IMMIGRANTS' ACCULTURATION AS EXPRESSED IN ARCHITECTURE: 19TH

CENTURY CHURCHES AND COURTHOUSES IN SOUTH CENTRAL TEXAS

A Dissertation

by

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ABSTRACT

This paper introduces a conceptual framework to analyze identity and

assimilation processes in immigrants' architecture. Specifically, the study examines

European immigrants who arrived directly to Texas port cities and settled in South

Central Texas during mid-to-late nineteenth century. The architectural choices made in

the communities in which these immigrants settled express various aspects of their

orientations to maintain identity and tradition while at the same time assimilate to the

new land. The theoretical framework theorizes that the manifestation of these two

distinct directions in public architecture in these communities is conditioned by

community context and building type. This study posits that churches serve as the

symbol of cultural heritage and reflect the collective memory of immigrants' homeland.

Courthouses have been considered as the predominant symbol of self-government and of

community's civic pride. Thus, the county courthouse served as the icon of immigrants'

negotiation of new and externally derived civic responsibilities, i.e., assimilation.

Consequently the study focused on two building types, churches and courthouses, built

in Texas county seats. The locations were chosen so that the sites will represent a variety

of immigrant ethnic groups.

To test the expectations derived from the framework, this study utilized a small

sample comparative analysis. The comparisons of the targeted buildings (courthouses

and churches) were conducted along specific criteria, which included site, morphology,

and building technology. The findings show that across all criteria, churches exhibited a

higher degree of European traditional architecture in correspondence to the cultural identity of each applicable ethnic group. Courthouses generally reflected architectural patterns of that era across Texas and thereby were more similar to one another, in the context that they reflected overall contemporary practice throughout the state of Texas. The courthouses demonstrated the assimilation process of immigrants to their new land.

These findings lead to a better comprehension of the influence of immigrants upon public architecture in their new homeland, and to the recognition of the significance of identity, pride, and place in the interpretation of historic architecture.

DEDICATION

To my wife Melissa, and to Rever and Nina Morris.

ACKNOWLEDGEMENTS

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INTRODUCTION

This study explores relationships between culture and architecture in the context of the process of immigrant acculturation. The primary focus is the manner in which south central Texas county seat communities with a potentially influential immigrant ethnic group negotiated different aspects of the built environment to accommodate facets of community identity. Specifically, the project investigates immigrants' influence upon architecture of two building types: churches and county courthouses. As illustrated in the Literature Review section, churches serve to reflect "the remarkable visual memory of the settlers, able to replicate on the frontier the great masonry churches they had left behind..." (Fitch 1982: 230). Thus, the form of new churches resembles the original churches left behind (Geva 1995, 2002). Courthouses have been considered "the predominant symbol of self-government, progress and stability, and the very embodiment of a community's pride" (Andrews 2006: 20). The objective of this study is to test these premises and investigate, in detail, communities' churches as expression of the retention of community's traditional religious and cultural identity, and the county courthouse as negotiation of new and externally-derived civic responsibilities.

Comparative case study methodology is utilized in order to test the research hypotheses. A consistent set of data for each of the churches and courthouses in the study sample is collected through site visits and archival research. This collection process captures data falling into 5 categories: Cultural/historical context, site, design, building technology, and compatibility to local climate. This categorized data is then

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applied to two comparative analysis matrices, one for each of the two building types. These matrices are utilized to compare the extent and nature of architectural expression of different aspects of cultural identity for buildings within each public building type of church and courthouse. This study then summarizes the results drawn from this comparative analysis process, and provides explanation and interpretation of these results.

Dissertation Outline

This document is arranged into ten major sections.

- The Introduction section describes the scope and objectives of this research and underlying context and reasoning.

- The Research Questions section consists of the major question and two sub-questions derived from it in the document. The primary question asks what role building type plays in terms of architecture and construction. The sub-questions apply this to the courthouse and church building types.

- The Significance section summarizes the relevance of the study for research and practice.

- Literature Review includes three predominant areas of study: the development of the study of architecture as material culture, the history of European immigrants to Texas during the mid-to-late 19th Century, and scholarship about Texas churches and courthouses.

- The Conceptual Model and Research Hypotheses section describes the study's theoretical framework as expressed in the development of a conceptual model.

The model is based upon the concepts that the retention of traditional architectural form and features is often dependent upon building type, and that communities express different aspects of their identity based upon different contexts. Two hypotheses are derived from the conceptual model:

- o Hypothesis 1: If churches represent the original heritage of immigrants' ethnic/religious group, churches built by one ethnic group will differ from those built by another group to the extent that their original architectural traditions differ.

- o Hypothesis 2: If courthouses represent civic pride of a state as well as immigrants' assimilation to their newly-adopted land, courthouses built in a county dominated by one particular ethnic group will be similar to those built in a county dominated by a different immigrant group, and all will follow overall trends typical for Texas Courthouses.

- The Procedure section describes the relationships between methodology, results and conclusion in the study.

- The Methodology section applies comparative case study and, as well as a small sample model of analysis forms the basis of the research design of this study. Methodology includes two subsections: (a) The data collection portion describes the nature and extent of data collected, and then summarizes the specific data collected for each site, including cultural/historical context, site, design, and building technology; and (b) The analysis portion contains a description of the criteria to be used as an interpretational analytical framework.

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- The Results section consists of two parts. The first compares the buildings within each type based upon cultural/historical context, site, design, building technology, and compatibility to local climate. The second part summarizes and further examines the comparisons.

- The Summary & Conclusion summarizes the research and describes the nature and extent the results correspond with the study hypotheses. Implications of the study for the practice of heritage conservation are then described.

- The Opportunities for Further Research section suggests and describes areas of potential future research.

- The References section lists all resources utilized in the study.

RESEARCH QUESTIONS

Pursuit of the objective of this study has led to the following general research question: What role does building type play in expression of immigrant identity in terms of architecture and construction? Two specific questions are formulated out of this question:

- Can churches express immigrants' traditional heritage and aspects of their ethnic identity?

- Can courthouses represent immigrants' relationship to the assimilation process?

The general research question is broken into two specific questions for a few reasons: Primarily, this allows more consistent analysis of the buildings by type, as churches have a different set of architectural conventions than courthouses. Second, this study ultimately illustrates some differences between the courthouse and church building types in the context of specific communities. It accomplishes this through a comparison of churches with churches, and courthouses with courthouses. This allows any patterns to be noted regarding the different conditions within each community, and subsequent effects upon resulting architecture, keeping building type as a constant for each comparison.

A few important considerations shape how each of the two specific research questions are phrased. As a study within the discipline of Architecture, the subject of analysis the study buildings. Within this orientation, however, the buildings are investigated through the lenses of acculturation processes and community. This study

does not necessarily address the degree to which any specific building could be termed as an example of "immigrant" architecture. Instead, this study, as framed by these research questions looks at the degree and nature of architectural characteristics that can be identified with immigrant groups. For churches, this approach translates into a research question that explores the traditional essence of the church building type. For courthouses, the research question must address a more specific challenge. This because an example of architecture that expressed immigrants' assimilation into the new environment would exhibit characteristics identical to one that had no immigrant input into the design. For that reason, the research question allows both the exploration of the degree to which the courthouses follow overall design convention within the state of Texas, as well as exploration of instances and circumstances in which the courthouse characteristics do not follow convention. If these anachronistic incidences are consistent with immigrant identity, then they may produce a greater understanding of the nature and context of assimilation as expressed in architecture within that community.

This study is built upon these questions and focuses on comparing churches built in a county seat of their new location and the courthouses built in the same town. This comparison accentuates the quest for immigrants' identity and the negotiated nature of their acculturation process, within the overall context of a county seat community. Each of these public buildings represent not only different functions but also different aspects of pride and identity coexisting within the same community.

SIGNIFICANCE

The topics of architecture and immigration are of universal relevance. The history of humankind is characterized by the movements of peoples and the subsequent interaction with new environmental conditions and of differing peoples when they come to live and subsist in close proximity. This mobility and cultural interchange, although always present, exploded as a result of the industrial revolution and the subsequent increase in travel opportunity, global communication and economic changes impacting the agriculture and manufacturing laborers. From a Eurocentric perspective, the discovery of the New World and the multiple waves of immigrants has profoundly shaped and molded the history of the Americas and the United States in particular. From the first federal census in 1850, the foreign born constituted almost ten percent of the United States population, and thereafter did not drop below thirteen percent of the population until the 1930 census. The percentage of foreign born steadily dropped until 1970, when the percentage of foreign born began increasing, but has not yet surpassed the thirteen percent point (Daniels 2002). With more than one in ten Americans classified as foreign born for most of the last two centuries of United States history, understanding the contributions of immigrants to the built environment possess a strong relevancy.

The significance of this project lies in its potential to enhance and enrich the understanding of the complex and often contextual process of immigrants' acculturation as expressed in architecture. Though only addressing one geographic region, south

central Texas, this study indicates that group identity as expressed through architecture is negotiated by the community in order to emphasize various aspects of identity. This is based upon traditional group values, climatic conditions, building type, community history, and collective memory. This research builds upon the existing body of knowledge through study of various ethnic groups of immigrants, and more than one building type. It provides a frame of reference and understanding that more fully incorporates information at a community-wide level.

This project is also significant for its implications in terms of preservation of cultural heritage and historic buildings. The National Historic Preservation Act of 1966, the guiding legislation for much of heritage conservation in the United States, relies heavily upon the concept of historical significance in determining whether and why a building is worth reinvestment in terms of federal funding and legal protections. The Act was drafted in a period of unusually low immigration rates and a strongly nationalistic sentiment during the eve of the United States bicentennial. Resultantly, many statements of significance drafted for buildings listed in the National Register focused upon associations with historical figures known for political and military contributions and narratives of significance that reflected nationalistic sentiment. Statements of significance for structures influenced by immigration could reflect varied and sometimes overly simplistic viewpoints regarding the nature of assimilation. Often the contextual and negotiated aspect of the assimilation process was replaced with more deterministic explanations. Since that time, understanding of history has evolved to include a broader and more nuanced focus among those within the field of heritage conservation. This

project attempts to revisit and apply current thinking among scholars of immigration and

ethnicity to these two building types integral to communities, and also enrich

understanding of the cultural heritage and valuable history embodied within these

buildings.

LITERATURE REVIEW

This dissertation studies architecture in a specific context. The architecture of public buildings in communities of immigrants once they relocate to a new cultural and physical environment. Specifically the architectural choices made in the Texas destination communities impacted by immigrants from Europe during the 19th Century, as embodied in two building types, courthouses and churches. Literature review for this study consists of three primary categories of scholarship: 1) the development of the study of architecture as material culture, an expression of identity 2) The history of European immigrants to Texas during the mid-to-late 19th Century, 3) Scholarship about Texas churches and courthouses.

Architecture as Material Culture

Traditionally, the study of formal, academically-based practice of architecture, of the type commonly termed "high art", was divorced from scholarship that studied a more organic, more informally transmitted approach to building, referred to as vernacular or folk architecture. Several decades of effort across several disciplines, and a few scholars not afraid of crossing disciplinary boundaries, such as Fred Kniffen and Henry Glassie, made it possible for a study such as the current one. In this context, a county courthouse designed by a renowned classically trained architect (which would typically ideally align with the traditional definition of formal architecture) and a small church constructed through community effort and without a formal architect (traditionally falling within the category of a vernacular building) are both well understood by using approaches

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grounded in material culture and identity. These approaches recognize that no specific

work of architecture is ever created in a fully self-conscious and mindful manner, instead

recognizing that architecture is always the "the consequence of a collision between

intentions and conditions," (Glassie 2000: 21).

Architecture as an expression of culture is the convergence of several disciplines,

most notably anthropology, cultural geography, folklore, and architectural history. In

this approach architecture is ultimately viewed as an aspect of material culture, an

artifact that carries its meaning in the cultural context in which it is created. Additionally

all architecture, whether it is formal architecture in terms of high art, popular

architecture, or informal architecture sometimes called vernacular architecture, is subject

to similar processes and can be examined usefully through the same methods, if viewed

in cultural context (Glassie 2000). Architectural study that frames architecture as an

expression of cultural identity lie somewhere between the early works of folklorists

studying what they called folk architecture and cultural geographers studying the spatial

diffusion of architectural types and features.

In 1888 the American Folklore Society began producing their peer-reviewed

journal, the Journal of American Folklore. For the first half of the 20th century, the

journal contained only passing and infrequent references to Vernacular Architecture.

Typical of the coverage of the era was an event held by the National Committee on Folk

Arts of the United States in 1944. During this event only two speakers addressing folk

architecture were noted: Talbot Faulkner Hamlin and G. Edwin Brumbaugh (American

Folklore Society 1944). This lack of attention to material culture was not lost on Fred

Kniffen, who would later be regarded by many as one of the founders of the study of Vernacular Architecture as it is practiced today. Kniffen withdrew from the American Folklore Society, in his own words, "because of the folklorists' general disdain for all material culture." (Kniffen 1990:37). He was equally disenchanted with the approach popular in Geography at the time, which was very holistic, and did not describe geographic details, especially man-made ones, in any real detail (Kniffen 1990). Based on a philosophy influenced by Berkley anthropologist Alfred Kroeber, combined with methodology for studying potsherds borrowed from archaeologist James Ford, Kniffen began to catalogue houses in Louisiana. In 1936, Kniffen produced a manuscript, entitled "Louisiana House Types," which used discrete features to classify and map the houses found in the region, for the purpose of defining culturo-geographic regions (Kniffen 1936). Kniffen undertook the study in an attempt to gain an understanding based in the methodologies used by geographers. He did not fail to recognize that the study of the subject itself was a rich avenue for scholars, in terms of: house typing, evolution over time, spatial diffusion, relation to site, mixing, individual and group preference (Kniffen 1990). Kniffen's observations proved to be accurate, and variations of his approach would be credited by later scholars as a strong influence upon their research, the most notable described below. One of those students, Henry Glassie, recalls learning from Kniffen at Louisiana State University that "cultural creations recorded exactly in large numbers reveal patterns that contain the thinking of other people" (Glassie 2000: 163). He first applied these ideas to material culture in general in *Pattern in the Material Folk Culture of the Eastern United States* (1968). In this work, Glassie

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looked for regional patterns and sub-patterns in different items of folk culture, as well as non-regional patterns derived from immigrants, Native American, and urban cultures.

Glassie questions the traditional idea of a folk group, noting that as time progresses, exposure to popular culture will eliminate all groups of the traditional "folk". Still, folk culture will persist as the conservative aspect of deviation from popular culture (Glassie 1968). He additionally differentiates between the popular, elite, and folk cultures, and notes that a work of folk material culture can be made by someone with exposure to elite and popular culture, but the work produced must be in that person's historical tradition. It is the production that makes it folk (Glassie 1968). Glassie next began a substantial work specifically about architecture, a study of folk housing in middle Virginia (1975). Upon analysis based on structural-linguistic theory, he first noted the regional character of the subjects of his study, and their physical characteristics that were shared by the houses forming his data set, forming a grammar of building. As his study progressed, he began to focus upon the implications of this approach to historical change over time as expressed in those houses. He then equated this with cultural values concerning conservatism and individualism of the builders (Glassie 1975, Glassie 2000).

Although Henry Glassie is probably most associated with the field of material culture folklore, scholars from other disciplines were looking at architecture from their own perspectives. Amos Rapoport, an architect by profession, decided to avoid the extensive classification of house types common to those found in students of Kniffen's research, instead trying to understand how form occurs (Rapoport 1969). In *House,*

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Form, and Culture, he explains how house form develops, especially when conflicting

classification systems between researchers cannot be resolved. To this end, Rapoport

looked for those aspects that seemed most universal, and examined them in context to

determine "to what these differences can be attributed, and try to relate them to the way

of life, the image of the good life, social organization, concepts of territoriality, way of

handling "basic needs", the link between the dwelling and the settlement pattern, and so

forth." (Rapoport 1969: 2, 16-17). Rapoport expressed a differing but related concept of

"folk" culture, defining it as, "the direct and unself-conscious translation into physical

form of a culture, its needs and values—as well as the desires, dreams, and passions of a

people" (Rapoport 1969: 2, 16-17). Rapoport's approach is cross-cultural and more

design oriented, but less focused upon defining specific physical details and collection of

quantitative data.

By the late 1960's groundwork laid by researchers and theorists such as Kniffen,

Glassie, and Rapoport became the basis for scholarly investigation of material culture in

general and specifically vernacular architecture. This realization was formalized in the

Folklife Study Report (American Folklore Society 1967), which effectively summarizes

the state of folklore and vernacular architecture at that time, as well as articulating some

of the less ideological reasons for avoiding much of this research:

> The study of Folklife, Folk Culture, and Traditional Material Culture is
> part of the interest of folklore scholars in many parts of the world. It has
> been an essential part of continental European scholarship for a great
> number of years and more recently has become a focal point of British
> Scholarship. American folklorists have paid only lip service to the area
> and until the last five years no formal group of folklore scholars has
> included it in their studies. Most of the work in Folklife and Material
> Culture is currently being done in America by non-folklorists with little

or no knowledge of the broader field of folklore scholarship. Geographers, Art Historians, Architectural Historians, Local Historians, and Museum people are beginning to specialize in the "folk" areas of their subjects. These disciplines are defining "folk art," "folk architecture," "folk settlement patterns," "folk museums" etc. with no professional folklorists serving as part of this defining process. The various groups are not deliberately ignoring each other; it is simply that each group does not know the other exists (American Folklore Society 1967: 5-6).

The following three decades would be productive in terms of vernacular architecture research, but still no clear consensus would appear concerning the definition of what constituted folk architecture. Early in this period, folk architecture would be frequently thought of as: a "type common to a given area at a given time" (Mercer 1975: 1) , or "old, rural, handmade structures built in traditional forms and materials for domestic or agricultural use" (Roberts 1986: 89-93). During this period, several scholars would make their personal imprint upon the field of vernacular architecture. While some would be within the folklore community, others within the design professions, the study of vernacular architecture would retain its multi-disciplinary flavor.

The geographical and typological approach derived from Kniffen and Glassie would continue, notably with Allen Noble's study of North American settlement as expressed through housing patterns, *Wood, Brick, and Stone* (Noble 1984). This work is most well-known for popularizing the idea of a cultural hearth, an "original source area with distinctive settlement forms, as well as other cultural attributes, from which certain clearly identifiable elements were carried to other parts of the continent"(Noble 1984: 7).

Simultaneously, influential researchers with different approaches gained prominence during the 1970's and 1980's. Abbott Lowell Cummings, in *The Framed Houses of Massachusetts Bay, 1625-1725*, combined the fieldwork characteristic of Glassie's methods, but incorporated study of documentary sources (Cummings 1979). This provided additional insight into the emic motivations of builders, and the reconciliation of the dual approaches added additional layers of understanding as well (Wells 1986). Dell Upton, influenced by Cummings produced "Vernacular Domestic Architecture in Eighteenth-Century Virginia," an article that also echoed some of Rapoport's sentiment of stressing the importance of context in developing interpretation of the development of building form (Upton & Vlach 1986).

In 1980, the growing popularity of vernacular architecture led a group of American scholars to form an organization called the Vernacular Architecture Forum. Originally focusing upon building types traditionally classified as vernacular, the Vernacular Architecture Forum resembled its unaffiliated UK counterpart, the Vernacular Architecture Group. While the Vernacular Architecture Group maintained a strict orientation on vernacular architecture as traditionally defined, the Vernacular Architecture Forum gradually shifted the definition of vernacular as a type of building, to an approach to understanding a building. The Forum publication *Perspectives in Vernacular Architecture* (1982- Present) was originally published at irregular intervals. A new issue would be published every few years. This publication provided a useful bellwether for developing trends in the field, through analysis of new methods and subject matter. In 1986, the introduction to the second issue of *Perspectives* summarized

much of the state of affairs at that time. The contributors to this issue represented sixteen different fields of study, and each utilized their own approach to the topic of vernacular architecture. One of the most notable developments was the beginning expansion of the building types under study in the articles. The focus on housing was beginning to erode, but some of the tendency to retain the idea of vernacular as "common" architecture not designed by a professional remained. This expansion of the scope of vernacular study was not complete, and it was stated in the issue that many resisted the logical conclusion to the line of thought that since it had always been commonly assumed by academics that elite, formal architecture was the result of complex mental processes, and now that was recognized that common buildings were also created by the same mechanism. It should become clear that "vernacular architecture has become…less a kind of building than an approach to looking at buildings" (Upton 1983: 263-64). The subject matter for the submissions to *Perspectives* reflects this transitional period. Eleven of the articles primarily addressing the buildings themselves concerned housing in some way; of the remaining four, two concerned town plans, one covered churches, and one studied Academic design in Iowa City. An emphasis upon landscapes and planning was also developing in that issue (Vernacular Architecture Forum 1986).

By 1991, however, the fourth issue of *Perspectives* contained no qualifying statements concerning what constitutes an object of study for vernacular architecture. Instead, the editors felt that the focus upon the building as a historical document expressing cultural realities found in the discipline should result in a renaming of "vernacular architecture" into the "New Architectural History" (Carter & Herman 1991:

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1-5). In this issue, following the broad interpretation presented in the introduction, the articles submitted not only address buildings and larger scale topics, such as city plans and landscapes, but also smaller scale approaches, such as interiors and furnishings. By this time, less than twenty percent of the articles specifically deal with housing (Vernacular Architecture Forum 1991). The next issue of *Perspectives* features the subtitle of "Gender, Class, and Shelter" (1995) which dictated the content. While the previous issue contained a single article written from a gender-oriented framework, *Perspectives V* dedicates an entire section to gender as a category of analysis. Other articles cover ethnicity, churches and schools, urban and rural geographies, as well as expressions of popular culture (Vernacular Architecture Forum 1995). In this issue, it is notable that churches and schools have often been traditionally associated with elite architecture. However, their inclusion in the issue revealed the level of the acceptance among scholars of each category of the traditional academic division between folk, popular, and elite (high style) architecture as a topic of study fully accepted into the field of vernacular architecture. This expansion of topics of study, by the turn of the 21st Century, had become so ubiquitous that when Dell Upton published *Architecture in the United States* in 1998, the differentiation between the three categories of architecture is discarded, instead using five broad themes as categories: community, nature, technology, money, and art (Upton 1998).

The turn of the 21st Century also provided an opportunity to not only summarize the contributions of new researchers, but also to visit the evolution of the understanding of folk architecture by Henry Glassie, who has continued to produce and contribute

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throughout his career. In 2000, he published *Vernacular Architecture*, and it is interesting to note the changes in his viewpoint from his early positions. He had always questioned the traditional idea of a folk group (Glassie 1968). By 2000, he has rejected and re-interpreted the categories of popular, elite, and folk architecture, and finds no utility in the idea of "vernacular" architecture as different in any appreciable way from elite architecture. He claims that the only useful meaning of the term vernacular is something that is either unstudied or understudied. Glassie states, "Every building is a cultural fact, the consequence of a collision between intentions and conditions, if differences of culture and circumstance adequately account for differences among buildings, the question is why we persist in calling some of them vernacular" (Glassie 2000: 21). He continues, "In the future, it will be obsolete, but now the term 'vernacular' is one of the tools we use when we face architectural objects when we wish to crack them open and learn their meanings" (Glassie 2000: 21).

Although the currently accepted version of vernacular or folk architecture is more all-encompassing than ever before in terms of method and scope, and as Glassie illustrates above, has been almost discarded in certain circles, researchers still create unique variants of terminology emphasizing different aspects based upon their area of interest. Indeed, some scholars have begun to utilize otherwise discarded differentiations but in profoundly re-defined ways. For example, Kingston Heath, Director of the Historic Preservation Program at the University of Oregon, claims that regional and vernacular are interchangeable terms. To Heath, all vernacular architecture is regionally expressive:

Historically, the terms *regional* and *vernacular* are virtually interchangeable. The linguistic root of the term vernacular, from the Latin root *vernaculus*, refers to a native language or dialect, especially in its normal spoken form. It denotes commonly used , recognized and understood speech patterns characteristic of a specific locale. This is what sociolinguist Dell Hymes refers to as the 'ethnography of speaking.' As such, it stands in contrast to the formal literary language of a society that is oriented toward global academic discourse. By and large, this distinction applies to vernacular buildings and landscapes as well. Vernacular buildings and settings are regionally distinctive, regionally representative, and regionally understood (Heath 2009: 6).

Heath proposes a theoretical model that presents all architecture being subjected to a regional filter that has a complex of factors that combine to shape the ultimate form and nature of the architectural entity (Heath 2009).

The evolution of scholarship, described above, has resulted in synthesized approaches utilized in the study of all forms of architecture, and frames them in the context of expression of cultural identity. For the current study, this body of research provides a framework to allow consistent comparison of buildings; some buildings designed by professionally trained architects, "elite" architecture, and others created more through community effort, which would fall under the traditional term of "vernacular" architecture.

Two scholars have produced works that explore architecture as an expression of cultural identity and provide the most direct basis for this current work. Geva, in her dissertation, *The Interaction of Climate, Culture, and Building Type on Built Form: A Computer Simulation Study of Energy Performance of Historic Buildings* (Geva, 1995), utilizes computerized simulations of thermal performance of historic churches and houses built by immigrants to quantify the strong influence of cultural tradition on built form. The results strongly suggest that cultural groups will choose retention of cultural

traditions over physical comfort in some cases. Geva studied in more detail the nature

and extent of modifications of immigrants new churches and houses, illustrating the

"interactive effect of climate and culture on vernacular built form as mediated by

building type" in *Vernacular Housing, Past and Present* (Geva 2002). Her student,

David Dubbelde, also looked at the relationships between culture, faith, environment,

and building technology in his study of 19th Century Catholic Churches in Galveston,

Texas (Dubblede 2006). His major finding, that built form and construction are a

function of culture, supports the concept that architecture is appropriately and usefully

viewed as material culture.   Dubbelde informs the methodology of this study through

making apparent the utility of comparative analysis and providing a general framework

for several of the criteria of analysis that are used in this study. The current study

expands upon this previous work, by applying aspects of methodology to civic buildings

as well as sacred, and comparatively analyzing these in a community-wide context.

Overall, reviewed literature related to architecture as material culture shows that

architecture and culture inextricably related, as is shown through the evolution of the

studies described above. The works of Geva and Dubblede build upon this, and more

directly address the role of architecture as, not only an aspect of culture, but also an

expression of group identity (Geva 1995, Geva 2002, Dubbelde 2006).

19th Century European Immigration to Texas

Scholars have explored the nature of immigrant groups' assimilation processes.

They have studied both how and in what instances immigrants accommodate their new

cultural and natural environment, and when they retain traditional aspects of their

cultural and religious identity (Gibson 1988, Daniels 2002, Alba & Nee 2003). Through these efforts, understanding of the assimilation process itself has evolved over time, from the popular concepts of Anglo-conformity and of the "melting pot", through the Chicago School of Sociology, to symbolic interactions and Milton Gordon's model of cultural pluralism (Alba & Nee 2003). More recent attitudes are informed by earlier work, but recognize the role of the immigrant groups in determining contexts in which assimilation is desirable or to be avoided, and, instead of being deterministic "acculturation may be an additive process or one in which old and new traits are blended" (Gibson 1988: 24-25). These more layered concepts of the contextual nature of assimilation dictate that this study utilizes the verifiability offered by examples of architectural type to give physical evidence that the theories presented are applicable (e.g. fieldwork and archival materials). Scholars have approached the immigration experience in terms of different scales. Some have studied broad trends and generalized traits, focusing upon the immigrant population in terms of the group and global sociological trends (Levine 1992, Daniels 2002, Alba & Nee 2003). Others address the experiences of individuals in the context of their own singular experiences, utilizing resources such as written correspondences and documentation (Baily & Ramella 1987, Kamphoefner, et. al, 1991, Hartzig 1997).

Literature addressing European immigration to Texas provides more specific information regarding immigration and their architectural traditions. During the 19th Century in America, the volume of immigration in absolute and relative numbers reached an unprecedented scale (Daniels 2002). Within Texas, the patterns of

immigration are consistent with the nation as a whole, and the processes that immigrants undergo after relocation in other areas are applicable. The immigrant groups addressed in this study consist of northern Europeans arriving directly into Texas during the mid-to-late nineteenth century, from approximately 1840 to the turn of the 20th Century. These immigrants arrived through the two major port cities active along the Texas coast during this period. The first, Galveston was a major port city and has been called the "Ellis Island of the West" (Marinbach 1983, Hardwick 2003). By the middle of the19[th] century, it was not uncommon to see immigrants arriving from various European countries (Jordan 1970, 1977). The second of Texas' major port cities, Indianola, once rivaled Galveston during its brief existence (1844-1886) but now only exists as an archaeological site since it was not rebuilt following storm damage the summer of 1886 (Arnold & Keyes 2000). The area these immigrants settled, located northwest of Galveston, previously had been relatively sparsely settled by Spanish, Mexican, and later by an influx of Anglo stock ultimately from the Mid-Atlantic and Tidewater South regions (Collier 2000). These new boat immigrants tended to settle mainly in communities they founded outside of established cities, using established travel routes connecting Austin, San Antonio, and Seguin. The older settlements made the route more hospitable to travelers. For instance, those traveling to New Braunfels could stop at settlements established earlier, such as Cat Spring (Bruenger 1983). The very earliest immigrants were predominately male, and moved individually. Later, patterns of organized immigration developed, with family groups immigrating into organized

settlements. Europeans from different areas and belonging to a range of ethnic groups traveled inland to existing settlements, or to found new ones.

The First Annual Report of the Agricultural Bureau of the Department of Agriculture, Insurance, Statistics, and History, published in 1887, provides a useful cross-section of data for the understanding of the demographic patterns resulting from widespread immigration (Foster 2001). It lists twenty-six different ethnicities in total, apparently each county creating its own categories. For example, Austin and Burleson Counties list Bohemian as a category, while Fayette has Bohemian/Moravian listed together. Although the 1887 Texas Census acknowledges and attempts to capture ethnicity numbers, the lack of consistent categories can represent a problem for consistent comparison and generalization. The U. S. Census during the 19th Century does not focus upon ethnicity, instead more often capturing data related to foreign born, and sometimes specific place of birth (University of Virginia 2004). When combined, both censuses can provide relatively generalizable data regarding ethnic makeup within counties, but must be interpreted in the specific context of each county. Kamphoefner, in "New Perspectives on Texas Germans and the Confederacy" well illustrates that data can be utilized to make strongly supported generalizations, when combined with careful interpretation and contextualization (Kamphoefner 1999).

Successful settlement into Texas required adoption of American political structure and legal system. Overall within the state of Texas, these immigrant groups may have constituted a minority, but when viewed from a different scale, the majority and the minority become more difficult to determine, since in several instances,

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communities were founded by immigrant groups themselves in areas that at that time were otherwise generally minimally populated.

Of all the counties enumerated in the 1887 census, those termed "white" are outnumbered by another ethnic group in thirty-eight counties. In this context, the term "whites" denotes people of Northern European ancestry who entered Texas from other regions of the United States, or are descended from such people[1]. Of those counties not dominated by "Mexican" or "colored" groups, seven counties have more Germans than "whites" (Austin, Comal, Fayette, Guadalupe, Kendall, Medina, and Washington). A few also have more than one ethnicity more numerous than "whites." For example, "colored", German, and Bohemian/Moravians all outnumber "whites" in Fayette County. In eight additional counties, "whites" outnumber any single group, but do not constitute a majority of the county population. Of these, four have substantial German populations (De Witt, Galveston, Gillespie, Harris, and Lavaca). Gillespie County is notable because "whites" only outnumber Germans by 426 people, both groups numbering over three thousand each. This cluster of counties known as the German Belt, (Jordan 1970, Jordan 1977) would conceivably have sufficient populations of Germans to influence the communities culturally and politically.[2] Germans also were not a monolithic group, and the term is a shorthand for a group of varied sub-groups. For

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[1] The term "anglo" is used in this study to indicate this group mainly as a practical descriptor. Although technically the term anglo applies to both people outside this group, as well as possibly excluding some in it, it is used to avoid repeatedly using unwieldy and distracting clarifications.

[2] Numbers alone, however, do not guarantee proportional representation. African Americans, although enjoying majority status in several counties, did not generally hold office or wealth to the degree that whites did despite the efforts of African American voter registrars which did result in at least one hundred additional African American office holders during the Reconstruction period (Willett 2005, 104).

example, although Germans are associated with the Lutheran Church, the Kendall County community of Comfort did not have a church for many years because the settlers arriving in 1849 were freethinkers (Reinhardt 1899, Kendall County 1984, Wagner & Klein 2004, Kownslar 2004). It does seem relatively obvious that the German population did exercise influence consistent with their numbers, based upon the prevalence of use of the language, the architecture within the towns, and incidents suggesting a level of organization, such as when Confederate Texas determined that Fredericksburg in Gillespie County required martial law to control the community (Kamphoefner 1999). The fact that Germans represented the third largest ethnic group in Texas by 1860 had implications for smaller groups to settle within Texas as they were influenced by German culture as other aspects of their new Texas environment (Hewitt 1978, Kownslar 2004).

The Czechs were introduced to Texas through the letters of Reverend Ernst Bergmann describing his life at Cat Spring in 1850. One of his letters sent to Moravia eventually influenced Josef Lesikar, a settler who settled with a group nearby Cat Spring in Austin County (Hewitt 1978). This tendency to settle near German towns was almost universal in early Czech immigrants to Texas. Instead of immediately organizing into their own distinctive community, it was often more pragmatic to interact with the already established institutions, since many Czechs could speak German, and many did not oppose church services held in German (Hewitt 1978). Hewett emphasizes their similarities, such as subsistence patterns, language, and cultural overlap (Hewitt 1978). In *Krázná Amerika: A study of the Texas Czechs, 1851-1939*, Machann and Mendl

emphasize the ambivalence between Czech and German settlers (Machann 1983). Both sources, however, agree that Czechs were more comfortable interacting with Germans than with Anglos: "The Germans were a known quantity: the Anglo Americans were not." (Hewitt 1978: 68).

Similar to a relatively large group, such as the Czechs, the Sorbs (Wends) also tended to settle in close relation to established German settlements, first stopping near New Ulm and Industry, then due to perceived crowding, forming the Settlement of Serbin in present-day Lee County (Grider 1982: 33-37). Later, just as some of the Czechs did, the Wends would adopt German language church services, renaming their church from "The First Sorbian Lutheran Church in Texas" to the "First Wendish and German St. Paul's Evangelical Lutheran Church" (Grider 1982). The 1887 census lists 284 Wends residing in Fayette County.

Regardless of specific immigrant group, it seems that they are expressing their own agency in the degree and context of their acculturation. The cases seem to follow an acculturation pattern similar to that described by Gibson in which instead of wholesale adoption of another culture, "acculturation may be an additive process or one in which old and new traits are blended" (Gibson 1988: 24-25). What the census alludes to, and a few sources above seem to de-emphasize, is that to the Wends and the Czechs, assimilating to the German communities in Texas in some cases is the same as assimilating to Texas. The Germans had already begun the process of integrating democratic values into their communities, as well as other aspects of acculturation, such as architectural adaptations for climate (i.e. adding porches, cross ventilation). There was

no need or practical inclination to equate Texas with Anglo, or the trappings of that culture. The resulting cultural region was termed by Terry Jordan as the German belt (Jordan 1966, 1970, 1977).

In 19th Century Texas, immigrants from Northern Europe arrived in diverse groups, but tended to share some general settlement patterns. Yet, each destination was unique and somewhat diverse in its makeup, and they arrived in sufficient numbers and with sufficient influence to produce a distinct regional culture within south central Texas.

Churches and Courthouses in Texas

Within the context of the complexity inherent in 19th century European immigration to Texas described above, and differing circumstances for each community impacted or created by these broad historical trends, it becomes a necessary function of literature review to determine existing typologies and classifications of the two building types included in the current study. These then are adapted and applied to determine the extent that each building included in the study is consistent with the following expectations: Churches tend to maintain architectural traditionalism and support ethnic identity, independent of the seat of local government, and courthouses tend to express little traditional ethnic identity, regardless of influence or relative proportion of a specific ethnic group within a specific county seat.

For the current study, scholarship on Texas churches and courthouses provides a basis for comparative analysis and evaluation. Sacred and civic architectural types have a separate but sometimes similar body of scholarship, and the current study utilizes those

common to both in order to develop criteria for analysis. The research questions in the current study are based upon a body of knowledge regarding the symbolic meaning of these two building types.

Much has been written of meaning embodied in churches. Architectural historian Pheobe Stanton (Stanton 1985: 139), has stated that "perpetuation of tradition is a function of religious buildings". Walter Zelinsky, in *The Cultural Geography of the United States,* called the church the "universal element in the American settlement landscape" (Zelinsky 1973: 101). The importance of the church as transmitter of ethnic identity has not been overlooked, a building type in which "ethnicity was embraced rather than discarded" (Morgan 2004). Although the church building type tends to express traditionalism in building, review suggests that each culture and denomination generally draws from their specific tradition when constructing a church. Catalogues, overviews, and summaries of church architecture serve to illustrate this distinctiveness (Barnes 1982, Driskill & Grisham 1994). Denomination provides much of the information that well accounts for differences found between churches. For example, Catholic canon provides guidelines for churches, dictating arrangement of space, form, orientation, materials, and details (Boudinhon 1910, O'Connell 1955, Dubbelde 2006). In broad surveys other denominations tended to either be represented by sources that describe the manner in which the denomination wished to differentiate from Catholic practice. Sources additionally address ethnic aspects of church architecture. For example, Peterson studies German architecture in rural Minnesota, tracing influences and precedents from the settlers' original homeland that appear in their architecture

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constructed in Minnesota, such as plan, and features typically found in German churches (Peterson 1998). Several sources that address ethnicity in church architecture focus geographically limited to Texas (Barnes 1982, Robinson 1994, Driskill & Grisham 1994). Others also incorporate a more interpretative framework, such as Robinson, who categorizes the churches topically, and contextualizes each within a cultural framework and temporal context (Robinson 1994). In *Holy Things and Profane*, Dell Upton applies a rigorous methodology to the study of Anglican Parish Churches according to consistent sets of characteristics within a cultural context (Upton 1986). Overall, these sources provide a framework to develop associations between architectural characteristics and building traditions associated with denomination and ethnicity.

Similar to the study of churches, much has been written regarding the symbolic meaning embodied in courthouses, Paul Goeldner (1985: 54) states that courthouses are, "prominently located and symbolic of economic aspirations, local pride and civic ideals, the courthouse has stimulated its architects to create designs with pacesetting style and technology in their communities". *From Tavern to Courthouse* explores the development of the American courthouse type from an informal meeting place, often a personal home or tavern, through a formalization process influenced by British architecture often through pattern books such as those produced by Owen Biddle, as well as Jeffersonian ideas about "Temples of Democracy," linking classical architecture and democracy (Andrews 2006; McNamara 2004). The American Courthouse form developed from the colonial meeting houses or town houses of New England, and the house was the early architectural model for the courthouse. This stood in sharp contrast to European

tradition, in which civic buildings were palatial (Greenburg 2006). This may be best

exemplified in Independence Hall, which was based loosely upon the form of a large

scale Georgian house with the addition of a large cupola and tower, and was constructed

by carpenter-builders influenced by contemporary pattern books (Langmead 2009).

Thomas Jefferson introduced a different paradigm for American civic buildings when he

introduced plans for the Virginia Capitol, thus creating precedent for the Classical

temple form as an appropriate template for later designs, evoking associations between

the Roman republic period and the new American republic (Greenburg 2006). Although

symbolically appealing, Jefferson's temple form, with its box-like shape, was not easily

adapted to the various needs of governance, such as the divisions of space into various

courts, chambers and offices. When the U. S. Capitol in Washington, DC was designed

in 1826, the winning design was the second one submitted by Dr. William Thornton. In

1801, when Benjamin Henry Latrobe was designated the first architect of the U. S.

Capitol, he, with Jefferson, further refined the design and interior spaces. The central

space of the US capitol was reserved for the public. This was a symbolic decision to

emphasize the democratic nature of government. To Jefferson the public ideally was the

government, and therefore deserved a central space within the capitol. (Greenburg

2006). In Texas, the symbolic value of the courthouse was recognized and American

associations with courthouse as an icon developed in Texas. Richard Moe, past President

of the National Trust for Historic Preservation stated, "The historic courthouses of

Texas, like their counterparts all over America, are the product of an age when public

buildings were designed to serve an important symbolic function. They were intended to

be brick-and-stone embodiments of the stability of democratic government and the Awesome Majesty of the Rule of Law" (Andrews 2006: 16).

Studies with a focus upon meaning tend to emphasize the cultural importance of the building type, but tend to be of less utility for creation of criteria for comparative analysis of physical characteristics. A related and somewhat overlapping body of knowledge focuses upon characteristics that can be associated with the relative degree of architectural traditionalism and overriding building practice. Survey of these sources produces several categories for analysis applicable to the present study and to both public building types. Several sources are utilized to develop categories for analysis.

The first category, cultural/historical context, is drawn from the preceding literature review sections addressing architecture as an expression of identity and material related to immigration.

The second category for analysis, site, is based upon research that emphasizes the importance of site and spatial relationships in determining meaning, and illustrates the importance and tendency of placement and orientation to be retained over long periods of time. In *Ancient Origins of the Mexican Plaza: From Primordial Sea to Public Space* the authors describe popular arrangements of space, and relationships between buildings, and trace them from an origin in indigenous Mayan culture through a syncretic process to the modern Mexican plaza (Wagner et. al. 2013). The overarching principle that site is often expressive of community culture and shared history as well as an aspect of the built environment that tends to be retained over time, has been applied to Texas, for both churches and courthouses. As well as providing information related to the building

themselves broad architectural surveys, such as *Texas Public Buildings of the Nineteenth Century, Historic Texas Courthouses,* and *Nineteenth Century Churches of Texas* summarize the placement of Texas public buildings to varying degrees, both sacred and civic, and provide some historical context (Robinson 1974; Andrews 2006; Barnes 1982). The most comprehensive study of spatial relationships within Texas county seats is Veselka's *The Courthouse Square in Texas*, which summarizes and systematically categorizes types of courthouse squares in Texas and associates them with their origins and history (Veselka 2000). Veselka's study is mostly directly related to relationships with courthouses, but other studies address orientation, elevation and placement of churches as well (Robinson 1974, Andrews 2006). Dubbelde, in his analysis of church architecture, systematically and comparatively addresses the orientation and relative elevation of churches (Dubbelde 2006).

The third through fifth categories of analysis: design, building technology, and compatibility to local climate, are based upon literature that predominately focuses specifically in the context of discrete buildings. Broad architectural surveys tend to provide descriptions and commonalities of buildings categorized by type, overall style, trends, and advances in building technology. Both *Sacred Power, Sacred Space* and *A History of American Architecture* summarize design and technological trends, including occasionally addressing compatibility to climate, the former specifically or churches, the latter for other building types as well (Kilde 2008, Gelertner 1999). As discrete building types, other than studies of public buildings in general (Robinson & Webb

1974) typological and categorical studies of churches generally remain separate from studies of courthouses.

For the purposes of comparing the design, technology, and compatibility to climate, scholarship of Texas courthouses has generally framed study in terms of a general pattern of development that describes a typical evolutionary process, in which a non-differentiated building is adapted to serve the functions of a courthouse, and subsequent versions become more specialized. General eras of development have been created, based upon overall characteristics of design and form, such as the Golden Age of Courthouses, which began at approximately 1880 and continued through the end of the century (Welch 1971, Welch 1984, Andrews 2006). Within the context of these periods, detailed studies of individual architects also provide analytical categorizations, such as the specific classifications of the various plans designed by J. Riely Gordon (Meister 2011).

Studies of specific characteristics of churches provide the most immediate basis for the current study, in terms of development of categorizations for analysis and methodological approach. In *The Interaction of Climate, Culture, and Building Type on Built Form* and later studies, Geva applies comparative analysis of climate compatibility for immigrant churches and homes. She finds that in the buildings under study, all located in south central Texas, churches tended to retain characteristics that were not well adapted to the local climate in order to maintain their cultural meaning, while houses evolved to accommodate thermal comfort (Geva 1995, Geva 2002). The present study applies this approach to buildings located within county seats in the same

geographical area, allowing confirmation that the traditionalism of churches in the area may also apply to those exposed to potentially greater assimilative influence from proximity to civic life, as well as incorporation within the same study of multiple building types utilizing similar criteria for analysis. Incorporating analysis of climate compatibility as well, Dubbelde, in *Influence of Culture, Faith, Environment, and Building Technology on the Built Form: The Case of Nineteenth Century Catholic Churches in Galveston, Texas* expands upon this methodology and applies several categories for analysis to gain architectural understanding of the buildings included in his study sample. Analyzing culture, faith, environment, and built form, Dubbelde is able to analyze Texas churches comprehensively, determining influences attributed to ethnicity, culture, traditional practice, and church canon (Dubbelde 2006).

In summary, review of available literature provides the broad theoretical framework as well as a body of scholarship that helps shape and contextualize the present comparative study. The theoretical basis is grounded in folklore, cultural geography, and anthropology, as transmitted through studies of vernacular architecture grounded in a broad and holistic context. Studies of immigration provide an understanding of the processes that occur when two cultures meet: assimilation, accommodation, and retention of traditional identity as negotiated through context. The body of knowledge accumulated addressing the architecture of Texas churches and courthouses provides the basis to develop coherent and useful categories for comparative analysis. Some of these studies have specifically addressed the juxtaposition of immigrants to Texas' traditional ideas about building and the stark differences in

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climactic conditions found there, forcing reevaluation of building practice at the

community level (Geva 1995, Geva 2002, Geva & Morris 2010). Despite this, existing

literature indicates that immigrants retained the form of their original churches when

building new ones in the adopted location (Upton 1986, Geva 1995, Geva & Morris

2010). Therefore, it can be expected that churches in the different county seats will differ

to the extent these traditions differ. Conversely, existing literature suggests that in Texas,

civic buildings such as courthouses, regardless of proportions of various ethnicities

within each county, reflect broad architectural trends within Texas. Therefore, the

current study looks into the target courthouses for similarities to these trends. The

apparent contrast between the degree of ethnic expression suggested by existing

literature led to the research question in the present study.

CONCEPTUAL MODEL & RESEARCH HYPOTHESES

Literature review, archival study, and field observations formed the basis for the study's theoretical framework as expressed in the development of a conceptual model (Figure 1). The literature review has established that the retention of traditional architectural form and features is often dependent upon building type (Geva 1995, Geva 2002); and that communities express different aspects of their identity based upon different contexts (Upton & Vlach 1986, Heath 2009). The study's conceptual model integrates these two lines of thought. They are applied in the context of communities in South Central Texas with an established degree of immigration from European countries, arriving directly via Texas' port cities during the mid-to-latter half of the 19th Century.

Figure 1 illustrates immigrants' identity as expressed in their architectural styles and construction. It shows that elements of acculturation, accommodation, assimilation and retention of heritage and traditions are negotiated based upon building type. The upper portion of the model represents immigrant groups' original cultural and civic heritage as expressed in their church and courthouse architecture prior to relocation to the new world. After relocation, depicted at the lower portion of the figure, the architecture of the two building types expresses a different process of acculturation. Despite environmental and cultural differences, typically, churches were highly reminiscent of the churches left in the homeland (Fitch 1982, Upton 1986, Geva 1995, Geva & Morris 2010). Civic buildings, however, were similar to civic buildings in
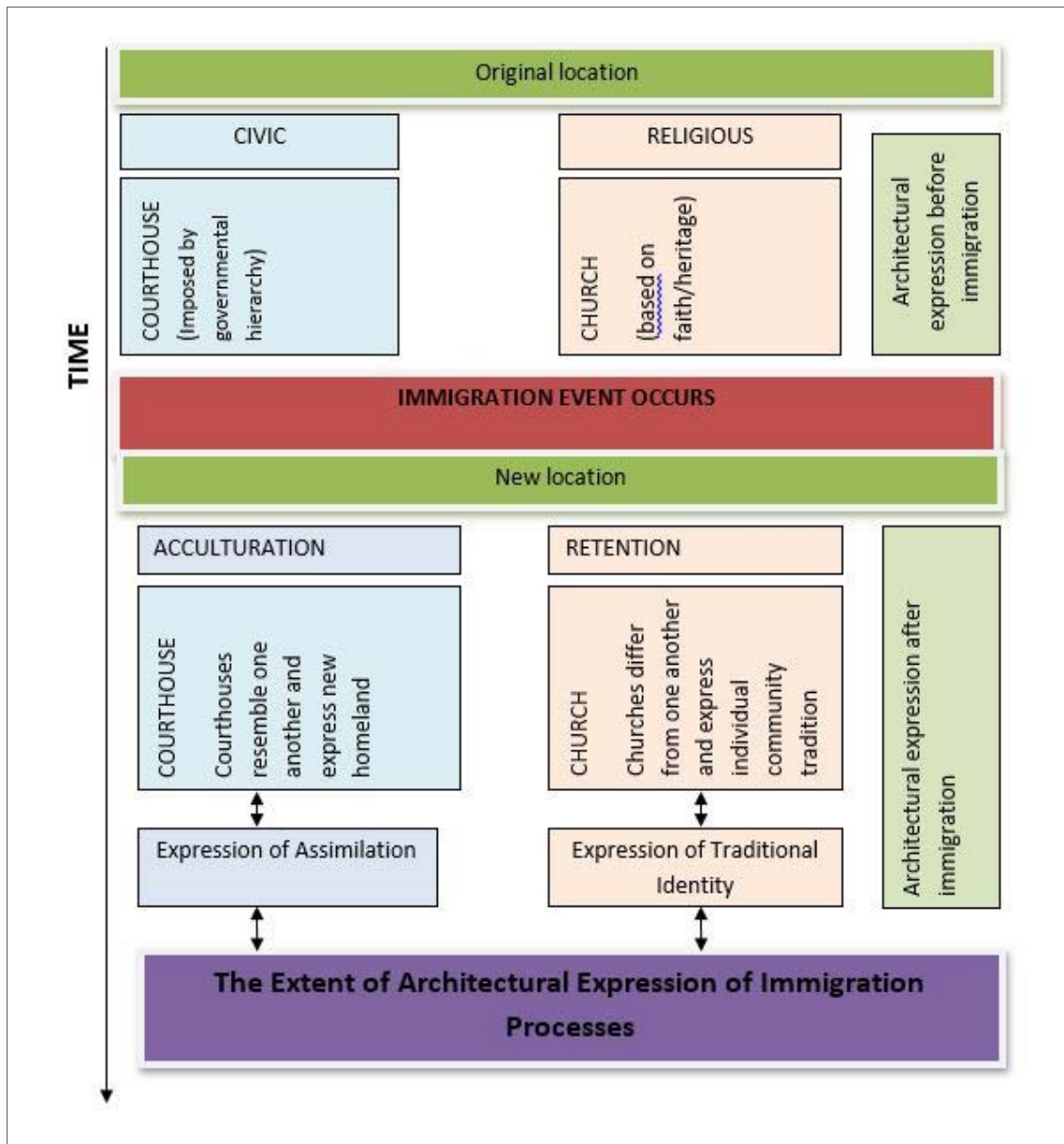
Figure 1. A conceptual model: civic (courthouse) and religious (church) buildings as architectural expressions of immigrants' identity

surrounding areas of the newly adopted location, and were more likely to have been

designed by professional architects drawing from outside and non-traditional sources in

their design decisions. This reflects a community that has internalized and assimilated itself into a context of democracy and American civic life and pride (Sellers 1977). These different architectural solutions illustrate one context in which communities in the study sample expressed particular aspects of their holistic identity, combinations of expressions of traditional identity and assimilation into the identity of the new location. As established through literature review, existing studies of courthouse architecture most generally do not address the influence of ethnicity on courthouse architecture, instead assuming that ethnicity would not be expressed in that context. The literature on churches shows that church architecture within county seats will express ethnicity and denomination, as is typical outside of county seats.

Specifically, the extent of retention of traditional church architecture is an expression of heritage-based identity and confirmation of long held religious belief within the community. This expression is more important than any urge to modify the church to accommodate changes in environmental condition (i.e. climate, materials) or new local cultures. Thus, each ethnic group constructed churches along their own traditional sensibilities, differing from one another to the degree that their traditions differ. In contrast, civic architecture reflects the new political realities within the communities and results in the adoption of civic architecture drawn from practices based in American and Texan democratic building tradition, even in counties dominated by immigrants. Thus, in the case of south central Texas each community regardless of dominant ethnic group constructed courthouses similar to courthouses constructed in

other communities in the state, which are in turn generally derived from other areas of the United States.

<p style="text-align:center">Major Proposition and Research Hypotheses</p>

A major proposition and two hypotheses are drawn from the conceptual model developed in this project:

- Major Proposition: The extent of changes in an immigrant community's architectural expression depends on building type. Thus, two cultural iconic building types were selected to test specific hypotheses; churches and courthouses. Two major hypotheses are drawn from specific application of this proposition:

- Hypothesis 1: If churches represent the original heritage of immigrants' ethnic/religious group, churches built by one ethnic group will differ from those built by another group to the extent that their original architectural traditions differ.

- Hypothesis 2: If courthouses represent civic pride of a state as well as immigrants' assimilation to their newly-adopted land, courthouses built in a county dominated by one particular ethnic group will be similar to those built in a county dominated by a different immigrant group, and all will follow overall trends typical for Texas Courthouses.

In this study, the independent variable consists of the two building types (courthouses and churches) in their various locations. The dependent variable consists of the extent of architectural expression of immigration processes. The operational features

are cultural/historical context, site, design, building technology, and compatibility with local climate.

As shown in the next section "procedure," testing both hypotheses 1 and 2 require accumulating data, developing criteria for analysis, and analyses.

PROCEDURE

Figure 2 represents the research procedure of this study. In order to answer the research questions, and test the hypotheses, three steps were conducted: methodology, results, and conclusion:

Methodology- The methodology includes literature review, data collection, and analysis.

- Literature Review: Literature review shaped the development of the conceptual model, as well as criteria for analysis.

- Data Collection: Preliminary literature review shaped the extent and nature of the data collected. A data collection form was developed to ensure that the collection process was consistent and captured relevant features. It included archival study and on-site fieldwork.

- Analysis: The analysis section describes the following criteria developed and used for analysis:

   o Cultural/historical context: This established the cultural context of the building, the nature and extent of immigrant influence.

   o Site: This determined the extent of immigrant expression of cultural identity in placement and orientation of study buildings.

   o Design: Attributes related to design were collected in order to determine to what degree the buildings expressed architectural traditions of a particular ethnicity, or to what degree the buildings kept contemporary architectural practice of the time.

- Building technology- Data was collected concerning building technology in order to determine to what extent traditional technology was used.
- Compatibility to local climate- Data concerning compatibility to local climate was utilized since the study's immigrant groups emigrated from regions with climatic conditions much colder than found in south central Texas. Thus, the degree to which a building is adapted to the Texas climate suggests an expression of assimilation and architectural adaptation to the different conditions of the new land.
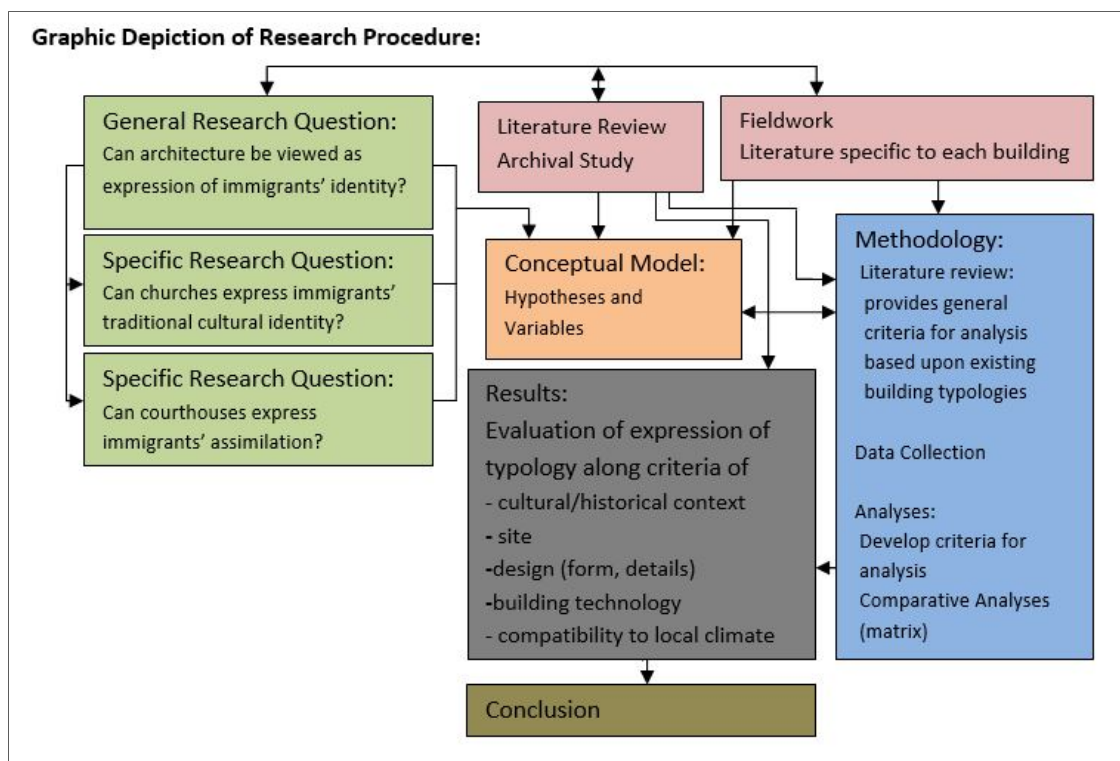
Figure 2. Depiction of research procedure relationships

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Building Selection Criteria

Along the lines of studies conducted as described in the literature review and hypotheses drawn, the counties selected are based on demographics, time and location. Ethnic groups of immigrants, time period, direct European immigration to Texas ports, and location of immigrants' settlement play a major role as selection criteria. Additionally, since culture is a product of a time as well as a place, the time period is also defined as part of the selection criteria for the study (second half of the 19th Century). Within this context, the following are addressed as selection criteria for the study's target buildings: building type, demographic, and location and time:

- Building type: The two building types selected for this study are 19th century churches and county courthouses that are still standing and were constructed in south central Texas county seats. These types of buildings were selected since literature review suggests that both are iconic buildings strongly associated with aspects of community identity.

- Demographic: The general locations where Europeans immigrants ultimately settled is relatively well documented through the federal census (University of Virginia 2004) as well as the 1887 Texas Agricultural census, which lists ethno-linguistic as well as second generation ethnicity information (Foster 2001). The vast majority of these immigrants arriving via the Texas port cities settled in a generally small geographic area. Different ethnic groups settled in specific locations in south central Texas during the nineteenth century. Germans comprised the largest group of northern European immigrants, with an influential

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presence in several south central Texas counties: Comal, Fayette, Guadalupe, Kendall, and Gillespie. Other northern European immigrants settled in counties such as: Czechs in Fayette county, Silesian French in Medina county, and Polish in Bandera county. Many European immigrants settled in other Texas counties during the nineteenth century as well. For the purposes of the present study, the demographic criteria alone resulted in few counties in which immigrants settled being eliminated.

- Location and time: The most fundamental aspect in this study of the cultural expression in architecture is the availability of a potentially influential immigrant population that could be found settling in a relatively localized area during a relatively short time period from a historical standpoint. During the middle to latter part of the 19th Century (1840-1900), the port of Galveston and the port of Indianola served as the major gateway for European immigrants to Texas. Both Germanic and Slavic immigrants were strongly represented in immigration to these two ports. They left their countries to seek better economic conditions as well as ideological and religious freedom (Kamphoefner et al. 1991). The area these immigrants settled, located northwest of Galveston, had been previously relatively sparsely settled by Spanish, Mexican, and an influx of Anglo stock ultimately from the Mid-Atlantic and Tidewater South regions (Collier 2000: 21). The German and Slavic immigrant groups settled in substantial numbers dominated several counties, and contributed their unique influence to south central Texas culture and architecture.

The counties selected in this study are all located in south central Texas. This region was selected for two primary reasons: the same Cfa, humid subtropical climate conditions, and the fact that the region was mainly settled by Eurpoean immigrants. Additionally, these counties fall within the Edwards Plateau ecoregion, characterized by higher elevation, fairly little precipitation, and less fertile soil than the blackland prairie region to the east, which also contained pockets of substantial European immigration but was much more well-suited to cotton production (Gould et al. 1960, Jordan 1966).

The cities selected in this study all served as the county seat and contain both courthouses and churches that were constructed during the latter part of the 19th century. This period of widespread immigration directly from Europe to Texas described above occurred during the period known as the "Century of Immigration", a time of great impact upon the United States in general, and also upon the State of Texas (Daniels 2002: 121). In order to be eligible for selection based upon demographics, the county seat was required to exhibit at least one of two criteria. First, if the county contained a high percentage of immigrant residents as shown in censuses of the time, it would be included. Second, if the county seat community was either founded by a European immigrant group, or an immigration event that could be documented through the historical record occurred, then the community would meet the selection criterion.

In summary, the selection criteria for determination of the buildings in the study are as follows:

- All buildings are either churches or courthouses that are currently still standing.

- All buildings were constructed in an area that has a potentially influential immigrant population that originally arrived through either the port of Galveston or Indianola during the second half of the 19th century.

- All structures are located in South Central Texas, in County seats.

The Elimination Process

Several counties met several of the selection criteria, yet were excluded from the study sample. Many met the selection criteria for demographics, such as Washington and Lee counties, but were outside of the south central Texas geographic area. Others were included in the area geographically, yet no longer contained applicable 19th century buildings located within their county seat, such as Kerr County.

The Selected County Seats and Buildings

Application of all of the specific criteria resulted in selection of seven churches and six courthouses, all located within six counties in the South Central Texas region. The geographic relationships between these counties reflect broad settlement patterns. This cluster of counties, a part of the broad swath of land extending from Galveston through the hill country, informally known as the "German Belt" (Jordan 1977:1-12) would conceivably have sufficient populations of European immigrants to influence the communities politically and culturally. This cluster of counties in south central Texas first became home to German speaking immigrants. Later, immigrant groups arrived who capitalized upon the pre-existing transportation, communication, and infrastructure developed to accommodate immigrants, most notably the Czechs, but also groups arriving in relatively smaller numbers, such as the Wends, Poles, and Alsatians (Jordan

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1977, Hewitt 1978, Machann & Mendl 1983). The Counties selected are Fayette, Comal,

Kendall, Gillespie, Bandera, and Medina, as shown in Figure 3. A further summary of

counties and buildings meeting the selection criteria follows: type; demographic;

location; and time. Since criteria of building type and of location are self-evident, the

former from the building name and the latter from the map below, the descriptions will

focus upon demographic and temporal criteria. Data from relevant censuses is

summarized, to determine rough estimates of immigrant stock, and historical

information is included, in the cases in which the city is selected due to a specific

immigration event, and not predominately on relative numbers.
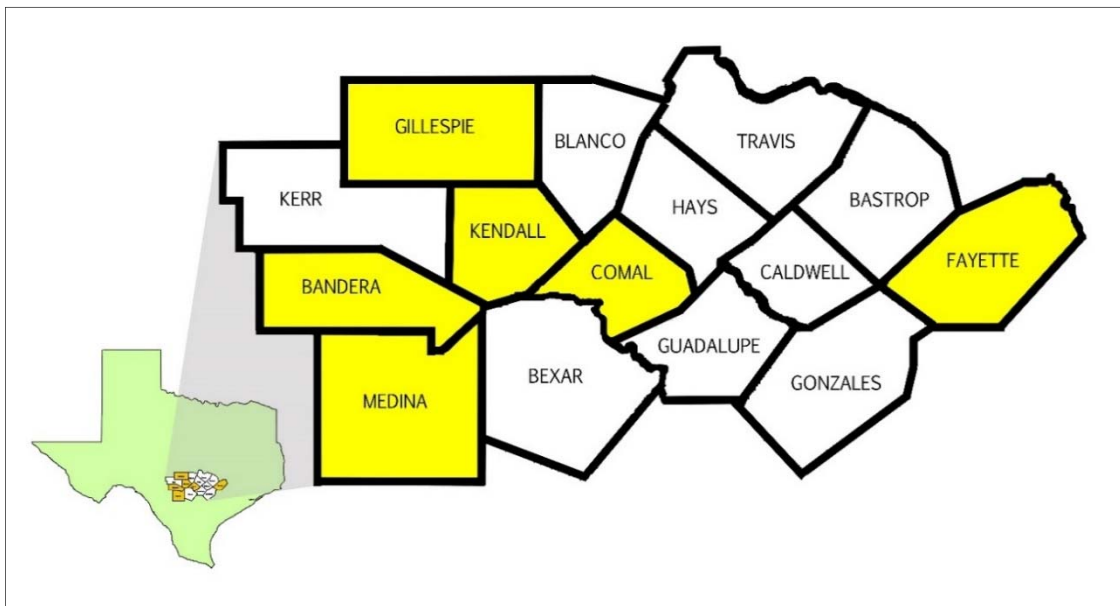
Figure 3. Map of the south central Texas region, with counties meeting all selection criteria shown in yellow

LaGrange, Fayette County, Texas

Figure 4. Representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Fayette County (Foster 2001; University of Virginia 2004)

Fayette County is the easternmost county included in the study area. LaGrange is the county seat. As such, immigrants would settle in that county, or travel through in order to reach the more western counties. This is reflected in the demographics of the county for the Texas 1887 agricultural census as well as the 1870 and 1890 U.S. censuses. Figure 4 shows the 1887 Texas census indicates that the total county

population was 34,040 with 13,901 identified Germans (40%), 6,084

Bohemian/Moravians, 284 Wendish, and 5212 American[3] (Foster 2001).

While the 1887 census captures ethnicity, the 1870 and 1890 Censuses only

suggest ethnicity indirectly, listing foreign born as well as sometimes specific nation of

origin, and foreign parentage. The 1870 census lists 16,863 residents. Of the 3270

foreign born, 2128 (13% of total population, 65% of foreign born) were born in

Germany, 247 born in Bohemia (2% of total population) and less than 1% French. 6144

(34%) persons are listed as born to one or both foreign parents. An estimate based upon

relative proportions of country of origin applied to foreign parentage figures would

produce a figure of 3993 first generation German-Texan. Combined with German born

figures, produces a gross estimate of 6122 (36% of total population) persons of German

ethnicity, discounting any German-Texans of later generations (University of Virginia

2004).

The 1890 U.S. census indicates a population of 31,481, with: 7846 (25% of total

population) foreign born whites, 9001 (29%) native born of foreign parentage, 3667

(12%) German born, and 511 (2%) Bohemian, and less than 1% French and Polish.

Application of the percentage of German born to foreign born whites to the native born

of foreign parentage figure produces an estimate of 4230 1st generation native born of

German parentage. When added to the 1890 German immigrant figure, a very

conservative estimate of 7897 (25%) of German ancestry, noting that this is the most

[3] The number of those described as American is included because, commonly some descendants of Eastern European immigrants would choose to self-identify as American and due to the common practice of the time to equate the term American with those with Caucasian physical characteristics.

recent census, that it is reasonable to expect that the number of persons descended from German immigrants is higher, considering that 2nd and 3rd generations of descendants are not captured in these figures (University of Virginia 2004).

When evaluated together, the three censuses seem to indicate that a conservative estimate approaching 40% of the population of Fayette County may have been of German ethnicity. Other European immigrant ethnicities were much less well represented, with Czechs, either Bohemian or Moravian much less numerous, or possibly subsumed into either the undifferentiated foreign born numbers or classified as German.

Two applicable 19th Century standing structures are located in LaGrange, the seat of Fayette County:

- The Fayette County Courthouse, designed by J. Riely Gordon, was constructed in 1891.

- St. James Episcopal Church, designed by Richard M. Upjohn of New York, opened its doors in 1886. In contrast to other churches in the study sample, St. James is not a denomination typically associated with a European immigrant group, but was included because it could be established that some members of the congregation were of German descent.

- Although LaGrange once had a Lutheran church south of the courthouse square, that building has been demolished.

Figure 5. Representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Comal County (Foster 2001; University of Virginia 2004)

New Braunfels, the Comal County seat, was settled and planned by German immigrants. Figure 5 illustrates county demographics. The demographics of Comal County show Germans as the predominant ethnicity in the county in 1887, according to the Texas agricultural census, the total population was 5714, with 3382 identified Germans (59%), and 1838 American (Foster 2001).

The 1870 census lists a total population of 5283. With 2001 (38%) foreign born, 1878 (36% of total population) were born in Germany, and less than 1% of the county

residents were French or Czech. Within the county, 4576 (87% of total population) persons are counted as born to one or both foreign parents. An estimate based upon relative proportions of country of origin applied to foreign parentage figures would strongly suggest that a great majority of those with foreign parentage were German-Texans within Comal County (University of Virginia 2004).

The 1890 U.S. census indicates a population of 6398, with 1808 (28%) foreign born whites and 3066 (48%) native born of foreign parentage. German born constitute1434 people (22.4% of total population). 511 (2%) individuals are listed as Bohemian, and less than 1% French and Polish. Application of the percentage of German-born to foreign-born whites to the native born of foreign parentage figure produces an estimate of 2391 1st generation native born of German parentage. When added to the 1890 German immigrant figure, a very conservative estimate of 3825 (60%) of the population as either German immigrants or first generation Texas-Germans (University of Virginia 2004).

Together, the three censuses seem to indicate that a conservative estimate of roughly 60% of the population of Comal County was probably of German ethnicity. Considering that the major city within the county, New Braunfels, was founded in the 1840s, this estimate is may be considerably low, due to the significant period of time between initial settlement and the census dates, which would generally fail to effectively capture generations past the children of the initial immigrants.

Three applicable 19th Century standing structures are located in New Braunfels, the seat of Comal County:

- The Comal County Courthouse, designed by J. Riely Gordon, was constructed in 1898.

- Sts. Peter and Paul Catholic Church was constructed in 1871, and the First Protestant Church of New Braunfels was built in 1875.

- In contrast to other communities in the study sample, two churches were selected for New Braunfels. Since the city was planned from the outset to have two churches, one Protestant, and one Catholic, equidistant from the central square, both were included in the study sample.

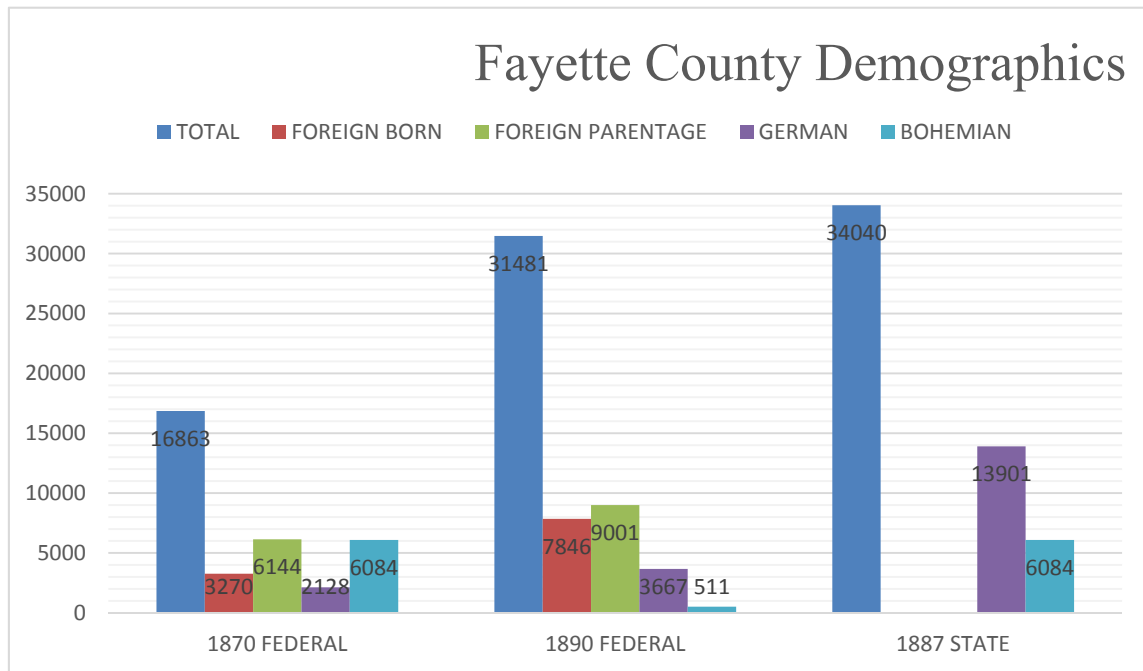*Boerne, Kendall County, Texas*
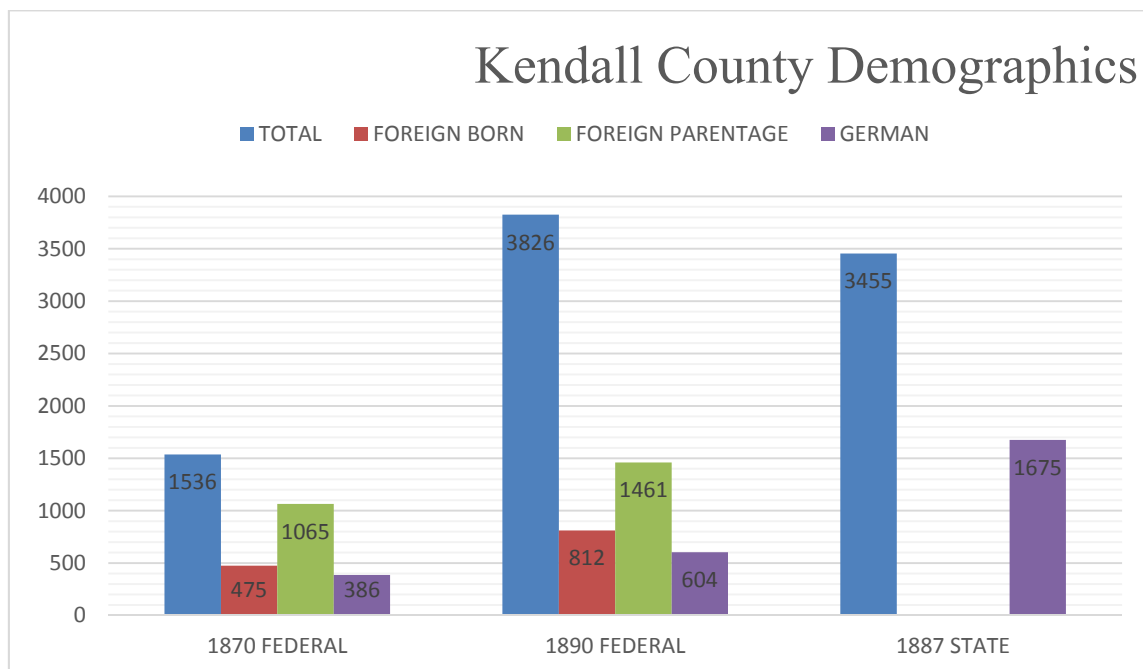
Figure 6. Representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Kendall County (Foster 2001; University of Virginia 2004)

Figure 6 shows demographic information of Kendall County across three censuses. According to the 1887 Texas agricultural census almost half of the population of Kendall County was classified as German. Of the 3455 residents, 1675 (49%) were ethnically German, while 1310 residents identified as American (Foster 2001). Boerne is the seat of Kendall County.

While the 1887 census captures ethnicity directly, the 1870 and 1890 Censuses can be analyzed to develop a general estimate of ethnicity numbers, using foreign born as well as sometimes specific nation of origin, as well as foreign parentage figures. The 1870 census counted a total of 1536 persons within the county. Of the 475 (31%) foreign born, 25.1% 386 (25% of total population) were born in Germany, with less than 1% born in Bohemia or France. Within the county, 1065 (69% of total population) are listed as born to one or both foreign parents. An estimate based upon relative proportions of country of origin applied to foreign parentage data would produce a figure of 862 first generation German-Texan. Combined with German born figures, this produces a gross estimate of 1248 (81% of total population) persons of German ethnicity, discounting any German-Texans of later generations (University of Virginia 2004).

The 1890 U.S. census indicates a population of 3,826, with: 812 (21%) foreign born whites, 1461 (38%) native born of foreign parentage, 604 (16%) German born, and less than 1% French, Bohemian or Polish. Application of the percentage of German-born to foreign born whites to the native born of foreign parentage figure produces an estimate of 1081 1st generation native born of German parentage. When added to the 1890 German immigrant figure, a very conservative estimate of 1685 (44%) of German

ancestry, noting that it is reasonable to expect that the number of persons descended from German immigrants is higher, considering that 2nd and 3rd generations of descendants are not captured in these figures (University of Virginia 2004).

When evaluated together, the three censuses seem to indicate that a conservative estimate that over half of the population of Kendall County may have been of German ethnicity. Other European immigrant ethnicities were much less well represented, with Czechs, either Bohemian or Moravian much less numerous, or possibly subsumed into either the undifferentiated foreign born numbers or classified as German.

Two applicable 19th Century standing structures are located in Boerne, the seat of Kendall County since its formation:

- The Kendall County Courthouse was constructed in 1870.
- St. Peter the Apostle Catholic Church was built sometime around 1860 by George Kendall, outside the City Limits of Boerne, as the freethinkers who founded the City had instituted a rule prohibiting religious buildings within city limits.
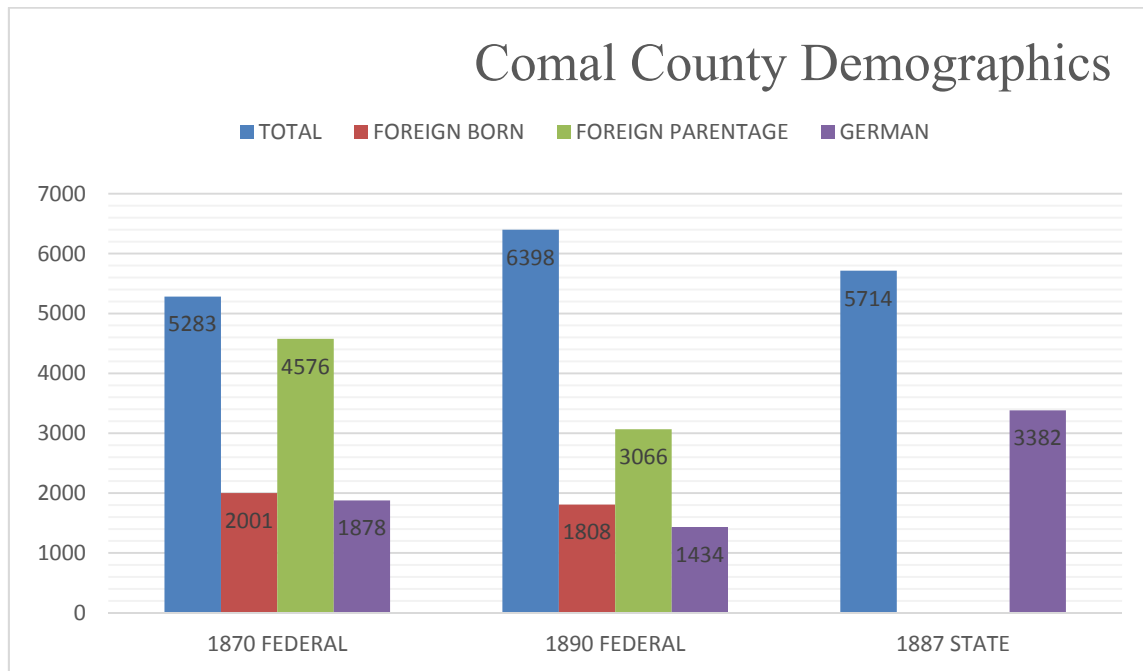
Fredericksburg, Gillespie County, Texas

Figure 7. Representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Gillespie County (Foster 2001; University of Virginia 2004)

Fredericksburg, the Gillespie County seat, was founded by German immigrants. Figure 7 shows demographic information of Gillespie County across three censuses. The 1887 Texas census counted 3163 Germans (46% of total population), and 3589 Americans, of a total population of 6939 (Foster 2001).

The 1870 census lists 3,566 residents. Of the 1288 (36%) foreign born, 1245 (96% of foreign born) were born in Germany, and less than 1% were French or Bohemian. 3137 (88% of total population) persons are listed as born to one or both

foreign parents. An estimate based upon relative proportions of country of origin applied to foreign parentage figures indicates that a strong majority of Gillespie County residents were German-Texan. (University of Virginia 2004).

The total population recorded in the 1890 U.S. census was 7056, with: 1106 (16%) foreign born whites, 3042 (43%) native born of foreign parentage, 1024 (15%) German born, and less than 1% Bohemian, French or Polish. Considering that almost 93% of foreign born whites in Gillespie County were listed as German, it is reasonable to estimate that most of the native born of foreign parentage were of German stock. The percentage of German born to foreign born whites to the native born of foreign parentage figure produces an estimate of 4230 1st generation native born of German parentage. When added to the 1890 German immigrant figure, a very conservative estimate of a minimum of 3853 (55%) of German ancestry. Noting that this census was recorded approximately forty years after the founding of Fredericksburg, it is reasonable to expect that the number of persons descended from German immigrants is higher, considering that 2nd and 3rd generations of descendants are not captured in these figures (University of Virginia 2004).

Two applicable 19th Century standing structures are located within Fredericksburg, Gillespie County:

- The Gillespie Courthouse, designed by Alfred Giles, was constructed in 1882.
- The Zion Lutheran Church was constructed in 1853, shortly after the city was founded.

- A Catholic church, St. Mary's was also constructed within the city, but was not included in the study sample: Initially, for each county seat, one applicable church and one courthouse were selected. New Braunfels represents a unique exception to this pattern because both churches were established when the town was platted, and placed equal and opposite distances from the center of the city. In Fredericksburg, the Zion Lutheran Church was selected because no other Lutheran churches were included in the study sample, and Catholic churches were already the most well-represented denomination.

Castroville, Medina County, Texas

Medina County Demographics

Legend: TOTAL, FOREIGN BORN, FOREIGN PARENTAGE, GERMAN, ALSATIAN, FRENCH

1870 FEDERAL: 2078, 698, 1754, 336, 297
1890 FEDERAL: 5730, 866, 1754, 424, 220
1887 STATE: 4231, 2071, 109
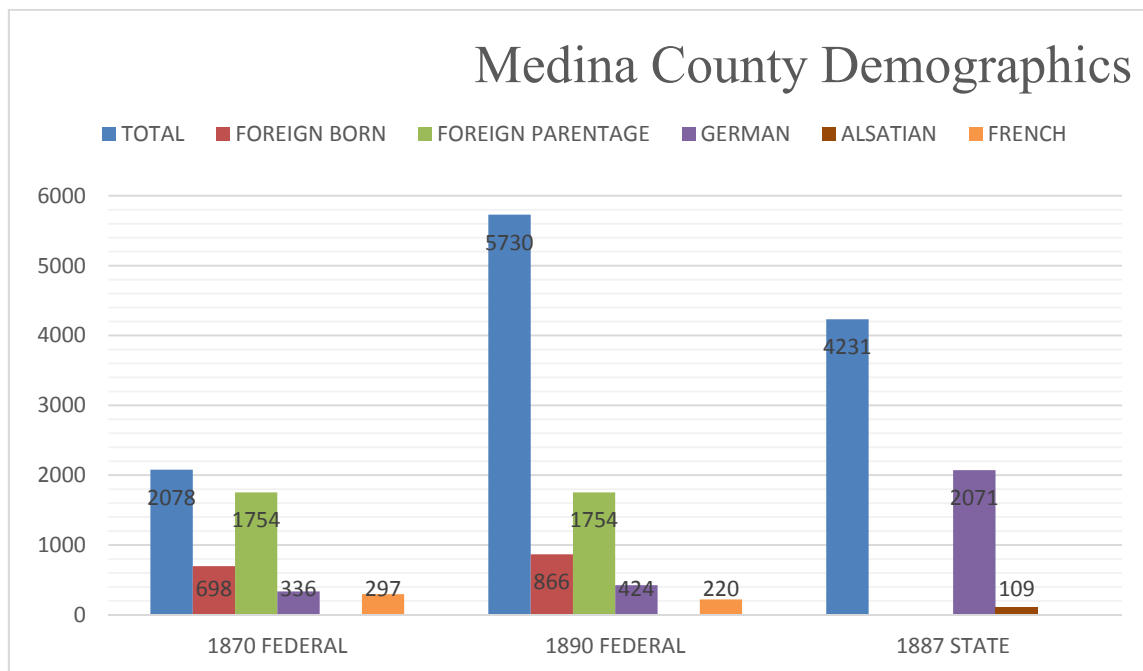
Figure 8. Graphic representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Medina County (Foster 2001; University of Virginia 2004)

Organized by Frenchman Henri Castro, the initial settlement of Castroville, the Medina County seat, was accomplished by immigrants from the Alsace region (southeast of France bordering Germany). Figure 8 shows Medina County demographic information of across three censuses. The 1887 Census recorded 2071 Germans, 109 Alsatians, and 1822 Americans in the county (Foster 2001).

The 1870 U.S. census lists 2,078 residents. Of the 698 (34%) foreign born, 336 were born in Germany, and 297 were born in France. Less than 1% were classified as Bohemian. 84.4% 1754 (84%) persons are listed as born to one or both foreign parents. (University of Virginia 2004).

The total population recorded in the 1890 U.S. census was 5730, with: 866 (15%) foreign born whites, 1754 (31%) native born of foreign parentage, 424 (7%) German born, and, 220 (4%) French and less than 1% Bohemian or Polish.

Medina County represents a contrast to the more heavily German represented counties of Comal, Gillespie, and Kendall. Unlike those counties, Medina County has a significant number of French or Alsatian residents, which can be explained by the Castroville settlement. Since the historical record suggests a strong Alsatian presence in the region (Jordan 1977) the relatively low numbers of people identifying as Alsatian French in the census may be explained by the fact that Alsace was annexed by Germany from 1871 to 1918, and the Alsatians actually spoke and wrote a German dialect (Jordan 1977), suggesting that their self-identity was more regional than national, which could affect which classification an individual would be identified under. Despite these complications, the high percentage of native born persons of foreign parentage in the

U.S. censuses is still best explained by attributing most of these persons to Alsatian and German ancestry.

Two applicable 19th Century standing structures are located in Castroville, the seat of Medina County:

- The Medina County Courthouse, designed by architect R. Hollub, was constructed in 1879.

- St. Louis Catholic Church was constructed in 1868, designed by Rev. Peter Richard, from Loire, France and was built by local parishioners.
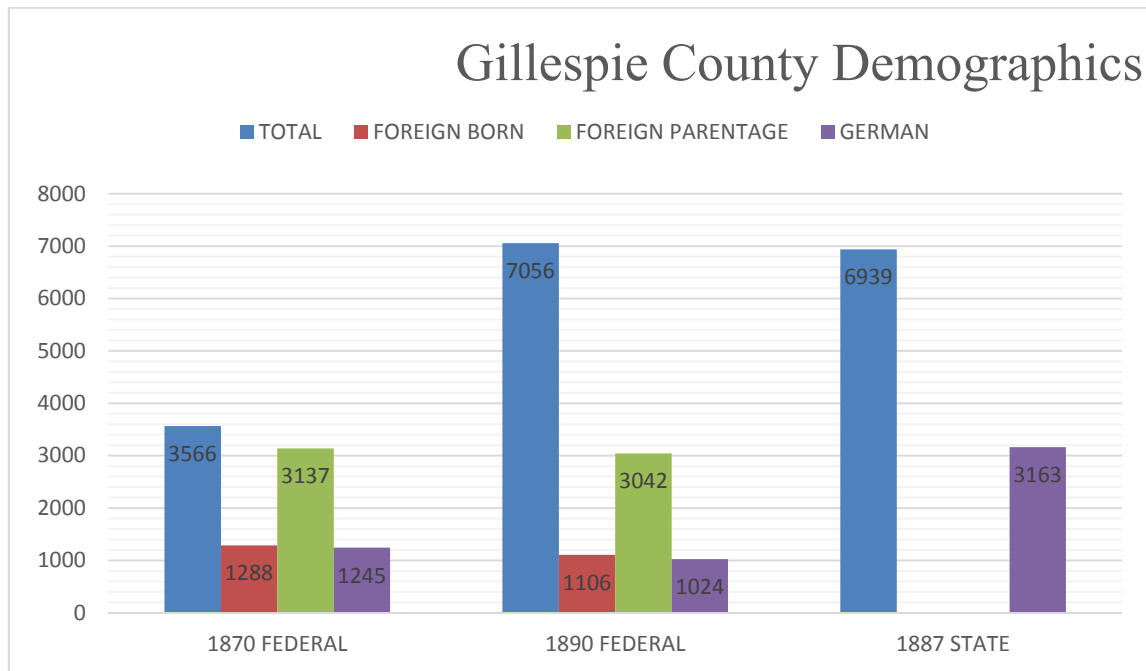
Bandera, Bandera County, Texas
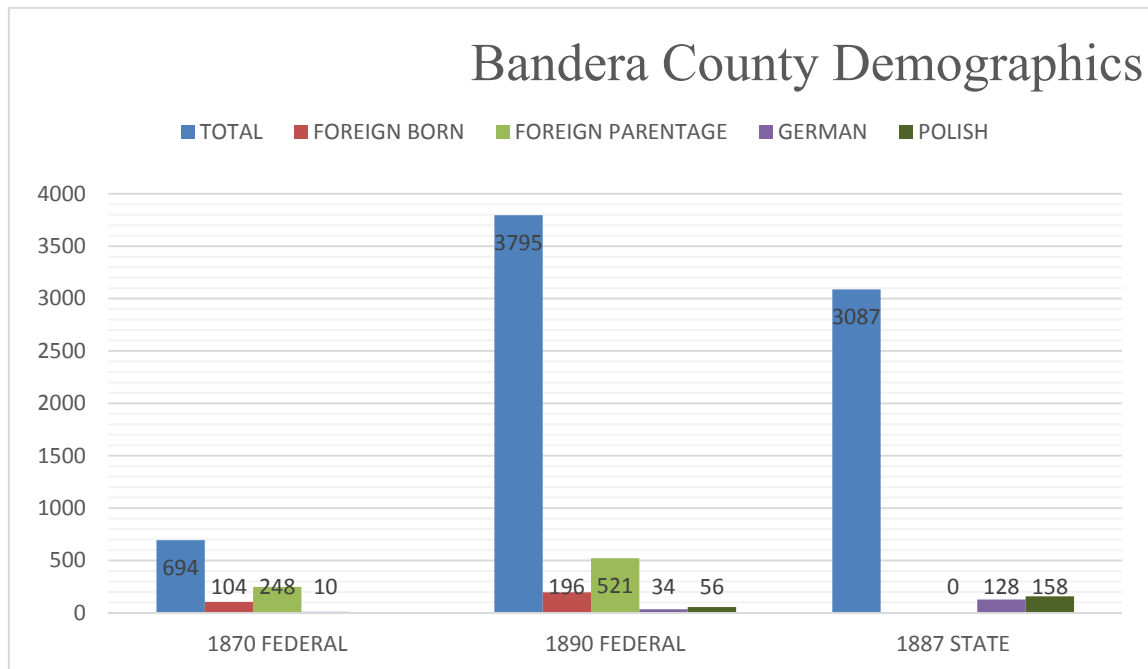
Figure 9. Representation of 1870 and 1890 U.S. Census data, and 1887-1888 Texas Census data for Bandera County (Foster 2001; University of Virginia 2004)

Figure 9 shows Medina County demographic information of across three censuses. Census data shows that the majority of Bandera County was populated by Americans (Foster 2001). Of a total population of 3087, 158 were classified as ethnically Polish, and 128 as ethnically German.

The 1870 census lists 694 residents. Of the 104 foreign born, 10 were born in Germany. The number of Polish was not recorded.

The 1890 U.S. census indicates a population of 3795, with: 196 (5% of total population) foreign born whites, 521 (14%) native born of foreign parentage, 34 (12%) German born, and 56 (1%) Polish (University of Virginia 2004).

Whereas the other counties included in the study sample contain a substantial percentage of ethnicities originating from European immigrants arriving through Galveston or Indianola, Bandera County was included in the study sample because of a discrete immigration event consisting of 16 Polish families that had arrived in Galveston aboard a ship, the *Weser* (St. Stanislaus 2005). Although relatively small in number to total population, the Bandera Poles appeared to participate in civic life early on, as several signed the petition to form Bandera County, and a prominent citizen, Kaspar Dugosh, served several terms as County Commissioner (St. Stanislaus 2005).

Two applicable 19th Century standing structures are located within Bandera, the seat of Bandera County:

- The Bandera County Courthouse, designed by B. F. Trester, and constructed in 1891.
- St. Stanislaus Catholic Church was constructed by the congregation in 1876.

METHODOLOGY

To test the research hypotheses, comparative case study research combined with archival study, as well as a small sample model of analysis forms the basis of the research design of this study. The study utilizes a small sample design with a priori contrast of main factors in the above research design. This design has been influenced by several approaches, which focus on understanding cultural aspects of architecture. Researchers in several fields have utilized this method in order to increase sample size beyond that found in simple case study, while enabling collection of relevant data to be used for comparative purposes (Glassie 1975, Geva 1995, Lara 2001, Lara 2008, Groat & Wang 2002). In 1975, Henry Glassie published his book on folk housing in middle Virginia. In that study, he collected data such as the location of each house, its orientation, elevations, and measurements. He then developed a set of typologies to understand change over time (Glassie 1975). More specific to the geographic region of interest in this study, Anat Geva's study of historic Texas houses and churches utilized typology to unearth the nature and extent of interaction of culture, environment, and built form (Geva 1995). Fernando Lara combined archival research with formal analysis of design and layouts in several modernist residences in the city of Belo Horizonte, Brazil (Lara 2001). From this data he was able to discover patterns and relationship typologies which were not immediately apparent pertaining to his topic in terms of both the built environment and cultural and social factors as well (Groat & Wang 2002). In another case, Lara explored modernism in residential architecture in Brazil through

collecting information regarding the form, materials, elements, and composition of the homes in addition to interviews and archival studies (Lara 2008).

The methodology section consists of two subsections: Data Collection, and Analysis. The data collection section contains a description of the sources of data, a description of the data collection matrix, and a summary of the data collected for each building. The Analysis section contains a description of the criteria to be used as an interpretational analytical framework.

Data Collection

Following the selection of the counties in south central Texas and the churches and courthouses within the county seats, a data collection process was conducted and consists of two major aspects: archival studies, and field visits

Archival studies documentation was based on the Texas Historic Commission archive, courthouse records and archives, and church documents, local libraries and historical societies, as well as relevant publications to each case (i.e. books and articles).

Field visits consisted of survey of the target buildings. These were in-person, and included observations of the buildings, taking digital photographs of the exterior and interiors, and recording measurements and notes regarding the physical features of the buildings.

Matrix

Comparative analysis between buildings requires standardized data collection. Based on Dubbelde's typology matrix (2006), the following categories for data collection were developed: cultural/historical context, site, design, and building

technology. Along the lines of these categories, the specific information obtained

concerning each building includes background information such as name, location,

cultural affiliation of owners, builders and architect(s), date of construction,

cultural/historical context, as well as physical characteristics of each building organized

by category. Field visits served to determine the accuracy of historical descriptions of

the buildings in the literature and archives, as well as to collect data not available from

other sources. The information regarding the physical characteristics of the buildings in

the study such as site, design and building technology were recorded in a consistent

manner in order to facilitate evaluation and comparison between buildings in the results

section of this document. A matrix was developed for data collection to include:

Site:

- Location in city, including orientation and elevation

Design:

- Plan of building

- Floor area

- Number of stories

- Overall architectural style

- Use or avoidance of symmetry in design

- Extent and nature of ornamental detail

- When applicable, descriptors of the primary façade, such as portico, columns, staircase

- Description of fenestration pattern

- Description of roof, including shape, pitch, and vertical elements such as domes or towers

Building Technology:

- Materials used in: foundation, walls, roof, floors, columns, etc.

- Description of the structural system and its elements

- Description of systems: light, thermal comfort

The data collection descriptions immediately following contain information of the settlement context of each county seat, presented within the overall context of the county, followed by a summary of data collected specific to each building, arranged in tabular format.

Data Collection Descriptions

Fayette County and LaGrange Historic Context

Fayette County is the easternmost county of those included in the study sample. Of these, it is the county with the earliest pattern of European settlers arriving via the port cities of Galveston and/or Indianola. Part of Austin Colony, Fayette County was chronologically the first county in the study area to be settled by significant numbers of non-native Americans, as well as serving as a primary stop for European immigrants who would later found their own communities farther west (Ray 1970, Lotto 1981). Located along the La Bahia Road, in Fayette County, LaGrange was a thriving community during the early-to-mid 19th Century, and benefitted from the traffic along the road. The first Germans in present-day Fayette County arrived as part of Austin Colony (Von Rosenberg 1986). The German colony known as Nassau Farm, established

by the Aldersverein in 1843, would become the most significant settlement point for Germans in the area. In addition to this wave of German immigrants, beginning in the 1850's Czech and Wendish immigrants started to arrive in substantial numbers. Soon, the community of Fayetteville would serve Czechs similarly to the way Nassau farm did Germans (Von Rosenberg 1986, Medina 1996). The influence and land holdings of European immigrants increased following the Civil War. By the end of the 19th Century, Fayette County and the city of LaGrange were populated by a diverse array of residents, as exemplified by the existence of Czech and German language newspapers (Sinks 1897). Two buildings are studied in LaGrange: the St. James Episcopal Church and the Fayette County Courthouse. Table 1 shows historic context information for Fayette County and LaGrange.

Table 1. Historic Context Summary for LaGrange and Fayette County

COUNTY	FAYETTE
CITY	LAGRANGE
FOUNDING ETHNICITY OF COUNTY SEAT	COLONISTS PREDOMINATELY FROM SOUTHEASTERN U.S.
PREDOMINANT EUROPEAN ETHNICITIES IN COUNTY	GERMAN, CZECH

LaGrange: St James Episcopal Church (1886) Data Collection Summary

      The first churches in LaGrange were denominations commonly found in the old south such as Methodist, Baptist, Presbyterian, and Episcopal (Medina 1996). The

arrival of European immigrants precipitated development of additional denominations, such as Lutheran and Catholic (Driskill & Drisham 1994). In LaGrange, no churches built primarily for or by a European immigrant congregation during the 19th Century are still standing. Although St. James Episcopal was not specifically associated with an immigrant group, it was not uncommon to find German and Slavic names in congregation lists, St. James records list names such as Reichert, Meyenberg, Luckenbach and Kaulbach in lists of congregation members from early congregation lists (Fuller 1976). As shown in Figure 10, St. James Episcopal Church was designed in the Queen Anne style, closely associated with Anglican tradition by architect Richard M. Upjohn of New York, working in a style popularized by his father (Fuller 1976).

Table 2 is a summary of data collected for St. James Episcopal Church.

Figure 10. St. James Episcopal Church, LaGrange

Table 2. Data collection summary for St. James Episcopal Church, LaGrange, Fayette County

COUNTY	FAYETTE
CITY	LAGRANGE
NAME OF BUILDING	ST. JAMES EPISCOPAL CHURCH
CONSTRUCTION DATE	1885-1886
DESIGNER INFORMATION	RICHARD M. UPJOHN, ARCHITECT. NEW YORK
BUILDER/CONTRACTOR	CARL MICHAELIS BUILDER. INTERIOR: REV. MR. SMITH DESIGNED ALTAR, LECTERN, COMMUNION RAIL, WINDOW DESIGN, AND MUCH OF REMOVABLE FURNISHINGS. PEWS BUILT BY MR. FRANK REICHERT'S SHOP
CULTURE OF COMMUNITY	MIX OF ANGLO, CZECH, AND GERMAN
OWNERS INFORMATION	OWNED BY LOCAL CONGREGATION

SITE:

ORIENTATION (BEARING)	WEST
LOCATION	29°54'29.13"N 96°52'25.14"W
ELEVATION	278 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	LINEAR CROSS PLAN WITH TOWER
FLOOR AREA	NAVE APPROXIMATELY 26' BY 70' WITH 11'X11' EXTENSIONS AT TRANSEPT
NUMBER OF STORIES	1
OVERALL STYLE	STICK
SYMMETRY	ASYMMETRICAL
ORNAMENTAL DETAIL	ORNAMENTAL WOODWORK
MAIN FAÇADE:	
PORCH	2 WOODEN ENTRY PORCHES
COLUMNS	RELATIVELY UNORNAMENTED WOODEN COLUMNS SUPPORTING PORCH ROOFS
STAIRCASE	3 STEPS INTEGRATED INTO PORCHES
OPENINGS:	
FENESTRATION PATTERN	TWO SQUARE TRIPLE WINDOWS AT SIDES OF NAVE WITH LARGE WINDOWS AT TRANSCEPT AND APSE
ROOF DESCRIPTION:	
SHAPE	CRUCIFORM
PITCH	APPROXIMATELY 70 DEGREES
VERTICAL ELEMENTS:	
TOWER	LARGE 4-SIDED TOWER WITH 8-SIDED HIPPED ROOF PLACED ASYMMETRICALLY
DOME	NO

Table 2. Continued

COUNTY	FAYETTE
CITY	LAGRANGE

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	WOOD
WALLS	WOOD
ROOF	ORIGINALLY WOODEN, NOW COMPOSITION
FLOORS	HARDWOOD
COLUMNS	WOOD
PORTICO	WOOD
VERTICAL ELEMENTS:	WOOD
STRUCTURAL SYSTEM:	
FOUNDATION	WOOD FRAME
WALLS	WOOD FRAME
ROOF	ROOF TRUSSES DESIGNED TO RESEMBLE INVERTED SHIP BRACING
FLOORS	PIER AND BEAM
COLUMNS	WOODEN FRAMING
PORTICO	SMALL WOODEN PORCH
VERTICAL ELEMENTS:	WOODEN GOTHIC TOWER
SYSTEMS :	
NATURAL LIGHT DIRECTION	FROM SIDES
THERMAL COMFORT: VENTILATION	LOUVERED, SCREENED OPENINGS IN WALLS WITH REMOVABLE INTERIOR PANELS DESIGNED FOR VENTILATION- AIR CONDITIONING NOT ADDED UNTIL 1970S
THERMAL COMFORT: SHADING	SELF-SHADING FROM TOWER
THERMAL COMFORT: INSULATION	NO REFERENCES TO INSULATION

LaGrange: Fayette County Courthouse (1891) Data Collection Summary

The present Fayette County Courthouse, shown below in Figure 11, is the 4th building to be officially designated as the county's courthouse (Welch 1971). In a common development pattern for area counties, each courthouse became more formalized in form and grander in scale. The first courthouse was built as a grocery store

and was then relocated to the square, in use from 1838 to 1848. The second was built in 1848. It was a two story wooden building with a bell. From 1855 to 1890 a two story stone building served as the County Courthouse (Welch 1984).The current Fayette county Courthouse has been called a "German inspired version on the Richardson Romanesque" and influenced by the Allegheny county Courthouse in Pittsburgh, Pennsylvania (Andrews 2006, Meister 2011:46).

Table 3 is a summary of data collected for the Fayette County Courthouse.

Figure 11. Fayette County Courthouse, LaGrange

Table 3. Data collection summary for St. James Episcopal Church, LaGrange, Fayette County

COUNTY	FAYETTE
CITY	LAGRANGE
NAME OF BUILDING	ST. JAMES EPISCOPAL CHURCH
CONSTRUCTION DATE	1885-1886
DESIGNER INFORMATION	RICHARD M. UPJOHN, ARCHITECT. NEW YORK
BUILDER/CONTRACTOR	CARL MICHAELIS BUILDER. INTERIOR: REV. MR. SMITH DESIGNED ALTAR, LECTERN, COMMUNION RAIL, WINDOW DESIGN, AND MUCH OF REMOVABLE FURNISHINGS. PEWS BUILT BY MR. FRANK REICHERT'S SHOP
CULTURE OF COMMUNITY	MIX OF ANGLO, CZECH, AND GERMAN
OWNERS INFORMATION	OWNED BY LOCAL CONGREGATION

SITE:

ORIENTATION (BEARING)	WEST
LOCATION	29°54'29.13"N 96°52'25.14"W
ELEVATION	278 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	LINEAR CROSS PLAN WITH TOWER
FLOOR AREA	NAVE APPROXIMATELY 26' BY 70' WITH 11'X11' EXTENSIONS AT TRANSEPT
NUMBER OF STORIES	1
OVERALL STYLE	STICK
SYMMETRY	ASYMMETRICAL
ORNAMENTAL DETAIL	ORNAMENTAL WOODWORK
MAIN FAÇADE:	
PORCH	2 WOODEN ENTRY PORCHES
COLUMNS	RELATIVELY UNORNAMENTED WOODEN COLUMNS SUPPORTING PORCH ROOFS
STAIRCASE	3 STEPS INTEGRATED INTO PORCHES
OPENINGS:	
FENESTRATION PATTERN	TWO SQUARE TRIPLE WINDOWS AT SIDES OF NAVE WITH LARGE WINDOWS AT TRANSCEPT AND APSE
ROOF DESCRIPTION:	
SHAPE	CRUCIFORM
PITCH	APPROXIMATELY 70 DEGREES
VERTICAL ELEMENTS:	
TOWER	LARGE 4-SIDED TOWER WITH 8-SIDED HIPPED ROOF PLACED ASYMMETRICALLY
DOME	NO

Table 3. Continued

COUNTY	FAYETTE
CITY	LAGRANGE

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	BELTON WHITE LIMESTONE
WALLS	BELTON WHITE LIMESTONE AND MULDOON BLUE SANDSTONE, RED PECOS SANDSTONE STRING COURSES
ROOF	ORIGINALLY SLATE AND SPANISH TILE
FLOORS	STONE
COLUMNS	POLISHED PINK BURNET GRANITE
PORTICO	BELTON WHITE STONE AND MULDOON BLUE SANDSTONE
VERTICAL ELEMENTS:	BELTON WHITE STONE AND MULDOON BLUE SANDSTONE
STRUCTURAL SYSTEM:	
FOUNDATION	STONE ON GRADE
WALLS	LOAD BEARING BRICK AND STONE ASHLAR MASONRY
ROOF	WOODEN TRUSS
FLOORS	BEAMS
COLUMNS	LOAD BEARING MASONRY
PORTICO	ARCH
VERTICAL ELEMENTS:	LOAD BEARING STONE ASHLAR MASONRY
SYSTEMS:	
NATURAL LIGHT DIRECTION:	ABOVE, CENTRAL COURTYARD, AND EXTERIOR WALLS
THERMAL COMFORT: VENTILATION	PASSIVE VENTILATION FROM EXTERIOR, AS WELL AS CENTRAL COURTYARD, WITHIN AND BETWEEN FLOORS
THERMAL COMFORT: SHADING	EXTENSIVE SELF-SHADING
THERMAL COMFORT: INSULATION	THICK MASONRY

Comal County and New Braunfels Historic Context

The *Aldersverein*, also known as the Society for the Protection of German Immigrants in Texas, was formed by Count von Castell of Nassau, Prince Frederick of Prussia, Duke Ernst of Saxe-Coburg, as well as Prince Karl of Solms-Braunfels, who was in charge of founding the settlement of New Braunfels (Stockman 2003). The April

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24, 1844 edition of *Alte und Neue Welt*, a German newspaper printed in Philadelphia, described the settlement efforts as follows: "The much talked of German Colonization Project of Texas will now shortly be commenced to be carried into effect…..This transport consist chiefly of the poor nailsmiths from the mountain villages of Taunus in the Principality of Nassau, whose trade theretofore carried on, has been paralyzed by the introduction of machinery, and has since entirely ceased even to afford them a scanty subsistence" (Haas 1968: 17).

By March 21, 1845, Prince Karl and the settlers arrived at what would become New Braunfels. Under the direction of the Prince, engineer Nicolaus Zink surveyed the site, located northeast of San Antonio, and laid it out according to a grid plan defined by the two pre-existing roads, the Old San Antonio Road extending from northeast to southwest, and a perpendicular road extending southeast, leading to Seguin. A prominent main plaza the *MarktPlatz*, or *Platz*, was located at this crossroads. Zink chose this plan derived from traditional German planning practice, in which an open marketplace is the focal point of the community, serving as the center of the city. By April, city lots were allocated to individual settlers, except for two notable exceptions. Three buildings are studied in New Braunfels: the Sts. Peter and Paul Catholic Church, the First Protestant Church, and the Comal County Courthouse. Table 4 shows historic context information for Comal County and New Braunfels.

Table 4. Historic context summary of New Braunfels and Comal County

COUNTY	COMAL
CITY	NEW BRAUNFELS
FOUNDING ETHNICITY OF COUNTY SEAT	GERMAN SETTLERS THROUGH THE ALDERSVEREIN
PREDOMINANT EASTERN EUROPEAN ETHNICITY IN COUNTY	GERMAN

New Braunfels: Sts. Peter and Paul Catholic Church (1871) Data Collection Summary

The Catholic immigrants to New Braunfels received a tract of land to build a church. In 1849 Bishop John Mary Odin oversaw the construction of the original church, a log structure, on a small hill known by residents as *Lustiger Strumf*, translated as Happy Stocking. Few specific records of this original church remain, but it is believed that black walnut was used in its construction. Due to difficulties created by the Civil war, the parishioners did not construct the current Sts. Peter and Paul Catholic Church (Figure 12) until 1871 under the direction of Bishop Dubuis (Davenport 1974).

Table 5 contains a summary of data collected for Sts. Peter and Paul Catholic Church.

Figure 12. Sts. Peter and Paul Catholic Church, New Braunfels

Table 5. Data collection summary for Sts. Peter & Paul Catholic Church, New Braunfels, Comal County

COUNTY	COMAL
CITY	NEW BRAUNFELS
NAME OF BUILDING	STS. PETER AND PAUL CHURCH (CATHOLIC)
CONSTRUCTION DATE	1871
DESIGNER INFORMATION	UNKNOWN- PLANS MADE IN 1860 UNDER DIRECTION OF FATHER F. X. WENNINGER
BUILDER/CONTRACTOR	UNKNOWN
CULTURE	GERMAN
OWNERS INFORMATION	UNDER DIRECTION OF BISHOP CLAUDIUS MARIA DUBUIS

SITE:

ORIENTATION(BEARING)	SOUTHEAST
LOCATION	29°42'13.17"N 98°7'42.14"W
ELEVATION	649 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	CROSS ORIGINALLY DESIGNED WITH 2 TOWERS- BUILT WITH ONE
FLOOR AREA	60 BY 105 DESIGN- 56 BY 77 AS BUILT
NUMBER OF STORIES	1
OVERALL STYLE	GOTHIC
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	LIMESTONE
MAIN FAÇADE:	
PORCH	ARCHED
COLUMNS	CYLINDRICAL
STAIRCASE	4 STEPS
OPENINGS:	
FENESTRATION PATTERN	GOTHIC POINTED STAINED GLASS WINDOWS FLANKING ENTRY, WITH CENTRAL ROSE WINDOW
ROOF:	
SHAPE	CRUCIFORM
PITCH	APPROX 45 DEGREES
VERTICAL ELEMENTS:	
TOWER	SQUARE TOWER
DOME	NO

Table 5. Continued

COUNTY	COMAL
CITY	NEW BRAUNFELS

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	LOCAL LIMESTONE
WALLS	LOCAL LIMESTONE/ PLASTER INTERIOR
ROOF	TOWER= SLATE, REMAINDER=METAL
FLOORS	LIMESTONE
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	PROMINENT TOWER
STRUCTURAL SYSTEM:	
FOUNDATION	LIMESTONE (BUILT AROUND EARLIER CHURCH)
WALLS	LIMESTONE WITH BUTTRESSES EVERY 15 FEET
ROOF	METAL
FLOORS	LIMESTONE
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	TOWER STONE
SYSTEMS:	
NATURAL LIGHT DIRECTION	FROM HIGH WALL WINDOWS FROM SIDE, AND HIGH ROSE WINDOW
THERMAL COMFORT: VENTILATION	NATURAL
THERMAL COMFORT: SHADING	PARTIAL SHADE FROM TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

New Braunfels: First Protestant Church (1875) Data Collection Summary

The location of the First Protestant Church, similar to the Catholic Church, was specified as part of the original plan for the town of New Braunfels. The current church is the second to be built by the congregation. In the spring of 1846 the settlers of New Braunfels built the original church. Detailed primary source documentation for this first church is scarce, but some descriptions exist. Dr. Ferdinand Roemer, traveling through

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the town in January 1846, described the church during this period as a large frame building without window assemblies installed in the openings (Haas 1955). When completed, this church consisted of a simple gable roof frame building. The tower made the church distinctive, however, as it was capped by what resembled an onion dome from a distance, octagonal in plan, with an ogee profile (Robinson 1994). That church served the congregation until approximately 1870, when the congregation began the process of constructing a larger church. For the new church (Figure 13), a building committee was formed in lieu of hiring a contractor, and the building was designed by architect Jacob Langkopf. The church was designed so that it would be a simple matter to lengthen the building in the future. A tower was added in 1889, and they finished the interior by July of 1893 (National Register Nomination First Protestant Church 1971).

Data collected through research and fieldwork regarding the New Braunfels First Protestant Church is summarized on Table 6.

Figure 13. First Protestant Church, New Braunfels

Table 6. Data collection summary for First Protestant Church, New Braunfels, Comal County

COUNTY	COMAL
CITY	NEW BRAUNFELS
NAME OF BUILDING	FIRST PROTESTANT
CONSTRUCTION DATE	1875 (TOWER ADDED 1889)
DESIGNER INFORMATION	JACOB LANGKOPH "ARCHITECT" DESIGNER/ BUILDER
CONTRACTOR/BUILDER	CONGREGATION
CULTURE	GERMAN
OWNERS INFORMATION	THE CONGREGATION DID NOT HIRE A CONTRACTOR, INSTEAD MADE A BUILDING COMMITTEE

SITE:

ORIENTATION(BEARING)	NORTHEAST
LOCATION IN CITY	29°42'3.19"N 98°7'21.72"W
DISTANCE AND ORIENTATION FROM OTHER STRUCTURES	633 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	LONGITUDINAL CROSS- ORIGINALLY
FLOOR AREA	48"X80"
NUMBER OF STORIES	1 STORY, CHOIR PLATFORM FORMS PARTIAL 2ND FLOOR
OVERALL STYLE	GOTHIC
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	STONE MINIMAL- IN CORNERS, STRING COURSES, AND CARVED ENTRY DOOR
MAIN FAÇADE:	
PORCH	NONE
COLUMNS	N/A
STAIRCASE	NO
OPENINGS:	
FENESTRATION PATTERN	GOTHIC ARCHED STAINED GLASS FLANKING CENTRAL ENTRANCE, TOWER HAS 2 COLUMNS OF VENTS, 4 TOTAL, OVER CENTRAL DOOR
ROOF:	
SHAPE	CRUCIFORM WITH END GABLES AND TOWER
PITCH	APPROX 25 DEGREES
VERTICAL ELEMENTS:	
TOWER	CENTRAL TOWER
DOME	NO

Table 6. Continued

COUNTY	COMAL
CITY	NEW BRAUNFELS

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	STONE
WALLS	LIMESTONE
ROOF	METAL
FLOORS	LIMESTONE
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	LOCAL LIMESTONE
STRUCTURAL SYSTEM:	
FOUNDATION	STONE
WALLS	LIMESTONE LOAD BEARING
ROOF	WOOD BEAM
FLOORS	MASONRY
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	TOWER STONE
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	FROM HIGH WALL WINDOWS
THERMAL COMFORT: VENTILATION	NATURAL
THERMAL COMFORT: SHADING	PARTIAL SELF-SHADING FROM TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

New Braunfels: Comal County Courthouse (1898) Data Collection Summary

Originally, the county court was held in the First Protestant Church (Volz 2005).

W. A . Theilpape, who was not a professional architect, designed the first Comal County

Courthouse, which was constructed in 1860, and was a two story rectangular building

located south of the central marketplace (Welch 1984). In November 1897, the County

Commissioners began the process of commissioning a new county courthouse (Figure

14) to replace the deteriorated one. Architect J. Reilly Gordon's design for the courthouse was chosen over those of six other architects, and was chosen over the other finalist, English architect Alfred Giles due to more efficient use of space (Volz 2005). Construction soon began, and the cornerstone was laid on 19 May 1898. The Mason was Contractor Fischer (of Fischer and Lambie), the son of the master mason who had done the stone work on the 1st courthouse 40 years earlier (Volz 2005).

The data collected for the Comal County Courthouse is summarized in Table 7.

Figure 14. Comal County Courthouse, New Braunfels

Table 7 Data collection summary for Comal County Courthouse, New Braunfels

COUNTY	COMAL
CITY	NEW BRAUNFELS
NAME OF BUILDING	COMAL COUNTY COURTHOUSE
CONSTRUCTION DATE	1898
DESIGNER INFORMATION	JAMES RIELY GORDON.
CONTRACTOR/BUILDER	FISCHER (STONEMASON- OF FISCHER AND LAMBIE)
CULTURE	GERMAN
OWNERS INFORMATION	COUNTY GOVERNMENT

SITE:

ORIENTATION(BEARING)	RADIAL (NO PRIMARY FAÇADE)
LOCATION	29°42'12.24"N 98°7'28.68"W
ELEVATION	638 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	CRUCIFORM PLAN W/CORNER ENTRANCES
FLOOR AREA	APPROXIMATELY 90' X 90'
NUMBER OF STORIES	3
OVERALL STYLE	ROMANESQUE
SYMMETRY	RADIAL SYMMETRY
ORNAMENTAL DETAIL	CARVED, DENTIL, MOLDED
MAIN FAÇADE:	
PORCH	4 CORNER ENTRANCES
COLUMNS	ROMANESQUE ARCHES, CURVED
STAIRCASE	4 STEPS
OPENINGS:	
FENESTRATION PATTERN	4 COLUMNS OF WINDOWS PER FLOOR ON PROJECTING GABLE ENDS, CENTER 2 GROUPED. RECESSED FLANKING SIDES HAVE 2 COLUMNS OF WINDOWS. 45 DEGREE DORMERS HAVE 2 COLUMNS OF WINDOWS.
ROOF:	
SHAPE	CRUCIFORM WITH END GABLES AND TOWER
PITCH	APPROX 45 DEGREES
VERTICAL ELEMENTS:	
TOWER	CENTRAL TOWER
DOME	NO

Table 7. Continued

COUNTY	COMAL
CITY	NEW BRAUNFELS

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	CONCRETE
WALLS	LOCAL LIMESTONE
ROOF	SLATE
FLOORS	STEEL / TILE
COLUMNS	POLISHED GRANITE
PORTICO	LOCAL LIMESTONE
VERTICAL ELEMENTS:	LOCAL LIMESTONE
STRUCTURAL SYSTEM:	
FOUNDATION	CONCRETE SLAB
WALLS	LOAD BEARING MASONRY
ROOF	WOOD TRUSSES
FLOORS	STEEL BEAMS
COLUMNS	GRANITE LOAD BEARING
PORTICO	ARCH
VERTICAL ELEMENTS:	STONE LOAD BEARING
SYSTEMS DESCRIPTION:	
NATURAL LIGHT	FROM WALL WINDOWS AND CENTRAL COURTYARD
THERMAL COMFORT: VENTILATION	SEVERAL REFERENCES TO NATURAL VENTILATION BY ARCHITECT-ATRIUM, DORMERS(GABLES), ETC.
THERMAL COMFORT: SHADING	EXTENSIVE SELF-SHADING
THERMAL COMFORT: INSULATION	THICK MASONRY

Kendall County and Boerne Historic Context

Similar to Comal and Gillespie Counties, the early history of Kendall County is described by the early major immigrant settlements. The largest and amongst the earliest is Boerne. Originally called Tusculum, Boerne was unusual in that it was founded by a group of German intellectual freethinkers. Arriving in the wave of German immigration that created Fredericksburg and New Braunfels, the founders of Boerne were suspicious of organized religion, and prohibited church construction within the city proper. Many of the early German immigrants were freethinkers and were not particularly receptive to organized religion. In 1862 Kendall County was formed from Blanco and Kerr counties (Kendall County Historical Commission 1984). Two buildings are studied in Boerne: the St. Peter the Apostle Catholic Church and the Kendall County Courthouse. Table 8 shows historic context information for Kendall County and Boerne.

Table 8. Historic context summary of Boerne and Kendall County

COUNTY	KENDALL
CITY	BOERNE
FOUNDING ETHNICITY OF COUNTY SEAT	GERMAN SETTLERS, MANY FREETHINKERS
PREDOMINANT EASTERN EUROPEAN ETHNICITY IN COUNTY	GERMAN

Boerne: St. Peter the Apostle Catholic Church (1860) Data Collection Summary

Prohibited from constructing a church within the boundaries of Boerne, George Wilkins Kendall worked with a French priest sent from the Galveston Archdiocese Rev.

Emil L.J. Fleury to construct a church to serve the community of Boerne and the surrounding area in 1860 (Figure 15). Much of his motivation stemmed from the fact that his wife was a devout Catholic. In cooperation with workers from Fredericksburg, the simple stone church was constructed on high ground overlooking the city (Perry 1982).

Table 9 contains a summary of data collected for St. Peter the Apostle Catholic Church.

Figure 15. St. Peter the Apostle Catholic Church, Boerne

Table 9. Data collection summary for St. Peter's Catholic Church, Boerne, Kendall County.

COUNTY	KENDALL
CITY	BOERNE
NAME OF BUILDING	ST. PETER'S CATHOLIC CHURCH
CONSTRUCTION DATE	1860
DESIGNER INFORMATION	EMIL L.J. FLEURY
CONTRACTOR/BUILDER	UNKNOWN
CULTURE	GERMAN
OWNERS INFORMATION	ROMAN CATHOLIC CHURCH

SITE:

ORIENTATION(BEARING)	EAST
LOCATION	29°47'10.82"N 98°43'46.81"W
ELEVATION	1435 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	RECTANGULAR
FLOOR AREA	34' X 45'
NUMBER OF STORIES	1
OVERALL STYLE	GOTHIC
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	STONE MINIMAL
MAIN FAÇADE:	
PORCH	ENTRY PORTICO FEATURES SCALE SHINGLES AND UPWARD CURVE OF ROOF ENDS
COLUMNS	SIMPLE SQUARE
STAIRCASE	N/A
OPENINGS:	
FENESTRATION PATTERN	EAST END: SINGLE DOOR, GOTHIC ARCH, TWO 2ND STORY WINDOWS AND CENTRAL CIRCULAR WINDOW. SIDES HAVE 4 WINDOWS, EVENLY SPACED
ROOF:	
SHAPE	GABLE
PITCH	42 DEGREES
VERTICAL ELEMENTS:	
TOWER	SMALL EAST BELFRY
DOME	NO

Table 9. Continued

COUNTY	KENDALL
CITY	BOERNE

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	STONE
WALLS	LOCAL LIMESTONE
ROOF	STANDING SEAM METAL
FLOORS	STONE
COLUMNS	WOOD
PORTICO	WOOD
VERTICAL ELEMENTS:	BRICK CHIMNEYS, SMALL WOOD BELFRY
STRUCTURAL SYSTEM:	
FOUNDATION	STONE ON GRADE
WALLS	LOAD BEARING MASONRY
ROOF	TIMBER TRUSS
FLOORS	STONE ON GRADE
COLUMNS	LOAD BEARING
PORTICO	LUMBER SUPPORTED BY TWO COLUMNS
VERTICAL ELEMENTS:	INTEGRATED INTO ROOF SYSTEM
SYSTEMS:	
NATURAL LIGHT DIRECTION	FROM SIDE WINDOWS
THERMAL COMFORT: VENTILATION	CROSS VENTILATION FROM WINDOWS
THERMAL COMFORT: SHADING	SELF SHADING FROM TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

Boerne: Kendall County Courthouse (1870) Data Collection Summary

The current Kendall County Courthouse (Figure 16) is the first recorded building to be used specifically as the seat of government for that county. The builders were local craftsmen Philip Zoeller and S. F. Stendeback.. This building was modified substantially as the needs of the community increased, instead of being replaced, as was common in

many other counties. The second floor was added in 1886 by Charles Buckel, and further changes occurred early in the 20th Century (Kelsey et al. 2007)

Table 10 summarizes data collected for the Kendall County Courthouse.

Figure 16. Views of the Kendall County Courthouse, Boerne

Table 10. Data collection summary for Kendall County Courthouse, Boerne

COUNTY	KENDALL
CITY	BOERNE
NAME OF BUILDING	KENDALL COUNTY COURTHOUSE
CONSTRUCTION DATE	1870
DESIGNER INFORMATION	S.F. STENDEBACK ORIGINAL DESIGN CHARLES BUCKEL 2ND FLOOR ADDITION 1886, FAÇADE ALFRED GILES 1910.
CONTRACTOR/ BUILDER	UNKNOWN
CULTURE	GERMAN
OWNERS INFORMATION	COUNTY

SITE:

ORIENTATION(BEARING)	SOUTH (PREVIOUS PRIMARY N AND S, SECONDARY E AND W)
LOCATION	29°47'40.55"N 98°43'51.24"W
ELEVATION	1413 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	ORIGINALLY RECTANGULAR , NOW APPROACHING SQUARE
FLOOR AREA	34' X 50' ORIGINAL, 68' X50' WITH ADDITION
NUMBER OF STORIES	ORIGINALLY 1, NOW 2
OVERALL STYLE	COMPOSITE OF SEVERAL PERIODS,
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	STONE MINIMAL
MAIN FAÇADE:	
PORCH	3 ARCHES ONE STORY
COLUMNS	STONE SQUARE
STAIRCASE	3 STEPS ADDITION, ORIGINAL NO STEPS
OPENINGS:	
FENESTRATION PATTERN	NEW: CENTRAL DOUBLE DOORS BOTH STORIES FLANKED BY 2 WINDOWS, AND A 45 DEGREE CORNER WINDOW; ORIGINAL 4 WINDOWS BOTH STORIES MAIN SIDES, 2 WINDOWS ON SIDES
ROOF:	
SHAPE	HIPPED
PITCH	APPROXIMATELY 40 DEGREES
VERTICAL ELEMENTS:	
TOWER	1886 VERSION FEATURED MANSARD ROOF WITH TOWER
DOME	NO

Table 10. Continued

COUNTY	KENDALL
CITY	BOERNE

BUILDING TECHNOLOGY:

SYSTEMS DESCRIPTION:	
NATURAL LIGHT	FROM SIDE EXTERIOR WINDOWS
THERMAL COMFORT: VENTILATION	CROSS VENTILATION FROM EXTERIOR WINDOWS; ADDITION HAS VENTILATION BETWEEN FLOORS
THERMAL COMFORT: SHADING	SELF SHADING ENVELOPE
THERMAL COMFORT: INSULATION	THICK MASONRY
MATERIALS:	
FOUNDATION	LIMESTONE
WALLS	RUSTICATED LIMESTONE
ROOF	METAL
FLOORS	WOOD
COLUMNS	LIMESTONE
PORTICO	LIMESTONE
VERTICAL ELEMENTS:	LIMESTONE
STRUCTURAL SYSTEM DESCRIPTION:	
FOUNDATION	MASONRY ON GRADE
WALLS	LOAD BEARING LIMESTONE WITH QUOINS IN ORIGINAL
ROOF	WOODEN RAFTER SYSTEM
FLOORS	WOODEN JOISTS
COLUMNS	LOAD BEARING STONE
PORTICO	LOAD BEARING STONE
VERTICAL ELEMENTS:	N/A

Gillespie County and Fredericksburg Historic Context

In a pattern similar to New Braunfels, Fredericksburg was founded through the efforts of the *Aldersverein*. John O. Muesenbach founded the city in 1846, arriving with 120 German immigrants. Muesenbach was the successor to Prince Carl of Solms-Braunfels (Welch 1984, Veselka 2000). Similar to New Braunfels, Fredericksburg was

surveyed and platted with a central public area. Within a year of founding the city, the

residents of Fredericksburg petitioned to form a county from Bexar County. In 1848 the

State legislature granted their request, and Gillespie County was established (Wagner &

Klein 2000). Two buildings are studied in Fredericksburg: the Zion Lutheran Church and

the Gillespie County Courthouse. Table 11 shows historic context information for

Gillespie County and Fredericksburg.

Table 11. Historic context summary of Fredericksburg and Gillespie County

COUNTY	GILLESPIE
CITY	FREDERICKSBURG
FOUNDING ETHNICITY OF COUNTY SEAT	GERMAN SETTLERS THROUGH THE ALDERSVEREIN
PREDOMINANT EASTERN EUROPEAN ETHNICITY IN COUNTY	GERMAN

Fredericksburg: Zion Lutheran Church (1853) Data Collection Summary

The Zion Lutheran Church (1853) was constructed shortly after the city was

founded. P.F. Zizelman was the pastor at that time, but it is not known to what extent he

influenced the design of the church. Major changes occurred in 1884 under Pastor R.

Fiedler. The frame tower was heightened, as were the windows and walls. The current

stone tower was added in 1908 and the plan was converted to a cross at that time

(Driskill & Grisham 1994). The church currently appears as depicted in Figure 17.

Table 12 contains a summary of data collected for Zion Lutheran Church.

Figure 17. Zion Lutheran Church, Fredericksburg

Table 12. Data collection summary for Zion Lutheran Church, Fredericksburg, Gillespie County

COUNTY	GILLESPIE
CITY	FREDERICKSBURG
NAME OF BUILDING	ZION LUTHERAN CHURCH
CONSTRUCTION DATE	1853, TOWER AND TRANSEPTS 1907
DESIGNER INFORMATION	UNKNOWN
CONTRACTOR/BUILDER	CONGREGATION
CULTURE	GERMAN
OWNERS INFORMATION	CONGREGATION

SITE:

ORIENTATION(BEARING)	NORTHEAST FACADE (SW SECONDARY, NW AND SE TERTIARY)
LOCATION	30°16'48.45"N 98°52'42.67"W
ELEVATION	1694 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	RECTANGULAR
FLOOR AREA	157" BY 32"-IMAGES IN CHURCH RECORDS INDICATE ORIGINALLY SHORTER, ORIGINAL LENGTH 50"
NUMBER OF STORIES	1
OVERALL STYLE	GOTHIC
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	STONE MINIMAL
MAIN FAÇADE:	
PORCH	NONE
COLUMNS	N/A
STAIRCASE	ONLY STAIRCASE IN 1907 RENOVATION WHEN CHOIR ADDED
OPENINGS:	
FENESTRATION PATTERN	ARCHED WINDOWS AND DOOR ON MAIN FAÇADE, 3 WINDOWS ON EACH SIDE
ROOF:	
SHAPE	GABLE, TOWER WITH 4 GABLE SIDES
PITCH	APPROXIMATELY 43 DEGREES
VERTICAL ELEMENTS:	
TOWER	SQUARE TOWER WITH 4 GABLE ENDS, FORMING A CROSS ROOF (1907 ADDITION) CHURCH RECORDS SHOW SMALL BELFRY PREVIOUS.
DOME	N/A

Table 12. Continued

COUNTY	GILLESPIE
CITY	FREDERICKSBURG

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	LOCAL LIMESTONE
WALLS	LIMESTONE- PLASTERED
ROOF	METAL
FLOORS	MASONRY
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS	ORIGINALLY WOOD BELFRY, CURRENTLY STONE TOWER
STRUCTURAL SYSTEM DESCRIPTION:	
FOUNDATION	ASHLAR MASONRY
WALLS	LOAD BEARING STONE
ROOF	WOODEN BEAMS,
FLOORS	MASONRY
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS	TOWER STONE
SYSTEMS DESCRIPTION:	
NATURAL LIGHT	FROM HIGH WALL WINDOWS
THERMAL COMFORT: VENTILATION:	FROM WINDOWS, HISTORIC IMAGES FROM CHURCH SHOW WINDOWS WITH LARGER OPERABLE AREA. WHEN STAINED GLASS ADDED, THIS DECREASED.
THERMAL COMFORT: SHADING	PARTIAL SELF SHADING FROM TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

Fredericksburg: Gillespie County Courthouse (1882) Data Collection Summary

The first Gillespie County Courthouse was a two-story stone building

constructed in 1854, designed by Henry Beazley and J.H. Doebner (Welch 1984). In

1882, Alfred Giles, the prominent Texas architect won a contest for the design for the

Gillespie County Courthouse, beating out F.E. Ruffini. The Courthouse (Figure 18) was designed in Italianate style, and faced the large central courtyard in the city (Morgan 2004, Kelsey et al. 2007).

Table 13 summarizes data collected for the Gillespie County Courthouse.

Figure 18. Gillespie County Courthouse, Fredericksburg

Table 13. Data collection summary for Gillespie County Courthouse, Fredericksburg

COUNTY	GILLESPIE
CITY	FREDERICKSBURG
NAME OF BUILDING	GILLESPIE COUNTY COURTHOUSE
CONSTRUCTION DATE	1882
DESIGNER INFORMATION	ALFRED GILES (ENGLISH)
CULTURE	GERMAN
OWNERS INFORMATION	COUNTY JUDGE

SITE:

ORIENTATION(BEARING)	SW
LOCATION	30°16'30.93"N 98°52'24.67"W
ELEVATION	1723 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	H-SHAPED, WITH EACH END GABLE INSET TO CREATE PORTICOS AT EACH END, AND A 1 STORY CENTRAL PORTICO FORMING THE CENTER OF THE MAIN FAÇADE.
FLOOR AREA	69' X 87'
NUMBER OF STORIES	2
OVERALL STYLE	ITALIANATE
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	PEDIMENTAL DENTIL COURSE AT ROOFLINE WITH GABLE RETURNS
MAIN FAÇADE:	
PORCH	1 STORY INSET PORTICO, SECONDARY PORTICOS ON EACH SIDE.
COLUMNS	WOOD RECTANGULAR- 4 PAIRS OF COLUMNS
STAIRCASE	DUAL INTERIOR STAIRCASES IN WEST BAY.
OPENINGS:	
FENESTRATION PATTERN	MAIN FAÇADE-CENTRAL BAY FLANKED WITH 2 WINDOWS, FLANKED BY GABLE ENDS WITH 2 WINDOWS ON FIRST FLOOR AND 1 ON SECOND FLOOR, FLANKED BY SINGLE NARROW WINDOW AT EACH FLOOR
ROOF DESCRIPTION:	
SHAPE	INTERSECTING GABLES
PITCH	APPROX 40 DEGREES
VERTICAL ELEMENTS:	CENTRALLY LOCATED ARCHED PEDIMENT AT CENTER
TOWER	N/A
DOME	NO

Table 13. Continued

COUNTY	GILLESPIE
CITY	FREDERICKSBURG

BUILDING TECHNOLOGY:

MATERIALS DESCRIPTION:	
FOUNDATION	STONE, NOW CONCRETE
WALLS	IRREGULAR ASHLAR MASONRY LIMESTONE
ROOF	METAL
FLOORS	TILE COVERED CONCRETE
COLUMNS	WOOD
PORTICO	WOOD
VERTICAL ELEMENTS	WOOD
STRUCTURAL SYSTEM DESCRIPTION:	
FOUNDATION	CONCRETE
WALLS	LOAD BEARING LIMESTONE SECONDARY LOAD BEARING MASONRY DEFINE 1ST FLOOR ROOMS
ROOF	WOOD BEAMS
FLOORS	UPPER STORY WOOD BEAMS
COLUMNS	WOODEN BEAMS SUPPORTING PORTICOS
PORTICO	WOOD, SUPPORTED BY COLUMNS
VERTICAL ELEMENTS:	INTEGRATED INTO ROOF STRUCTURE
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	EXTERIOR WALL WINDOWS
VENTILATION:	CROSS VENTILATION THROUGH WINDOWS, AND THROUGH STAIRCASE
THERMAL COMFORT: SHADING	SELF SHADING THROUGH DESIGN OF EXTERIOR PLAN
THERMAL COMFORT: INSULATION	THICK MASONRY

Medina County and Castroville Historic Context

The first major settlement in Medina County was the impresario Henri Castro's 1843 settlement, Castroville, consisting of Alsatian immigrants under contract to settle under his grant (Weaver 1985). The Alsatian immigrants, although often referred to as

French, actually come from a region with a mixture of Germanic as well as French

cultural influence (Weaver 1985, Driskill & Grisham 1994). As the railroad became

more influential, Castroville's the county seat was moved to Hondo (Driskill & Grisham

1994). Two buildings are studied in Castroville: the St. Louis Catholic Church and the

Medina County Courthouse. Table 14 summarizes historic context information for

Medina County and Castroville.

Table 14. Historic context summary of Castroville and Medina County

COUNTY	MEDINA
CITY	CASTROVILLE
FOUNDING ETHNICITY OF COUNTY SEAT	ALSATIAN SETTLERS UNDER HENRI CASTRO
PREDOMINANT EASTERN EUROPEAN ETHNICITY	ALSATIAN

Castroville: St. Louis Catholic Church (1853) Data Collection Summary

The first Catholic Church constructed in Castroville was built by the

congregation in 1846. The second was dedicated in 1850 and was larger to accommodate

the growing population. The current St. St. Louis Catholic Church (Figure 19) was

constructed in 1868 according to a design by Rev. Peter Richard, from Loire, France

(Driskill & Grisham 1994).

Table 15 summarizes data collected for the St. Louis Catholic Church.

Figure 19. St. Louis Catholic Church, Castroville

Table 15. Data collection summary for St Louis Catholic Church, Castroville, Medina County

COUNTY	MEDINA
CITY	CASTROVILLE
NAME OF BUILDING	ST. LOUIS CATHOLIC CHURCH
CONSTRUCTION DATE	1869
DESIGNER INFORMATION	CHURCH TRADITION INDICATES CHURCH WAS PLANNED BY REV. PETER RICHARD. BISHOP CLAUDIUS MARIA DUBUIS RETURNED TO LAY THE CORNERSTONE.
CULTURE	ALSATIAN FRENCH
OWNERS INFORMATION	ROMAN CATHOLIC CHURCH

SITE:

ORIENTATION(BEARING)	NE
LOCATION	29°21'20.56"N 98°52'46.50"W
ELEVATION	758 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	RECTANGULAR
FLOOR AREA	40' X 60'
NUMBER OF STORIES	1
OVERALL STYLE	GOTHIC
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	ORNAMENTAL STRING COURSES
MAIN FAÇADE:	
PORCH	N/A
COLUMNS	N/A
STAIRCASE	N/A – EXCEPT CHOIR
OPENINGS:	
FENESTRATION PATTERN	MAIN FAÇADE: GOTHIC DOOR WITH TWO SETS OF WINDOWS DIRECTLY ABOVE, SEPARATED BY BELT COURSES. BOTH SIDE FACES HAVE 6 GOTHIC WINDOWS FLANKING A CENTRAL DOOR
ROOF:	
SHAPE	GABLE WITH CLERESTORY
PITCH	APPROX 40 DEGREES
VERTICAL ELEMENTS:	
TOWER	PROMINENT SQUARE TOWER WITH LARGE OCTAGONAL SPIRE
DOME	NO

Table 15. Continued

COUNTY	MEDINA
CITY	CASTROVILLE

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	MASONRY, TILE CURRENTLY
WALLS	LOCAL LIMESTONE
ROOF	SHINGLES
FLOORS	MASONRY/ TILE
COLUMNS	LIMESTONE
PORTICO	LIMESTONE
VERTICAL ELEMENTS	LIMESTONE
STRUCTURAL SYSTEM:	
FOUNDATION	STONE
WALLS	LOAD BEARING MASONRY WITH BUTTRESSING BETWEEN SIDE WINDOWS AND 45 DEGREE STEPPED BUTTRESSES AT CORNERS.
ROOF	TIMBER FRAMES EXPOSED –COLUMNS SUPPORT TRUSS SYSTEM FORMING GOTHIC ARCHES
FLOORS	MASONRY ON GRADE
COLUMNS	LOAD BEARING INTERIOR-2 ROWS OF 6 FROM SPAN IN CONGREGATION
PORTICO	N/A
VERTICAL ELEMENTS:	LOAD BEARING MASONRY WITH WOODEN ROOF SCISSOR TRUSS SYSTEM
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	FROM SIDES: FORMERLY HAD CLERESTORY, BUT NOW CLOSED
THERMAL COMFORT: VENTILATION	CROSS VENTILATION FROM WALL WINDOWS
THERMAL COMFORT: SHADING	PARTIAL SELF SHADING FROM TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

Castroville: Medina County Courthouse (1879) Data Collection Summary

The first courthouse in Medina County was constructed in 1854. This stone

building served the County until 1879, when the most recent courthouse located in

Castroville (Figure 20) was constructed. This two-story building was designed by R.

Hollub, and built by Kieffler and Gottlieb (Bailey 2007).

Table 16 summarizes data collection for the Medina County Courthouse.

Figure 20. Medina County Courthouse, Castroville

Table 16. Data collection summary for Medina County Courthouse, Castroville, Medina County

COUNTY	MEDINA
CITY	CASTROVILLE
NAME OF BUILDING	MEDINA COUNTY COURTHOUSE
CONSTRUCTION DATE	1879
DESIGNER INFORMATION	R. HOLLUB
CULTURE	ALSATIAN FRENCH
OWNERS INFORMATION	MEDINA COUNTY

SITE:

ORIENTATION(BEARING)	SW
LOCATION	29°21'25.38"N 98°52'35.86"W
ELEVATION	758 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	RECTANGULAR
FLOOR AREA	40' X 120'
NUMBER OF STORIES	2
OVERALL STYLE	ITALIANATE INFLUENCED COMMERCIAL NONDESCRIPT
SYMMETRY	SYMMETRICAL BILATERAL
ORNAMENTAL DETAIL	ORNAMENTAL STRING COURSES AND CONTRASTING MASONRY
MAIN FAÇADE:	
PORCH	N/A
COLUMNS	N/A
STAIRCASE	EXTERNAL
OPENINGS:	
FENESTRATION PATTERN	MAIN FAÇADE: CENTER ENTRANCE WITH TWO 9X9 WINDOWS FLANKING EITHER SIDE
ROOF:	
SHAPE	SIDE GABLE
PITCH	APPROX 20 DEGREES
VERTICAL ELEMENTS:	
TOWER	NO
DOME	NO

Table 16. Continued

COUNTY	MEDINA
CITY	CASTROVILLE

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	LOCAL LIMESTONE
WALLS	LIMESTONE, ORIGINALLY PLASTERED
ROOF	STANDING SEAM METAL
FLOORS	WOODEN
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	STONE CHIMNEYS
STRUCTURAL SYSTEM:	
FOUNDATION	STONE PERIMETER, STONE SUPPORTING WOODEN FLOOR
WALLS	UNCOURSED LOAD BEARING MASONRY
ROOF	WOODEN TRUSS
FLOORS	WOODEN JOISTS
COLUMNS	N/A
PORTICO	N/A- ADDED IN 1939
VERTICAL ELEMENTS:	CHIMNEYS INTEGRATED INTO GABLE WALL STRUCTURE
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	FROM WALL WINDOWS
THERMAL COMFORT: SHADING	NO
THERMAL COMFORT: INSULATION	THICK MASONRY

Bandera County and Bandera Historic Context

The County of Bandera was founded in 1855. The City of Bandera was platted the following year to capitalize upon the needs of the nearby U.S. Army forts and the growing city of San Antonio. John James and Charles de Montel had obtained a contract to provide cypress shingles for the U.S. Army and constructed a milling operation on the north bank of the Medina River, built and staffed mainly by Polish workers who

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immigrated to the area for that purpose (Tobin 1979). Polish immigrants participated in the history of Bandera from its inception. For instance, Joseph Knappick, John Kindla, John Pyka and Albert Haiduk all signed the 1855 petition to form Bandera County. (Morgan 2004, St. Stanislaus 2005).

These Polish immigrants came to Texas from Upper Silesia. Jean-Marie Odin, Bishop of Galveston, recruited priests to work with the German immigrants, including Rev. Leopold Moczygemba, who arrived in Galveston in 1852. After working with immigrant communities in New Braunfels and Castroville, Moczygemba contacted friends and relatives in Upper Silesia encouraging them to immigrate. In December 1854, 150 Poles arrived in Galveston aboard the *Weser,* and traveled to San Antonio, where they met Father Moczygemba. Some of these immigrants remained, and others went with the Father to Panna Maria. 16 families who did not go to Panna Maria went west to settle in Bandera, on wagons provided by Charles de Montel (one of the owners of the local lumber mill) (St. Stanislaus 2005). By 1887, Bandera County had over 3000 residents. Anglos, Poles, Mexicans, and Germans constituted the four major ethnicities. Two buildings are studied in Bandera: St. Stanislaus Catholic Church and the Bandera County Courthouse.

Table 17 shows historic context information for Bandera County and Bandera.

Table 17. Historic context summary of Bandera and Bandera County

COUNTY	BANDERA
CITY	BANDERA
FOUNDING ETHNICITY OF COUNTY SEAT	ANGLO
PREDOMINANT EASTERN EUROPEAN ETHNICITY	POLISH

Bandera: St. Stanislaus Catholic Church (1876) Data Collection Summary

Land for the Polish immigrants' parish was bought by Bishop Odin from John James, Charles DeMontel, and John Herdon (owners of the cypress mill). In 1858, a log church was built upon a loose rock foundation mortared with clay, and shutters with rawhide hinges (Stanislaus 2005). No other images or descriptions of the original church are known to exist. The immigrants from the upper Silesia region of Poland would be from the area of the present-day dioceses of Gliwice and Opole. Several churches in Poland survive. One of the immigrants, Joseph Knappick, married his wife in St. Stanislaus church in Ligota Toszecka, in Gliwice(St. Stanislaus 2005). Several churches in the Gliwice and Opole dioceses bear architectural resemblances to the St. Stanislaus church in Bandera. Examples of common similarities include the prominent tower and steep roof angle of the St. Stanislaus Church in Ligota Toszecka, Poland **,** and prominent stepped buttresses found on a second St. Stanislaus church in the Gliwice dioceses. The current St. Stanislaus church in Bandera (Figure 21) was built in 1876, and was constructed by parishioners, but no record has been found of any specific designer or architect for the building.

Table 18 summarizes data collected for St. Stanislaus Church.

Figure 21. St. Stanislaus Catholic Church, Bandera

Table 18. Data collection summary for St. Stanislaus Catholic Church, Bandera, Bandera County

COUNTY	BANDERA
CITY	BANDERA
NAME OF BUILDING	ST. STANISLAUS ROMAN CATHOLIC CHURCH
CONSTRUCTION DATE	1876
DESIGNER INFORMATION	DESIGNER UNKNOWN
CONTRACTOR/BUILDER	BUILT BY CONGREGATION: CHURCH RECORDS LIST CONGREGATION MEMBER JOHN KINDLA AS ONE OF BUILDERS
CULTURE	POLISH (UPPER SILESIA)
OWNERS INFORMATION	THE CONGREGATION- 16 FAMILIES FROM POLAND

SITE:

ORIENTATION(BEARING)	NORTHWEST
LOCATION	29°21'20.56"N 98°52'46.50"W
ELEVATION	1258 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	RECTANGULAR
FLOOR AREA	40' X 73'
NUMBER OF STORIES	1 STORY, CHOIR PLATFORM FORMS PARTIAL 2ND FLOOR
OVERALL STYLE	GOTHIC
SYMMETRICAL/ASYMMETRICAL	BILATERAL SYMMETRICAL
ORNAMENTAL DETAIL	WINDOW ORNAMENTATION, BELT COURSES IN TOWER
MAIN FAÇADE	PROMINENT GABLE END, PROMINENT TOWER AT NW END WITH ANGLED AND STEPPED BUTTRESSES AT CORNERS AND ALONG SIDES
PORCH	NO
COLUMNS	N/A
STAIRCASE	N/A
OPENINGS:	EXTERIOR POINTED ARCHED WINDOWS
FENESTRATION PATTERN	NW- SINGLE IN TOWER AT FIRST AND SECOND FLOOR. SINGLE EACH FLANK SIDES- 3 POINTED ARCH WINDOWS, 1 DOOR, EVENLY SPACED
ROOF:	
SHAPE	GABLE
PITCH	APPROX 45 DEGREES
VERTICAL ELEMENTS:	TOWER, SMALL BELL
TOWER	STEEP TOWER
DOME	NO

Table 18. Continued

COUNTY	BANDERA
CITY	BANDERA

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	LIKELY STONE, CURRENTLY ORIGINAL FLOOR COVERED BY CONCRETE SLAB
WALLS	DRESSED LIMESTONE ASHLAR MASONRY
ROOF	CURRENTLY STANDING SEAM
FLOORS	CURRENTLY TILE- ORIGINAL UNKNOWN
COLUMNS	WOODEN COLUMNS SUPPORTING CHOIR
PORTICO	NO
VERTICAL ELEMENTS:	LOCAL LIMESTONE
STRUCTURAL SYSTEM DESCRIPTION:	
FOUNDATION	STONE ON GRADE, CURRENTLY COVERED IN CONCRETE
WALLS	LOAD BEARING MASONRY WITH STEPPED BUTTRESSES
ROOF	WOODEN BEAMS HIDDEN BY PLASTER
FLOORS	STONE
COLUMNS	N/A
PORTICO	N/A
VERTICAL ELEMENTS:	LOAD BEARING MASONRY
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	NATURAL LIGHT ENTERS THROUGH SIDE WINDOWS
THERMAL COMFORT: SHADING	PARTIAL SELF SHADING BY TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

Bandera: Bandera County Courthouse (1891) Data Collection Summary

Bandera did not own a courthouse officially used for county business prior to 1877. That year, commissioners purchased a two-story limestone-rubble building possibly built sometime prior to 1868 by Henry White. It was then known as the Schmidke and Hay Store (Tobin 1979). This structure was relatively modest in scale and

ornamentation, the eave returns being the most distinctive architectural feature. This building served as the county courthouse until replaced by the 1890 structure.

On May 4, 1890, citizens petitioned to build the current courthouse (Figure 22) on the public square. Initially, the county contacted architect Alfred Giles for a duplicate of the Courthouse he designed for Kerr County. On June 9, 1890, both Alfred Giles and San Antonio architect, Benjamin Franklin Trester, Jr. submitted plans for review. No documentation has been found that explains the circumstances of how B. F. Trester was introduced to the project. On July 10 1890, Ed Braden and Sons won the construction contract. After a contentious construction process, complicated by the contractors' work stoppages and the death of architect B. F. Trester , the courthouse was completed September 26, 1891. The major change recorded during construction was reinforcement of lintels above the windows, which had cracked and needed to be reinforced with metal (Wagner & Klein 2000).

Table 19 summarizes data collected through research and site visits for the Bandera County Courthouse.

Figure 22. Bandera County Courthouse, Bandera

Table 19. Data collection summary for Bandera County Courthouse, Bandera

COUNTY	BANDERA
CITY	BANDERA
NAME OF BUILDING	BANDERA COUNTY COURTHOUSE
NAME OF BUILDING	BANDERA COUNTY COURTHOUSE
CONSTRUCTION DATE	1891
DESIGNER INFORMATION	BENJAMIN FRANKLIN (B.F.) TRESTER, JR. SAN ANTONIO (DIED IN 1891) A. B. FRANKEL (ASST. ARCHITECT FINISHED)
CONTRACTOR/BUILDER	ED BRADEN AND SONS BUILT ACCORDING TO DESIGN. E. HUFFMEYER AND BROS. SUBCONTRACTORS.
CULTURE	DIVERSE- ANGLO AND POLISH PREDOMINATE
OWNERS INFORMATION	BANDERA COUNTY

SITE:

ORIENTATION(BEARING)	RADIAL- PRIMARY FAÇADE FACES SOUTHWEST
LOCATION	29°43'36.10"N 99°4'21.02"W
ELEVATION	1255 FT.

DESIGN:

BUILDING DESCRIPTION(SHAPE):	
PLAN	APPROXIMATELY SQUARE, WITH PROJECTING PORTICO.
FLOOR AREA	APPROXIMATELY 70' X 70'
NUMBER OF STORIES	3
OVERALL STYLE	RENAISSANCE REVIVAL
SYMMETRICAL/ASYMMETRICAL?	RADIAL SYMMETRICAL
ORNAMENTAL DETAIL	
MAIN FAÇADE:	DOUBLE COLUMN BALUSTRADE TOP PORTICO WITH 3RD FLOOR ARCHED WINDOW FLANKED BY 2 STORY BAYS.
PORCH	YES
COLUMNS	YES
STAIRCASE	YES
OPENINGS:	
FENESTRATION PATTERN	CENTER BAY 2 WINDOWS, FLANKING BAYS 1 PER SIDE
ROOF:	
SHAPE	COMBINATION GABLE AND HIP WITH CENTRAL TOWER AND DOME
PITCH	25 DEGREES
VERTICAL ELEMENTS:	
TOWER	CENTRALLY LOCATED SQUARE TOWER
DOME	CUPOLA WITH PAINTED CLOCK 7:45

Table 19. Continued

COUNTY	BANDERA
CITY	BANDERA

BUILDING TECHNOLOGY:

MATERIALS:	
FOUNDATION	LOCALLY QUARRIED LIMESTONE
WALLS	LOCALLY QUARRIED LIMESTONE
ROOF	S.S.METAL (ORIGINAL UNKNOWN-PROBABLY SHINGLE)
FLOORS	UPPER STORIES WOOD FIRST STORY STONE
COLUMNS	LIMESTONE
PORTICO	LIMESTONE
VERTICAL ELEMENTS:	WOOD AND MASONRY
STRUCTURAL SYSTEM:	
FOUNDATION	LOAD BEARING MASONRY
WALLS	LOAD BEARING MASONRY CONTRACTOR ADDED STEEL PLATES TO REINFORCE WINDOW LINTELS DURING CONSTRUCTION.
ROOF	WOOD BEAM
FLOORS	WOOD JOISTS
COLUMNS	LOAD BEARING STONE
PORTICO	LOAD BEARING STONE
VERTICAL ELEMENTS:	TOWER INTEGRATED INTO ROOF SUPPORT SYSTEM
SYSTEMS DESCRIPTION:	
NATURAL LIGHT DIRECTION	FROM WALL WINDOWS AT ALL DIRECTIONS
THERMAL COMFORT: SHADING	PARTIAL SELF SHADING BY TOWER
THERMAL COMFORT: INSULATION	THICK MASONRY

RESULTS

Introduction

The study descriptively applies and compares five categories of analysis to the study buildings separated by building type, to determine the extent and nature of physical characteristics that may be attributable to traditional identity of European immigrants, or to efforts of assimilation to the new place. The first four categories for analysis are based on: cultural/historical context, site, design, and building technology. Morphological analysis is introduced as a fifth category, the building's compatibility to the local climate. This category synthesizes data collected from more than one of the data collection categories, to later determine the relationships between architectural traditions and compatibility to local environment. After moving from the northern European climate to a different climate, immigrant groups must negotiate their own architectural traditions that are usually well-adapted to the climate of their homeland, with the new climactic conditions in south central Texas, especially in an era prior to the advent of HVAC.

Categories of Analysis Described

Cultural/Historical Context

The cultural/historical context of the buildings within their communities is essential in order to evaluate the influence of ethnic identity as expressed in architecture. The primary importance of this category lies in comparison with, and creation of context

for, other categories of analysis. This cultural context is analyzed comparatively for each building type according to the following criteria.

- Architect/builder-and their cultural background, the name of the architect or designer(s); culture and background; denomination, and education, if available. A designer with a background consistent with traditional building would receive a Y value, one that has a mixture of formal and informal training would be a P, and a formally trained architect would receive a N value.

- Dominant ethnic group in the county seat- this category is evaluative. A very influential ethnic group within a county, in terms of date of immigration, associations with the creation of the community, population percentage, and visibility in the community reflected in the historical record would receive a Y value, a less influential group is a P value. If the dominant European ethnicity arriving by Galveston and/or Indianola is relatively less well represented, a N value is assigned.

Site

Choices made regarding site and relative placement of buildings often carry symbolic meanings about identity and importance of buildings, as well as cultural affiliations, both for civic, public areas, as well as sacred space (Robinson 1994, Veselka 2000). For example, orientation of church buildings is dictated by Canon, the Laws of the Roman Catholic tradition (Dubbelde 2006).This applies to spaces as well as buildings, and the arrangement of space can be a very persistent and durable indicator of cultural heritage and symbolic meaning (Wagner et al. 2013). In each category, the

comparative analysis matrix shows the objective criteria, followed by the degree to which the criteria is consistent with traditional practice that is characteristic of the most influential immigrant ethnic group for each case. Following the comparative analysis matrix, the narrative analysis describes the specific context in which each was evaluated based upon criteria derived from literature review. This category analyzes the choice of orientation and placement for each building according to the following subcategories:

- Orientation: building orientation (north, south, west, east). This entry describes the orientation of the primary façade of the building, if applicable, and the degree to which it is consistent with the traditions of the applicable ethnicity or denomination as applicable. Y indicates that it fully meets the criteria, P partially fulfills, and N signifies that it does not fulfill the criteria. For example, an east-west orientation would be significant for traditional Roman Catholic practice, a denomination associated with many of the applicable ethnic groups (Dubbelde 2006).

- Distance and direction from town center: The distance and direction from the center of the city. In all of the selected counties, the center of the city is a central square. If the building is located in the symbolic center of the town the letter C is assigned, otherwise relative direction and distance from center is provided. The most common Anglo planning practice places courthouses in the center of the central square, while several of the applicable immigrant groups (e.g. Germans, Alsatians) place important public buildings in proximity to the square, but tend to leave the square itself open (Robinson 1994).

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- Relative elevation to town center: The relative location of the building to the town square, with the approximate numeric elevation above or below, in feet, is listed. For example, a building sited on grade that measures 10 feet higher than the town square would be designated as +10. These elavational relationships then will be analyzed in relationship to traditional preferences related to elevation.

Design

This category of analysis is descriptive, based upon the overall design of the building. This is influenced by the cultural associations the builder intends to present. For this category, since churches and courthouses are fundamentally different building types, the criteria for analysis addresses three major aspects of design: style, ornamentation, and form. Stylistic choices made by building designers can be associated with traditionalism, such as Gothic-derived stylistic elements in churches, or with an innovative stylistic trend, of the time such as the Richardson Romanesque, for courthouses, for example (Gelernter 1999). Ornamental detail can also carry cultural associations. A common example would be the shamrock with Ireland, or the eagle with the United States. Form, similarly, can express cultural associations, such as the asymmetrical spire placement that often characterizes Episcopal churches (Stanton 1968). The criteria are analyzed to determine the extent to which they exhibit aspects of traditional design of the applicable immigrant group for each building.

- Overall style: This criteria of analysis lists the overall style, and the extent and nature of its traditional expression. In general, styles characteristic of a particular ethnic group exhibit characteristics of vernacular or traditional practice, while

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professional styles are those that are eclectic, formally historicist, or derived from formal academic traditions. Since the specific criteria of what constitutes traditionalism will differ between building types, specific details regarding designation for each building type are found in the respective narrative summary of results.

- Detail and ornamentation: A Y indicates that an ornamental detail is consistent with those characteristic with the traditions of an immigrant group, a N indicates that it is not, and a P indicates that it is partially derived from tradition.

- Form and massing: Aspects of form and massing in the design are analyzed for compatibility with applicable tradition, and the results evaluated along the Y-P-N designations. Since the specific criteria of what constitutes traditionalism will differ between building types, specific details regarding designation for each building type are found in the respective narrative summary of results.

Building Technology

The building technology utilized is reflective of the degree of traditionalism of construction methods inherent in a building or use of the technology of that era. This category of analysis is divided into three criteria, each utilizing a Y-P-N classification system. If the building technology used is something other than the most readily available and commonly used technology for the time and location, a Y value is entered. This includes buildings built in traditional vernacular fashion, according to an ethnic group's traditions. Otherwise, P or N values are entered depending upon degree of

deviation from traditional practice. Earmarks of non-traditionalistic practice include use of recently developed technologies for the following two classifications:

- Materials: Each building is evaluated according to the degree that traditional materials are utilized in construction. A Y signifies materials are used in a traditional manner, and the materials are chosen based upon long-standing custom and preference. A P indicates that some degree of traditionalism exists, and an N indicates that non-traditional materials were used. For example, the use of stone for wall material would be designated a Y, while a building that utilizes recently-developed flameproof materials between floors would be designated N.

- Structural System: The structural system is evaluated according to the degree to which it is consistent with traditional approaches to creating structural stability. Use of alternatives and innovations indicates that the structural system is non-traditional, and an N is designated. A Y indicates that the building used a traditional approach to the structural system, and a P suggests a combination of traditionalism and experimentation.

- Since the specific criteria of what constitutes traditionalism will differ between building types, specific details regarding designation for each building type are found in the respective narrative summary of results.

Compatibility to Local Climate

Although an aspect of building technology, this dissertation looks at this criteria separately since the analysis of the climatic compatibility of the two building types to the Texas locations aids in testing the hypothesis that assimilation processes result in

concessions to the new environment and its climate. These analyses include a morphological examination of the buildings along accepted "design with climate" guidelines as summarized by Lechner (2001). The data collected contains sufficient information to conduct the morphological analysis for each of the buildings. In most cases, information used for morphological analysis is drawn from observation of the building itself and historical descriptions of the building. Usually, the historical record does not mention the architect/builder's intentions regarding designing a greater level of thermal comfort into the building design, but in cases that it does, this information is also used in the analysis. Scholars have established general architectural guidelines that effectively increase the level of thermal comfort in buildings located in differing climatic conditions (Olgyay 1963, Givoni 1976, Lechner 2001).

This study adapts Lechner's (2001) summary of design strategies to design that address different climactic conditions. The hot, sunny, and humid climate of south central Texas poses a substantial challenge to designers, as evaporative approaches to cooling are largely ineffective. The winters are consistently mild and brief, so maximizing comfort during cold weather is not a significant consideration. Four major guidelines are commonly utilized in design of buildings suitable to this type of climate, and buildings built accordingly often share several common characteristics. Each of these guidelines consist of specific strategies for design:

- Keep hot temperatures out:
  - Compact design. This minimizes the area of the building exposed to outside heat.

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- o Insulated envelope. A well insulated envelope protects from exterior heat.

- o Window shutters. As single-paned historic windows are a source of heat infiltration, window coverings provide some compensation as well as minimize solar gain.

- o Light colored exterior. Walls and roof reflect the sun's heat.

- Natural ventilation. This guideline cools and dehumidifies interior.

  - o Site and orientation. Designed to capture prevailing winds. In south central Texas, the prevailing winds originate from south to the southeast.

  - o Wind velocity increases with height, and humidity decreases with elevation above grade, and cross ventilation at ground level cools the floor of the main floor above.

  - o Vertical air movement. High ceilings, two story spaces, open stairwells for vertical air movement and stratification all encourage cooling. Vents at roof allow hot air to escape out of the building.

- Protection from sun.

  - o Self-shading envelope. Accomplished through cantilever floors, balconies, courtyards, and other aspects of building shape in which one portion of the building will produce shadow on another portion.

  - o Exterior shading devices. For example porches, porticos, and awnings protect from the sun.

- Minimize excess humidity.

o Avoid pools or fountains in sunny areas. When located in un-shaded and poorly ventilated areas, the high humidity in south central Texas is increased through water features, yet provides little benefit through evaporative cooling.

- In addition to these four strategies, in some cases a designer may have indicated an intention to address climate in their design. For this reason, a category of intentionality is included. This category is added because it is a direct indication that the design consideration was based on climate of the new location, and not necessarily on the use of traditional architectural practice.

For each category of analysis described above, each building is assessed and a value is assigned indicating to what degree the building meets each criterion. This value may be a single descriptor, or an assigned value, such as Y that indicates a criteria is fully met, P signifies that it is partially met, and N that it is not met. These categories are then put into two matrices, applying them to criteria of analysis or existing typologies derived from literature review, applicable to the building types of churches or courthouses. The categories of the data collection are analyzed for the comparison of churches to each other and the courthouses to each other, and test this study's hypotheses.

Comparisons

Cultural Historical Context

A comparative analysis was conducted for each type of building. Associated tables illustrate each criterion. In contrast to the subsequent categories of analysis,

Cultural Historical Context, as a stand-alone criteria, is evaluated more descriptively. The utility of this category presents itself in developing associations and explanations for patterns found in other categories of analysis.

Table 20 shows that the churches were each initially constructed within a period of 1853 to 1886. In some cases, the study building was constructed to replace a previous edifice. With the exception of the St. James Episcopal Church, none of the study churches were designed by professional architects with formal training. The remaining churches involved efforts by the local congregation, with the clergy members participating in the design process. These buildings meet the traditional definition of vernacular architecture, as they are based upon traditions transmitted informally, and generally brought from the immigrants' homeland.

In Comal, Kendall, Gillespie, and Medina Counties, the criteria of Dominant Ethnicity is designated as Y, because the county seats were initially settled, planned, and developed by European immigrants, Alsatians in Medina County, Germans in the others. Fayette and Bandera Counties were not initially planned by European immigrants. LaGrange, the seat of Fayette County, was part of the Austin Colony. Bandera was initially developed to support the nearby military fort, and although Polish immigrants settled there for labor, the settlement was not specifically planned as an immigrant settlement, as were those receiving a Y designation. However, both LaGrange and Bandera shared a significant history of immigration. LaGrange gained its immigrant presence as immigrants passed through to more western settlements and some decided to

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stay, while Bandera experienced a discrete and notable immigrant event when the Polish

settlers arrived.

Table 20. Summary of cultural context of study churches

COMPARATIVE ANALYSIS—CULTURAL HISTORICAL CONTEXT							
CRITERIA	CHURCHES						
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS		KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
BUILDING NAME:	ST. JAMES EPISCOPAL	STS. PETER AND PAUL CATHOLIC	FIRST PROTESTANT	ST. PETER THE APOSTLE CATHOLIC	ZION LUTHERAN	ST. LOUIS CATHOLIC	ST. STANISLAUS CATHOLIC
DATE	1886	1871	1875	1860	1853	1869	1876
ARCHITECT BUILDER	Richard M. Upjohn Architect Carl Michalis (Builder)	Father F. X. Wenninger Plans 1860	Jacob Langkoph-Building Committee	Emil L. J. Fleury	Unknown-Congregation	Rev. Peter Richard	Unknown-Congregation
CULTURAL BACKGROUND	New York	German	German	French	Unknown	French	Unknown
TRADITIONAL EDUCATION	N	Y	Y	Y	Y	Y	Y
DOMINANT ETHNICITY IN COMMUNITY	P German Czech	Y German	Y German	Y German	Y German	Y Alsatian	P Polish

Table 21 shows that all of the courthouses in the study were constructed between 1870 and 1898. Two of the courthouses were constructed by well known professional architects who designed many Texas courthouses, namely James Riely Gordon and Alfred Giles. The Bandera County Courthouse was designed by a lesser-known, professional architect B.F. Trester. The remaining two courthouse designs were constructed by local builders, not well known outside the local community Zoeller, and Stendeback in Kendall County, and Hollub and Gottlieb in Medina County. The criteria of Dominant Ethnicity is identical to the description presented previously under churches.

The comparative analysis shows that the courthouses designed by professional architects were constructed at a later date than those designed by local craftspeople or contractors. This is consistent with the overall pattern in Texas, in which the typical courthouse evolved from an informal building that may or have not been constructed for a different purpose, to a grand professionally-designed edifice. The period of greatest architectural sophistication was called the Golden Age of Texas Courthouses which began in approximately 1880 (Welch 1971, Andrews 2006). The increasing professional qualifications and experience of courthouse designers found in the study sample over time suggests that the courthouses followed the prevailing pattern of development regardless of ethnic composition within the county.

Table 21. Summary of the cultural context of study courthouses

COMPARATIVE ANALYSIS—CULTURAL/HISTORICAL CONTEXT OF COURTHOUSES						
CRITERIA	COURTHOUSES					
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS	KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
DATE	1891	1898	1870	1882	1879	1891
ARCHITECT BUILDER	James Riely Gordon	James Riely Gordon	Philip Zoeller And S.F. Stendeback	Alfred Giles	R. Hollub Builder-Blasius Keffler, R. Gottlieb	B. F. Trester
CULTURAL BACKGROUND	Virginia	Virginia	German	English	German	San Antonio
TRADITIONAL EDUCATION	N	N	P	N	P	N
DOMINANT ETHNICITY IN COMMUNITY	P German Czech	Y German	Y German	Y German	Y Alsatian	P Polish

Site

For each of the churches, considerations of both denomination and ethnicity are considered in regards to façade orientation. For Catholic churches, canonical practice is that entrance doors face west, and the altar is oriented eastward (Boudinhon 1910, Dubbelde 2006). Of the five Catholic churches in the study, none strictly followed this criteria. None of them however, were oriented north to south, and generally building orientations were shifted to follow the overall grid pattern of the respective city, which is generally determined by geography and river orientation. The notable exception is St.

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Peter the Apostle, which was located outside of the city, and is oriented strictly east to west. None of the study churches met this criteria, suggesting that canonical considerations were not of primary importance in regards to orientation in the case of Catholic Churches. The Episcopal and Lutheran Churches do not necessarily follow Catholic practice, and for that reason, are designated N/A for not applicable. Traditional planning patterns, however, do seem to play a consideration in the case of Medina County, as St. Louis church is specifically oriented towards the central plaza, according to French Colonial custom (Robinson 1994). For that reason it is designated a Y.

Direction and distance from town center- All of the churches located in counties that were founded and designed by European immigrants exhibit building placement consistent with their respective traditions regarding the distance and direction from the town center. Following German planning philosophy and to accommodate the major denominations of the settlers of New Braunfels, one Catholic and one Protestant. Nicholas Zink then placed the churches laid out equidistant from the central plaza or *Platz* and opposite from one another (Volz 2005). For that reason, these churches are designated Y because they are consistent with traditional practice for German ethnicity. St. Louis Church in Castroville is also designated Y because, consistent with Alsatian tradition, it is located directly adjacent to the central plaza (Robinson 1994). Boerne represents an unconventional case, as the City was founded by German freethinkers, and churches were initially prohibited within the city limits. Therefore, the church was constructed outside of the city (Biesele 1987). Since this location reflected the beliefs of the founders of this particular community, this case was designated as Y as well. The

remaining protestant denomination churches were designated N/A. No historical evidence exists for the rationale for the distance from the center of the city in the case of the St. Stanislaus Church, so it also was designated as N/A. The remaining churches are designated as N/A since no denominational or ethnic requirements have been determined.

Catholic practice is to elevate church buildings to a prominent height (Dubbelde 2006). All of the Catholic study churches, with the exception of St. Louis Church, are elevated above the central courtyard, and are designated Y for that reason. St. Louis Church is also designated Y because it is equal to the central courtyard due to immediate proximity, and the area does not have hills in the vicinity.

In summary, the study churches exhibit mixed results concerning site. The criteria of orientation seems relatively flexible, and in most cases, the orientation of the city grid was a stronger consideration than a strict E-W orientation of Catholic canon. Distance from the city center, by itself, overall seemed to be determined by planning considerations derived from the community more than denominational considerations. Relative elevation, however, was strongly dictated by denominational concerns, and most of the churches were elevated above the town center, and Boerne, the one case in which the Church was excluded from the city, the difference in elevation was most pronounced. Conversely, when the Church occupied a prominent space adjoining the central plaza in Castroville, no added elevation was necessary to accomplish the preference for height. Figure 23 illustrates the spatial relationships between buildings, while Table 22 summarizes them in tabular format.

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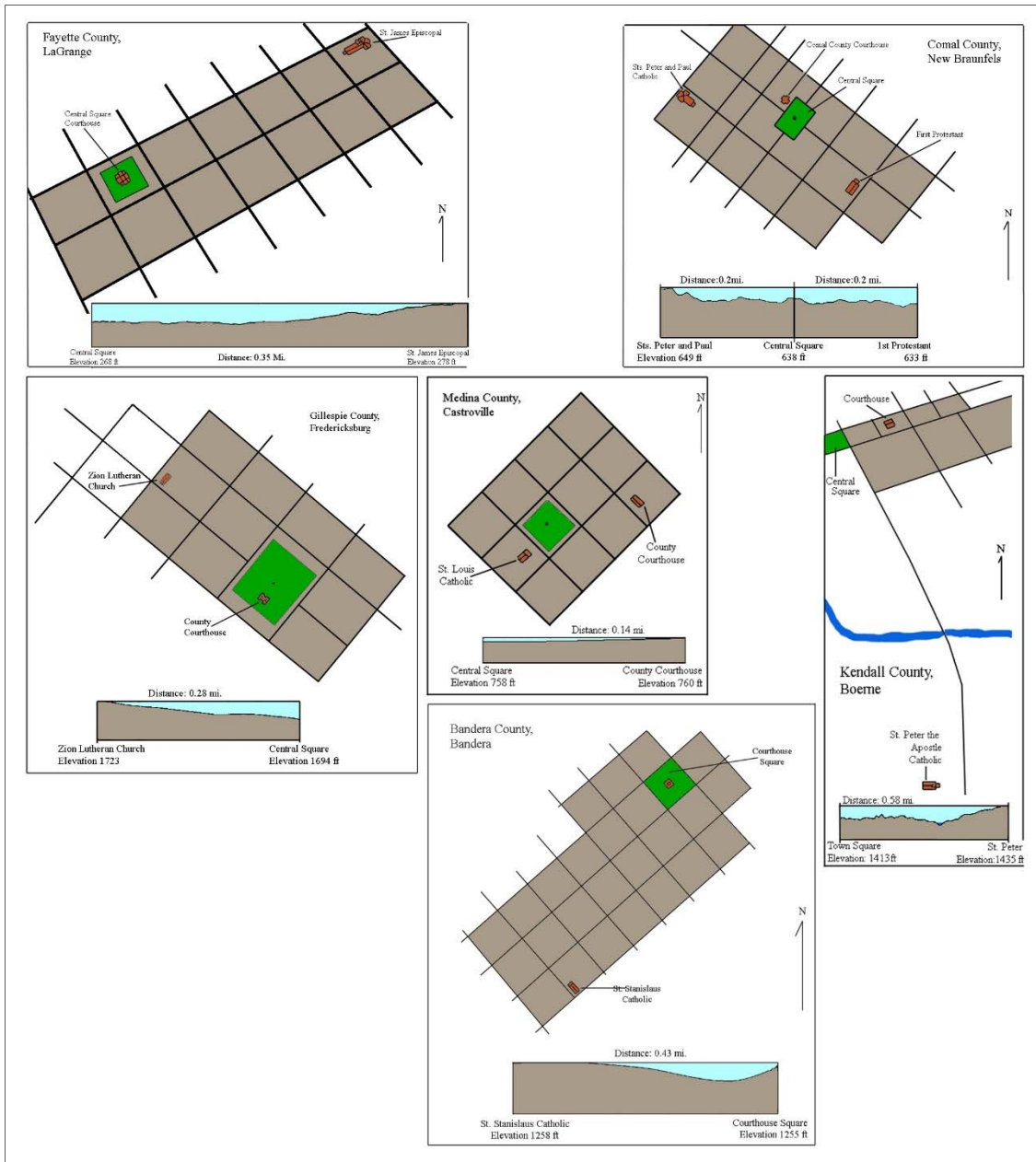
Figure 23. Illustrations of spatial relationships within the study sample for each community

Table 22. Summary of the relative placement and orientation of the churches in relation to the city center

COMPARATIVE ANALYSIS – SITE							
CRITERIA	CHURCHES						
COUNTY: CITY:	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS		KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
BUILDING NAME	ST. JAMES EPISCOPAL	STS. PETER AND PAUL CATHOLIC	FIRST PROTESTANT	ST. PETER THE APOSTLE CATHOLIC	ZION LUTHERAN	ST. LOUIS CATHOLIC	ST. STANISLAUS CATHOLIC
ORIENTATION OF FAÇADE CONSISTENT WITH TRADITION	SW N/A	SE NO	NE NO	E NO	SW N/A	NE YES Ethnicity	NW NO
DIRECTION AND DISTANCE FROM TOWN CENTER CONSISTENT WITH TRADITION	NE 0.35 MI. N/A	NW 0.2 MI. Y	SE 0.2 MI. Y	S 0.58 MI. Y Denomination	NW 0.28 MI. N/A	SW Adjoining Y Ethnicity	SW 0.43 MI. Y Denomination
RELATIVE ELEVATION	+10 FT.	+11 FT.	-5 FT.	+22 FT.	+29 FT.	Equal	+3 FT.

One of the three criteria for analysis that are applicable to churches also apply to courthouses; the distance from the town center. The others (i.e. orientation, distance, and elevation) are summarized descriptively, and later utilized to contextualize analysis between criteria.

Literature review revealed no firm associations with a specific orientation and traditional ethnic practice regarding orientation of courthouses. Descriptively, however, two obvious classifications are evident related to orientation. Both the J. Riely Gordon designed courthouses feature some degree of radial symmetry, most defined in the Comal County courthouse in New Braunfels, but also evident in the Fayette County courthouse.

Distance and direction from town center- This criteria exhibits a strong pattern determined by the history of formation of the study community related to relative to distance and direction from the town center. In all counties in which the town was designed with a central open plaza, those founded specifically as German or Alsatian immigrant communities, the central courtyard has remained a somewhat open space. This has proven a durable characteristic even as new courthouses have been constructed. Comal, Gillespie, Kendall, and Medina Counties all continue to exhibit this characteristic. This is significant, considering the courthouse square type most common in Texas, and the one most associated with Anglo influence, is the Shelbyville square. Within the study communities, however, the open plaza, associated with German planning, is unusually prevalent (Veselka 2000). Two plausible reasons could be presented for this phenomenon. First, these communities were often founded prior to being designated a county seat, so one could reason that the community, by inertia or coincidence, never changed the location of their courthouse in relation to the original open courtyard. A second possibility is that the community determined to retain this traditional aspect as an expression of identity. For two counties, the historical record

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supports the second explanation. In both New Braunfels and Fredericksburg, county officials specifically proposed placing the new courthouses in the central square, in line with typical practice within the state, and in both cases, local citizens vocally protested or voted to retain the existing arrangement (Wagner & Klein 2000, Volz 2005). This suggests that, at least in the context of the most heavily German-Texan counties, courthouse architecture may not express ethnic identity through specific characteristics derived from design features, but the county seat communities as a whole expressed traditional identity through negotiation of placement of the courthouse. The historical record related to New Braunfels is most explicit that the option to place the courthouse in the plaza, which would be consistent with the common practice across the state, was considered and rejected. As early as 1848, and again in 1897, the option was specifically considered, and rejected due to concerns raised by local sentiment within the town. (Volz 2005).

Without exception, each courthouse within the study sample appears to be similar in elevation to the center of the town

As summarized in Table 23, in communities with a strong European immigrant population, the retention of a central open space relegates the courthouse to a nearby alternative location. This is true for Kendall, Gillespie, and Comal counties. The remaining, Bandera and Fayette, exhibit a courthouse square consistent with other Texas counties, both variations of the popular Shelbyville square popular with Anglo settlements, in which the courthouse becomes the focal point within the center of the

square (Veselka 2000). Otherwise, the courthouses do not seem to exhibit any strong

degree of traditional ethnic practice in regards to site or elevation.

Table 23. Summary of the relative placement and orientation of the courthouses in relation to the city center.

COMPARATIVE ANALYSIS – SITE						
CRITERIA	COURTHOUSES					
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS	KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
ORIENTATION OF FAÇADE CONSISTENT WITH TRADITION	NE Somewhat Radial	N/A Radial	South (Originally North)	NE	SW	W
DISTANCE AND DIRECTION FROM TOWN CENTER CONSISTENT WITH TRADITION	Inside Center No	Adjacent NW Yes	0.08 MI. E Yes	Adjacent SW Yes	0.14 MI. E Yes	Inside Center No
RELATIVE ELEVATION	Equal	Equal	Equal	Equal	+2 FT.	Equal

Design

The designs of the churches are traditional across all four categories, except for

St. James Episcopal Church, which is fundamentally different in design from the others.

The remaining churches exhibit the earmarks of traditional Gothic Revival church

design, including a vertical element above the entrance such as prominent gable ends or

towers (Stanton 1968, Howe 2003, Kilde 2008). The exception is St. Peter's in Boerne,

which has a cupola. This is explained by the construction date of this particular building. Instead of adding a prominent tower to the church, as was common, the congregation built a later church early in the 20th century which contained these features. The St. James Episcopal church, however, was derived from a different architectural tradition. It is asymmetrical, has the earmarks of a Queen Anne stylistic influence (McAlester 1991, Gelernter 1999), and is noticeably lacking a narthex, all characteristics that were common to Episcopal churches of the period (Robinson 1994, Dubbelde 2006).

The detail and ornamentation for the churches is consistent with the overall pattern for the design category. St. James is again the outlier. The other churches exhibit tall and narrow windows that are evenly spaced, while St. James has a horizontal band of windows extending along the sides of the building. This category exhibits substantial stylistic variation based upon particular ethnicity. The German Churches all exhibit a round window above the entrance. St. Louis features the characteristic double roof associated with French architecture. St. Stanislaus church has similar corners to other churches associated with Polish immigrants in Texas, such as the Church of the Immaculate Conception in Panna Maria, and Nativity of the Blessed Virgin Mary in Cestohowa (Barnes 1982, Robinson 1994, Cleary 2007).

The form and massing of the churches similarly express a traditionalistic approach to design, with the exception of St. James Episcopal. While the other churches express the symmetrical and initially rectangular form characteristic of European immigrant churches (Dubbelde 2006), and a pattern of constructing the rectangular form first, followed by the addition of transepts and a tower over time, St. James exhibits a

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form notably different with an off-center, asymmetrically placed tower, characteristic of

designs derived from English tradition, and characteristic of the Architect Richard M.

Upjohn, which was influenced by the his father, evident in St, Mark's Episcopal in San

Antonio (Howe 2003, Barnes 1982).

As summarized in Table 24, all of the churches in the study, with the exception

of St. James Episcopal, exhibit traditional design consistent with the predominant

immigrant ethnicity in the community .However, St. James exhibits a design derived

from contemporary professional architectural practice, the particular denomination, and

the architect's background.

Table 24. Summary of the comparative analysis for the design of the study churches

COMPARATIVE ANALYSIS—DESIGN							
CRITERIA	CHURCHES						
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS		KENDALL BOERNE	GILLESPIE FREDERICK-SBURG	MEDINA CASTROVILLE	BANDERA BANDERA
BUILDING NAME:	ST. JAMES EPISCOPAL	STS. PETER AND PAUL CATHOLIC	FIRST PROTESTANT	ST. PETER THE APOSTLE CATHOLIC	ZION LUTHERAN	ST. LOUIS CATHOLIC	ST. STANISLAUS CATHOLIC
OVERALL STYLE	Queen Anne N	Gothic Revival Y	Gothic Revival Y	Gothic Revival Y	Gothic Revival Y	Gothic Revival Y	Gothic Revival Y
DETAIL AND ORNAMENTATION	N	Y	Y	Y	Y	Y	Y
FORM AND MASSING	N	Y	Y	Y	Y	Y	Y
TOTALS	Y=0 0% P=0 0% N=3 100%	Y=3 100% P=0 0% N=0 0%	Y=3 100% P=0 0% N=0 0%	Y=3 100% P=0 0% N=0 0%	Y=3 100% P=0 0% N=0 0%	Y=3 100% P=0 0% N=0 0%	Y=3 100% P=0 0% N=0 0%

The overall style of the courthouses are characterized by variation consistent with the popular architectural style of the time. None of the styles are unambiguously associated with European immigrants. For that reason all of the courthouses are designated as N. In addition to the particular style, the courthouses follow the general trend for courthouses across the state, in which increasingly specialized and substantial designs are utilized, and a handful of architects design several courthouses across the state (Welch 1984, Andrews 2006). This pattern is represented in the Medina county courthouse, as well as the original portion of the Kendall county courthouse, both constructed prior to the others, in which the courthouse has little to differentiate it from surrounding public or commercial buildings. The next oldest, the Gillespie county courthouse, was designed in the Italianate style, popular during the period of construction at the dawn of the period known as the Golden age of Texas Courthouses (Welch 1984, Andrews 2006). By the time the most recently constructed courthouses were designed, standardized designs were adapted in the Richardson Romanesque style, known as one of the first identifiable distinctively American architectural styles (Gelernter 1999). Historians generally agree that the design for the Fayette County Courthouse was inspired by the Allegheny County Courthouse in Pittsburgh, an influential example of the Richardson Romanesque style (Andrews 2006, Meister 2011).

Similarly, the detail and ornamentation of the courthouses is not generally consistent with European immigrant design in terms of detail. The possible exception is the Fayette County Courthouse, which has been described as "German-inspired", with ornamental gargoyles in addition to the more patriotically associated eagle (Meister

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2011). The suggested derivation of the gargoyles from German tradition is not explained, however, and the close association of the Fayette County courthouse with the design of the Allegheny County Courthouse in Pittsburgh, which also features gargoyles, makes the association more tenuous (Andrews 2006). Regardless of the associations attributed to the gargoyles, even when possibly inspired by tradition this courthouse still exhibits an American symbol, the eagle.

Analysis of form and massing provides a strong indication of the statewide evolution of courthouse design. The earliest courthouses are rectangular in plan and smaller in scale, while the later designs feature massing that not only was more substantial, but was often utilized for several outside counties with little modification. This pattern is embodied in the Kendall County courthouse, as the building evolved from a rectangular plan one room deep similar to the Medina County Courthouse, to a square plan with a hierarchy of spaces more characteristic of later courthouse designs. The Fayette County courthouse design was also used for Victoria County, and the Comal County Plan was also utilized for Lee and Gonzalez Counties (Andrews 2006). The former plan is characterized by Meister as the Hollow Square plan, and the latter as the Signature plan. They were utilized by Gordon, the architect, in no less than 15 separate courthouse designs within the state of Texas (Meister 2011).

As summarized in Table 25, the design of the study courthouses, for the criteria of style, detail, and form, massing, all indicate that the design of the courthouses is similar to those across the state, with the possible exceptions of the use of stone in Comal County and some of the detailing utilized for Fayette County.

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Table 25. Summary of the comparative analysis for the design of the study courthouses

COMPARATIVE ANALYSIS—DESIGN						
CRITERIA	COURTHOUSES					
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS	KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
OVERALL STYLE	Richardson Romanesque N	Richardson Romanesque N	Eclectic N	Italianate N	Italianate Influence N	Renaissance Revival N
DETAIL AND ORNAMENTATION	P	N	N	N	N	N
FORM AND MASSING	N	N	N	N	P	N
TOTALS	Y=0 0% P=1 33% N=2 66%	Y=0 0% P=0 0% N=3 100%	Y=0 0% P=0 0% N=3 100%	Y=0 0% P=0 0% N=3 100%	Y=0 0% P=1 33% N=2 66%	Y=0 0% P=0 0% N=3 100%

Building Technology

Analysis shows that churches are unambiguously built using traditional building techniques and materials.

The Gothic Revival churches exhibit the use of stone as a building material, with the exception of St. James, which was built from wood. The Catholic tradition is to construct churches of stone, which carries associations with permanence. Only those built from stone can be consecrated by the Bishop. The stone churches exhibit differences between one another regarding the exterior finishing of the masonry. Both of the New Braunfels churches, the Boerne church, and the Fredericksburg church all

exhibit relatively rusticated stonework, but utilizing well-sized limestone block with consistent mortar joints. This practice is consistent with other masonry structures commonly found in their German communities. In contrast, St. Louis exhibits more irregularly shaped stone with less consistent mortar joints. Finally, St. Stanislaus church is constructed using smooth stone and consistent mortar joints, with towers featuring crisp corners, similar to other churches associated with Polish immigrants (Barnes 1982, Robinson 1994).

Timber frame trusses supported by walls and buttresses of load bearing stone are common to all of the churches, with the exception of the St. James Church, which is a wooden-framed structure, following the denominational as well as architect's tradition. Richard Upjohn the younger was doubtlessly influenced by his father's propensity to incorporate historical styles in new ways, as well as use his architectural training to design according to the contemporary practice for Episcopal churches, which used traditional elements, but most often in a revivalist manner. (Robinson 1994, Gelertner 1999, Kilde 2008). The remaining churches, while all utilizing traditional masonry, express differences associated with specific building traditions. With the exception of St. Peter the Apostle, which is smaller and older, and Zion Lutheran, which resembled St. Peter initially prior to the addition of its tower, all of the masonry churches featured a parapet gable terminating in corner buttresses. The design of these buttresses were indicative of specific building tradition. First Protestant and Sts. Peter and Paul Catholic both feature corner buttresses oriented in line with the main façade. In contrast, St. Louis Catholic features corner buttresses oriented at a 45 degree angle as well as similar angled

buttressing forming the corners of the tower. Finally, St. Stanislaus church has 45 degree

corner buttresses, again similar to the Polish Churches in Panna Maria, and in

Cestohowa (Barnes 1982, Robinson 1994). St. Louis, of all the churches in the study, is

the only church with side aisles supported on pillars. This feature, evident from the

exterior as well as interior, mirrors a distinguishing feature of St. Mary's Catholic

Church in San Antonio, a building associated with French building tradition as were

many of the Roman Catholic Churches of the time, due to the background of clergy and

associations with that country, as well as ecclesiastical architecture found in New

Orleans (Robinson 1994, Cleary 2007).

A summary of the comparative analysis is provided in Table 26 below,

illustrating the degree to which each building fulfills each criterion. A Y indicates

complete fulfillment of a criterion, P represents partial fulfillment, and N indicates that

the building does not fulfill the criterion. The table concludes by providing percentages

indicating the overall extent each building expresses characteristics indicative of ethnic

identity.

Table 26. Summary of the building technology for the design of the study churches

COMPARATIVE ANALYSIS—BUILDING TECHNOLOGY							
CRITERIA	CHURCHES						
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS		KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
BUILDING NAME:	ST. JAMES EPISCOPAL	STS. PETER AND PAUL CATHOLIC	FIRST PROTESTANT	ST. PETER THE APOSTLE CATHOLIC	ZION LUTHERAN	ST. LOUIS CATHOLIC	ST. STANISLAUS CATHOLIC
MATERIALS	Y	Y	Y	Y	Y	Y	Y
STRUCTURAL SYSTEM	Y	Y	Y	Y	Y	Y	Y
TOTALS	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%

Comparison of data indicates that the courthouses all utilized traditional materials such as stone in visible portions of the building. . There is some indication that Comal County was constructed of stone following the wish of the community, as the original design submission specified brick, but the motivation for this was not revealed (Meister 2011). However, in several cases, in non-visible areas, non-traditional materials, metal beams were utilized. In Fayette, Comal and Bandera Counties, metal was utilized as part of the structural system. In Fayette the roof trusses incorporated metal rods and in Bandera, Fayette and Comal counties, windows were reinforced with metal. The other buildings, although consistent with use of traditional materials, are

ambiguous. Due to their earlier construction dates, it was less common overall to utilize different materials, so it is unclear whether the traditionalism stems from economic considerations, availability, or a conscious choice. For that reason, they are designated P.

Similarly, the structural system for the courthouses exhibits technology consistent with the times. The older courthouses are designated P for the same reason as applied to materials. The Comal, Fayette, and Bandera Courthouses utilized contemporary building technology. For example, fireproof floor supports were incorporated, and in the case of Fayette County, the apparent stone walls cover brick supporting system that incorporates metal I-beams above the windows and a rafter system incorporating metal rods in lieu of complicated roof trusses (Meister 2011). Table 27 summarizes the degree to which the courthouses express traditional characteristics.

Overall, building technology of the study churches was traditional regardless of any other factors, while courthouses exhibited a wide range of approaches to building technology, but in no cases was there any evidence that any of the study courthouses intentionally chose a traditional option over a readily available alternative. In the cases of the Gordon courthouses, in Fayette and Comal Counties, the desire to incorporate "the latest improvements" was explicitly stated (Volz 2005).

Table 27. Summary of the building technology for the design of the study courthouses

COMPARATIVE ANALYSIS—BUILDING TECHNOLOGY							
CRITERIA	CHURCHES						
COUNTY CITY	FAYETTE LAGRANGE	COMAL NEW BRAUNFELS		KENDALL BOERNE	GILLESPIE FREDERICKSBURG	MEDINA CASTROVILLE	BANDERA BANDERA
BUILDING NAME:	ST. JAMES EPISCOPAL	STS. PETER AND PAUL CATHOLIC	FIRST PROTESTANT	ST. PETER THE APOSTLE CATHOLIC	ZION LUTHERAN	ST. LOUIS CATHOLIC	ST. STANISLAUS CATHOLIC
MATERIALS	Y	Y	Y	Y	Y	Y	Y
STRUCTURAL SYSTEM	Y	Y	Y	Y	Y	Y	Y
TOTALS	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%	Y=2 100% P=0 0% N=0 0%

Compatibility to Local Climate

A comparative analysis was conducted for each type of building to show the extent to which each building design was compatible to the local climate. Tables 8 and 9 illustrate the degree each building fulfills each criterion. A Y indicates complete fulfillment of a criterion, P represents partial fulfillment, and N indicates that the building does not fulfill the criterion.

Comparative analysis shows the extent of compatibility of the study churches to the hot and humid south central Texas climate. Of the 12 criteria listed, no church fully fulfilled

greater than 5 of the criteria. Five of the 6 study churches exhibited similar results for the design guidelines and for the majority of the thirteen individual criteria as well.

Analysis shows that the churches scored similarly at the criteria of keeping heat out of the interior. All of the churches were rectangular, not particularly compact, and had a moderate amount of exterior exposed to outside heat in relation to interior volume. Therefore, they partially fulfilled (P) the criteria of compactness. None of the churches were intentionally insulated; five of them constructed of stone block, and St. James Episcopal of wood. The high thermal lag inherent in thick stone is relatively ineffective due to the relatively small difference between daytime and nighttime temperatures and the high relative humidity in the reason. For these reasons, all of the churches did not fulfill (N) the insulation criterion. None of the churches featured shutters (N). All of the stone church exteriors were constructed of varieties of local limestone, creating light and highly reflective exterior surfaces (Y), St. James Episcopal differed in this respect, with wood exterior painted in muted colors consistent with its architectural style (P).

All of the stone churches were ventilated similarly, but St. James Episcopal featured significant differences in this criteria. All of the churches exhibited a relatively low proportion of operable windows per wall area. Four of the six churches, however, have windows oriented to capture the prevailing winds originating from the south and southeast (Y), and two were oriented in a manner that would reduce access to ventilation from the wind (N). No clear association can be made based upon this criterion, as other Catholic churches in this study are oriented differently. None of the study churches feature a high degree of elevation to capture higher velocity winds and remove the main

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areas from the more humid ground level (N). All of the stone churches benefit from high ceilings, which increase vertical air movement but no high openings to vent rising heat (P). Only St. James Episcopal exhibits features specifically designed to create vertical airflow, namely roof- height ventilated eyebrow dormers which evacuate air from floor level louvered vents (Y).

All of the churches are protected from the sun in a similar manner. All feature at least a minimal degree of self-shading from prominent spires characteristic of churches, but none exhibit an envelope apparently designed to shade parts of itself (P). All of the churches only incorporate vertical glazing (perpendicular to grade) (Y). St. James Episcopal and St. Peter the Apostle both feature exterior shading devices in the form of porticos (Y), while the other churches lack these features (N).

Table 28 summarizes the data analysis, which suggests that with the exception of St. James Episcopal church in LaGrange, the study churches were not well adapted to the hot humid Texas climate in most respects. Several aspects in which the churches met the criteria, such as in use of reflective materials and use of self-shading, may be most reasonably attributed to other reasons, such as the convenient access to local stone, and the symbolic need for a prominent spire. Thus, immigrants continued to build as they were accustomed to in Europe (Geva & Morris 2010). Only in the case of St. James Episcopal, with removable panels exposing large louvered vents that have no reasonable purpose outside of ventilation, can it confidently be said that the hot humid climate of south central Texas was a major factor in the design.

Table 28. Morphological analysis of study sample churches

CHURCHES: DESIGN WITH CLIMATE								
County City		Fayette LaGrange	Comal New Braunfels	Comal New Braunfels	Kendall Boerne	Gillespie Fredericksburg	Medina Castroville	Bandera
Design guidelines	Specific criteria	St. James Episcopal	Sts. Peter and Paul Catholic	First Protestant	St. Peter the Apostle Catholic	Zion Lutheran	St. Louis Catholic	St. Stanislaus Catholic
Hot temperatures excluded	Compact design	P	P	P	P	P	P	P
	Insulated envelope	N	N	N	N	N	N	N
	Window shutters	N	N	N	N	N	N	N
	Light colored exterior	P	Y	Y	Y	Y	Y	Y
Natural ventilation	Orientation	Y	N	Y	Y	Y	Y	N
	Elevated main spaces	N	N	N	N	N	N	N
	Vertical air movement	Y	P	P	P	P	P	P
Protection from sun	Self-shading envelope	P	P	P	P	P	P	P
	Use only vertical glazing	Y	Y	Y	Y	Y	Y	Y
	Exterior shading devices	Y	N	N	Y	N	N	N
Minimize excess humidity	Avoid pools and fountains	Y	Y	Y	Y	Y	Y	Y
Intentionality	Historical record shows consideration of climate	N	N	N	N	N	N	N
Total		Y=5 42% P=3 25% N=4 33%	Y=3 25% P=3 25% N=6 50%	Y=4 33% P=3 25% N=5 42%	Y=5 42% P=3 25% N=4 33%	Y=4 33% P=3 25% N=5 42%	Y=4 33% P=3 25% N=5 42%	Y=3 25% P=3 25% N=6 50%

The courthouses keep exterior heat out in relatively similar ways. They all feature shutters (Y) and a light colored exterior(Y), but none rely upon a high degree of insulation (N). Variation exists regarding compactness of design. Half of the courthouses are a variation on a relatively square plan (Y), New Braunfels is a cross and circle

superimposed, yet still relatively compact (P), while Comal County is an "I" (P), and Medina is rectangular (P).

The courthouses generally exhibit a sophisticated use of ventilation to enhance comfort. Although the buildings are designed to be relatively compact, most of the buildings mitigate the effect of orientation. Four of the courthouses expose a substantial degree of windows to make use of prevailing winds (P), Kendall County catches them directly (Y), while the Medina County Courthouse is oriented with the short side toward prevailing wind (N). Four of the courthouses have elevated main spaces at the upper story level, but not as much at the ground floor (P), and Fayette and Comal county courthouses have elevated first stories (Y). All of the courthouses have mechanisms to promote vertical air movement. Medina county courthouse only achieves vertical air movement through high ceilings (P), while the other courthouses feature more sophisticated systems, including open stairwells (Kendall, Gillespie, and Bandera), and central courtyards such extending through all levels as in Fayette and Comal counties (Y).

As utilized the Fayette and Comal courthouses, the central courtyard design combines the benefits of keeping heat out through a compact exterior, and the ventilation benefits usually obtained through a sprawling exterior by use of a spacious, central courtyard, which acts as a heat chimney. All of the courthouses designs effectively provide sun protection. All utilized only vertical glazing (Y), and exterior shading to some degree (Y). The building envelopes provided a good degree of self shading, with the exception of the Bandera Courthouse which obtained minimal self shading from the

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central tower (P), and the Medina County Courthouse, which lacked overhanging eaves, and is otherwise simply a rectangle (N). All of the courthouses performed relatively well at minimizing excess humidity. Only Fayette and Comal featured water features, but the placement in a shaded and well-ventilated area offset much of the potential to substantially decrease comfort (P).

Of the six courthouses, three have no records indicating that the architect specifically mentioned climate in design. J. Reilly Gordon specifically addressed thermal comfort at length in his designs for the Fayette and Comal courthouses (Y) (Meister 2011). The county commissioners of Gillespie County specified that any plans for the new courthouse include good ventilation (Wagner & Klein 2000).

Overall, the analysis summarized in Table 29 suggests that the study courthouses are all relatively effective designs for the local climate. The courthouses constructed later, and the courthouses designed by recognized architecture firms scored more highly. Medina County represents the only courthouse that did not receive a Y rating in the majority of categories. This can be attributed to the fact that is was constructed earlier, and was less modified over time than the other courthouses.

Table 29. Morphological analysis of study sample courthouses

COURTHOUSES DESIGN WITH CLIMATE							
County City							
Design guidelines	Specific criteria	Fayette LaGrange	Comal New Braunfels	Kendall Boerne	Gillespie Fredericksburg	Medina Castroville	Bandera
Hot temperatures excluded	Compact design	Y	P	Y	P	P	Y
	Insulated envelope	N	N	N	N	N	N
	Window shutters	Y	Y	Y	Y	Y	Y
	Light colored exterior	Y	Y	Y	Y	Y	Y
Natural ventilation	Orientation	P	P	Y	P	N	P
	Elevated main spaces	Y	Y	P	P	P	P
	Vertical air movement	Y	Y	Y	Y	P	Y
Protection from sun	Self-shading envelope	Y	Y	Y	Y	N	P
	Use only vertical glazing	Y	Y	Y	Y	Y	Y
	Exterior shading devices	Y	Y	Y	Y	Y	Y
Minimize excess humidity	Avoid pools and fountains	P	P	Y	Y	Y	Y
Intentionality	Historical record shows consideration of climate	Y	Y	N	Y	N	N
Total		Y=9 75% P=2 17% N=1 8%	Y=8 67% P=3 25% N=1 8%	Y=9 75% P=1 8% N=2 17%	Y=7 58% P=3 25% N=2 17%	Y=5 42% P=3 25% N=4 33%	Y=7 58% P=3 25% N=2 17%

Results Summary

The results section follows the major categories of analysis, their descriptions, and the tables that summarize the results of analysis. Across these criteria, churches generally exhibit a higher degree of architectural traditionalism than the courthouses, which generally reflect patterns commonly found in Texas. Overall, the architectural conservatism noted for churches by previous researchers (Geva 1995, Dubbelde 2006) is evident throughout the analyses, with the exception of St. James Episcopal in LaGrange.

This difference can be explained by factors derived from the historical/cultural context. LaGrange was settled prior to the influx of immigrants, and the community itself has a more diverse population. In addition, although the congregation of St. James contained many of German descent, the denomination is not one traditionally associated with Central European immigrants.

In contrast, the courthouses across all five counties reflect the general building practice appropriate to their respective construction date. The notable architectural concessions to ethnicity are seen in the quality of the stonework of the masons, millwork of the carpenters, and possibly the application of isolated examples of ornamentation. Nothing revealed in the historical record during the course of this study proves that this is not an incidental effect of local availability of labor as opposed to any specific self-conscious expression of ethnicity or traditional craftsmanship. This applies to the choice in the courthouses designed by professional architects to focus on practicality and comfort, as well as embracing the Richardson Romanesque style, a distinctly American architectural style, and accepting architects and plans that were utilized outside of immigrant communities as frequently as for them. For example, the design for the Comal County courthouse was also used for the following additional counties: Brazoria, Hopkins, Gonzales, San Patricio, Van Zandt, Ellis, Wise, Lee, Harrison, and Callahan, and J. Reily Gordon similarly used the same design as Fayette County in Aransis, Erath, and Victoria county courthouses (Meister 2011).

The primary examples of traditionalism in regards to the courthouse are related to site and retention of a relatively open town square. The central plaza has proven to be

a durable feature that tends to survive despite pressures from county officials (Wagner &
Klein 2000; Volz 2005). This is most evident in the case of the Comal County
courthouse in New Braunfels, in which the courthouse was clearly designed
architecturally to occupy a square, as it was designed with four corner entrances,
expressing radial symmetry with no clearly dominating facade, yet was placed at the
northwest corner adjoining the square, where the impact of four primary facades is lost.
This situation makes it difficult to determine definitively to what extent courthouses are
the product of traditional identity. Based upon the architectural characteristics of the
courthouse buildings themselves, little unambiguously indicates that European
immigrants played any significant part whatsoever in the design of the building. The
later courthouses in the study sample are especially generally indistinguishable from
designs used in counties not affected by immigration. Unlike the typical church built by
a predominately European immigrant congregation, the courthouses could not be
accurately described as "immigrant" architecture. Yet, considering that the very location
of the courthouse can be determined by the collective will of the community, it follows
that the architecture itself is typical of courthouse architecture, not because the German-
Texans in the communities of New Braunfels and Fredericksburg were necessarily
excluded from architectural decisions regarding the courthouse design, but because they
did not object, or possibly approved of the design as consistent with their identity as
German-Texans. In other counties within the study area, no similar event was found that
demonstrated that the immigrant community could unambiguously affect architectural
decisions related to courthouse design or placement.

SUMMARY AND CONCLUSION

Based upon scholarship that understands immigration processes as contextual, and architecture as an expression of identity, this dissertation applies these concepts to the architecture of European immigrants who arrived directly to Texas by ship as part of the mid-19th wave of immigration. The contextuality of architectural expression of the different identities of immigrants as Europeans and Texans is explored in the case of two of the most prominent building types in communities, churches and courthouses. The former as a symbolic embodiment of heritage and tradition, and the latter of civic pride. The context of the analysis is a conceptual model (Figure 1) based upon the notion that the built environment can serve as an expression of identity. A major proposition and two hypotheses were derived from this framework.

As shown in the research procedure (Figure 2), testing both hypotheses required accumulating data based on literature review, archival studies, and field visits. Literature review provided criteria for comparative analysis of building features while archival studies and fieldwork provided the data to apply the criteria and for comparison.

The first hypothesis, *if churches represent the original heritage of immigrants' ethnic/religious group, churches built by one ethnic group will differ from those built by another group to the extent that their original architectural traditions differ*, is generally supported by the study's findings. In almost every case, the study's churches are reflective of the particular traditional identity of those associated with them. All of the churches exhibit characteristics consistent with the ethnicity and denomination of the

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congregation. For five of the six counties, this translates to a traditional approach to design and construction. Considering that the churches are all located in a county seat, it still appears that this has no effect on the expected characteristics of the churches. The clergy and the congregation were the decision makers for all aspects of the churches' design and construction. Where applicable, the churches, following tradition, were placed to follow established approaches to orientation and placement within the confines of geographical constraint. The churches are stylistically all ethnically-influenced variations on Gothic Revival, and all of the churches were constructed traditionally, utilizing load-bearing stone walls. All of the churches performed relatively poorly in terms of thermal comfort, maintaining their traditional style, as would be expected from literature review.

The exception to all of these, however, is the church located in LaGrange, in Fayette County. St. James Episcopal is substantially different in its physical characteristics. This is explained by the denomination as well as by the choice of the congregation to employ a professionally trained architect. Although St. James congregation lists contained several members, the Episcopal Church was not traditionally associated with either German or Czech immigrants who arrived by the Texas port cities. This suggests that those members are a self-selecting group that would, in at least one aspect, demonstrate a proclivity to assimilate into significant aspects of Anglo culture that others generally were not. While the other churches exhibit bilateral symmetry, St, James is characterized by an off-center tower. Other sample churches contain tall narrow windows, St. James features a horizontal band of windows. St.

James, although clearly architecturally cohesive in its spatial arrangement, lacks a narthex, which all of the other churches incorporate into their design, with the exception of St. Peters the Apostle, the most modest of all the churches included in the study. While the other churches were not designed to be well equipped to accommodate thermal comfort St. James exhibits several design features incorporated to make it comfortable in the hot humid climate of Texas. This seems to be a conscious choice made by the architect, as Upjohn employed similar strategies to attain thermal comfort for the design of St. John's Episcopal Church in San Antonio (Robinson 1994). The nature and extent of differences between St. James and the other churches included in the study sample indicate that, although the character of St. James supports hypothesis 1 in the specific sense that it is reflective of its congregation, as well as potentially reflective of assimilative aspects of immigrant congregation members' identities, it does not significantly exhibit any identifiable features that categorize it as characteristic of what would generally be identified as "immigrant" architecture.

The second hypothesis, *if courthouses represent civic pride as well as immigrants' assimilation to their newly-adopted land, courthouses built in a county dominated by one particular ethnic group will be similar to those built in a county dominated by a different immigrant group: both reflecting overarching trends for courthouses within the state of Texas,* was also supported by the analyses. The most notable physical differences between courthouses were explained by accounting for the date of construction and contemporary building practice. Even in some of the communities most strongly associated with a particular ethnicity, the practice was to

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utilize the same prominent architects as the surrounding counties, with the same plans and often style utilized in other counties. The study courthouses are generally so substantially architecturally indistinguishable from those found in non-immigrant communities, that it would be difficult to establish that those of European immigrant stock had any opportunity to express their identity in any meaningful capacity even if they expressed a desire to do so. The significant exception to this is in Fredericksburg and New Braunfels, where because of popular sentiment, the city retained elements of the original open plaza. In doing so, they rejected the centrally located courthouse location as an affront to traditional community identity. In the context of each courthouse itself, inquiries which emphasize that ethnic identity as a contextual and negotiated phenomenon are supported by the results of the analysis of the placement of the courthouses. Even when the architecture of the building is only well suited to be placed in the town square, the aspects of identity in the community that value the open central courtyard are retained, as is the case in Comal and Gillespie counties. In both cases, the courthouses are clearly designed with four facades exhibiting a high degree of detail and prominent entrances. Despite this, in both places the community desire to retain an open courtyard has precedence over the intent of the architectural design. Scholars that have stressed the primacy of the plaza and the open courtyard as important and durable features that can be clearly associated with ethnic identity are reinforced by the results of this study (Veselka 2000, Wagner et al. 2013). This phenomenon of retaining the traditional courtyard is the only relatively unambiguous instance in which

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the courthouses do not support hypothesis 2, since the centrally located courthouse is the overarching practice throughout the state.

This dissertation builds upon an existing body of knowledge that explores architecture as a result of the intersection of culture, history, geography, and environment. The foundation upon which this inquiry rests relies upon several realizations made by scholars in several disparate fields (see literature review). It applies methodology applicable to different building types, as well as examining the relationships between the built environment and cultural identity. Following works of cultural geographers, architectural historians, anthropologists, and architects, it examines architecture as an expression of what it means to exist with a frame of reference that is defined both utilizing externally imposed values, and from internal ones as well. This inquiry makes a modest but potentially significant contribution to studies of immigration and architecture by applying a holistic yet systematic approach. Whereas relatively recent studies have utilized similar methodology to explore architecture associated with immigrant groups and have applied them to more than one building type (Geva 1995, 2002, Dubbelde 2006), the current study applies these principles to two types of public buildings, to verify that churches express traditional ethnic identity and that courthouses tend to express the extent of assimilation and civic pride. The results of the present study reinforce the conventionally accepted notions regarding churches, and generally support commonly accepted ideas of the relationship between courthouse and the community. The results of systematic analysis of these building types further existing knowledge in

the field by making a few observations and rigorous analysis regarding the buildings included in the study:

- Every building type has potential to express different aspects of architectural identity. Courthouses, by most criteria applied in the study, express patriotism and a cohesive vision of civic identity within the community. Typically they would not generally be analyzed in terms of immigration. The current study however, suggests that under some circumstances, courthouses can in specific contexts express aspects of ethnic identity. In this case, through placement.

- The current inquiry underscores that different layers of meaning can be revealed when architecture is studied within its context. Disregarding relative positions and orientations within the community can neglect aspects of meaning, as would be the case if each building was only examined individually.

- The current study illustrates that architecture, if viewed through multiple lenses, seldom belongs to a monolithic group, and culture is defined by variation and negotiation. Although the area studied is termed as part of the German belt (Jordan 1977), this is somewhat of a misnomer, as each community can reflect different aspects of community identity in specific ways. This is sometimes accomplished by overtly displaying traditional ethnic identity as is common in churches, other times subsuming it in favor of a common civic identity as is seen in courthouse design. Sometimes traditional identity is expressed it in an incidental manner, as when workers use traditional methods in the construction of a courthouse design, so the resulting architecture has the earmarks of

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informally transmitted immigrant craftsmanship. Just as a person often has a hyphenated identity, such as German-Texan, Czech-Texan, Silesian-French-Texan, Anglo-Texan, architecture can express the hyphenated identity of a community.

Implications for Heritage Conservation

The current inquiry has additionally has implications for the practice heritage conservation. Public buildings such as churches and courthouses traditionally are often the first buildings to be interpreted and intentionally preserved in a community. Early statements of significance and determination of character defining features of buildings were often informed almost exclusively by political and military history, as well as sometimes unabashed hero worship and patriotism, unfortunately occasionally at the expense of historical accuracy and significant people and events not directly associated with elite society. Utilizing a more holistic systematic approach to architectural research can assist the researcher and practitioner to discover layers of meaning and significance not otherwise apparent. This translates into the preservation of heritage and culture through more historically sensitive maintenance and rehabilitation efforts, and creates an opportunity to broaden the audience for interpretative programming.

This study also carries implications for the specific buildings include in the current study sample. In making decisions for future treatments to the buildings, aspects that may have not have been recognized as significant may now be worthy of consideration. This may shape decisions such as alterations and additions to the buildings, as well as decisions related to the viewscape associated with the building. An

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example would be the importance of maintaining the relationship between the

courthouse and the square as an expression of community heritage.

OPPORTUNITIES FOR FUTURE RESEARCH

This dissertation presents other opportunities for further inquiry. This general research model can be adapted to different applications. Specific criteria for analysis can be refined and changed to reveal less explored layers of meaning. In the present study, to ensure sufficient and consistent data between buildings, only standing buildings located within a county seat were included in the study sample. When possible, historical analysis of buildings that have been demolished may provide further insight, such as a study of more strongly immigrant churches in LaGrange than St. James, could provide greater depth, and help to support or qualify the findings of this study. A study less focused upon the negotiated aspects of architectural expression of identity than this one may include religious buildings not located in county seats, since one of the findings of the present study is that church buildings closely associated with the immigrant groups in question expressed traditional characteristics even when located in county seats.

The methodology used in this inquiry could also be applied to cultural groups other than those in the present study as well as other time periods, by applying applicable criteria for analysis to determine their respective influence upon architecture. Although this study evaluates the degree of immigrants' influence on architecture, it could as easily be applied to communities without a substantial immigrant population, but having more than one potential ethnicity that may have input into architectural decisions.

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