traveled to Texas, took up residence at Mission San Jose, and is widely accepted as the sculptor of the mission's famous Rose Window of the sacristy (see fig. 10), as well as of its façade (Guerra 1982).



**Fig. 10. Rose Window of the sacristy at Mission San Jose. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V, 5F-2.)**

### **Native American Influence**

As with Mission Concepción, Mission San Jose's walled *atrio* may have appealed to the Coahuiltecan's fondness for large communal gatherings and need for protection. However, no evidence has surfaced to indicate that the Coahuiltecan's culture contributed to the design of Mission San Jose.

### *Examination of Religious Factors*

#### **Spanish**

As described in chapter II, Spanish Franciscan missions had certain architectural requirements. Mission San Jose was comprised of all of the necessary features, in addition to others (Clark 1974; Guerra 1982; Habig 1997).

Mission San Jose's church was a single-nave structure, with a sanctuary and altar and a sacristy, where baptisms may have been performed (Habig 1997; Quirarte 2002). The cells of its *convento* were simple structures with little or no ornamentation, and each was large enough to house one friar in plain simplicity (Habig 1997; Perry 1992). The mission also housed offices, storage rooms, a kitchen, a refectory, and a library (Habig 1997; Quirarte 2002). There were stone houses for the Coahuiltecan, and the mission contained several workshops—textile, tailor, carpenter, and blacksmith shops—to produce its own supplies. The mission also housed a granary to store the food it produced in its farms, and it had lime and brick kilns to supply construction materials (Habig 1997; Quirarte 2002). Its *acequia* supplied water to the fields, and its ranch

(located thirty miles south of the mission) was home to cattle and sheep, used for food, as well as horses and oxen, used for field labor (Guerra 1982; Habig 1997). Mission San Jose's cemetery was located just outside the main entrance of the church (Habig 1997).

The basic components of a Spanish Franciscan mission, therefore, were all provided at Mission San Jose. Additionally, the Mission San Jose church followed the traditional east-west orientation, with the main entrance facing west and the sanctuary at the eastern end (Baird 1962; Kubler 1990).

### **Mexican**

Based on Baird's analysis of monastic and parish/pilgrimage churches, as described in chapter II (Baird 1962), the church at Mission San Jose displays characteristics of both of these church forms. Reflecting a monastic church tradition, the church was boxlike, without a transept, and with a single-nave design. It contained a choir loft or *coro* above the main entrance, and it had a vaulted roof. The church façade was most certainly the "principal focus of ornamental enthusiasms" (Baird 1962: 24), with its Churrigueresque decorative sculpture composed in a rectilinear frame attached to a plain structure (Baird 1962). In addition, the mission's form was in keeping with the design of sixteenth-century monasteries, as described by Gelernter, with its "longitudinal church focused on an altar at one end, a walled courtyard, and simple accommodations for the friars" (1999: 45), as well as with the separate, single-room Native American dwellings.

Mission San Jose's large walled courtyard is also reminiscent of early monastic *atrios*, which sometimes spanned up to five hundred or six hundred feet per side (Mission San



Jose's compound walls measure six hundred feet per side [Habig 1997]) (Early 1994). The wall's corner bastions, while serving as defensive elements, also make reference to the *posas* or small chapels that were common with these *atrios* (Gelernter 1999; McAndrew 1965).

In Mexico in the eighteenth century, a number of parish churches were constructed, including Santa Prisca at Taxco and San Cayetano de La Valenciana. Types or representations of parish churches were also constructed as additions to larger cathedrals, as can be seen at the Sagrario Metropolitano, which is attached to the Cathedral in Mexico City. "The cohesive Late Baroque organization of elaborate ornamented facades or frontispieces and great interior retables was also added to the cathedrals at this time, as in the new façade design and the Altar (Retablo) de los Reyes of the Cathedral of Mexico" (Baird 1962: 30).

Characteristic elements of the Mexican parish or pilgrimage church configuration are also apparent in the Mission San Jose church. Its high boxlike church featured tall façade towers and a decorated (if not tiled) dome (Baird 1962). With its highly decorated façade, the church fits nicely with Baird's description of a structure with "a dramatic frontispiece or façade with twin towers framing the central elements" (1962: 29). Mission San Jose's church did not have flanking chapels, in keeping with the typical parish church design, but it lacked a transept. It did, however, have an adjacent sacristy, which in the context of the parish church, could be viewed as a type of special chapel, as identified by Baird: "These were usually adjacent to the church and were meant to be related, though not structurally integral, elements of a total plan" (Baird 1962: 29).

It would appear that the plan of Mission San Jose is, in part, an interesting combination of modified sixteenth- and eighteenth-century traditions in Mexican religious architecture. It displays elements of both monastic and parish churches, consisting as it does of a simple nave with groin vaults, no aisles, and a high dome where a transept should be but doesn't exist (Donnelly 2003). When seen in elevation, it exhibits the characteristic forms identified in Baird's study. It also references older traditions in monastic architecture, particularly in its use of a walled courtyard or *atrio*, its attached *convento*, and its east-west orientation.

### **Native American**

While Mission San Jose's courtyard could have appealed to the Coahuiltecs' desire for large-scale religious ritual, no evidence has surfaced to indicate that the Coahuiltecs' religious practices or beliefs contributed to the design of Mission San Jose.

### *Examination of Environmental Factors*

As discussed in chapter II, the Franciscans themselves were not trained architects and needed to bring with them craftsmen from Mexico to help build Mission San Jose. The limitations of this lack of knowledge created the need to simplify the design of mission structures, as necessary (Gelernter 1999). Such need for simplification could explain the choice of a single-nave plan with no transept. It is likely, however, that the Mission San Jose builders chose to include a high dome (where the transept would have been) as a

means of creating a dramatic expression of grandeur, one that would impress and attract Native Americans (Baird 1962; Early 1994).

The craftsmen whom the Franciscans brought from Mexico were skilled metalworkers, woodworkers, stone masons, and sculptors; the contributions of these craftsmen added a Mexican flavor to the mission buildings and enhanced the *mestizo* quality of the structures (Baird 1962). The Coahuiltecos were used for basic labor only but were simultaneously taught these skills by the craftsmen. As mentioned in the discussion of cultural influences on Mission San Jose, one of the better-known craftsmen who reportedly worked on the church at the mission was Pedro Huízar. Huízar was born in 1740 in Aguascalientes, in north-central Mexico (one of the towns that was inhabited by the new generation of *mestizos* in 1765) and worked as a surveyor, sculptor, and judge. He was living in the area around Mission San Jose in 1780, when the church was being completed, and was listed in the mission's register as the *carpintero* of the mission. He is, therefore, generally regarded as the sculptor of the mission's famous Rose Window of the sacristy, as well as of the church's Mexican Churrigueresque-style façade<sup>8</sup> (Guerra 1982; Habig 1968, 1997).

The structures at San Jose were built primarily from materials found on the site itself, such as *tufa* and oak. Metals from Mexican mines were brought to the site in a crude state and were fashioned by the mission's metalworkers into items such as nails, hinges, locks, and keys; yet most of San Jose's larger bells were cast in Mexico, and at least one was believed to have been cast in Spain (Guerra 1982).

The cornerstone of the church was laid in 1768; the structure was completed in 1782. One-meter trenches were dug into the soil and the stone foundations were laid in them (Clark 1974). The church's elaborate façade and Rose Window were sculpted from a whiter, denser limestone, often called Concepcion Stone. The stairs of the spiral staircase leading to the bell tower were made of oak and were arranged around a center pivot. The doorway to the *convento* from the sanctuary features a sculpted shell motif, which, as seen at Mission Concepción, was an architectural element frequently used by the Spanish to symbolize the sacrament of baptism (Guerra 1982). According to legend, the sanctuary vault was supported by huge piles of soil while the church was under construction; however, as Clark points out, this "seems unlikely, since scaffolding was used in the construction of many other churches of the period" (1974: 34). A 1785 report by Fr. Josef María Salas states the "the choir window had an iron grate, the interior arches were painted, and there was a fine carved door for the church. The bell tower had four arches with wood grating forming small balconies, five small bells, and an oak spiral stairway. On the north side of the church was an unfinished tower with a false parapet and wooden cannons" (Clark 1974: 34).

The sacristy was built of stone and lime mortar, was plastered and whitewashed, and was painted on the exterior. It contained three low domes and two carved wooden doors. Its sculptured Rose Window was originally covered with an iron grate (Clark 1974).

In his 1785 report, Fr. Salas describes the *convento* as having "three ground-level cloisters, one composed of nine Roman arches and two composed of one arch each. The

upper balcony became a second-level cloister composed of nine Roman arches [and opened onto the roofs of adjacent Indian quarters]. The lower level of cells consisted of nine rooms; the upper one had been divided into five cells. The *convento* had four large windows, eight small windows, and six doors that opened externally” (Clark 1974: 36). A kitchen was added sometime before 1789.

The granary is reported to have been one of the first structures built, and it was constructed of stone. It had a vaulted ceiling, with pier buttresses on the interior and exterior and flying buttresses on the exterior (Clark 1974; Guerra 1982).

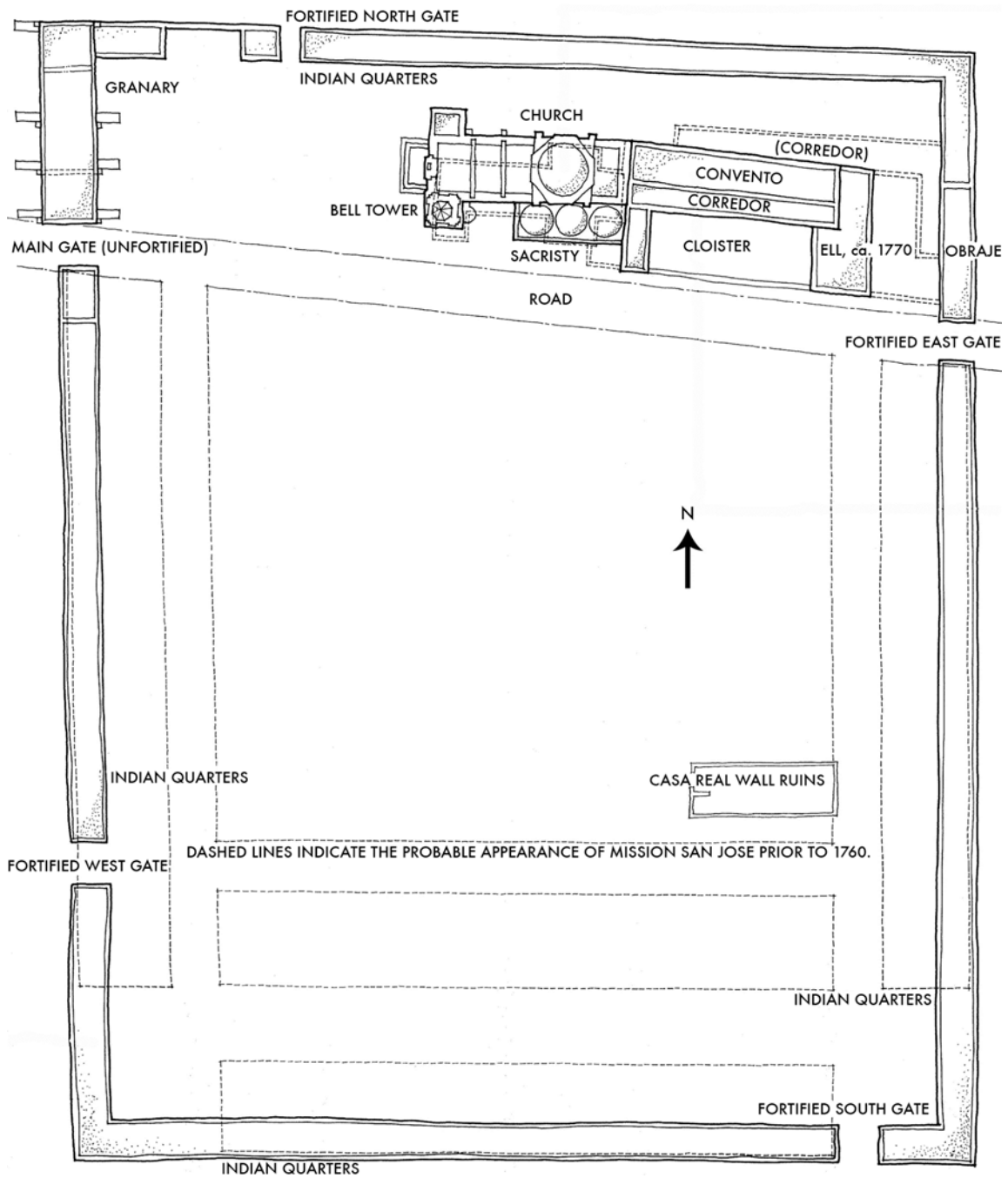
The total number of Native American quarters is uncertain, but varying accounts estimate that there were between fifty-four and eighty-four individual housing units for the Coahuiltecan (Clark 1974; Habig 1997). They were made of stone and lime mortar, which was plastered and whitewashed, with flat roofs of cane and plaster (Clark 1974). Each unit consisted of one room and a kitchen with a fireplace. Each was “furnished with a *metate* (for grinding corn by hand), a *comal* (flat piece of iron for making tortillas), a pot, water jar, closet, pantry, bed [raised off the floor and covered with buffalo hides], and dresser” (Habig 1997: 92).

Historians and scholars believe that the mission church’s exterior was originally painted with vibrant, rich colors in a Greek cross and quatrefoil design (Clark 1974; Guerra 1982; Quirarte 2002). It is likely that the builders of San Jose were inspired by the colorful tilework of Mexican architecture but did not have the knowledge or technology to craft their own colored tiles, so they employed painting techniques instead. One such technique, fresco, was achieved by applying paint to a wet plaster

surface, causing the colors to fuse with the structure once both paint and plaster dried. The design was either sketched onto the surface of the structure with chalk or was scratched into the surface with a sharp pointed instrument (Guerra 1982). Most of the paint colors have since faded, including those of San Jose's dome, which was originally decorated with a blue-and-white zigzag pattern; a very similar design done in tile work can be seen on the dome of the 1777 Chapel of the Well in the central Mexico town of Guadalupe.

To accommodate the hot climate, the builders employed several key design strategies (see fig. 11). To keep hot temperatures out during the summer (Lechner 2001: design strategy VIII), they built attached structures when possible to minimize the number of exposed walls (see the sacristy, *convento*, and Native American houses); they used few and small windows to keep the heat out, and they covered them with shutters when possible (see the façade's portal window, which faces west); and they used light-colored roofs and walls to reflect the sun's heat.

To allow natural ventilation to both cool and remove excess moisture in the summer (Lechner 2001: design strategies V and VI), they used high ceilings and two-story spaces for vertical air movement (see the church and *convento*); they elevated the main living floor above the high humidity found near the ground; and they used porches to create cool outdoor spaces and to protect open windows from sun and rain (see the arcaded cloister).



**Fig. 11. Mission San Jose site plan, illustrating some of Lechner's design with climate strategies. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,5-, measured drawing sheet 16 of 18 [detail].)**

To protect from the summer sun (Lechner 2001: design strategy IV), they had neighboring buildings shade each other (see the church, sacristy, and *convento*); they built attached houses or clusters to minimize the number of exposed walls (see the church, sacristy, and *convento*); they used the form of the building (such as the cloister courtyard and arcades) to shade itself; they minimized the size and number of any east and west windows that are necessary (see the western façade of the church); they used shaded outdoor spaces to protect the south facades (see the arcaded *porteria* and cloister); they used movable shading devices that can retract to allow full winter sun penetration (see church façade window over main portal); and they used highly reflective building surfaces (see all structures).

To avoid creating additional humidity during the summer (Lechner 2001: design strategy X), they avoided pools and fountains.



**Table 3. Cultural and religious features of Mission San Jose.**

<b>Culture and Religion Mission San Jose</b>	<b>Spanish</b>	<b>Mexican</b>	<b>Total</b>
<i>Cultural features</i>			7/8
Churrigueresque	X	X	
Baroque	X		
Plateresque			
Niche-pilaster		X	
Tilework		X	
Sculpted shell motif	X		
Decoration on plain surface	X		
Horseshoe arch			
<i>Religious features</i>			30/33
Church	X		
<i>Convento</i>	X		
Native American housing	X		
Self-sustainability (farm, water, ranch, shops, etc.)	X		
Kitchen	X		
Storage/granary	X		
Refectory	X		
Offices	X		
Cemetery	X		
East-west church orientation	X		
<u>Monastic church traits</u>			
Boxlike/longitudinal		X	
Single nave plan w/no transept		X	
<i>Coro</i>		X	
Vaulted roof		X	
Façade ornament		X	
Altar at end of church		X	
Walled courtyard/ <i>atrio</i>		X	
Attached friary/ <i>convento</i>		X	
Native American housing		X	
Cloister		X	
<i>Porteria</i>		X	
Open chapel			
<i>Posas</i>		X	
Façade window		X	
Plateresque columns			
<u>Parish church traits</u>			
High boxlike church		X	
Tall façade towers		X	
Tiled dome		X	
Dramatic façade		X	
No flanking chapels		X	
Wide squared transepts			
Wide squared apse		X	
Special chapels		X	

Table 3 lists the cultural and religious features of Mission San Jose. It illustrates the number of religious features (30) that appear in and influence the design of the mission, as compared to the number of cultural features (7) that are present. It shows that there are a limited number (10) of religious features—those required for Spanish missions, as enumerated in chapter II—that are of Spanish influence, but that there are more elements of Mexican religious architecture (20) present in the mission. The table also shows the characteristic elements of the sixteenth-century Mexican monastic church that appear in the design of the mission (13), such as the walled *atrio*, the Native American housing, the *convento*, and the monastic church form itself. Mission San Jose also included characteristic elements of the eighteenth-century Mexican parish church (7), as illustrated in the table, which influenced its design.

**Table 4. Summary of cultural and religious features of Mission San Jose.**

<b>Culture and Religion Mission San Jose Summary</b>	<b>Spanish</b>	<b>Mexican</b>
Cultural features	50%	38%
Religious features	30%	61%

Table 4 lists a summary of the cultural and religious influences on the architecture and construction of Mission San Jose. It shows that four out of a possible eight *cultural* features (or 50 percent) were of Spanish influence and three of eight features (or 38 percent) were of Mexican influence. It also illustrates that ten of a

possible thirty-three *religious* features (or 30 percent) were of Spanish influence and twenty of thirty-three features (or 61 percent) were of Mexican influence. Through this illustration, we can see that overall the most influential factors on the design of Mission San Jose were Mexican religious prescriptions.

A discussion of these findings and a comparison among the missions is provided in chapter VI.

## **Mission San Juan Capistrano**

### *Examination of Cultural Factors*

#### **Spanish Influence**

The name of the missionary who was in residence at Mission San Juan during the time of the first stone church's construction (between 1745 and 1756) does not seem to have been recorded. Two Querétaran missionaries, Fr. Benito Varela and Fr. Manuel Rolán, were in residence there in 1762, but it is unclear when these two men arrived, and little is known about them (Habig 1997). One could speculate that these missionaries originally came to the New World from areas of central Spain (or southern Spain, as will be discussed in the section on Spanish religious prescriptions), as did many missionaries of the period, but such a definitive statement cannot be made.

The structures at Mission San Juan, including the church, were all plain, simple structures, and, save for the church's bell tower, there was little to no ornamentation on

any of the building exteriors (at least no recorded descriptions of exterior decoration surfaced during this study). The church itself did not display any of the characteristic exuberance of the Spanish Baroque or the Churrigueresque, as at Mission San Jose; there was no exterior sculptural decoration; and there is no evidence of other decorative styles, such as Plateresque, that were apparent at Mission Concepción.

Given this lack of information, it is, therefore, difficult to draw parallels between the decorative styles of the church and other mission structures and those of their contemporary structures in Spain.

### **Mexican Influence**

Mission San Juan was founded by the College of Querétaro in central Mexico, and although it is unclear which individual missionaries were present at the mission at the time that key structures were built, they were all Querétaran friars, who would have spent much of their time working in areas of central Mexico and could likely have been influenced by the architecture of this region (Gelernter 1999; Habig 1997). Since the buildings at Mission San Juan show little to no evidence of decorative treatment (aside from the church's bell tower and the filled-in arches along its east wall, both of which will be addressed in the section on Mexican religious prescriptions), it is again difficult to draw parallels between the decorative styles of the mission buildings and those of central Mexico of the period.

### **Native American Influence**

As has been discussed previously, with no evidence to the contrary, it is unlikely that the Coahuilteicans contributed to the design of the Mission San Juan structures, although they did provide the labor for building the structures.

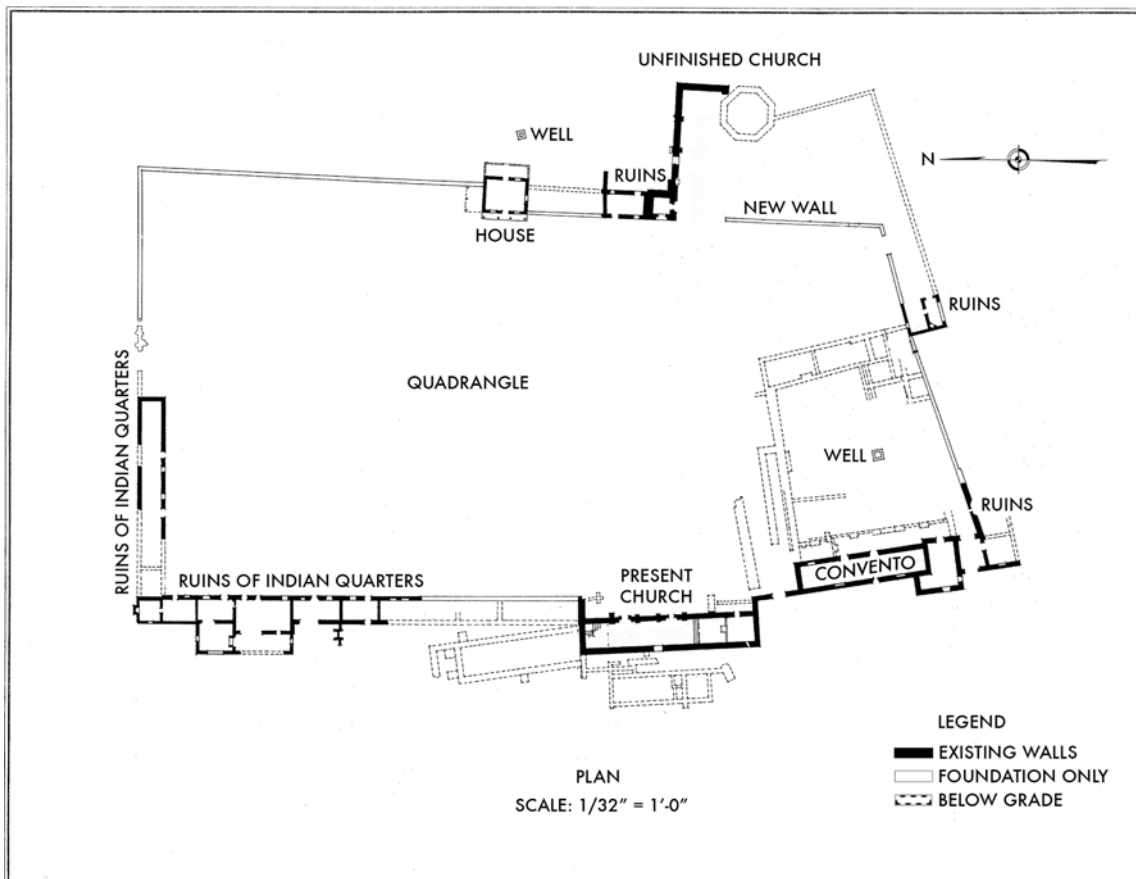
### *Examination of Religious Factors*

#### **Spanish**

Mission San Juan met all but one of the architectural requirements of a Spanish Franciscan mission—there is apparently no record of a cemetery on site—albeit with very simple structures and few extras that may have appeared at other missions of the area (namely Mission San Jose and Mission Concepción) (Cox et al 2001; Habig 1997; Quirarte 2002). Its church was a simple, single-nave building with an altar and a small sacristy. To meet the self-sustainability requirement of a Spanish mission, the mission also had a *convento*, which contained four rooms and was in the form of a cloister; there was a textile workshop, a kitchen, a gallery, two offices, and a refectory (Habig 1997; Quirarte 2002). The Native American houses (reportedly fifteen total in 1772 [Quirarte 2002]) were arranged in rows and were built up along the east and west walls of the compound (Cox et al 2001; Habig 1997; Quirarte 2002). The mission also contained a farm to provide food for the inhabitants, although it is unclear where exactly the farm was located; it is likely that it was not far from the compound itself, as the mission was situated on a fertile plain very near the San Antonio River (Habig 1997). There was also

a granary used to store food for the inhabitants. In addition, the mission had a ranch that housed cattle, sheep, goats, oxen, and horses for use for food and labor; it is also unclear where exactly the ranch was located in relation to the mission compound (Habig 1997). There is no mention of an *acequia* per se at the mission, although it was reported in 1740 that one of the inhabitants' priorities was to dig irrigation ditches for the farm (Habig 1997: 166).

The placement of the mission buildings along and sometimes forming the walls of the compound, rather than facing inward toward the courtyard, is unusual when compared with the other three San Antonio missions under study (see fig. 12). Within this arrangement, the church did not follow the traditional east-west orientation but rather faced north-south (Habig 1997; Quirarte 2002). It is possible that the mission builders only intended for the completed church to serve as a temporary place of worship; the new church, had it been finished, would have followed the more formal scheme, with the main entrance at the west and the sanctuary with altar at the east.



**Fig. 12. Mission San Juan site plan. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS, TEX,15-SANT.V,3-, survey number HABS TX-321, measured drawing sheet 1 of 2.)**

Perhaps the most interesting feature of the Mission San Juan church is its bell tower (see fig. 13). Termed an *espadaña*, this type of arcaded belfry was often used as a place to hang church bells when there were no towers (McAndrew 1965). They were characterized as “arch-pierced gables, or bell-screens, which might crown either the façade or sometimes the churchyard wall” (McAndrew 1965: 155). The *espadaña* form was found throughout southern Spain, including at the Convento de los Marroquíes (ca.

1400s) and the Church of the Descalzos in Ecija (1614), and at the Church of Santa Cruz (1728) and the church of San Sebastian in Seville (ca. 1568).



**Fig. 13. Mission San Juan church façade, showing *espadaña*. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,3A-5.)**

### **Mexican**

The church at Mission San Juan is in many ways unlike those at either Mission San Jose or Mission Concepción, but it does exhibit some of the characteristics described by Baird in his examination of the monastic church form (Baird 1962). The church was boxlike with a single-nave design and no transept. It did have a choir loft or *coro* near



the main entrance, although not directly above it, as was typical of the monastic church (this was due to the main portal's location on the eastern wall of the church rather than at the northern end). It loses some of its similarity with the monastic church form with its flat, not vaulted, roof and its lack of ornament on the church façade (Baird 1962). But the mission fits nicely with Gelernter's description of the sixteenth-century Mexican monastery, which had a "longitudinal church focused on an altar at one end, a walled courtyard, and simple accommodations for the friars" (1999: 45); it also housed Native Americans in separate, single-room dwellings.

Further descriptions of the monastic church are in keeping with the design of Mission San Juan (Baird 1962). Its *convento*, although not attached to the church, as Baird describes, was comprised of "austere cubicles" for the friars; it was organized around a cloister and featured a *porteria*. There was also a large courtyard or *atrio* that was enclosed by "battlemented walls" (Baird 1962:24).

In addition to being found in areas of southern Spain, as mentioned above, the *espadaña* was found on sixteenth-century churches throughout central Mexico as well, at such places as Molango, Tepeyanco, Cuitzeo, Acolman, Metztitlán, Tepoztlán, Atlatláuhcan, Tlanchinol, and Tumbalá in Chiapas (Baird 1962; Kubler 1948; McAndrew 1965).

Another distinguishing feature of the Mission San Juan church is the filled-in arches that appear along its eastern wall (see figs. 5 and 13). Since the church and mission compound as a whole have elements in common with sixteenth-century open-air churches and monasteries (Baird 1962; McAndrew 1965), these arches may have at one

time been open in order to serve as an open chapel. Indeed, archaeological investigations conducted at the site in 1975 determined that “the arches had originally been constructed as open arches and that at some point they were filled in. It was concluded that the structure was originally constructed as an ‘open chapel’ and was later converted into a ‘more typical European church by filling in the arches and then placing conventional door entrances in the center of two of them’” (Scurlock 1976: 6 as quoted in Cox et al 2002: 8). It is unclear at what point the arches were filled.

### **Native American**

As is the case with Mission Concepción and Mission San Jose, no evidence has surfaced to indicate that the Coahuiltecan’s religious beliefs contributed to the design of Mission San Juan.

### *Examination of Environmental Factors*

As has been discussed in regard to Mission Concepción and Mission San Jose, the limitations of knowledge of the builders of Mission San Juan would likely have resulted in a simplification of familiar forms (Gelernter 1999). The basic structure of the mission’s church, for instance (a simple, single-nave structure, without a transept, vaulted roof, dome, exterior decoration, or other more complicated features), may speak to a great need to simplify the form, perhaps due to a severe lack of building knowledge, insufficient funds, or a lack of sufficient numbers of Native American workers, a

problem which seemed to have plagued Mission San Juan over the years (Habig 1997). The best example of the effect of low numbers of Native Americans at the mission is the unfinished stone church.

Information regarding the materials of construction at Mission San Juan is scarce. Although it seems that each of the mission buildings in the time period under study was built of stone and mortar, it is unclear from where the materials were acquired. As previously discussed, the structures at Mission Concepción and Mission San Jose were built using limestone quarried from the site of Mission Concepción itself (Guerra 1982; Habig 1997); but no records have surfaced that indicate that stone from this same location was used to build the structures at Mission San Juan.

By 1772 the church was described as a long, narrow stone-and-mortar building with four windows, with a smaller room used as a sacristy (Habig 1997). Half of the roof was made of wooden beams and boards; the other half was “of a good type of solid carved wood” (Quirarte 2002: 131). The sacristy roof was further described as being “made of oak beams and carved mesquite boards” (Quirarte 2002: 137). The sacristy room had a window and two doors, which faced the *convento* courtyard (Quirarte 2002). The *convento* had not changed from its description in earlier reports (Habig 1997; Quirarte 2002).

The stone-and-mortar granary was located on the south side of the mission courtyard (Habig 1997). The Native American houses, numbering fifteen in total in 1772, were built against the east and west mission walls, and new houses were being constructed (Habig 1997; Quirarte 2002). The stone-and-mortar wall itself had three

entrances (Quirarte 2002). No reports indicate that any of the structures at the mission were decorated or painted on their exteriors.

To accommodate the hot climate, the builders kept hot temperatures out during the summer (Lechner 2001: design strategy VIII) by building attached houses to minimize the number of exposed walls (see the Native American houses); they used few and small windows to keep heat out (see the church and *convento*); they used light-colored roofs and walls to reflect the sun's heat (see all structures).

To use natural ventilation for summer cooling (Lechner 2001: design strategy V), the builders used porches to create cool outdoor spaces and to protect open windows from sun and rain (see the arcaded gallery of the *convento*).

To protect from the summer sun (Lechner 2001: design strategy IV), they built attached houses or clusters to minimize the number of exposed walls (see the Native American houses and the *convento*); they minimized the size and number of any east and west windows that are necessary (see the church); they used shaded outdoor spaces, such as porches, to protect the south, east, and especially the west facades (see the *convento*); they used highly reflective building surfaces (see all structures); and they placed outdoor courtyards on the east side of the building (see the *convento*).

To avoid creating additional humidity during the summer (Lechner 2001: design strategy X), the builders avoided pools and fountains.

Table 5. Cultural and religious features of Mission San Juan.

Culture and Religion Mission San Juan	Spanish	Mexican	Total
<i>Cultural features</i>			0/8
Churrigueresque			
Baroque			
Plateresque			
Niche-pilaster			
Tilework			
Sculpted shell motif			
Decoration on plain surface			
Horseshoe arch			
<i>Religious features</i>			20/33
Church	X		
Convento	X		
Native American housing	X		
Self-sustainability (farm, water, ranch, shops, etc.)	X		
Kitchen	X		
Storage/granary	X		
Refectory	X		
Offices	X		
Cemetery			
East-west church orientation			
<i>Espadaña</i>	X	X	
<u>Monastic church traits</u>			
Boxlike/longitudinal		X	
Single nave plan w/no transept		X	
Coro		X	
Vaulted roof			
Façade ornament			
Altar at end of church		X	
Walled courtyard/atrio		X	
Attached friary/convento		X (not attached)	
Native American housing		X	
Cloister		X	
Porteria		X	
Open chapel		X	
Posas			
Façade window			
Plateresque columns			
<u>Parish church traits</u>			
High boxlike church			
Tall façade towers			
Tiled dome			
Dramatic façade			
No flanking chapels			
Wide squared transepts			
Wide squared apse			
Special chapels			

Table 5 lists the cultural and religious features of Mission San Juan. It illustrates the number of religious features (20) that appear in and influence the design of the mission and the absence of cultural features (0). It shows that there are a limited number (9) of religious features—nearly all those required for Spanish missions, as enumerated in chapter II—that are of Spanish influence, but that there are slightly more elements of Mexican religious architecture (11) present in the mission. The table also shows the characteristic elements of the sixteenth-century Mexican monastic church that appear in the design of the mission (11), such as the walled *atrio*, the Native American housing, the *convento*, and the monastic church form itself. Mission San Juan did not include any of the characteristic elements of the eighteenth-century Mexican parish church.

**Table 6. Summary of cultural and religious features of Mission San Juan.**

<b>Culture and Religion Mission San Juan Summary</b>	<b>Spanish</b>	<b>Mexican</b>
Cultural features	0%	0%
Religious features	27%	33%

Table 6 lists a summary of the cultural and religious influences on the architecture and construction of Mission San Juan. It shows that there were no *cultural* features of Spanish influence or of Mexican influence. It also illustrates that nine of a possible thirty-three *religious* features (or 27 percent) were of Spanish influence and eleven of thirty-three features (or 33 percent) were of Mexican influence. Through this

illustration, we can see that overall the most influential factors on the design of Mission San Juan were Mexican religious prescriptions, although only slightly more than Spanish religious prescriptions.

A discussion of these findings and a comparison among the missions is provided in chapter VI.

### **Mission San Francisco de la Espada**

#### *Examination of Cultural Factors*

#### **Spanish Influence**

The name of the missionary who was in residence at Mission San Juan while the church was being built is unknown. And while many missionaries of this period arrived in Mexico from parts of central Spain, it is not known from where in Spain the Mission San Juan builders came. As will be discussed in the section on Spanish religious prescriptions, however, it is possible that the mission builders were influenced by architecture of southern Spain.

Although the mission's church is relatively plain, the façade does feature an *espadaña* as well as a decorative portal (see fig. 14). The portal design is of interest in that its horseshoe arch (or *herradura*) design, albeit stylized in its form, can be traced as far back as the appearance of Visigothic architecture in Spain. A similar portal design, for instance, can be seen at the church of San Juan de Baños in Palencia in north-central

Spain; this portal was built in the seventh century (Bevan 1938). The horseshoe arch was used throughout Spain for centuries and was particularly characteristic of Mozarabic architecture (roughly between the ninth and eleventh centuries). Horseshoe arches were used both on exteriors and interiors of buildings, as seen in the church of Santiago de Pañalba in León, Spain (Bevan 1938). This form was also frequently employed in later Mudéjar architecture of the twelfth to sixteenth centuries, such as the Puerta del Sol in Toledo and the Alhambra in Granada (Bevan 1938).

Given its somewhat unusual, stylized form, with an “arch with elements that first spring outward from an opening prior to curving inward” (Eugene George as quoted in Quirarte 2002: 158), the church doorway at Mission Espada has been the subject of much speculation and debate. Some believe that the masons who constructed the doorway did so incorrectly, fitting the voussoirs in the wrong places. For instance, writer Paul Goeldner noted that the stones were “incorrectly reassembled in a restoration” (Quirarte 2002: 157), although this statement is unlikely to be true as numerous documents indicate that the church façade was never altered during any restorations of the church (Habig 1997; Quirarte 2002). Historic preservation architect Eugene George, however, believes it’s more likely that “the elements of the arch at Espada were precut complete on the site” (George as quoted in Quirarte 2002: 157); but he does admit that the workmen were probably surprised by the assembly instructions (Quirarte 2002).





Fig. 14. Mission Espada church portal, showing *herradura*. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS TEX,15-SANT.V,2-A-6.)

### **Mexican Influence**

As the identity of the missionary who built the church at Mission Espada is unknown, it is not possible to know exactly where he performed his missionary work while in Mexico. However, since Mission Espada was founded and administered by the College of Querétaro, any missionary who worked at Mission Espada would likely have spent

much of his time working in areas of central Mexico prior to coming to San Antonio and therefore may have been influenced by the architecture of this region (Gelernter 1999). Such a supposition, however, is merely speculation and cannot be confirmed.

In addition, although the Spanish did bring Muslim-influenced and Mudéjar architectural elements with them to the New World, such as elaborately painted wooden ceilings, central courtyards defined by arcades, and ornamental enameled tiling (Bevan 1938; McAndrew 1965), examples of the use of the horseshoe arch in particular were scarce. In fact, only one incidence of its use surfaced in a wall section at the Casa de Cortes in Cuilapan (ca. 1500s). Interestingly, an examination of the portal of the cathedral at Zacatecas (ca. 1754) reveals a stylistic treatment of the interior portal arch that is similar to the interior portion of the arch at Mission Espada, although a horseshoe arch itself is not employed at Zacatecas (Baird 1962).

### **Native American Influence**

As has been discussed in regard to the other three missions under study, no evidence has surfaced to indicate that the Coahuiltecan's culture contributed to the design of the Mission Espada.

## *Examination of Religious Factors*

### **Spanish**

Mission Espada contained all of the architectural elements required of a Spanish Franciscan mission (Habig 1997; Quirarte 2002). Its church was a single-nave structure with an altar and an adjoining room that was used as a sacristy (Habig 1997; Quirarte 2002). The *convento* contained three rooms on its first floor and four rooms on the second floor; the textile workshop, located on the first floor, housed three looms, spinning wheels, and “all the accessories required for weaving cloth” (Habig 1997: 213). Three rows of Native American houses, made of stone and lime mortar, were arranged along the perimeter of the mission compound, built against the mission walls (Habig 1997; Quirarte 2002). To ensure self-sufficiency, the mission had a farm nearby (although its exact location does not seem to have been recorded) and a ranch “situated at some distance from the mission” that housed cattle, sheep, horses, and donkeys for food and labor (Habig 1997: 215). The mission’s now-famous *acequia* and aqueduct supplied the farm with necessary water from the San Antonio River. The mission also contained a kitchen for preparing food, store rooms, and a large stone granary to store food and supplies. Although it is unclear if there were workshops other than the textile shop, the mission was supplied with tools for carpentry, masonry, blacksmithing, and farming (Habig 1997; Quirarte 2002). The cemetery was located to the north of the church.

Although all of the necessary components of a Franciscan mission were present, the layout of Mission Espada was unlike the other area missions. Not arranged in a regular square or rectangle, the mission's boundary walls formed an oddly shaped polygon (apparently due to the location of its *acequia*) (Habig 1997) (see fig. 15). On a visit to Mission Espada in 1777, Fr. Morfi noted that the *convento*, galleries, workshop, and granary were "all made of stone, but ill-arranged and plain" (Habig 1997: 216).

In addition, Mission Espada's church did not follow the traditional east-west orientation; it was arranged so that the main entrance was at the east and the altar was placed at the western end, exactly opposite of the norm. It is unclear why the church was built in this particular location, resulting in this reverse orientation. Interestingly, the new church that was built (and subsequently demolished) faced north-south (Habig 1997).

Like the church at Mission San Juan Capistrano, the Mission Espada church featured an *espadaña* on its façade. As discussed earlier, the *espadaña* was found in areas throughout southern Spain, including at the Convento de los Marroquíes and the Church of the Descalzos in Ecija; and at the Basilica Macarena, the Church of Santa Cruz, and the church of San Sebastian in Seville.

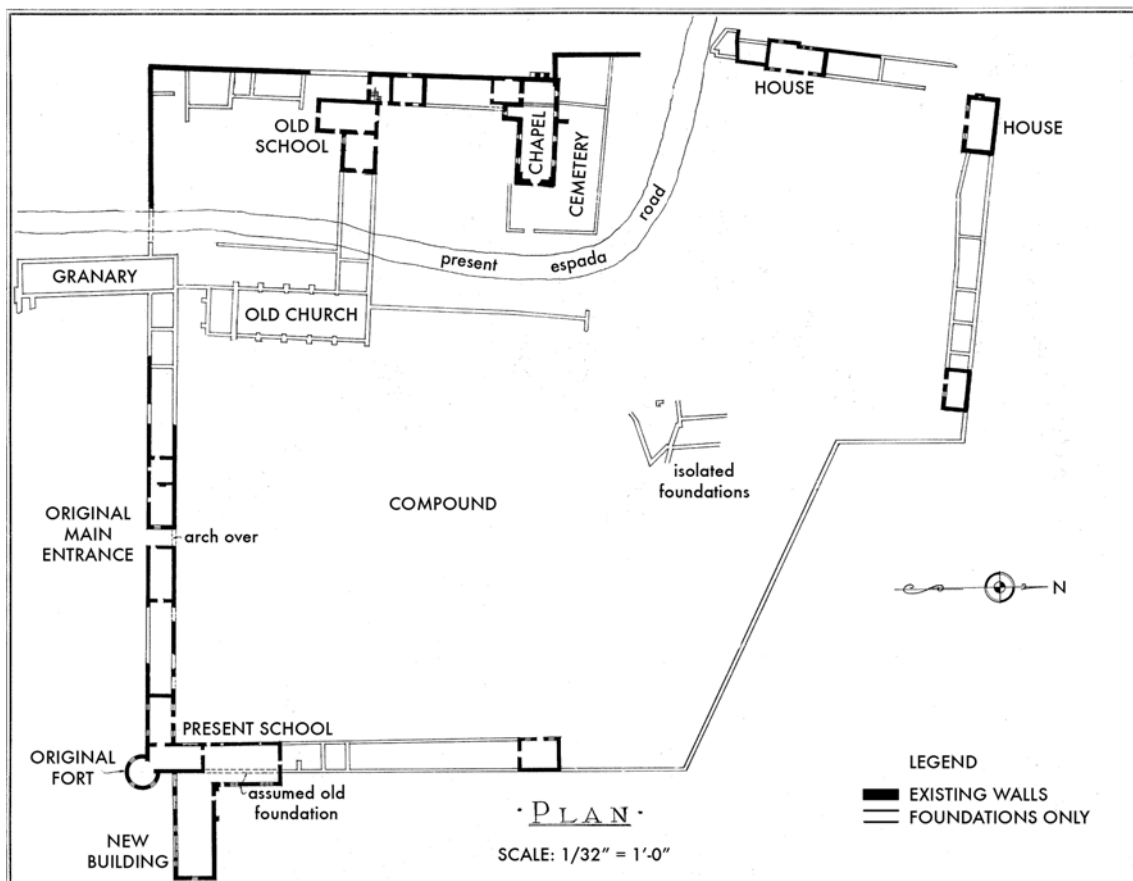


Fig. 15. Mission Espada site plan. (Library of Congress, Prints and Photographs Division, Historic American Buildings Survey, HABS, TEX,15-SANT.V,2-, measured drawing 1 of 4.)

## Mexican

Similar in its simplicity to the church at Mission San Juan, Mission Espada's church contained some characteristic elements that Baird identified in the monastic church form (Baird 1962). Mission Espada's church had a single-nave, boxlike form, with a small transept. It contained a choir loft or *coro* above the main entrance, but its roof was flat, not vaulted (as was typical of the monastic church) (Habig 1997; Quirarte 2002). And with its unusual, somewhat sculptural horseshoe arch portal (and its lack of decorative

elements elsewhere), one could argue that its façade was the “principal focus of ornamental enthusiasms” (Baird 1962: 24). Furthermore, it contained a “longitudinal church focused on an altar at one end, a walled courtyard, and simple accommodations for the friars,” as described by Gelernter (1999: 45). Native Americans were housed in separate, single-room dwellings, and its *atrio* was enclosed by “battlemented walls” (Baird 1962: 24).

As discussed in regard to Mission San Juan, the *espadaña* on Mission Espada’s façade was a commonly used feature in central Mexico in the sixteenth century, in locations such as Molango, Tepeyanco, Cuitzeo, Acolman, Metztitlán, Tepoztlán, Atlatláuhcan, Tlanchinol, and Tumbalá in Chiapas (Baird 1962; Kubler 1948; McAndrew 1965).

### **Native American**

As is the case with the other missions under study, no evidence has surfaced to indicate that the Coahuiltecan’s religious beliefs or practices contributed to the design of Mission Espada.

### *Examination of Environmental Factors*

The limitations of knowledge and skills described previously in this study may have encouraged a simplification of the architectural forms at Mission Espada, an idea suggested by Gelernter (1999). As with Mission San Juan, the simple structures at Mission Espada may have been the result of a significant lack of architectural or construction knowledge, inabilities on the part of the Mexican and Native American builders, or perhaps a lack of materials in the early stages of building. (The fact that the second church to be built had to be demolished may speak to a number of these possibilities.) A 1762 report noted that “[t]he Indians had to be coached with much patience. They were averse to systematic work and sustained effort; and they worked slowly and irregularly”<sup>9</sup> (Habig 1997: 213). In addition, in 1762 a new quarry had apparently been discovered near the mission, thereby easing any materials burden (Habig 1997).

The church, completed in 1756, was cruciform in plan and constructed of limestone and lime mortar, with a ceiling of hewn beams (Habig 1997). Its main doors were made of carved wood, possibly oak, although the original materials do not seem to have been recorded. Its *espadaña* contained three bells, which, according to William Corner, “clang[ed] out three times a day” (Habig 1997: 228). Corner was impressed with the church at Mission Espada, praising its “pretty little bits of wrought iron work.” He also noted: “It is said that some of the mission bells were cast in San Antonio in its earliest days. So there is no knowing what these old Missionaries did not come prepared

to do” (Habig 1997: 228). All the structures at Mission Espada, as noted, were built of stone and mortar; little more seems to have been recorded regarding materials of construction (Habig 1997; Quirarte 2002).

William Corner, however, provided an interesting description of one of the additional features of Mission Espada: “In the southeast corner is an object of much interest. Projecting from the angle of the walls outwardly, is a small round tower of quite a feudal character. . . . [I]ts three dressed-stone, round cannon holes near the base, and its seven musket holes about eight feet from the ground, lend it quite a menacing presence. . . . There was another of these ‘baluartes’ or bastions on the south wall by the road [beyond the granary], west of this one” (Corner as quoted in Habig 1997: 229).

To accommodate the hot climate, the builders employed some key design strategies. To keep hot temperatures out during the summer (Lechner 2001: design strategy VIII), they built attached houses to minimize the number of exposed walls (see church, *convento*, and Native American houses); and they used light-colored roofs and walls to reflect the sun’s heat (see all structures).

To allow natural ventilation to both cool and remove excess moisture in the summer (Lechner 2001: design strategies V and VI), the builders used two-story spaces for vertical air movement (see *convento*); and they elevated the main living floor above the high humidity found near the ground (see *convento*).

To protect from the summer sun (Lechner 2001: design strategy IV), they built attached houses or clusters to minimize the number of exposed walls (see church, *convento*, and Native American houses); they avoided or minimized the size of east and



west windows when possible (see church); they used shaded outdoor spaces, such as porches, to protect the east façade (see *convento*); and they used highly reflective building surfaces (see all structures).

To avoid creating additional humidity during the summer (Lechner 2001: design strategy X), the builders avoided pools and fountains.

Table 7 lists the cultural and religious features of Mission Espada. It illustrates the number of religious features (21) that appear in and influence the design of the mission, as compared to the number of cultural features (1) that are present. It shows that there are a limited number (10) of religious features—those required for Spanish missions, as enumerated in chapter II—that are of Spanish influence, but that there are slightly more elements of Mexican religious architecture (11) present in the mission. The table also shows the characteristic elements of the sixteenth-century Mexican monastic church that appear in the design of the mission (11), such as the walled *atrio*, the Native American housing, the *convento*, and the monastic church form itself. Mission Espada did not include any characteristic elements of the eighteenth-century Mexican parish church.

Table 7. Cultural and religious features of Mission Espada.

Culture and Religion Mission Espada	Spanish	Mexican	Total
<i>Cultural features</i>			1/8
Churrigueresque			
Baroque			
Plateresque			
Niche-pilaster			
Tilework			
Sculpted shell motif			
Decoration on plain surface			
Horseshoe arch	X		
<i>Religious features</i>			21/33
Church	X		
Convento	X		
Native American housing	X		
Self-sustainability (farm, water, ranch, shops, etc.)	X		
Kitchen	X		
Storage/granary	X		
Refectory	X		
Offices	X		
Cemetery	X		
East-west church orientation			
<i>Espadaña</i>	X	X	
<u>Monastic church traits</u>			
Boxlike/longitudinal		X	
Single nave plan w/no transept		X	
Coro		X	
Vaulted roof			
Façade ornament			
Altar at end of church		X	
Walled courtyard/atrio		X	
Attached friary/convento		X (not attached)	
Native American housing		X	
Cloister		X	
Porteria		X	
Open chapel		X	
Posas			
Façade window			
Plateresque columns			
<u>Parish church traits</u>			
High boxlike church			
Tall façade towers			
Tiled dome			
Dramatic façade			
No flanking chapels			
Wide squared transepts			
Wide squared apse			
Special chapels			

**Table 8. Summary of cultural and religious features of Mission Espada.**

<b>Culture and Religion Mission Espada Summary</b>	<b>Spanish</b>	<b>Mexican</b>
Cultural features	13%	0%
Religious features	30%	33%

Table 8 lists a summary of the cultural and religious influences on the architecture and construction of Mission Espada. It shows that one out of a possible eight *cultural* features (or 13 percent) was of Spanish influence and that there were no features of Mexican influence. It also illustrates that ten of a possible thirty-three *religious* features (or 30 percent) were of Spanish influence and eleven of thirty-three features (or 33 percent) were of Mexican influence. Through this illustration, we can see that overall the most influential factors on the design of Mission Espada were Mexican religious prescriptions, although only slightly more than Spanish religious prescriptions.

A discussion of these findings and a comparison among the missions is provided in chapter VI.

## Summary of Findings

**Table 9a. Summary of cultural features of all San Antonio missions.**

<b>Cultural Features San Antonio Missions Summary</b>	<b>Mission Concepción</b>	<b>Mission San Jose</b>	<b>Mission San Juan</b>	<b>Mission Espada</b>	<b>Total</b>
Spanish culture	4	4	0	1	9
Mexican culture	1	3	0	0	4

Table 9a presents a summary of the number of cultural features, out of the eight listed in previous tables, that appeared in and influenced each of the four San Antonio missions. Overall, Spanish cultural factors (9) were most influential, while Mexican cultural factors (4) were least influential, and no Mexican cultural features appeared to influence the designs of Mission San Juan or Mission Espada.

**Table 9b. Summary of religious features of all San Antonio missions.**

<b>Religious Features San Antonio Missions Summary</b>	<b>Mission Concepción</b>	<b>Mission San Jose</b>	<b>Mission San Juan</b>	<b>Mission Espada</b>	<b>Total</b>
Spanish religion	10	10	9	10	39
Mexican religion	21	20	11	11	63

Table 9b presents a summary of the number of religious features, out of the thirty-three listed in previous tables, that appeared in and influenced each of the four San Antonio missions. Overall, Mexican religious factors (63) were the most influential; at

both Mission Concepción and Mission San Jose, Mexican religious factors (21 and 20, respectively) far outweighed Spanish factors (10). The number of Spanish religious influences (10) remained constant for each mission, with the exception of Mission San Juan for which the presence of a cemetery was not recorded, since each fulfilled the required number of elements for Spanish missions.

**Table 10. Percentages of influence for all San Antonio missions.**

<b>Culture and Religion San Antonio Missions Percentages</b>	<b>Spanish</b>	<b>Mexican</b>
Mission Concepción	34%	54%
Mission San Jose	34%	56%
Mission San Juan	22%	27%
Mission Espada	27%	27%

Table 10 presents a summary of the percentages of both cultural and religious factors that appeared at and influenced each of the missions. For each mission, the overall Mexican influence was strongest (or equivalent, in the case of Mission Espada), particularly at Mission Concepción (54%) and Mission San Jose (56%). The Spanish influence was lower at Mission San Juan (22%) and Mission Espada (27%) than at Mission Concepción (34%) and Mission San Jose (34%), and it remained consistently lower than or equal to the Mexican influence at each mission. The Spanish and Mexican influences at Mission San Juan (22% and 27%, respectively) and at Mission Espada

(27% for both) were similar, with the Mexican influence slightly stronger at Mission San Juan.

While tables 1 through 10 summarize the cultural and religious factors that influenced the design and construction of the missions, tables 11 and 12 illustrate the environmental elements, such as materials and climate, that influenced the construction of the missions.

**Table 11. Materials use at the San Antonio missions.**

<b>Materials Used San Antonio Missions</b>	<b>Mission Concepción</b>	<b>Mission San Jose</b>	<b>Mission San Juan</b>	<b>Mission Espada</b>
Limestone/ <i>tufa</i>	X	X	X	X
Lime mortar	X	X	X	X
Plaster for exterior walls	X	X		
Oak/wood	X	X	X	X
Metals	X	X	X	X
Adobe	X	X		
Exterior fresco decoration	X	X		
Exterior sculptural decoration	X	X		X
Stone rubble w/limestone facing	X	X		
Fired-clay bricks	X			

Table 11 shows a summary of the types of materials used to build each of the missions. Mission San Jose and Mission Concepción employed similar materials for their somewhat similar designs. The same can be said for Mission San Juan and Mission Espada, although the number of materials reported to have been used at these two

missions is lower than at the other two missions. The basic building materials for each mission were the same (limestone/*tufa*, lime mortar, oak/wood, and metals). Differences among the missions manifested themselves in decorative techniques (exterior fresco decoration, exterior sculptural decoration), reported construction techniques (stone rubble walls with limestone facing), and other structural materials (adobe, fired-clay bricks).

**Table 12. Design with climate strategies employed at the San Antonio missions.**

<b>Design with Climate San Antonio Missions</b>	<b>Mission Concepción</b>	<b>Mission San Jose</b>	<b>Mission San Juan</b>	<b>Mission Espada</b>
Attached structures	X	X	X	X
Few/small windows	X	X	X	X
Window shutters		X		
Light-colored roof/walls	X	X	X	X
High ceilings	X	X		
Two-story spaces		X		X
Porches	X	X	X	X
Buildings shade each other		X		
Building shades itself		X		
Shaded outdoor spaces	X	X	X	X
Moveable shading devices		X		
Reflective building surfaces	X	X	X	X
No pools/fountains	X	X	X	X
Courtyards on east side			X	
Elevated living spaces		X		X

Table 12 illustrates the ways in which each mission was designed and built to accommodate the climate of San Antonio, which Lechner describes as a “very uncomfortable summer climate” with “very high temperatures and humidity levels,” along with “short and mild” winters, “ample sunshine,” and about forty-five inches of annual rainfall occurring “fairly uniformly throughout the year” (Lechner 2001: 110). The design with climate strategies listed are contemporary guidelines as identified by Lechner (2001). A mission is considered to be more compatible with the climate of San Antonio if it followed a greater number of these strategies. Mission San Jose showed the highest compliance with the contemporary standards. Mission Concepción, Mission San Juan, and Mission Espada are less compatible with the climate. Each mission demonstrates several similar strategies (attached structures, few/small windows, light-colored roofs/walls, porches, shaded outdoor spaces, reflective building surfaces, and no pools/fountains). Differences appear in the use of window shutters, moveable shading devices, high ceilings, two-story spaces, buildings that shade each other or themselves, courtyards placed on the east side, and elevated living spaces.

The findings of this study, therefore, as enumerated in tables 1, 3, 5, 7, and 9a, for example, support part of hypothesis 1: “Architectural influences of three different cultures (Spanish, Mexican, and Native American) will appear in the missions’ designs.” As noted throughout this chapter, there was no evidence to support the hypothesis that the Native American culture influenced the design of the missions. The data, as listed in tables 1, 3, 5, 7, and 9b, also support part of hypothesis 2: “The religious beliefs and practices of three different cultures (Spanish Catholic, Mexican Catholic, and Native



American non-Christian) will manifest themselves in the architecture of the missions.”

Again, there was no evidence to support the hypothesis that the Native Americans’ religious beliefs and practices influenced the design of the missions. The results of the study, particularly as illustrated in tables 11 and 12, also support hypothesis 3:

“Environmental factors (climate, materials availability, and terrain) will play a small role in the design and construction of the missions, since they are similar to the original environments of the builders.” When compared with the influences of both cultural and religious factors on the missions, the study suggests that environmental factors did, indeed, play a smaller role given the similar environmental conditions. Furthermore, these results demonstrate in detail the weight of each factor in the design and construction of the missions. These results are discussed in the next chapter.

## CHAPTER VI

### DISCUSSION AND CONCLUSIONS

The discussion interprets the findings for each of the missions both individually and in comparison with each other to identify patterns that emerged during this study. In examining the findings described in the previous chapter, there is clearly a strong overall Mexican influence in the missions, a conclusion that may be difficult for some to grasp, given the general public perception of the missions. Since these are Spanish missions—instigated by Spain and administered under the Franciscan order, with the express purpose of converting Native Americans to Christianity and making them subjects of the Spanish crown—one may expect the missions to be almost exclusively Spanish in flavor. Even today, the emphasis in interpretation at the mission sites is on the Franciscans and their converts, and very little, if anything, is mentioned about the influence of Mexicans or about the Native Americans who lived at the missions.<sup>10</sup> Yet, when one traces the history of the missions and considers the characteristics identified in this study, one can see how the Mexican influence could be so strong (particularly since the Franciscans spent many years in Mexico prior to establishing missions in Texas).

As we've seen in this study, however, the Coahuiltecs' culture and religious beliefs and practices did not have any influence on the designs of the San Antonio missions. With no architectural knowledge, craft-making skills, or substantial material culture, the Coahuiltecs were incapable of contributing to the forms of the structures. Indeed, within the mission system, the Coahuiltecs were forced to surrender their own

way of life and adopt the rituals and practices of the Spanish, destroying any semblance of their culture or religion. It is clear, therefore, that the Coahuiltecan did not influence the missions themselves but, rather, were influenced by them.

An examination of the timeline of events regarding the development of the missions reveals that although Mission San Jose was the first among the four to be founded in the San Antonio area (it was founded in 1720, while the others were re-established in 1731), the church at Mission San Jose was the last to be built. Mission Concepción's church was the first to be built (it was finished in 1755); both Mission San Juan's and Mission Espada's churches were completed in 1756. But the church at Mission San Jose wasn't completed until 1782, twenty-seven years after the church at Mission Concepción was dedicated. It's possible that the builders of the Mission Concepción church intended for that church, as the first in the area, to be the flagship of the mission churches. They intended it to make a grand statement, reflecting both Spanish and Mexican traditions, with its twin towers and high dome. And, reflecting what seemed to be the practice of the time, they selected different decorative motifs from what they could remember, creating a church façade, for instance, that combined a variety of shapes, styles, and imagery. The Mission Concepción church façade does not display the riotous exuberance of the Churrigueresque sculpture that appears at the Mission San Jose church; however, at the time the Mission Concepción church was built, the Churrigueresque style was not yet at its peak in Mexico, and it follows that such ornamentation would not have been applied at Mission Concepción.

The evidence suggests that the Mexican craftsmen for Mission Concepción were highly skilled. It would require someone with training and a knowledge of building technology to design and build the church, with its vaulted roof, dome, and transepts. And although the church's façade was decorated with some low-relief sculpture, perhaps the craftsmen were not as skilled in this particular art as those at Mission San Jose. Baird's (1962) postulation that the church façade decoration at Mission Concepción resembles that of a flattened *posa* seems plausible given both the influence of Mexican monastic church design on the design of Mission Concepción and the form that the decoration takes (with its large pediment and low-relief sculpture). The fact that the Mission Concepción site itself contained a limestone quarry would only have helped the builders to construct such a massive, imposing, fortress-like structure.

The possible explanations for the similarities between these two mission churches (such as their twin towers, domes, smooth limestone-and-plaster facings, and façade painting), which were built nearly three decades apart, deserve consideration. It is worth noting that the two missions in question are the two closest to the presidio in San Antonio. Such a proximity could have resulted in more military protection for these two missions and therefore more opportunity for the builders to focus on building grand religious structures (rather than worrying about defending themselves). The nearby presidio may have also supplied the two missions with skilled craftsmen, supplies, or tools. Since Mission San Jose was also the largest of the area missions, and since the Franciscans had had twenty-seven years to experience what worked and what didn't work architecturally, it's conceivable that the designers of Mission San Jose decided to

model their church after that of Mission Concepción, creating another grand display of Christianity. The location of the nearby Concepción quarry would have aided the builders in their quest to build an imposing monument. Like the Mission Concepción church, Mission San Jose's church had twin towers (only one of which was finished) and a dome. It did not, however, actually have a transept; perhaps the designer of this mission church was not as skilled as that of the Mission Concepción church, or perhaps there was not enough money to build a transept. It is possible that at the time it was constructed the builders of the Mission Concepción church adhered more closely to the Spanish tradition of using a cruciform plan, whereas the builders of the Mission San Jose church, twenty-seven years later, may have been more strongly influenced by the Mexican monastic tradition of designing a simpler longitudinal box. But while the builders' capabilities may have been somewhat lacking, the sculptor's skills were quite advanced, as evidenced by the church's façade ornamentation and that of the sacristy's Rose Window. In addition, both church facades were colorfully decorated with fresco, similar in design but not the same.

The other two in the chain of missions, Mission San Juan and Mission Espada, are also similar in their design and construction and quite different in design when compared with Mission Concepción and Mission San Jose. The relationships between these two missions warrants exploration. Since very little is known about the builders of Mission San Juan and Mission Espada (in general, less seems to have been recorded about these two missions than about the first two in the chain) and since both mission churches were built during the same time period, one could speculate that the same

person designed both structures (or that the same person at least consulted on or assisted in the design of the two churches). The use of the similar-looking *espadañas* for both church facades lends some credence to this suggestion, although the *espadaña* form was fairly common throughout southern Spain and central Mexico. The almost complete lack of decoration (read Spanish or Mexican cultural influences; see tables 5, 6, 7, and 8) on both church facades also suggests similar design sensibilities. Mission Espada's church portal then becomes one of the differentiating factors and could support the idea that separate craftsmen designed the portal and the church itself.

It is possible that the churches at both Mission San Juan and Mission Espada were only intended to be temporary structures. Construction was begun on a second church at Mission San Juan (it was never finished, due to a documented lack of Native American workers), and a second church was completed at Mission Espada (although it was later demolished because of structural problems). Indeed, historical and archaeological evidence suggests that the church at Mission San Juan was at some point used as an open chapel, then later closed up and used as a church. In addition, there seems to be no evidence of the application of exterior frescoes on either church; perhaps this type of decoration was saved for final or permanent church structures. The potential temporary nature of these buildings could be one among a number of factors that contributed to the more simplistic design of these two missions' churches (as compared with those of Mission Concepción and Mission San Jose). Perhaps they were erected more quickly and therefore did not receive the more elaborate treatment of their sister missions. It may simply be that the designer(s) for these last two missions did not have

the skill to design and build more substantial structures or that there were fewer Native Americans available to physically build the churches (documentation shows that there was a dearth of natives at Mission San Juan at times). The locations of these two missions may also have contributed to their similarities. Mission San Juan and Mission Espada were the most remote of the San Antonio missions, the furthest from the presidio and its protections, and the most isolated (particularly Mission Espada). It is possible that it took more time for craftsmen, supplies, and money to reach them. In addition, the two missions were reported to have been plagued by attacks from hostile native groups, which may have slowed their building processes and forced them to construct temporary structures for defense against their attackers. They were also further from the Concepción quarry, which could have influenced the form of the mission structures (although records indicate that a new quarry was found near Mission Espada, but not until after both churches had been completed).

The orientation of buildings at both Mission San Juan and Mission Espada is puzzling, particularly at Mission San Juan. While this mission also employed the sixteenth-century monastic church design, with its walled *atrio*, *convento*, and other mission structures, the designers oriented the original buildings so that they were parallel to, and indeed became part of, the compound walls. This curious arrangement may have been an early attempt to further shield the inhabitants from attacks by hostile Native Americans who lived beyond the walls. Using buildings as portions of the compound walls may have added a measure of protection. The Mission San Juan church in this arrangement had a north-south orientation, which was not in keeping with the traditional

east-west orientation of churches. The second church that was never completed, however, would have had the traditional orientation, again lending some support to the idea that the present church was intended to be temporary. The layout of the Mission Espada buildings is less confusing, with the exception of the siting of the church, which had a west-east orientation, directly opposite of the tradition. Its explanation as a temporary structure is not aided by the placement of the second (dismantled) church, which had a north-south orientation. There seems to be no apparent, logical reason for the builders of Mission Espada to construct a second, perhaps permanent, church with such a nontraditional orientation. Perhaps this new location provided better protection from attack than the temporary location. Or it is possible that the builders were attempting to take advantage of the area's prevailing winds, which in summer would bring cooling gulf-coast breezes from the south-southeast<sup>11</sup> (Lechner 2001: 78–81).

It is interesting that the two missions that were located closest to the presidio (and, essentially, the center of the town of San Antonio) also seem to have the greatest number of surviving records and documentation of their history. Mission Concepción and Mission San Jose also are generally thought of as the more impressive and prettier missions architecturally. In contrast, very few records from Mission San Juan and Mission Espada have survived, and therefore much less is known about their history, their construction, and the like. It is unclear why these records did not survive. Perhaps one explanation, again, is the latter two missions' remote locations. It likely was more difficult for the Franciscans to send visiting missionaries to these isolated locales, as traveling would have been treacherous, given the threat of attack by hostile natives.



Thus, there may have been fewer opportunities for reports from these missions. The reverse may also be possible, as it would likely have been equally difficult for the Franciscans housed at the missions to successfully send reports back to the presidio. Since Mission San Juan and Mission Espada were prone to such hostility, it may also be possible that records that were housed at the missions themselves were destroyed during attacks.<sup>12</sup>

As a result of the lack of records for both Mission San Juan and Mission Espada, as compared to those for Mission Concepción and Mission San Jose, we are left to interpret the findings and consider possibilities that are not necessarily documented. Metals from Mexico, for instance, were reported to have been used to cast some of the bells at Mission San Jose; however, no specific references to Mexican metals surfaced for any of the other missions. It is possible, however, that similar materials were used at the other three missions, as the Franciscans' access to raw metals in the San Antonio area was likely limited. Similarly, reports indicate that the technique of building walls of stone rubble with limestone facings was used to build the church at Mission Concepción. No such technique was recorded in regard to the church at Mission San Jose, but we may consider the possibility that similar construction techniques were used for these two churches built with similar designs and materials. In addition, one report indicated that the dome at Mission Concepción was made of unreinforced concrete poured into wooden forms (Scurlock and Fox 1977). This seems unlikely, however, as the regular use of concrete in the United States did not begin until the late 1800s; a natural cement

was being used at the beginning of the nineteenth century in the United States (Rosen et al 1995). Additional reports as to the original dome materials have not yet surfaced.

The mission builders demonstrated their ability to adapt their designs to the climate of the San Antonio area, particularly at Mission San Jose (see table 12). As Mission San Jose contains some of the latest structures to be built (including the church), it is possible that this mission's builders gained additional knowledge in building design and employed them at the mission. Such a suggestion may explain the layout of the mission's structures, particularly in regard to the *convento*'s placement directly behind the church, with its structure oriented east-west, thereby receiving shade from the church itself. When examining the structure and layout of each mission, therefore, it seems clear that the builders complied with contemporary guidelines for designing with climate.

To summarize, data collected in this study suggest that the design of each of the missions is a result of a combination of Spanish and Mexican influences, both cultural and religious, to varying degrees. Spanish influence, for the most part, seems to have been derived from areas of central and southern Spain, while Mexican influence seems to have originated primarily in areas of central Mexico. The resulting mission forms in San Antonio rely heavily on the sixteenth-century Mexican monastic church form configuration, although both Mission Concepción and Mission San Jose employed elements of eighteenth-century Mexican parish church configuration and appear more fortress-like in structure. And while all of the missions share qualities, each is unique. The differences among the missions may be the result of a number of possible factors, including the skills of the Mexican craftsmen at each mission; the number of Native

Americans available for labor, as well as their skill levels; the building knowledge of the missionaries; the availability of materials; and the speed at which structures needed to be built (more remote locales may have inspired a more hasty construction to protect mission inhabitants from attack from natives); among other factors.

Overall, the analyses suggest that for each of the San Antonio missions, the primary cultural influence was Spanish, while the strongest religious influence came from the Mexicans. It also demonstrates that the missions conformed to the environmental conditions of San Antonio, which were similar to those in the builders' homelands of Spain and Mexico. These conditions, therefore, were less influential on the design and construction of the missions than were the cultural and religious factors. These findings not only support the majority of the study's hypotheses but also show the strength of the Mexican influence on the creation of this vernacular architecture form—the Spanish colonial mission on the Texas frontier. Indeed, it appears that the architectural and design skills of Mexican craftsmen, and not those necessarily of the Spanish, were the driving factors in creating this unique architectural form. With this understanding, we can begin to appreciate the contributions that Mexican people made to what we today consider to be a piece of America's history.

## ENDNOTES

- <sup>1</sup> The importance of the San Antonio missions was expressed by O'Neil Ford, architect for the preservation of the missions, in 1981, as quoted in Guerra 1982.
- <sup>2</sup> The term “vernacular” as used in this study refers to architecture that does not adhere to fixed plans, that uses indigenous materials, that is based on a group’s (in this case immigrants’) mental template—the “unofficial” and inherited memory construct for how to build things—and that adapts to accommodate new environments (Glassie 1999).
- <sup>3</sup> Policies related to immigration, for instance, as well as to cultural sustainability, can benefit from a deeper understanding of the significance of Mexican culture in America.
- <sup>4</sup> Although many, if not all, historical reports on the missions—written by the Franciscans themselves—describe the excellent living conditions and the happy and willing nature of the Native Americans who lived in them, the scope of this study precludes any examination or evaluation of the veracity of such statements, which, given the purpose and goals of the missions, as well as the biases of the writers, seem highly dubious.
- <sup>5</sup> It also has been recorded that the church has the only original dome of the San Antonio missions (Habig 1997; Scurlock and Fox 1977), although there have been some repairs done on the dome since 1997.
- <sup>6</sup> See the Discussion and Conclusions section for evidence refuting this claim.
- <sup>7</sup> It is unclear to which “ancient Native American civilizations” Gelernter is referring. His hypothesis is speculative at best and therefore should be taken as such.
- <sup>8</sup> In addition to the sources noted, the following source was also used for this information: *Handbook of Texas Online*, s.v. “HUIZAR, PEDRO,” <http://www.tsha.utexas.edu/handbook/online/articles/HH/fhu22.html> (accessed August 4, 2004).
- <sup>9</sup> The veracity of such a statement, of course, cannot be confirmed and most certainly reflects a bias of the writer of the report.
- <sup>10</sup> This bias in interpretation, however, only serves to strengthen the perception of the missions as almost exclusively Spanish in their origins and clearly does not accurately reflect the history of the missions.
- <sup>11</sup> Lechner compared wind data for four months of the year: January, April, July, and October, with January considered to be the coldest month and July considered to be the warmest. His data shows the prevailing winds in July came from a south-southeasterly direction. Although no drawings or specifications exist for the second church at Mission Espada, given its north-south orientation, one could reasonably assume that the church contained windows along its eastern wall. The location of these windows would likely have enabled the prevailing winds to provide some passive cooling for the church. In addition, Lechner’s data shows that the prevailing winds during January came from the north. The Mission Espada church’s orientation would have allowed for the least exposure to these northerly winds, thereby offering some protection against the cold.
- <sup>12</sup> These two missions are today in ruins.

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