The Process of Design: A Tool in the Exploration and Understanding of Place

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Bachelor of Architecture
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SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE
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THE PROCESS OF DESIGN: A TOOL IN THE EXPLORATION AND UNDERSTANDING OF PLACE

by ALEJANDRO COLOM

Submitted to the Department of Architecture on May 10, 1996 in partial fulfillment of the requirements for the Degree of Master of Science in Architectural Studies

ABSTRACT

This thesis focuses on the understanding and representation of an urban fabric. This document is not a historical essay nor a theoretical critique of the design of an architectural form but an analysis and an attempt to understand the vernacular, the evolution and transformation of San Antonio, Texas. The objective is to develop an analytical process for the understanding of place and its architectural characteristics. A framework is developed for design guidelines based on observations of the shared language of the urban structure in San Antonio and suggests guidelines that can provide the transformation and inhabitation of a place.

This thesis concentrates on the central and surrounding areas of the "Paseo del Rio" in downtown San Antonio. The method of research consists of information gathered through direct observations in search of morphological commonalities in San Antonio. Further, the effects of the Nineteenth Century interventions on the Eighteenth Century urban fabric is observed as well as how this transformation of the urban fabric can serve as the framework for the redevelopment of the Northeast End of downtown San Antonio. This framework offers a basis for physical continuity in the change and growth of the Northeast End of San Antonio and for the understanding of its cultural characteristics and regional identity.

San Antonio's urban fabric follows a nonlinear process. This nonlinear process is expressed through the process of cyclic observation, according to the following points: 1) Gathering; 2) Prioritizing; 3) Evaluating; 4) Organizing; and 5) Presenting. This process will in turn, develop a set of controls for the urban fabric that can be used for possible implementation. Even though there are a variety of forces that influences the success or failure of urban forms such as, market forces, economic fluctuations and political issues, this thesis and sets of controls emphasize only the understanding of physical and spatial characteristics within the urban fabric..

This document develops an understanding of the design thought process and a possible "genera" that an architect can continuously build upon throughout ones profession. This document questions the validity of the thought process and the power of an analytical and theoretical methodology. It provides an organizational possibility, in the architectural umbrella , that allows the transition from the conceptual to the built form. Since San Antonio is currently in the process of redeveloping the Northeast End of the city, this document can serve as a framework for the unformulated set of conventions and characteristics of the urban fabric that has given San Antonio its romance and charm.

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Chapter 1:

INTRODUCTION

This thesis focuses on the understanding and representation of an urban fabric. This document is not a historical essay nor a theoretical critique of the design of an architectural form but an analysis and an attempt to understand the vernacular, the evolution and transformation for the city of San Antonio, Texas. The objective is to develop an analytical process for the understanding of place and its architectural characteristics. A framework is developed for design guidelines based on observations of the shared language of the urban structure in San Antonio and suggests guidelines that can provide the transformation and inhabitation of place.

This thesis concentrates on the central and surrounding areas of the "Paseo del Rio" - The River Walk -in downtown San Antonio. The method of research consists of information gathered through direct observations in search of morphological commonalties in San Antonio. Further, the effects of the Nineteenth Century interventions on the Eighteenth Century urban fabric is observed as well as how this transformation of the urban fabric can serve as the framework for the redevelopment of the Northeast End of downtown San Antonio. This framework offers a basis for physical continuity in the change and growth of the Northeast End of San Antonio and for the understanding of its cultural characteristics and regional identity.

San Antonio's urban fabric follows a nonlinear process. This nonlinear process is expressed through the process of cyclic observation, according to the following points: 1) Gathering; 2) Prioritizing; 3) Evaluating; 4) Organizing; and 5) Presenting. This process will in turn, develop a set of controls for the urban fabric that can

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This document develops an understanding of the design thought process and a possible "genera " that an architect can continuously build upon throughout ones profession. This document questions the validity of the thought process and the power of an analytical and theoretical methodology. It provides an organizational possibility, in the architectural umbrella, that allows the transition from the conceptual to the built form. Since San Antonio is currently in the process of redeveloping the North East end of the city, this document can serve as a framework for the unformulated set of conventions and characteristics of the urban fabric which has given San Antonio its romance and charm.

In this document, I offer an approach to the understanding of place. The following chapters will guide one through the process for this method of designing. Chapter One provides a history of San Antonio along with a description of the site, its influences and the design methodology. Chapter Two demonstrates how this process formalizes the framework for the observations and interpretations of the chosen site. Chapter Three covers the projections and interpretations of this process and is compared to the findings of a charrette sponsored by the city of San Antonio and the local chapter of the American Institute of Architects, for the same site. This chapter compares the approach of this document, which considered the entire urban fabric, and the charrette which focused on the specific site and its local possibilities. Finally, it is suggested how this methodology provides an approach to the process of design that offers another option to our profession. Thus, San Antonio is only a case

study for the implementation of this methodology.

1.1 HISTORY OF PLACE

San Antonio is known to have an historic air in a present-day setting, rich Latin culture with a rhythmical beat of the Spanish tongue, all with a local flavor for the easy pace of life, which continues to provide both the tourists as well as the locals a sense of continuity in place. This city is home to nearly three-quarters of a million people who converged their cultural diversities towards a shared inhabitation that continues to flourish since the influence of the Americans, French, Mexicans and German's in the 1840's. "San Antonio was founded in 1718 by a group of Franciscan missionaries and is the "third oldest surviving settlement in Texas and the only major city in the state whose existence predates 1836, the year Texas won independence from Mexico."[1]

The diversity of landscape which surrounds the city varies from rolling prairies that stretch to the North and East, high Plains to the Northwest, and Rocky Mountains to the West, both supporting Limestone hills with vegetation as diverse as San Antonio's cultures. The Gulf of Mexico to the South and the Rio Grande towards the Southwest both display a thorny brush country side ambiance. The weather is variable. Summers are hot and dry. Spring and Fall are more than delightful, although the month of August sends a low level fog of humidity that can be sliced with a knife. Winters are mild with the exception of a blue northern, which typically remains all of three days. Overall, the endless Texas blue skies warrants the small inconveniences that a hot Texas day can generate.

The architecture of San Antonio is a combination of regional subcultures. The largest influence is the Mediterranean architectural genre, which is based on the "minor" architecture of Spain, that transformed the local

1) San Antonio Chapter of AIA.
A Guide to San Antonio Architecture pg.4.

architecture during the 1920's and 1930's. Although California is the origin of the Mediterranean style, the Hispanic tradition of San Antonio made the transition an irresistible indigenous vernacular. The local chapter of the American Institute of Architects attempts to define this indigenous vernacular by stating,

> "It was not stylistic uniformity that makes the architecture compelling, but a tacit architectural agreement, an unformulated set of conventions -that- at least in historical perspective- produced an unobtrusive consistency an urbanity and sense of local particularity that transcends style."[2]

Schön states that our knowing is ordinarily tacit, implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action.[3]

1.2 THE NORTHEND: THE BROADWAY SITE

At the onset of this study, the objective was to observe the downtown area of San Antonio and develop an analytical process for the understanding of place and its architectural characteristics. There was not a specific site chosen for this study until later in the analytical process. The Broadway site was chosen while completing an analysis of the urban fabric in studio. At the time, it became apparent that the site of Broadway, Northeast of downtown, would be the idea location for further inquiry. The selection of this site is based on these issues:

1) Broadway's proximity to Downtown center;

2) This site incorporated the 19th century influences such as block transformations and street hierarchy;

3) The similarities between Downtown and Broadway's urban organizational order and

4) Because this site is a major link between the North End of the city and Downtown

2) San Antonio Chapter of AIA. A Guide to San Antonio Architecture pg.4.

3) Schon, Donald The Reflective Practitioner pg.49.

In addition to all these issues, the initial idea considered the site of Broadway the ideal location to study and gather more appropriate information in the understanding of San Antonio's architectural uniformity. There are two reasons for this speculation. First, this section of town was taught to provide a thriving mixed-use organization that developed from the 19th century interventions. Second, it would be the ideal location to acquire the information needed for projections on future developments in the 21st century. However, upon returning to the site during phase two, these inferences were completely wrong.

This section of town is decaying and unoccupied. The local tenants, are automobile dealerships and individual shop owners: mechanics, storage, motels, hotels, advertising shops, commercial repair shops. Although this area is high priority in terms of its proximity to downtown, it is used more as a corridor from downtown to the North End of the city. The businesses which have managed to remain are leaving the area. On the other hand, the success of the residential area of King William is one hope for the site of Broadway by the San Antonio Planning Department. Ironically, the city had just completed, on February 24th & 25th of 1996, a charrette with the local chapter of the AIA, trying to determine the flavor and local characteristics, vernacular, or regional identity, that categorized the historical and future goals of San Antonio. The goals of this document, therefore, could translate into the future goals for the city. The accumulation of information in the central downtown area along the River Walk, is presented throughout this document. The information is presented by segmenting the gathered information into different topics, elements, and time periods that express the evolution of San Antonio. The Broadway site is in the southwest section of town, demonstrating the financial and architectural possibilities. Both the Broadway site and the Residential area of King William share the same street organizations, hierarchy and patterns

and at one point these were the most prestigious locations to reside. In the following sections, a representation of the most common architectural forces are discussed. Each section and the images with each section are included for their importance to both the central Downtown area and the Broadway site. This existing duality is the reason for their selection.

1.3 INFLUENCES

A place develops, evolves and transforms its characteristic as a result of major forces through history and present-day. San Antonio is no different. Through its continuous growth there were two major forces that have and still impact this city. These forces are the Paseo del Rio and the South Side of San Antonio. These are only perceptions by the author as major influences on the city as a result of and through the power of observation. Note, that the method of observation adheres to interpretation, thus, the following information is only what the author found to be viable to the past and future developments for the city of San Antonio.

Figure 1:
Plan of Downtown San Antonio

1.3.1 THE PASEO DEL RIO

One major force which has defined and sustained San Antonio is its River. It is referred to as "The River Walk " by non natives and the "Paseo del Rio" by the locals. The Paseo del Rio is the pearl which supports the city both historically and present-day. The Rio bends through the city in a horseshoe shape and gently guides its inhabitants along its 1.8 mile stretch in the heart of the city. (Figure 1) Although the river occurs fifteen feet below street level, its presence is always felt and respected and its irresistible charm is a magnet for excitement. Due to

the layout of streets and the bridges that span the Rio, there is always a constant reminder of this thriving subculture.

Glimpses down to the river and up to the street occur at every bridge that span the winding course of the river. In fact, San Antonio is often referred to as the city of bridges, 10 to be exact. "The serpentine course of the river necessitates a considerable number of viaducts spanning it to accommodate the commerce and travel of the city."[4] Galleries, bars, shops, hotels, and cafes line the edges of the river and are shaded by beautiful mature cypress trees and dense banks of tropical foliage which removes the inhabitant from the noise, pollution and heat of the city above. "The Paseo del Rio was envisioned by Robert H.H. Hugman in 1927, after the raging flood of 1921 that took the life of 50 people and $50 million in property damage"[5] , and was soon implemented as a viable solution to the flooding. His proposal provided a channel which would directly connect the river , bypassing the river bend -the horseshoe section- and could be controlled by two flood gates at either end. (Figure 2) "The result of his proposal, known as the River Beautification Project, produced a total of 17,000 ft. of walkways; 31 stairways leading from 21 bridges and 11,000 trees and shrubs." [6]

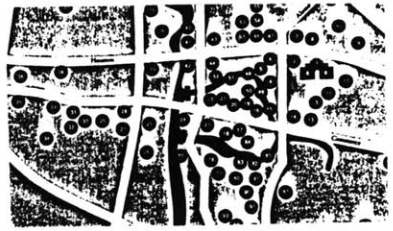


Figure 2:
Flood Gates at San Antonio River Walk

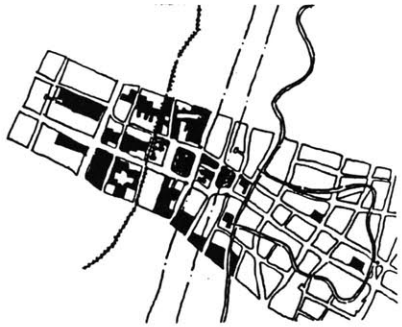


Figure 3:
Urban Forces in the City Fabric

1.3.2 THE SOUTH SIDE

As with all industrial cities, the introduction of the railroad in 1877, allowed the then small isolated town of San Antonio the cross-country connection which allowed for the development of economic growth. The influence of the railroad remains visible in the South, Southwest and Northeast sections of the city. Both the river and the railroad are major urban forces in downtown as seen in (Figure 3). The South side remains filled with

4) Everett, Donald E. San Antonio - The Flavor of its Past 1845-1898 pg.55.
5) San Antonio Chapter of AIA. A guide to San Antonio Architecture pg.12.
6) San Antonio Chapter of AIA. A guide to San Antonio Architecture pg.13.

both used and abandoned industrial warehouses and old remnants of the railroad along with a decaying residential area. The urban fabric of the south side and the unordered layout of streets allows one to imagine the typical landscape the first Mexican soldiers observed upon arriving there in 1718. The major influence of the South side was the arrival of five missions: San Antonio de Valero -The Alamo, Concepcion, San Jose, San Juan, and Espada. The mission trail begins in the heart of the city with the Alamo and continues on N. St. Mary's St. which leads onto Mission Road and deep into the south side of San Antonio. (Figure 4)

The development and location of the missions are directly linked to the San Antonio River and these missions are still one of the major architectural influences of today. In the past few years, the architecture in this section of the city has gone through a transformation and retrofitting of existing building in the area. For example, one of the architecture offices visited was housed in an old converted pickle factory that is connected to the old railroad yards. The transformation of this factory into an office was successful. The remnants of the past where successfully integrated to remind the inhabitants of their location in the city and their role in the present history of the city. This type of respect and concern for the history of the city is what keeps the architecture of San Antonio unified.

Figure 4:
Map of Mission Trail

1.5 METHODOLOGY

Through direct observation, the understanding of the urban fabric within San Antonio developed during two on-site visits. Phase one occurred for a period of two weeks, and phase two for a period of one week. There was a two week interim period for reflections, translations and interpretations of the information gathered. It is

important to note that there was no site chosen at the outset of this document and it was not until the interim period and during phase two that a specific site was chosen.

Both the practical aspects of the architecture profession and the analytical processes within academia provide excellent qualities and procedures for analyzing and understanding place, hence the need for a fusion of the two. As architects, we are responsible for making decisions that influence the environment. Both modern and historical architectural references provide our future creations with a specific set of rules and insights for other architects to follow. It is important to understand what forces and procedures the architect relies on for inspiration.

We understand that architects are driven by their past experiences, culture and personal sets of beliefs or rules that have been instilled through education or learned through experience. Nonetheless, in every place and for every problem there are forces which influence the language of architectural forms. It is our responsibility to find this common unformulated force in which to benchmark possible interventions that provide more responsive solutions to the problem at hand. It is the common everyday environment, cultural and architectural, that provides an understanding of place. Common architecture can also be interpreted as the vernacular of place. "This quality of the common, in fact, is the bench mark against which individual interventions are measured."[7] These taughts lead to the following questions. What processes should be measured in order to find information on the unformulated common architectural forces? Does the architect visit a place without the program in hand, in the true sense of observation? Does the architect preface his or her trip with the overriding knowledge and influence of the clients' needs? The answer is as controversial as the process of design. Thus, there is not enough

7) Habraken, John N. Tools of the Trade pg.3.

information to provide a definite yes or no to either method, but to state that one could proceed in either direction depending on the work method of the individual architect.

Before these common individual interventions occur, the process of understanding a place must also occur. What is this process? There are two opposing forces on which to model: academia and professional practice. First, we have academia which, in general, provides the theoretical and analytical approaches to a problem. These approaches are, traditionally, well rounded processes in the development of an architectural form. In fact, academia remains a leading source for new methods and ideologies for implementation throughout the architecture profession. This document will focus on the analytical processes for the understanding of place. This is only a small aspect of the academic process, and is not intended to summarize or even describe the complex procedures which occur within this realm. As Donald A. Schön states,

> "Researchers are supposed to provide the basic and science from which to derive techniques for diagnosing and solving the problems of practice. Practitioners are supposed to furnish researchers with problems for study and with test of the utility of research results. The researcher's role is distinct from, and usually considered superior to, the role of the practitioner."8

The following sequence is one example of this process. Traditionally, in studio-based academia, the first step in the design process is a study of the actual site proposed. Then the arrival at a sense of surrounding forces. These forces could be other architectural influences, rivers, typology, natural or man-made forces or even climatic variations. Boundaries are also present, so the search for these boundaries and their influences begin to take form. Linkages are looked for and lines are drawn in order to connect the movement of transportation and of pedestri-

8) Schön, Donald. The Reflective Practitioner pg.26.

ans with the intent to connect and understand road systems and pedestrian accesses. Edges are determined and are either continued or broken. These edges could come from existing structures or from the surrounding landscape. Historical referencing and projections as to the evolution of the site are also considered. How do these considerations translate into the architectural language for the proposed site in question?

One disadvantage of a studio-based project is that the majority, not all, of the determined results are calculated within the confines of the studio. The ability to truly understand the influences on place are better imagined or categorized during the one or more site visits which are scheduled by the studio, if they occur at all. The theoretical approach has many advantages in its development as well. One of the most important is the time allotted in which one can analyze the given problem. The ability to concentrate on and interpret the information given by the chosen site is usually the phase where the greatest understanding of place occurs. This phase will be referred to as the "Gathering Phase". It will play the major role in observation for this document, and is the method used to bench mark the academic process. The gathering phase has also been referred to as problem setting that is " the process by which we define the decision to be made, the ends to be achieved, the means which may be chosen."[9]

On the other hand, the professional practice provides the second model and has the reputation of following a more practical approach to solving design problems. Unlike academia, the professional approach faces a more rigid time constraint. Due to time constraints during the "Schematic Design Phase" the architect begins to develop the present architectural language of a place. Schematic Design is second to Programming in the organizational hierarchy of the design process. This document focuses on the phase of **Concept Design**

9) Schön, Donald The Reflective Practitioner pg. 40.

which provides an understanding and representation of the urban fabric in order to build the proper framework for the actual schematic design phase.

Concept design is a very small aspect of the total architectural practice. This phase usually consists of a time frame of two weeks to a month or more depending on the project. During concept design, a team of designers searches for information that will help formulate a parti, a graphical organizational representation of the project. It is within this phase that the initial design decisions on the physical formalization of the project occurs. (Figure 5) There are more design decisions to be made throughout the remainder of the project. Due to time and budget constraints the initial project layout is only manipulated and transformed to incorporate any required changes. As a result, the information gathered and processed during the pre-schematic phase is of utmost importance. This transformation of selected information will have the largest influence on the physical form of the final architectural solution. Therefore, the need of the fusion between academia and the profession, will begin to formulate an understanding for the framework and guidelines in the redevelopment of the proposed site.

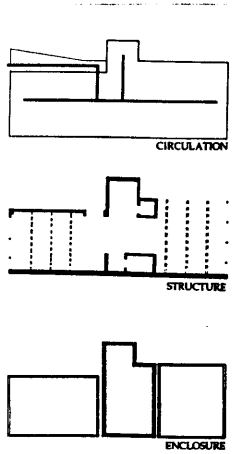


Figure 5:
Parti Diagrams by Author

This document provides one possible case study for the attempt of a fusion between professional practice and the academic processes. This has not been the first time this attempt is made nor the last. However, the intent is to produce one possible method that could be used as a case model for others to follow. Therefore, this document uses San Antonio as a pilot project to test direct observation as a method for the process of design. This fusion will be referred to as the "role of an observer". Observation is a means to understanding and understanding is a means for manipulation and transformation. The best method for the introduction of a new architectural form is through the understanding of place. "In order to convert a problematic situation to a problem, a practitioner

must do certain kind of work. He must make sense of an uncertain situation that initially makes no sense."[10] This leads to the question: "How does an architect know what information to accumulate and further the reason for such a selective process?"

The objective for this design process is to find the overriding set of conventions that provides San Antonio with its characteristics and flavor. The process in attaining this objective was through the use of direct observation. The following set of questions provides an understanding of the thoughts and issues which were considered while proceeding with the method of observation. This line of questioning, a taught process, allowed the author to prioritize and evaluate the information gathered while walking the city and understanding its architectural characteristics.

"What architectural element or elements provides the common language of the city?" The only known fact was that this unspoken language provided its urban fabric with the commonality, the unity, and a homogeneous ambiance known to San Antonio. "What set of procedures were followed in order to determine what information to gather as well as question how these conclusions came about? What did people do to reduce their exposure to the sun and heat of the South?" Plazas and arcades were the solutions to this problem. Every building on a street edge provides shading devices.

The question, " If I was asked to contribute a built structure to the city of San Antonio, what would drive my architecture? Would it be simply the Spanish style architecture or some southern trend, or would it be the surrounding information provided by the site?" Since there was not a specific site before my arrival, the latter was not a viable choice. As a result, the understanding of the city developed through the role of an observer; not to

10) Schön, Donald The Reflective Practitioner pg.40.

play tourist, but with the intention to observe through the eyes of an architect. Initially, the observation began by walking the city, asking, "What was provided to the pedestrian and what was allotted for the automobile? Did the city provide such a distinction? " While walking and following the flow of pedestrian traffic, one begins to ponder where this path leads. By following this process, the local understanding of the urban fabric slowly became apparent. For example, the understanding of open public spaces to open private spaces developed through walking and observing the urban fabric.

Patterns were observed and influenced the perception of visual urban rhythm. The development of negative space was also observed. These spaces have begun evolving into linkages with the river and other important spaces along the river bend. The importance of bridges was observed as they provide crossings for both pedestrians and vehicular traffic. Most importantly they connect the two layers of the city: an elevation change of 15 feet from street level to river level. Color is a way of life and highly integrated into all architectural design. Colors are bright and intentional and typically used to highlight important elements on a building. Observing doors and windows provided an understanding of the evolution and transformations of elements within the urban fabric. Textures provided a psychological response to the architecture of the city. The few remaining indigenous homes reminded one how the quality of life was before the industrial revolution. The use of arches has continued to be used in continuation from the mission style architecture of the city. Water was observed and used as a sound "barrier" and as a cooling element for the heat during the day.

The human scale and proportions of buildings had a direct affect on the experience of the city. Walls were everywhere in the city. They proved useful as boundaries where special access was needed to enter. Walls

help to define what is private and what is public. Buttresses have today been used as rhythmical elements on facades and not for intentional structural stability. Building details brought intimacy to the large scale urban fabric. Plazas were observed while sitting and resting from the heat of the day. While walking along the city streets, the framed views developed into an interesting pastime. These framed views allowed the pedestrian to directly interact with the urban fabric while walking and driving through the city. Block organization was also interesting, in that, they developed a variety of emotional signals. For instance, the hierarchy of urban and local collectors created separate visual representations. Blocks are also segmented into smaller uses such as service alleys and private pedestrian connectors to other blocks and other units on the same block.

The method followed for the selection of data in this document, was intended to find the organizational rules, set of conventions, and unformulated agreements, within the urban fabric of San Antonio, Texas. Both the ancient and modern architecture can and should provide the framework for understanding place, and for the implementation of a new architectural possibility. While locating existing documentation, difficulty was encountered locating information that predated a year . The information represented in this document is original data attained on-site through sketches, photography, measured drawings and existing documentation obtainable from the Departments of City Planning, Drafting and Graphics, Zoning, Local Architects and the Conservation Society all located in San Antonio. During the Gathering of information, the selection process for the information presented in this document is based on one overriding rule: that the selected information must apply, transform, evolve and be in continuation with the language and character of San Antonio's downtown and the chosen site of Broadway. While gathering this information it is important to note that a continuous check and cross-check to reassure that

each element selected as important is viable to both sites was done. At the end of each day, a attained list of elements was evaluated and organized. The following day and in many instances the same day, this list was cross-checked for its implementation possibilities to both sites. Of all the elements gathered, the list, discussed in Chapter Two, is selected for their ability and flexibility to be transformed and implemented from downtown center to the site of Broadway.

1.4.1 THOUGHT PROCESS

In architecture, the process of designing is and should be an in-depth study of a specific problem with a unique set of circumstances and typological concerns. An understanding of these forces enables the architect to provide a framework for the development of new architectural possibilities. The design process has no set rules, depth, how long or how well the quality in which the collection of data occurs, (e.g. programmatic concerns). Architecture is a subjective profession; it has no direct scientific method but does follow a logical process. Problems occur as attempts to complete and unify the complexity of our multilayered profession continue to develop. As a result, the architect may adopt forms that are not representative of the region.

As designers, we relate to the spell of self expression and begin to understand how the success of the final design is directly proportional to the amount and selection of data obtained. What rule or procedure provides the architect with the ability to be selective with the information obtained? The understanding of these issues can provide a more responsive solution to the impact of our creations on the environment, its relationship with the urban fabric, its ability to improve the life of its inhabitants, and in providing shelter with one important ingredient:

architect with the ability to be selective with the information obtained? The understanding of these issues can provide a more responsive solution to the impact of our creations on the environment, its relationship with the urban fabric, its ability to improve the life of its inhabitants, and in providing shelter with one important ingredient: functionality of form.

As designers, we understand the difficulty of "placement" within the architectural profession. Architectural categories, if not careful, could mistakenly classify our personal ideologies into many possible groups such as: modern**ism**, post-modern**ism**, deconstructionism, environmental**ism**, and so on. Why must these categories exist? Is it to distinguish between the different forms of architecture styles, or does it just allow our minds the ability of organizing the vast variety of design solutions? Yet, to have an intelligent discourse on a subject, it must have a tangible classification to reference, hence, the endless need for the continuous redefinement of the architecture vocabulary.

In continuation with the redefinement process, let the term ***vernacular*** be referred to as the following questions. How does a new architectural form contribute to the environment and its inhabitants? Does this new form have the ability to evolve and transform with the culture and everyday life of the place? Could this not be the underlining goal of our contributions - the vernacular of place? "This view is difficult as it would demand a shift in attitude which does not come easily in a profession which is preoccupied with what is exceptional and new." [11] Therefore, the design of an architectural form is determined from its surroundings and not through the process of having a preset design solution, or a given process, which tries to follow the latest architectural trends of "style" or "type". Thus, when the latter occurs, the form is forced only in theory to have a definite "belonging" to the local

11) Habraken, John N. Tools of the Trade pg.3.

fabric.

1.4.2 PROCESS OF DESIGN

The design process has a variety of approaches and procedures which one can follow. Both professionals and educators have debated this issue from all sides. One such topic of discussion has been how the practitioner is unable to describe their abilities and processes, stating they just know how to respond and articulate their designs. "Not having a true explanation for their artistic abilities and for the accountability in the choices and sequence of their actions, has created a tension with educators who have, in many cases, the inability of summarizing their own methodologies." [12] This document follows a specific approach to the process of design. First, the city of San Antonio is chosen to test the method of direct observation. Second, an attempt to understand San Antonio's architecture occurs during a two-week field research. Third, the gathering and processing of information of architectural elements occurred. Fourth, a two-week interim period occurred where a further analysis of the urban fabric and the selection of the site occurred. Fifth, a second trip to the field analyzed each elements ability to be transformed and implemented into another urban fabric. During this phase these questions were considered in the selection process of all the gathered information. " Is the element important to the development of San Antonio architecture? Has this element transformed over time and can it continue to evolve as this city evolves? Is this element common to both the downtown area and the Broadway site and does it continue the common architectural language of this city?"

12) Schön, Donald. The Reflective Practitioner pg.19.

One area that helped to understand this process is the specialty of Programming and its role in the process of design. Programming is used by both educators and practitioners alike. By definition, programming is the planning, scheduling, or performing of a program: the process of instructing or learning by means of an instructional program. Programming is a vital segment of the chain of events leading to the prediction and attempted realization of valued building consequences. "As programming is part of the design process, the operations performed and their sequence in design is the result of the designer's personal beliefs and attitude." [13]

Five points are used in this document to illustrate the understanding and development of the design process. This design process uses direct observation as the driving force behind the accumulation and interpretation of information. These points are used by educators and practitioners in one form or another. They include: 1) **Gathering; 2) Prioritizing; 3) Evaluating; 4) Organizing; and 5) Presenting**. The Gathering phase is used to determine what information is pertinent to the project. The architect must select the information that can, will, and should influence the design solution for the problem at hand. In Prioritizing, the development and understanding of the selected information occurs. Also, determining how information can or should influence the form of the design, either on the exterior, interior, or even to reassess the importance of that selected information to the final concept of the project can occur during this stage.

In Evaluating, the architect begins to formulate the information that is most appropriate to the project. In addition, the deleting of information that was useful in the understanding of place but has no direct influence to the project itself is decided as well. The next stage, Organizing, is when the collection of information is distributed into appropriate sections of the program. This arrangement and level of importance begins to set the organiza-

13) White, Edward T.
Introduction to Architectural Programming pg.5.

tional priorities for the completion of the project or at the least gives the designer or team of designers a clearer direction for the projects continuation. The final stage of Presenting is not necessarily the final stage in the design process. On the contrary, it only provides the final step in the search for the selection of essential data that can be implemented into the design process, or concept design. Again, concept design being the actual phase in which the development of the parti diagram occurs, is where the integration of concept design merges with factual data.

Chapter 2:

OBSERVATIONS AND INTERPRETATIONS

During the process of observation, the development and the interpretations of the next three points, Prioritizing, Evaluating, and Organizing begin to emerge. Once the gathering of information was completed, during the first visit, the selective process of determining what information to use and the placement of this information began. This section will introduce the topics in which all the information is organized and represents the selected information chosen for their ability and flexibility to be transformed and implemented in the redevelopment of the Broadway site.

2.1 ELEMENTS

In San Antonio there is a set of elements that help to order the architectural language. These elements

come from a historical precedence and an unformulated set of patterns that provides the individual with a sense of interaction to place and object. These elements are material objects and provide the city and its inhabitants the emotional intercourse which comprise the following selected list of elements. The following set of images represent important elements within the urban fabric of the city, and have been selected as the most common forms and elements that occur throughout the city.

2.1.1 URBAN DESIGN

The document and analysis of the urban fabric, is a tool that provides a background for possible interventions to the Broadway site in the future. It also provides an understanding of major influences that have affected the evolution and transformation of San Antonio. This document is by no means an urban critique or an historical search for the success or failure of this urban development. The urban forces should be obvious and determined while analyzing and designing for the urban context. However, this form of analysis is not always performed and, if so, not to this extent. Therefore, the following drawings represent forces in the urban fabric that will provide a useful tool for understanding for possible interventions.

Figure 6 shows the present organization of downtown San Antonio. The lower portion of downtown is the area of highest concentration for the understanding of this city. This area has both the integration of the 18th and 19th centuries. The chosen site of Broadway os located in the Northeast End and has been referred to as "The North Gateway to Downtown".

Figure 12: Existing Structural Layouts within the City

Figure 7 shows the analysis of the downtown area. The lower South figure ground represents the 18th century influences such as, the railroad, the river and is the location of the five Spanish Missions that have continued to influence San Antonio's architecture. The South Side continues to represent the past urban development, architectural styles and the remnants of the industrial revolution. The North or upper figure ground represents the 19th influences. The introduction of the grid system is prominent in this section of the city and has begun to disperse into the outer limits of the city. The major urban collectors are labeled and illustrate the connections to all the other sections of town. The area of void in the drawing represents the central downtown section of the city. It is in this area that the major concentration of information is gathered.

Figure 8 represents the area of focus for the understanding of the urban fabric. This section of downtown introduces the fusion of the 18th and 19th centuries. It contains a large variety of architectural styles and provides the framework for understanding the unformulated conventions that unify this variety of architectural influences. These sets of conventions are not a written law or even a taught process, but a respect and understanding for the past and present successful interventions which has no reason for interruptions. Thus, the reappearance of major elements, that lead to a common architectural understanding. These following elements, or topics, also provide an understanding to the life of the inhabitants and illustrate the importance of cultural, historical and psychological aspects for the quality of life in San Antonio.

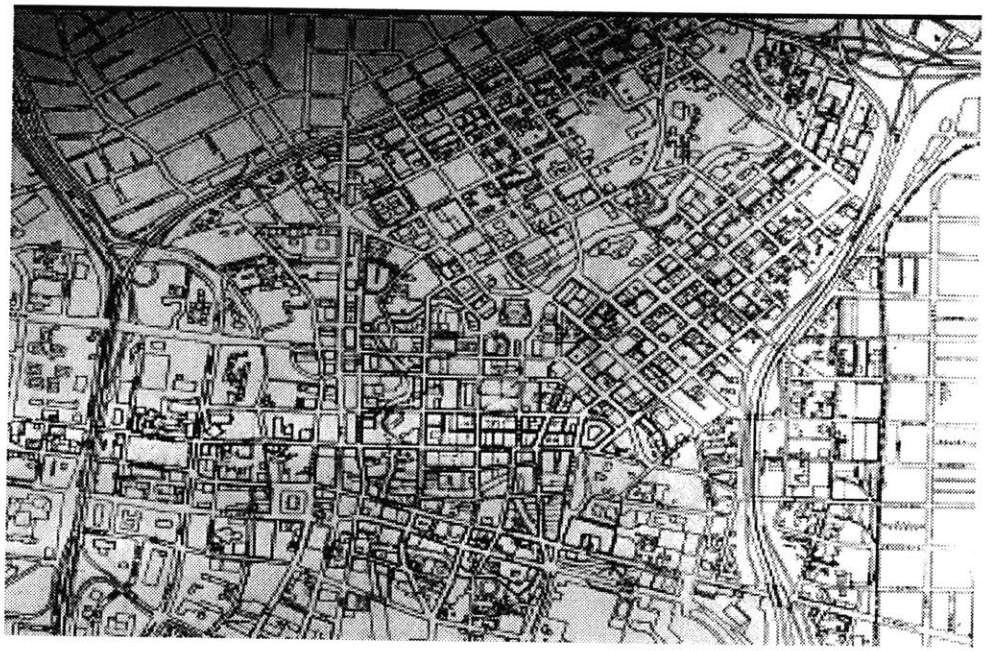


Figure 6: City Map of Downtown San Anotonio

Figure 7: Major Forces: 18th & 19th Century influences & Major Circulation Collectors

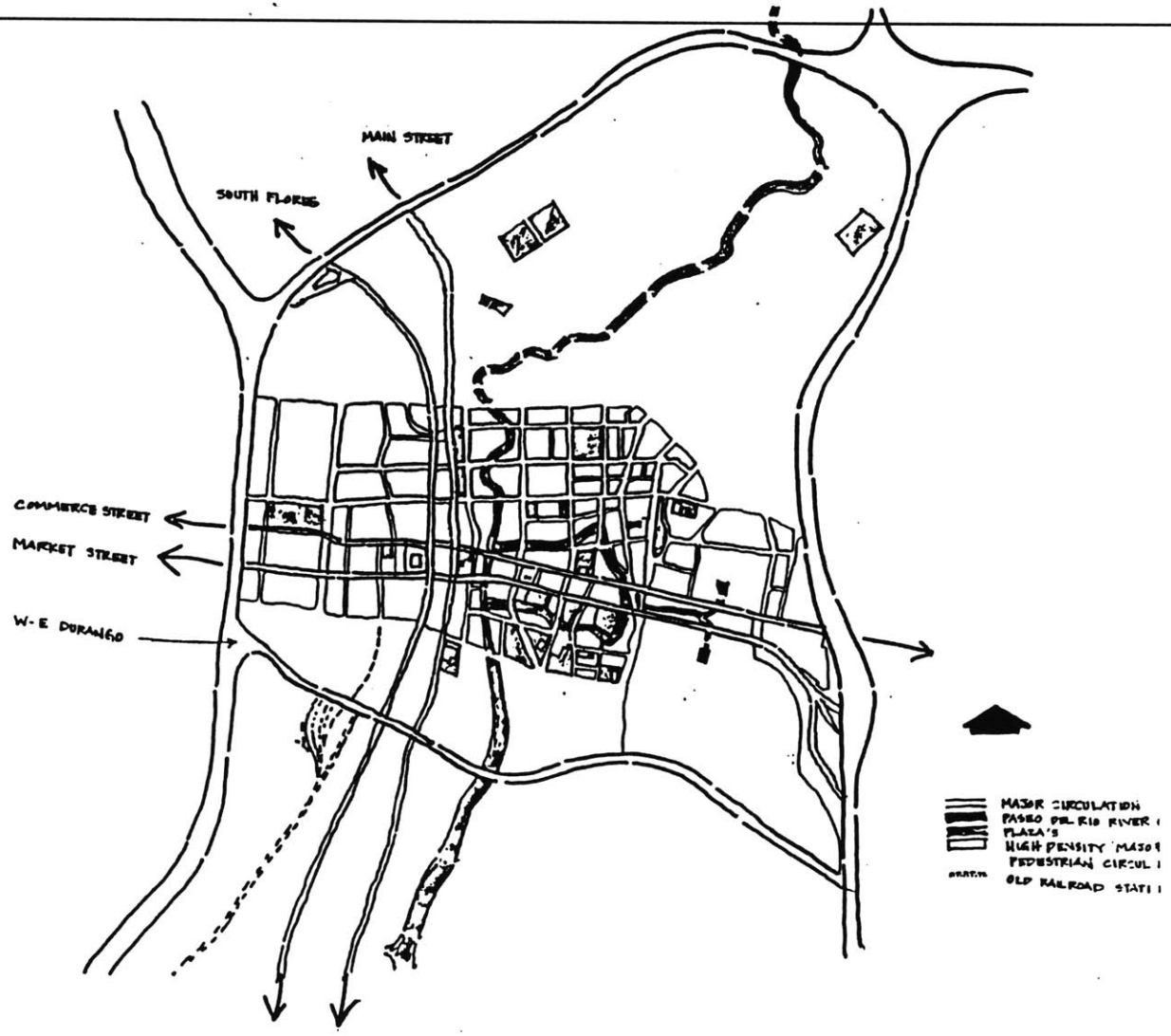
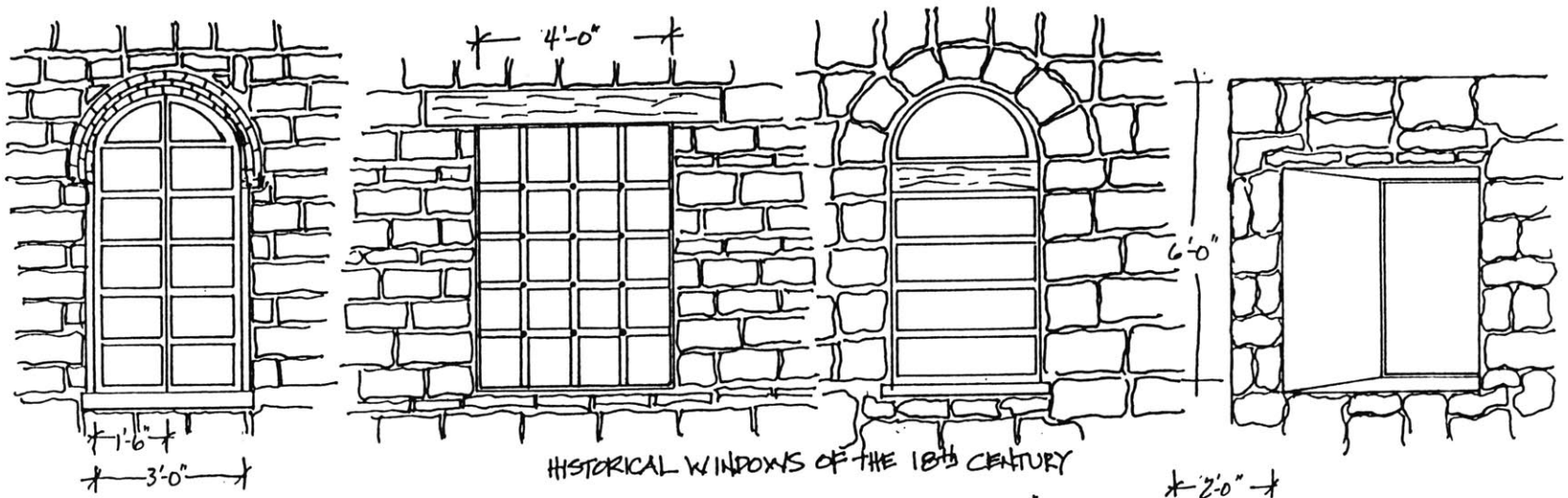
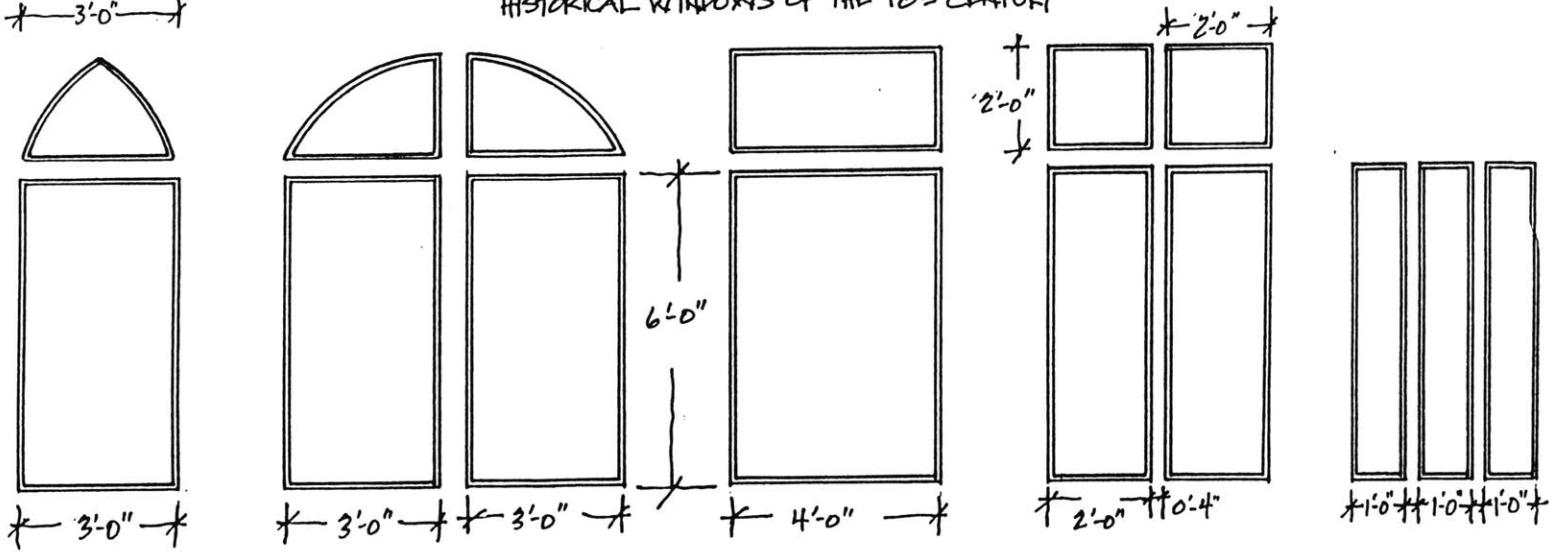


Figure 8: Downtown & Area of Concentration for Data Collection

• **PROPORTIONS**

In an around the city there is a common material selection and arrangement that exist. For example, windows are the same as in many historical architectural forms. Even though these forms and the materials used change, the proportions remain the same. "How did proportions play a role in the understanding of place? Did the human scale enter the dimensioning of the buildings?" Although there are no set rules which encourage a fixed proportion, there is a tacit architectural agreement to continue the 6'-0" X 3'-0" organizational pattern that begun with the historical patterns of the 18th century. The windows of the 19th century, and those of the 21st century are and will be transformations and interpretations of precedent styles. Figure 9 illustrates how this transformation has incorporated new architectural styles. These proportions are also present in the Broadway site and it is apparent that their transformations are beginning to appear in a few refurbished structures. The following sketches represent the historical and present-day transformation of windows in the city.





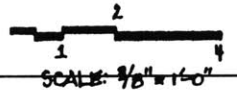


Figure 9: Transformation of Window Designs & Proportions

• STRUCTURAL INFLUENCES

Another observation considered structural commonalties in the city. It was found that there are eight major patterns followed in the organization of most buildings. These buildings were found along the river and provide an intimate scale to the environment, even though these structures ranged from high-rise hotels to large commercial shops. The interior of these buildings may transform, but their basic structural layout remains true to one of the following systems. Figure 10 illustrates the eight structural layouts and provides an understanding of the development and transformation from the basic form and proportion. Figure 11 shows one example of the development and spacial characteristics of a typical restaurant along the development of the Paseo de Rio. These same construction patterns and proportions are apparent at the Broadway site and the structures at Broadway are also organized and have transformed in the same manner.

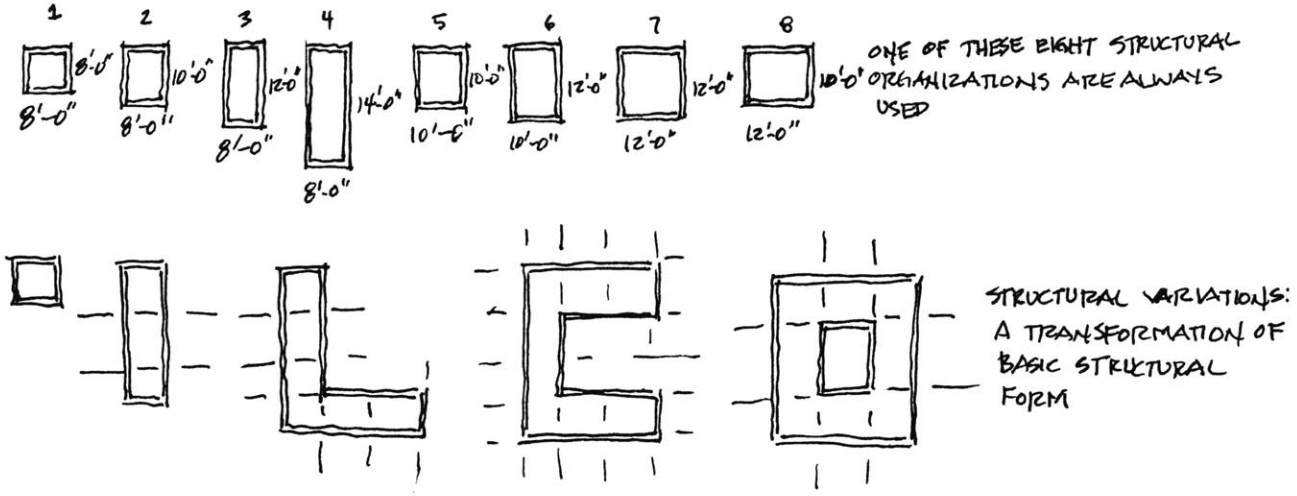


Figure 10: Existing Structural Layouts within the City

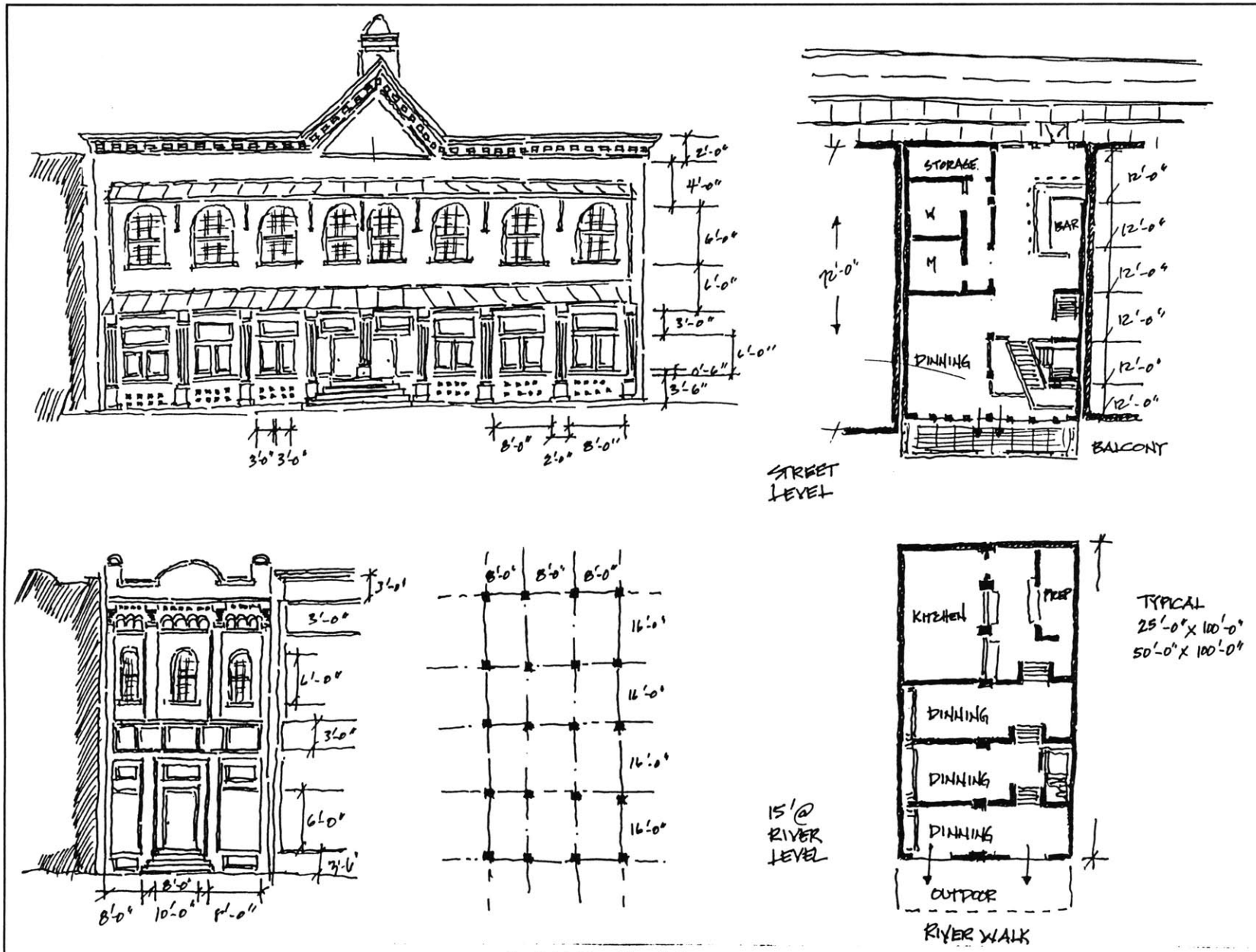


Figure 11: Typical Structural Layout of a Restaurant

• OPEN SPACES

Open space along the river was one of the major observations in the city. Along the river and parallel to major urban collectors, the North and South open spaces are laid out horizontally and very openly, while the East and West open spaces are parallel to the local collectors in a much more narrow vertical layout. These two sketches represent two types of sectional views of representative open spaces along the River Walk. This open space layout provides the opportunity of various forms which could align the banks of the river. There is a variety of psychological reactions to these spaces and it is important to note that not one space is alike along the river's bend. Figure 12 provides two spacial examples of their organization and surrounding forces. Since the redevelopment of the Broadway site is determined on the success of the River Walk's continuation, it is important to incorporate such quality spaces along the Broadway site. One major design issue to contend with is the organization and movement of the sun. With the heat in this region, solar considerations is a must.

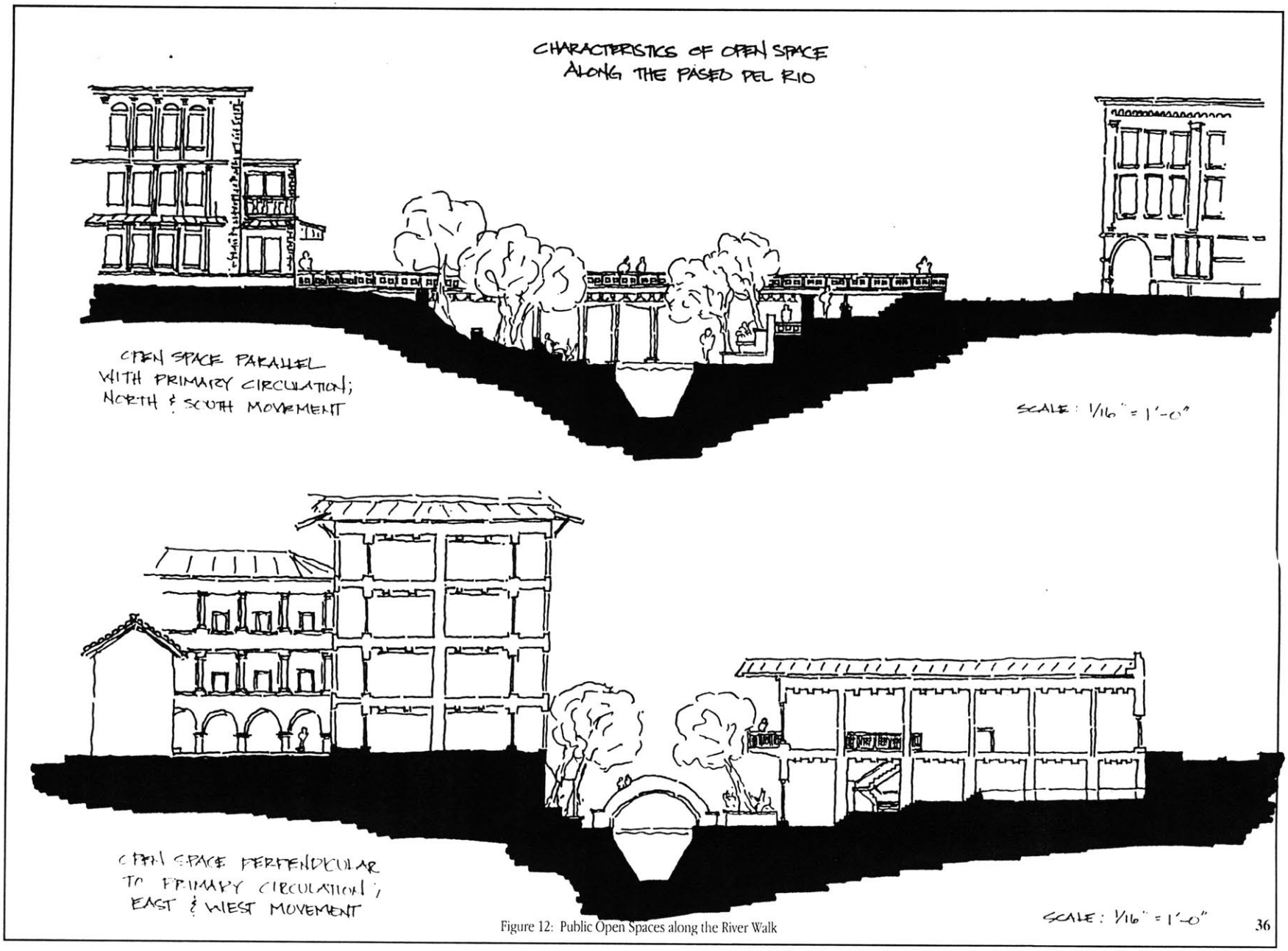


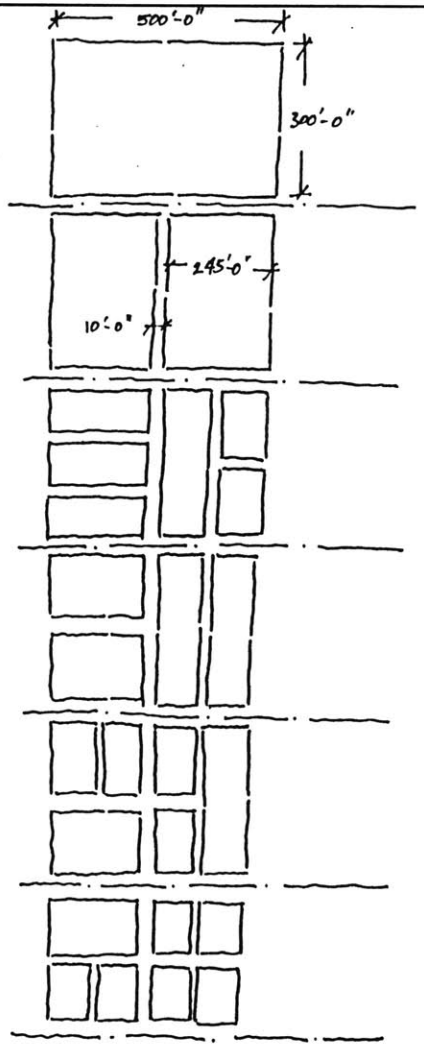
Figure 12: Public Open Spaces along the River Walk

• CITY BLOCK TRANSFORMATIONS

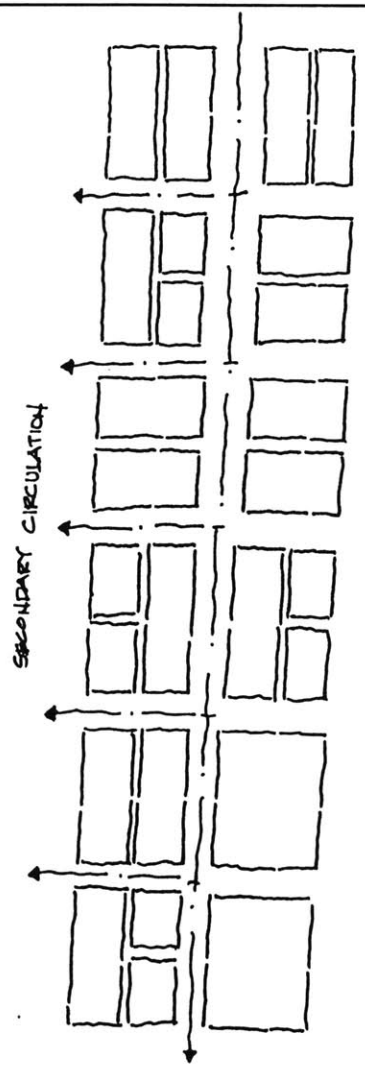
The layout of city blocks and their transformations is another point for observation. The difference between blocks within the city and those blocks in residential areas allow the understanding of their evolution. The integration of these two forces, residential and commercial, produce the segmentation of street patterns, public to private passageways and in the development of linkages between blocks. In Figure 13, the first series of block orientations, on the left, are found in the downtown area. The largest dimension of 500'-0" X 300'-0" is derived from the dimension of the main plaza. The basic rectangle is the set dimension for all other blocks. It is from this initial form that city blocks evolve. The layouts below the initial form are the common variations and organizations of commercial blocks within downtown. As the blocks transform, the development of negative spaces are created. The more segmented the blocks the more intimate the residential spaces. This evolution lead to the development of the residential districts. The second series of block organizations, in the center, provide an understanding of block patterns and their organizations. Unlike the city blocks where the surrounding space was typically used as major parallel urban collectors, the surrounding spaces in between residential blocks is used for local collectors, perpendicular to the urban collectors.

The last series of sketches in this figure demonstrates the integration of both the commercial and the residential block organization. The result is three versions for implementation. Version One, includes the residential block set at the center and allowing for one-way traffic on either side of the block. Version Two, includes the residential block set to one side and allowing for two-way traffic to emerge and Version Three follows the same organization but only allows for one-way traffic. Note, that each version remains within the confines of

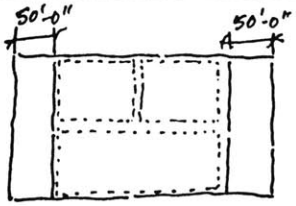
the origional commercial block demension. The organization of the Broadway site follows the same pattern as the center series of block layouts. Thus, the ease of introducing many of the elements, spaces, and street heirarchy that exists in downtown is a process which proves successful for future implementations and transformations.



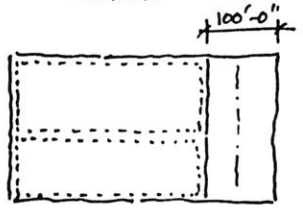
TRANSFORMATION OF BLOCKS WITHIN DOWNTOWN



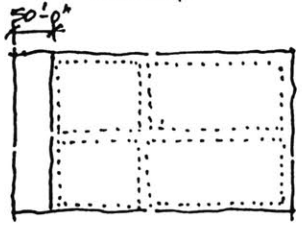
ORIENTATION OF BLOCK PATTERNS WITHIN AREAS SURROUNDING DOWNTOWN.



VERSION 1: ONE WAY MOVEMENT ON EITHER SIDE OF ORIGINAL DIMENSION.



VERSION 2: TWO-WAY MOVEMENT ON ONE SIDE OF ORIGINAL DIMENSION.



VERSION 3: ONE-WAY MOVEMENT ON ONE SIDE OF ORIGINAL DIMENSION.

THEIR FUSION OCCURS AS THREE POSSIBLE VERSIONS:

Figure 13: Downtown Block Organizations & Transformations

2.1.2 OPEN SPACES

• PLAZAS

Plazas are one of the major attractions to this city. They provide shade from the heat and are perfect places for gathering. The fact that these plazas happen every other four blocks or at 10 minute walking intervals was a major factor of their presence. Not all these plazas are large in scale, but the fact that the open space provides all the essential amenities of a plaza is the magnet. The following images provide an idea of their spatial qualities and the drawings provide an understanding of the organizational layouts of plazas in the downtown area. The demension of these plazas average from a maximum of 500'-0" X 300'-0" to a minimum of 60'-0" X 40'-0". Yet, each plaza is used during all hours of the day for a variety of reasons. They range from a simple shaded area to a major social event. The incorporation of plazas are essential to the life style and culture of San Antonio and this develop ment is transferable to the Broadway site. Presently, the Broadway site includeds one large Park at the Northeast End of the site. The site has various empty blocks that are strategically located and is the ideal linkages for the connection of park to site, park to river and river to site. These plazas and a string of pedestrian accesses within the urban fabric would provide excellent crossings through this site and a connection to the River Walk and Downtown. Figure 16 illustrates the variety of plaza organization that are present in the urban fabric of San Antonio.

Figure 14: Plaza at Governors Palace

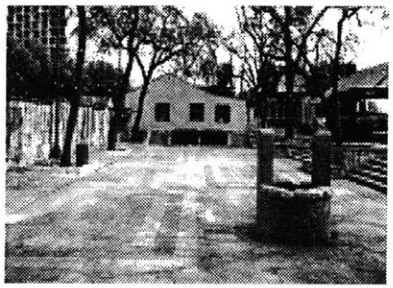


Figure 15: Plaza at La Villita

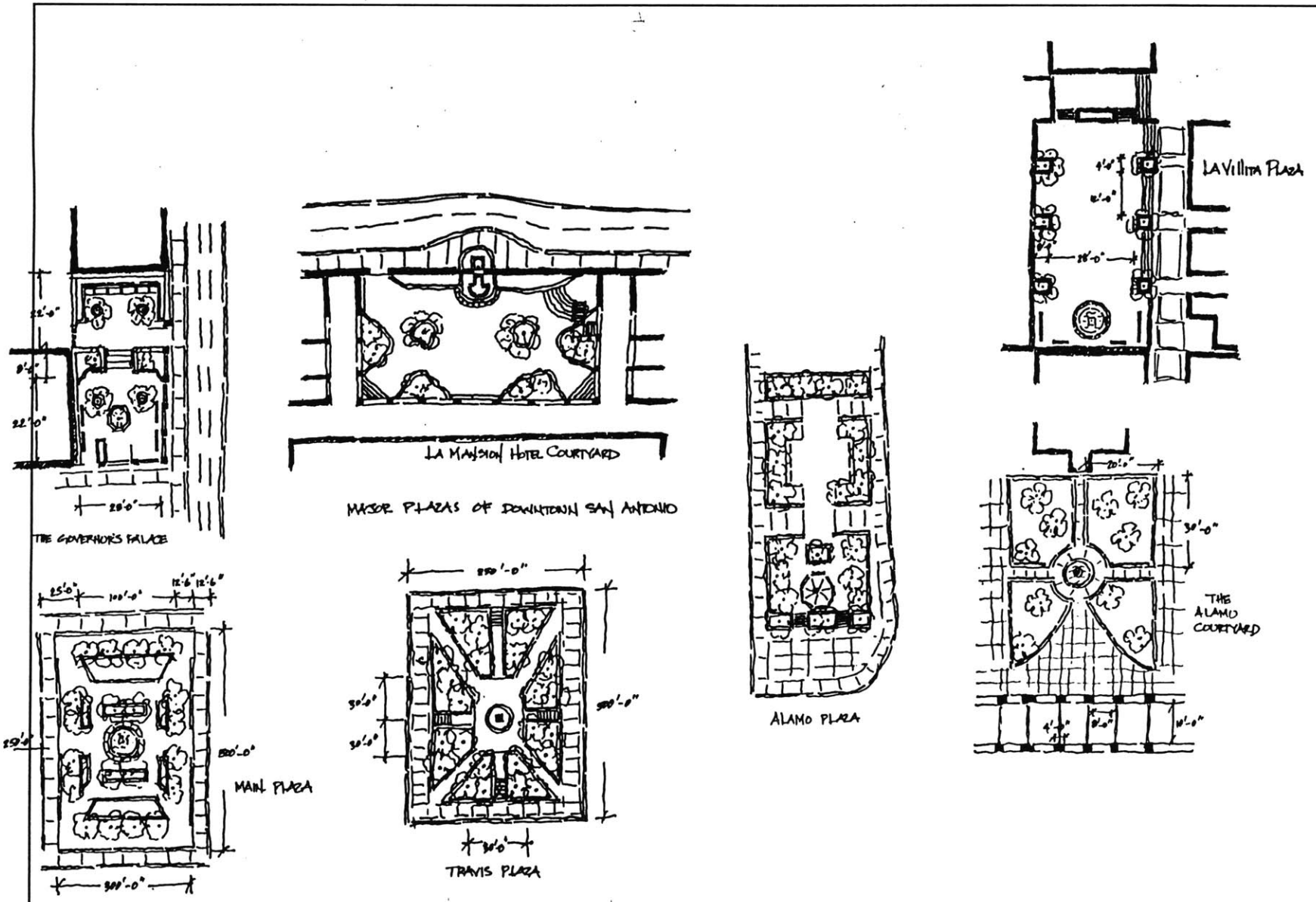
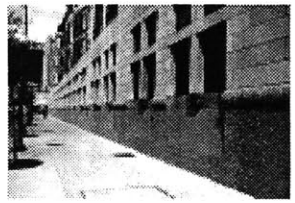


Figure 16: Typical Plazas and Courtyards in Downtown San Antonio

• STREET VIEWS



San Antonio provides a variety of emotional signals. For instance, there are four street views and levels that give a clear understanding of which direction you are facing and also whether or not you are in a public or private area. "Do these streets and their visual terminators represent a hierarchy of buildings, or they just provide a feeling of verticality?" There was a difference between the major urban collectors of the city, the local collectors, the alleys and whether these alleys were service and public or pedestrian and private. These images will also illustrate these four typical street views in the urban fabric. There are a series of reasons for this development. For example, the organization of street can cause interesting vanishing points within the urban fabric. The development of crossroads can organize a pattern of space characteristics. In Figure 23 a series of development sketches represent one possible reason for such a diverse set of spaces. The hierarchy of block development, beginning at the crossroads to the development of the site infill, can provide one example for these various views. The Broadway site also has this same development and block orientations, therefore, it is determined that Broadway can also sustain the variety and quality of these spaces.

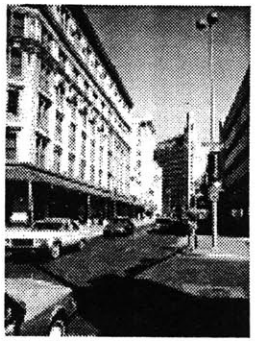


Figure 17: Street View of Urban Collector

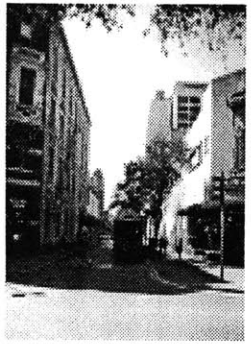


Figure 18: Street View of Local Collector

Figure 20: Street View: Pedestrain Passageway

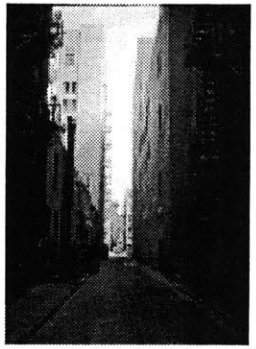


Figure 19: Street View of Service Alley

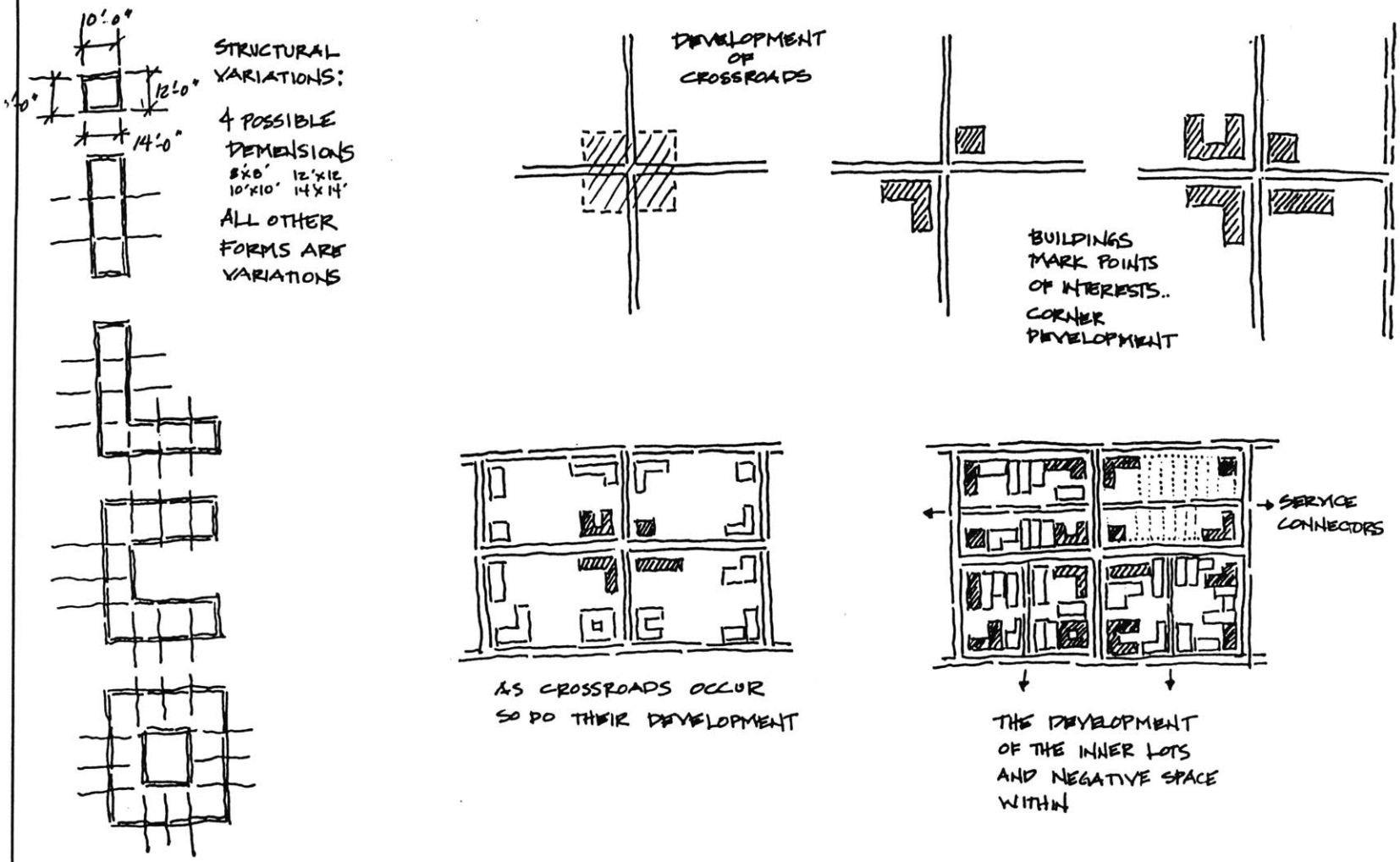


Figure 21: Analysis of Development of Crossroads

• NEGATIVE SPACE

The development of city blocks in San Antonio has provided buildings that create interesting spaces. The space between buildings is referred to as "negative space". While these spaces are often run down and dangerous and are, more often than not, used as service roads or areas for trash collection in the city. San Antonio transformed these negative spaces into a hot development tactic for the connection between the River Walk and other important locations throughout the city. The tight and extremely vertical spaces allow the passerby a location for shade. There is usually enough sun and space for foliage and public gathering spcaes. The latest developments for these negative spaces have been small cafes and restaurants. The following images represent these developments and provide a sense of their spatial organization. Remember that these spaces are typically connected directly to the River or lead to an enclosed public space which then leads to the River Walk 15 Feet below street level. The same spacial qualities are found in the site of Broadway and the development of these negative spaces could become more successful by integrating their locations in the blocks with the development of the River BAnk. Presently, the Broadway site has a greater opportunity for larger pedestrian crossings and can provide more variety and amentities in these negative spaces.

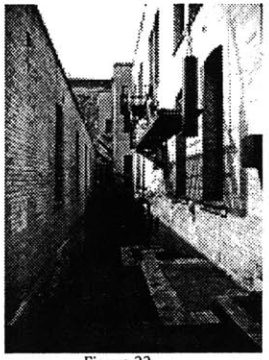


Figure 22:
Negative Space Development & RiverEntrance

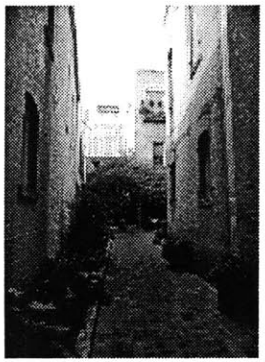


Figure 23:
Negative Space Development & RiverEntrance

• RIVER WALK

The River Walk is a major focal point for inhabitants in the city and the major tourist attraction. Even though it is 15 feet below the city, glimpses down on the river and the movements of pedestrians below and above provide a constant reminder of its presence. While standing on bridges looking down one is removed from the city above and is embraced by the sounds of conversations, the movement of people, trees, birds and the consistent wind that flows along the rivers bend. The following images represent the thriving subculture that has continuously provided the city of San Antonio with its romance and charm. It is this characteristic that provides a continuous magnet to San Antonio. The River Walk links the city and is a constant reminder of the cities history and growth asone hears the dialoguq between tourist and guide floating slowly along the 1.8 mile winding course. This type of development continues to provide a high competition for property along its banks. It is this positive development pattern that needs to continue along the section of Broadway if that site is to redevelop at its full potential. Therefore, in designing for Broadway it is important to project the area on influence around the river that is directly affected by its development.

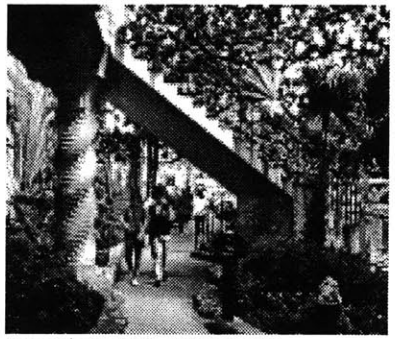


Figure 24: River Walk- Pedestrain Path

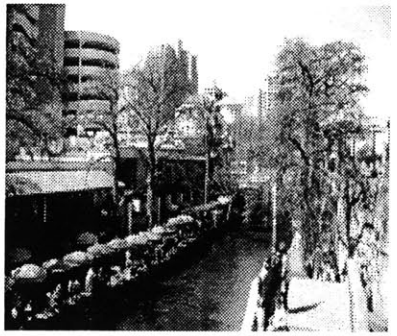


Figure 25: River Walk- A View from Street Level

• BRIDGES

The rivers presence has forced the need for bridges to span the numerous openings to the River Walk subculture. San Antonio's downtown has 10 pedestrian bridges at various locations along the river. The images presented here demonstrate possible influences that have shaped their evolution and transformations. Figure 31 illustrates a natural example of scrossings expressing simple but solid ans safe passage. Figure 28 and 30 show examples of man-made bridges. Each bridge uses a material selection that is at or near the location of the site. The site of Broadway is also in need of pedestrian crossings. The need for bridges is obvious, however, it is important to note that every bridge is very similiar to the other, but no two bridges are completely alike. The beauty of a simple design is important. Consider their interesting variety, man-made verses natural, and their integration into their respected locations.

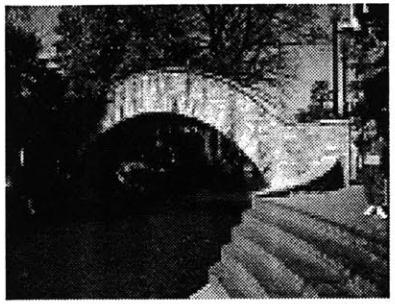


Figure 26: River Walk - Bridge Crossing- One of Ten

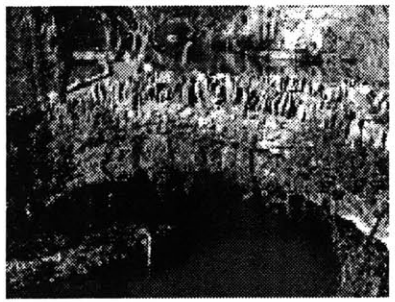
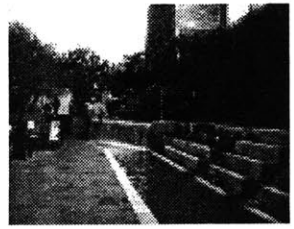


Figure 27: Japanese Sunken Garden Bridge Crossing

• WATER

Water has for centuries been used as a symbol for peace and tranquility, as a sound diffuser and for its cooling effects. The city of San Antonio uses water for cooling and for the purpose of masking sounds. All elements of water are related to the river and therefore has, in many cases, been attributed to entrances to the river and fountains within plazas. For example, the negative spaces between buildings discussed earlier are the locations for such entrances. Water is to San Antonio as snow is to the Northeast.

The two images to the right are examples of this transitional space that begins to step down towards the river introducing one to the subculture. This transitional space is important to the connection between the city above and river below. This design element must be incorporated in the site of Broadway for its ongoing success. The city of San Antonio evolved around the River and it continues to be the major driving element and characteristics to the urban fabric. Therefore, the cities will to preserve its identity with water will be present in all consrtuction and architecturally based projects of the future.



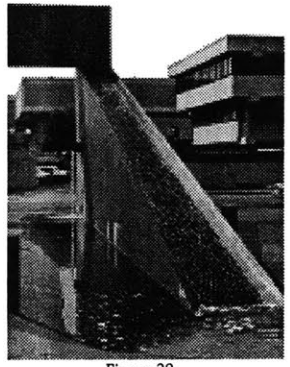


Figure 28:
Water Sculpture by Ricardo Legorretta

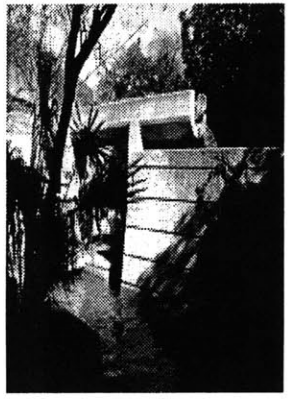
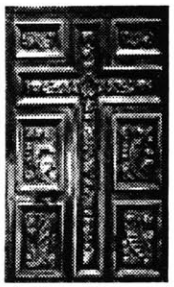


Figure 29:
Water Sculpture at River Walk Entrance

2.1.3 BUILDINGS



• PATTERNS

Patterns were observed and they provide the urban fabric with a visual rhythm. This rhythm can develop from the repetition of a single element. These images are the most visually noticeable in the urban fabric. The ability to walk this city provided the most intriguing set of elements and perspectives as well as an understanding of the small local scale of patterns to the larger urban scale of these wonderful repetitions. Patterns were solutions for shading and cooling from the intense heat of the sun. They provide both a funtional and visual purpose that is found at the residential level to the urban level. Broadway, like all of San Antonio incorporates these elements at all level of design.

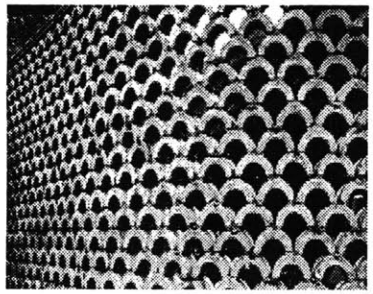


Figure 30: Wall at Waterworks Plaza

Figure 31: Typical Parking Garage in Downtown

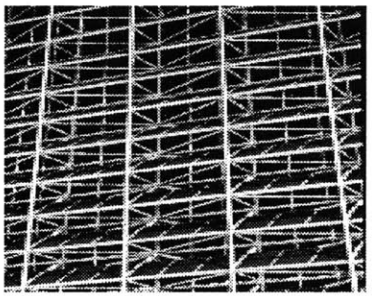
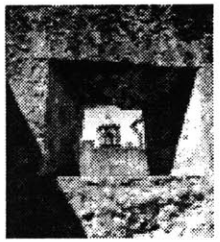


Figure 32: Sunshading Device at the Hilton Hotel

• DOORS AND WINDOWS



The past historic architectural proportions and construction methods influenced the dimensions of doors and windows. Over the evolution of this city, these elements were transformed but their proportions remained the same. An interesting observation was how the transformation of the windows incorporated new technologies and materials but are still able to continue the common architectural characteristics. The design of new forms is in continuation with an indentification with past architectural forms and proportions. Again, this is an informulated set of conventions and is followed by those architects interested in continuity of place. This continunity should continue into the Broadway site in order to develop the framework for individual interventions.

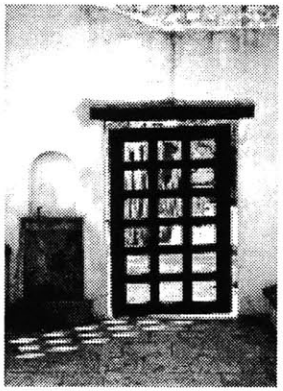


Figure 33: Door at Governors Palace

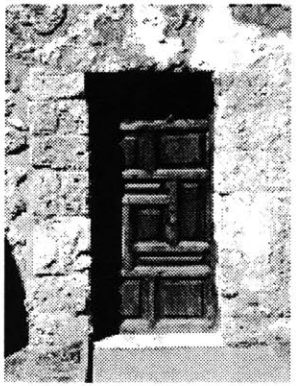


Figure 34: Door at Mission Concepcion

Figure 35: Window at Mission San Juan

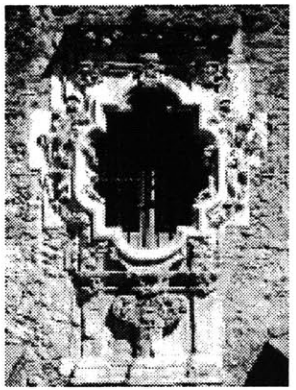


Figure 36: Window at Mission San Jose

• **BUTTRESSES**

One interesting element that reappeared throughout the city was the use of buttresses. In many cases they were used for their intended purpose: structural stability for the form. However, the transformation of this element was then used as ornamentation for the buildings. The following images represent one historical example showing the intended purpose followed by one showing how this form evolved into a detail ornamentation. This appropriation of form exists in many buildings throughout the site of Broadway.

Figure 37: Mission San Juan

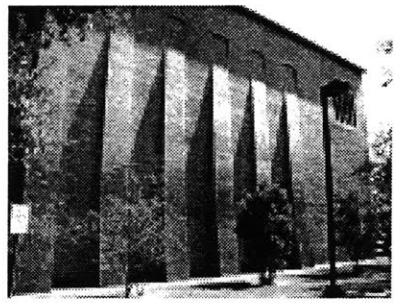
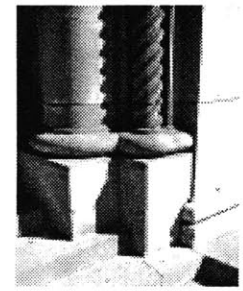


Figure 38: Trinity University in the North Side

• BUILDING DETAILS

The details in a building are the more intimate elements that have an integral purpose for human interaction. They come in large or small interventions and many times can lift the human intercourse with the form. This intervention is a direct response to each individual's personal taste, however, the intent of emotional appeal, whether negative or positive, is the ultimate goal of detailing. It is through detailing that an architect can begin to acquire his or her personal goals in a project. Each individuals architype can provide the Broadway site with an interesting set of details. Figure 39 shows an example of a building detail along Broadway and Figure 40 a garage detailed for cooling and human proportions.



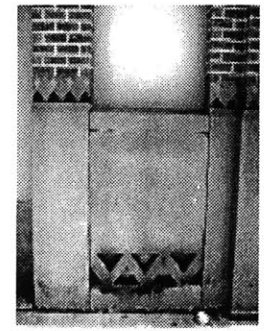


Figure 39:
Building Detail along Broadway

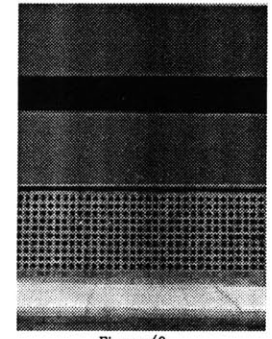


Figure 40:
Parking Garage Detail by Ricardo Legoretta

• TRIPARTITE

The architecture of downtown represents a variety of periods, but there remains some common organizational elements which unifies these elevations. During the first field trip this underlining system was not understood. During the second field trip these common organizational forces became more apparent. The result was interpreting and extracting the geometrical schema within the Tripartite patterns of Classical Architecture. Even with all the architectural variety in the city, there was a uniformity and visual commonality to the urban fabric. Scale in each building provided the pedestrian with a sense of belonging to the street, to the building, and never a sense of overpowering the individual. The human proportion was the main aspect in the dimensioning of each building. These images provide a set of examples in the variety of this tripartite system that occurs within the urban fabric. The same tripartite schema exists at Broadway and helps unify the section of the city as well. It is important to stay true to these proportions, even in new architectural forms, in order to provide a unity amongst a field of architectural variety.

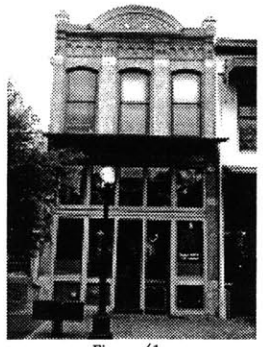
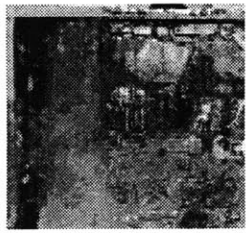


Figure 41:
Typical Building along Navarro Street

Figure 42: Typical Buildings along Commerce Street



• WALLS

Walls provide boundaries and define territories both for the individual and buildings. The texture and construction of the wall has a direct relation to the use and function. These images show a variety of walls both residential and commercial, that represent private and public usages. Walls are part of the Mexican architectural tradition and occurr throughout the city of San Antonio.

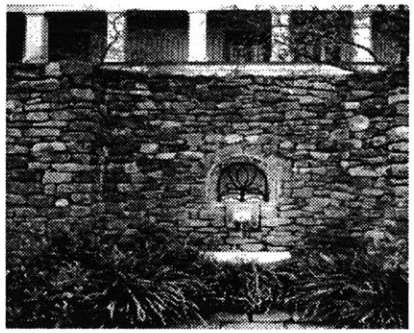


Figure 43: Wall at La Mansion Hotel

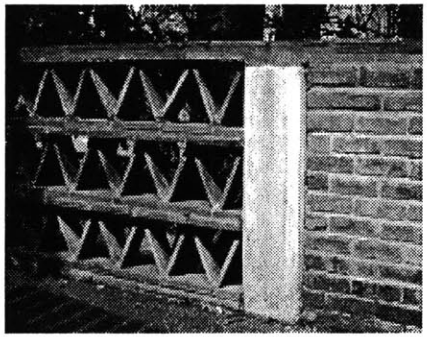


Figure 44: Wall at River Walk Entrance

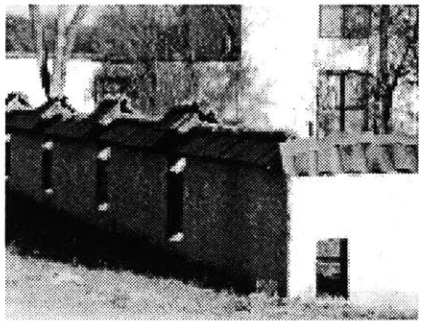


Figure 45: Residential Home in Pleasenton

Figure 46: Mission San Juan

• **ARCHES**

The most common architectural element that has been restructured, reshaped, and repeated since the development of the Spanish Missions is the quality and beauty of the arch. The architectural form of archades developed as a response to the need for shading from the heat, and is a logical form in the development of the street edge, e.g. arcades along building fronts. Figure 51 illustrates the historical influence and Figure 52 demondtrates how this form has evolved and transformed.

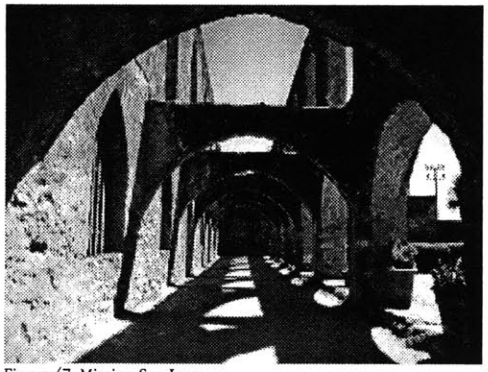


Figure 47: Mission San Jose

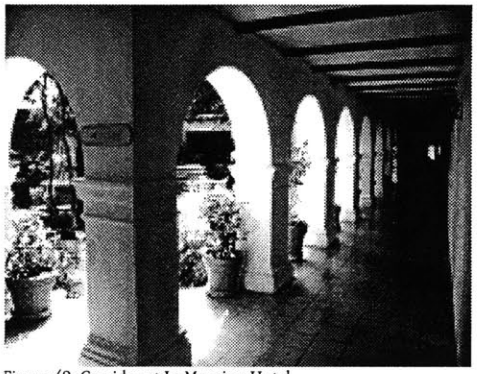


Figure 48: Corridor at La Mansion Hotel

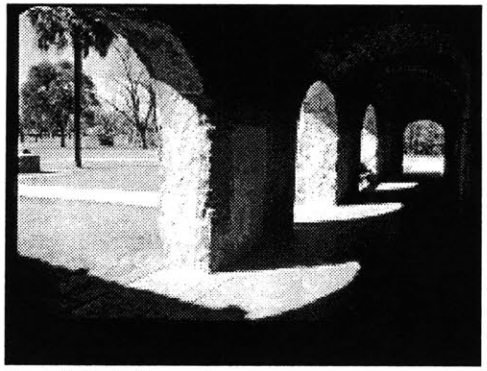


Figure 49: Mission Concepcion

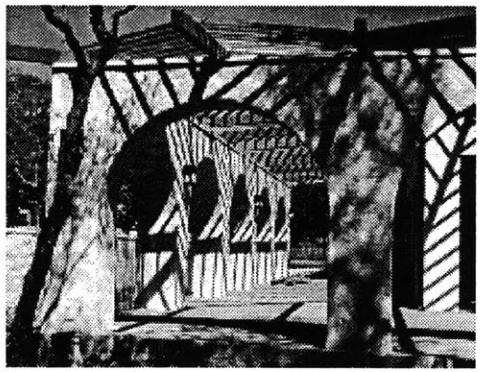
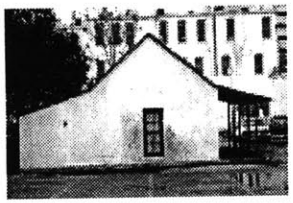


Figure 50: Alamo Restaurant

2.1.4 BUILDING TYPES

• INDIGENOUS HOMES



Unfortunately, in the evolution of this city, their is a lack of preservation for many indigenous residential homes. As with any preservation project, the more historical, the most economically viable, and the most trendy - architecturally famous style home has a better possibility of preservation than a residential home that does not follow the conventional pattern of architectural style or trend. The following images represent a few remaining examples of residential style within and around the city that have had the largest vernacular influence on the development of the city. The Broadway area has many historical sites that are completely restored or in the process, hoever, they are not indegenous to San Antonio but transferred from other cultures.

Figure 51: Indeginous Style in the South Side

Figure 52: Indeginous Style in the South Side

• SPANISH MISSIONS

The Spanish Missions of the 18th century, are also major architectural influences and are still an integral part of the city's history. The city continues to recreate this style of architecture. The most important issues to remember while viewing these images is that for many years the missions were the language of the city, the historical landmark, the only reference to the construction ability of the region and the most appropriate choices of materials. This style of architectural language is still in practice, but as an appropriation.

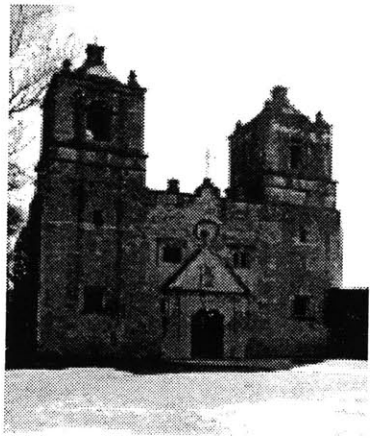


Figure53: Mission Concepcion

Figure 54: Mission San Jose

14) Habraken, John N. Transformations of the Site pg.29.

2.1.5 COLOR AND TEXTURE

• COLOR

Latin culture lives for color, with color, and respects color in its everyday life. With the intense Mexican heritage in the city it is no wonder that the use of color had such a large influence in the city. Many colors were taken from the given landscape and are represented in the local clothing. Color is an element that is used to highlight certain details within a building and not for the sole purpose of adding color just for color. The intended purpose is to draw attention to major openings, spaces or to elements of movement. These images are examples of this integration. Due to the intensity of light in this region these colors are typically bright and saturated.

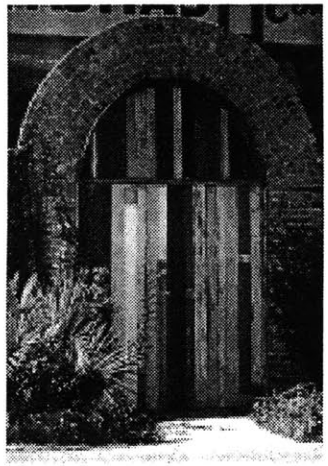


Figure 56: Door at Ninfa's Restaurant

Figure 55: Typical Texas Landscape

• TEXTURES

A variety of materials were used to segment the urban scale. The presence of the old quarry and the use of limestone is indigenous to the city and provides the city with the most common selection of building materials today. Due to climate and cultural influences, the usability of local materials such as rocks, mud for adobe, hard and soft limestone; and the quality of craftsmanship that is still a thriving profession in this city, all provide the common architectural characteristics and language of San Antonio. While walking the streets the presence of certain textures provided signs of territorial acceptance and seclusion. The following images provide a small example of the more historical elements of construction materials and their textures. Note that the texture admits an emotional signal or reactions that cause the individual to have a direct influence or reaction to the use and function of that material.

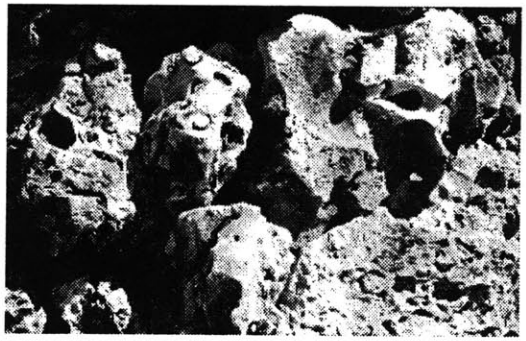


Figure 57: Texture of Local Walls

Figure 58: Texture of Local Walls

2.2 ORDER OF PLACE

Once the Eighteenth Century was influenced by the interventions of the Nineteenth Century, the organization of downtown began to evolve. Present-day San Antonio still corresponds to the original street layouts known to the city , developed by Jose de Urrutia in 1767. (Figure 59) The layout of streets began to adopt the grid system of most major cities. The Broadway site is one example of this transformation. The North, East, and West sections of the city have continued to develop with this grid system. Even with all the changes of the nineteenth century the layout of the site remains centered around the plaza and responds to the major forces within the city. The following sections describe issues that define boundaries within both the Downtown and Broadway urban fabric.

2.2.1 TERRITORY

"Territory is a space, or an arrangement of connected spaces, chosen in such a way that they are all under control of one power and that there are no adjacent spaces under control of the same power, it is that power's territory; a territorial power." [14] A few examples of this power are represented in the use of walls, fences, building edges, the set backs required by zoning laws and textures of these elements. The previous images represented the most common elements that determine the territorial power in the city of San Antonio. Their sequence, however, does not only represent the analysis of the chosen site of Broadway , but also a comparison of similar forces in the downtown area which provided possible influences. The random sequence represents the order in which these influences were attained and compared. Trying to match these influences and determine their importance was the

14) Habraken, John N. Transformations of the Site pg. 29.

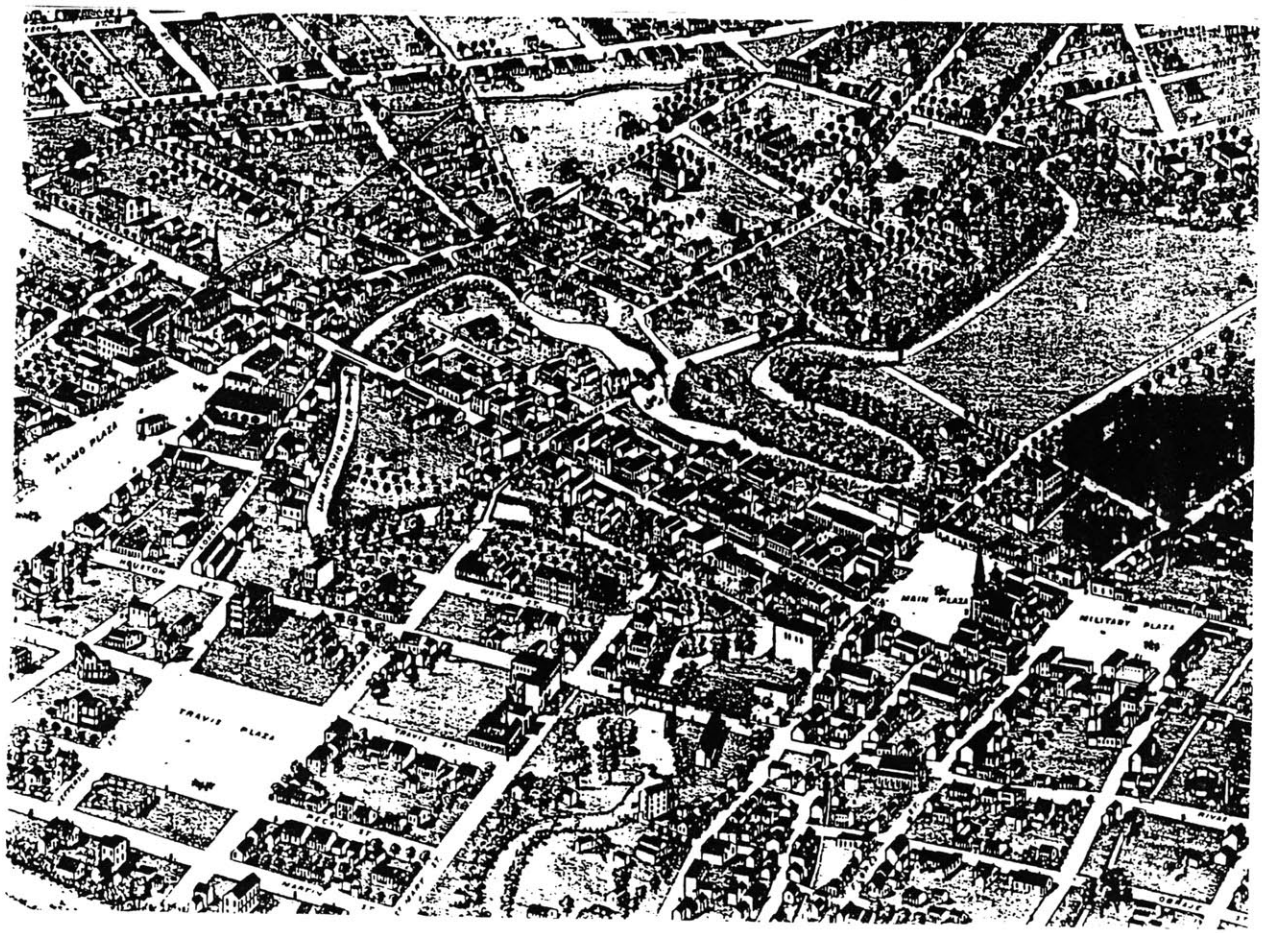


Figure 59: Downtown Rendering by Jose de Urrutia, 1767

challenge.

2.2.2 STREETS

The ability of movement in and around a city is the true test in the determination of a successful urban design. Streets determine this movement. San Antonio, with its Spanish influences, has street layouts which follow the traditional organizational patterns of old Spanish cities. Streets are organized parallel to a central plaza and determine the major urban and local collectors of a city. The width of each street provides a different emotional signal. Their dimensions could respond to a variety of uses such as: major urban collectors, local collectors, pedestrian accesses - private or public, and service alleys. More importantly they provide the visual linkages that reinforce the major hierarchical levels within a city. The major government and financial buildings are usually organized along the major accesses or street collectors. The dimension of the plaza provides the set dimension for all other blocks to follow. This is an exact dimension and any variations or transformations are to take place within the confines set by the plaza. The following image provides this important understanding which is presented in both Broadway and Downtown. (Figure 60)

2.2.3 ORDER

Examining a site requires an understanding of the forces present. These forces can appear in a variety of forms and are not always apparent. These forces can either be presented directly, as a pattern on the elevation, or as an underlying set of systems that need to be extracted to understand their importance. In the case of San Antonio, these forces were extracted from the urban fabric. Habraken states, "We can see the site as a network of

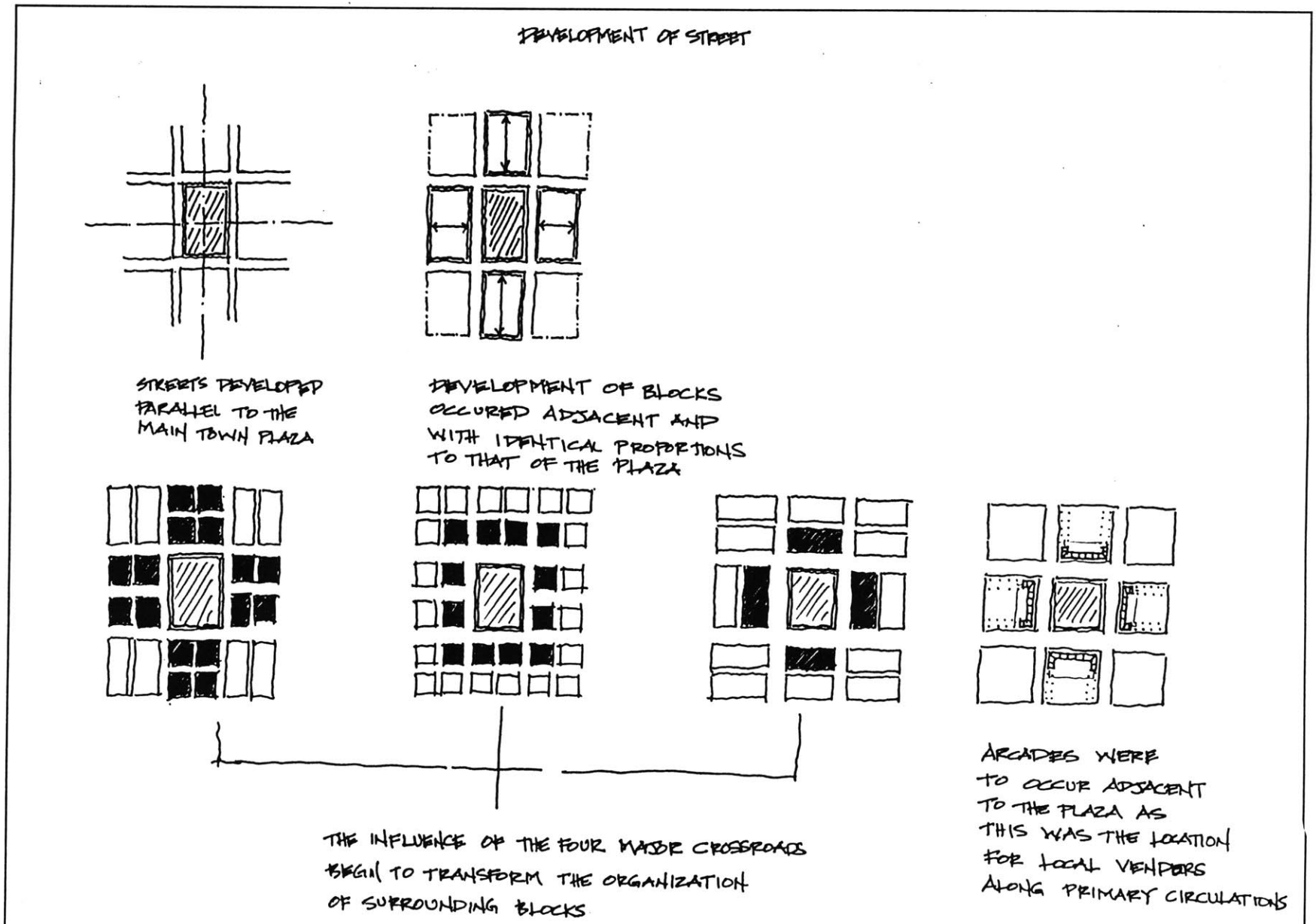


Figure 60: Organizational Development of Streets

relations of form. We can also interpret it as composed of relations of place, or we can see it structured in relations of understanding. In each case, when we try to do so, there is more than just many relations of the same kind. There is order in the manner in which these relations are strung together. We must examine these three orders of form, place and understanding. Thus, these orders explain the importance of dominance and which provides the understanding of the forces that appear so consistently in the site, and reveal to us the rules of the game called - site."[15]

2.2.4 CROSSING

"What moves into one territory comes from another. Where and how these crossings begin and end is determined by the borders set by the two territorial powers." [16] Crossings are not necessarily structured but are important to the movement throughout the site. A pedestrian passageway or the alley between two buildings are examples of possible crossings. In San Antonio these spaces are provided by the layout of the streets and plazas. These spaces give both a place to pause and gather and a set of reference points within the city. There is also one important possibility for the implementation of crossings and that is the use of negative space within the city. The unused space between buildings has become a new haven for small cafes and speciality shops. This new found space creates yet another level of order and territory to consider. One example of this integration to the urban fabric is the needed connection between the River Walk and the Market Place which are at opposites ends of the city. At this time there is no connection between these two functions and the layout of streets is the major cause for the lack of connection. The streets are not in perfect alignment, in fact, the streets were paved right over the

15) Habraken, John N. Transformations of the Site pg.21-2.

16) Habraken, John N. Transformations of the Site pg.30.

trails developed by the movement of cattle and carriages. Therefore, there is no direct or indirect visual linkage between these two functions. The development of the negative space between buildings would provide the necessary linkage that will strengthen their importance.

2.3 TRANSFORMATIONS

The site transforms by responding to the changes in place, culture, technology, climate and as a result of forces that in themselves are prone to change over time. There are three basic displacements that together make all transformations in the site. "The site can be transformed by addition of elements, it can be transformed by elimination of elements, or elements can simply change their position in the site. When the site transforms by addition, we speak of growth. Where it is a result of elimination, we speak of attrition, and when there is a change of position we speak of movement."[17] These basic forms of transformation affect the way one interacts with the site and, in turn, requires the constant analysis and understanding of place in order to keep step with the changes in time. The previous examples on streets, block transformations, street views, development of crossroads and even the example of open space demonstrates how this city has transformed. Broadway for that matter is "rip for development" and these issues must be considered in the redevelopment of this site.

2.3.1 PROPORTIONS

The window at eye level that allows one to view through, stands just high enough so that it prohibits safe passage; the horizontal and vertical patterns on buildings that indicate the beginning and the end of floor to floor

17) Habraken, John N. Transformations of the Site pg.14.

heights and the ornamentation on buildings all provide a visual understanding of proportions in relation to the human body. Proportion is the single most important visual signal in the understanding of a building form. Some buildings are symmetrical and others are asymmetrical, but with a clear understanding of proportions, the underlying organizational influence can clearly be understood through the use of geometrical analysis. This method of analysis is the process of which Classical Architecture is based. The schema of **tripartite** marks the difference between the internal and external sections of a work. "It divides a building into three parts, two border parts and one enclosed. Aristotle states, the "whole" is tripartite, it has " a beginning, a middle and an end." [18] (Figure 61a 61b)

The operation of the tripartite schema can be repeated as the form grows and moreover, "it can be applied again to segment further each of these parts in the same fashion. "This hierarchical correspondence among divisions in applying taxis schemata from the general to the particular, from the total to the last detail, is also a means through which the norm of noncontridiction is respected. Hence, the legend that in a classical work, even if only a tiny fragment survives, one can always reconstruct the whole." [19] In the city of San Antonio this organizational pattern exists in various forms. Both the historical and present architectural forms follow a homogeneous proportion system of tripartite. Although, this is not directly apparent, after careful observations the development of an understanding occurs. (Figure 62)

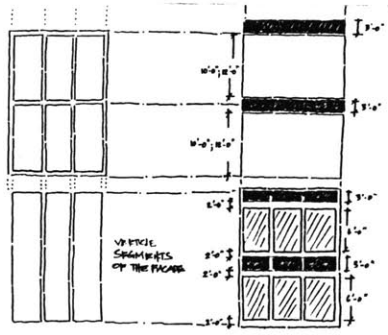


Figure 62:
Abstraction Parti of the Tripartite Schema

18) Tzonis and Lefaivre Classical Architecture pg.14.
19) Tzonis and Lefaivre Classical Architecture pg.18.

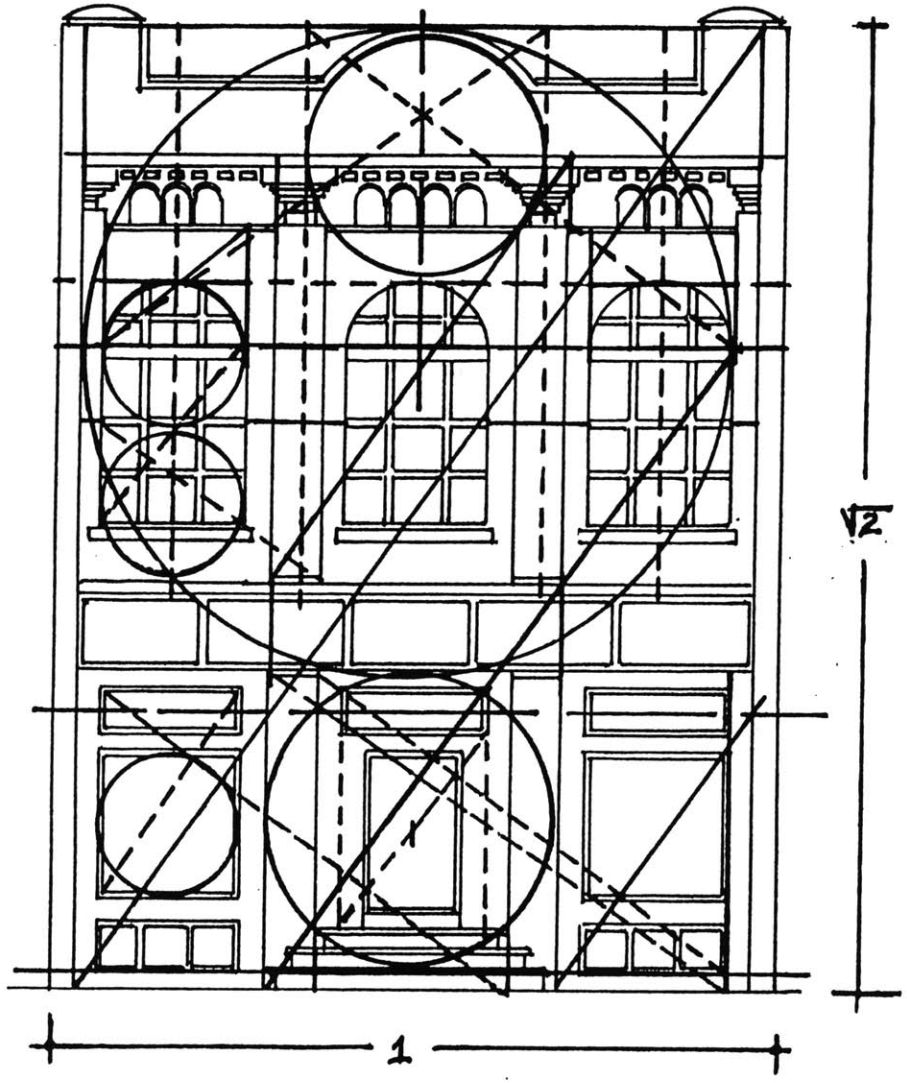


Figure 61a: Measured Drawing by Author: Analysis of Geometry by Imre Halasz

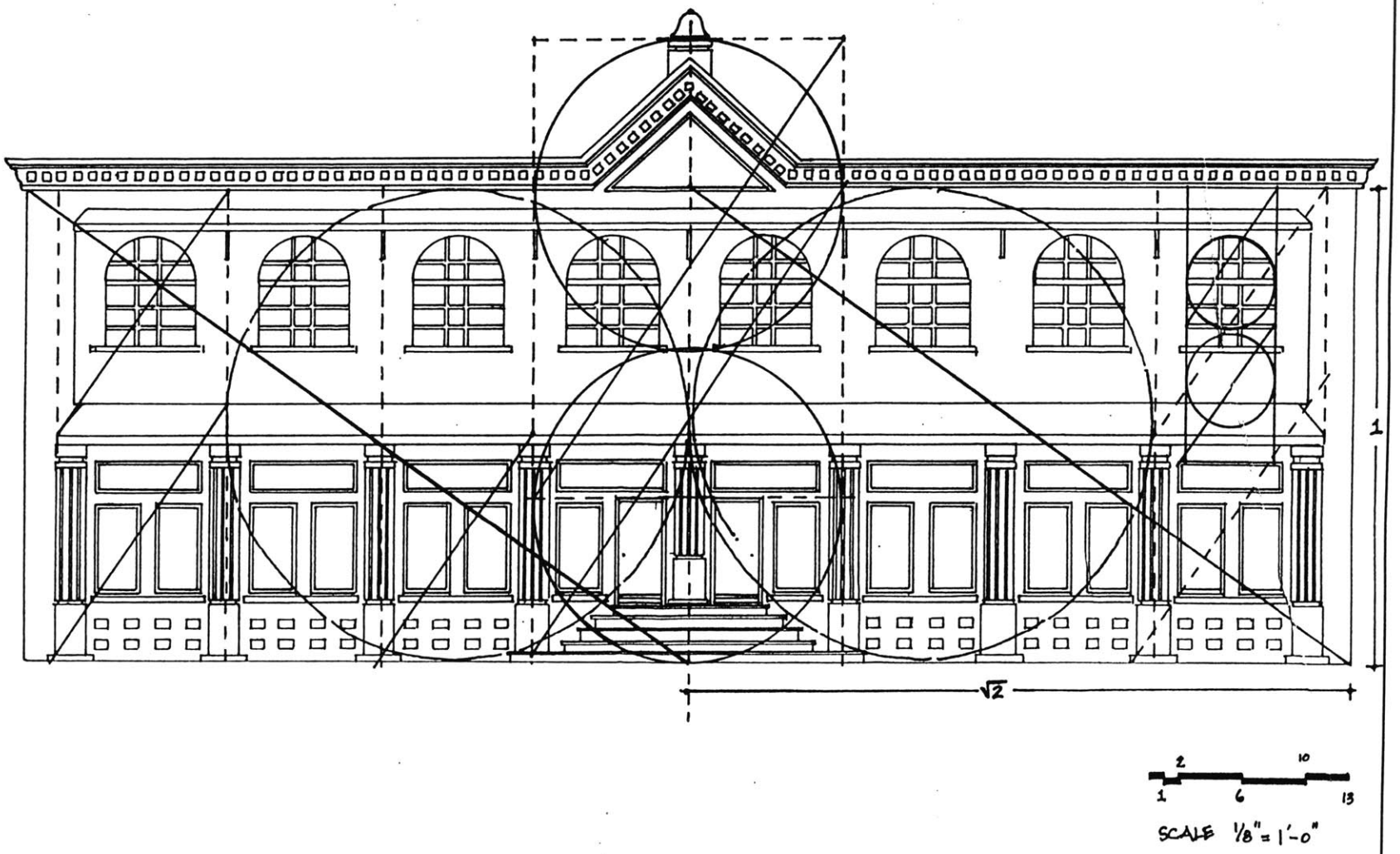


Figure 61b: Measured Drawing by Author: Analysis of Geometry by Imre Halasz

2.3.3 HIERARCHY

In the hierarchy of the site, there are many forces which segment into understandable parts. These parts can be a variety of elements. Some forces which segment the site can provide a simplistic pattern in the understanding of their importance. For instance, in this site, there is a series of local collectors which run horizontally, northwest - southeast, across the site and provides a linkage to both banks of the river. The next level of hierarchy happens with another set of local collectors that do not run the entire horizontal distance of the site. These secondary local collectors are then seen as a possible transformation to more pedestrian oriented passageways. The images in section 3.2 analyze the importance of the hierarchy within this site and end with a possible master plan concept design. This proposition of a concept design for a master plan will then be compared to the result of a charrette, for the same site, completed by the city of San Antonio and the local AIA Chapter.

2.3.4 PRIORITIZING

Discussing levels suggest that one element has been chosen over another. This is purely a matter of selections to related elements. The selection of an element on the elevation of a building for example, suggests that this element is more visible or carries more organizational importance within that elevation. That element could be a certain material which occurs more often than not. It could be windows or doors. It could be a pattern of spatial forms or simply a series of step backs within the elevation and the choice of order from front to back. In this master plan, the collected information is incorporated into the urban fabric of the Broadway site. The information provided shows the elements of importance that keeps with the language of downtown.

CHAPTER 3:

A COMPARISON OF INTERVENTIONS AND PROJECTIONS

3.1 OBSERVATIONS OF SAN ANTONIO AND AIA

Incorporating all the accumulated information in the previous chapters and demonstrating how all this information can be integrated is the goal of this chapter. The city of San Antonio held an Environmental Design Charrette on Feb. 24-25 1996, in the hopes of exploring alternative approaches for "sustainable development". There were five sites studied during this charrette; The North, South, West, East, and Central sections of the city. The Central Site is of importance and the driver for the following comparisons. (Figure 63) The following information is a direct translation of the documentation received from newspaper clippings and actual data from the charrette. This data, and all drawings, were provided by William Hensley, an Architect for the City of San Antonio.

The Central Site has been referred to as the North Gateway to downtown. This area provides the possibility of a new neighborhood and the improvements for the San Antonio River which runs through the center of this development. This site developed during the 18th century with St. Mary's and Broadway as the major urban collectors parallel to the river. The vision statement of this group is, "to strengthen the connection between downtown and peripheral areas by enhancing the river and Broadway. Reclaim the area and the river as the north gateway to the city." [20]

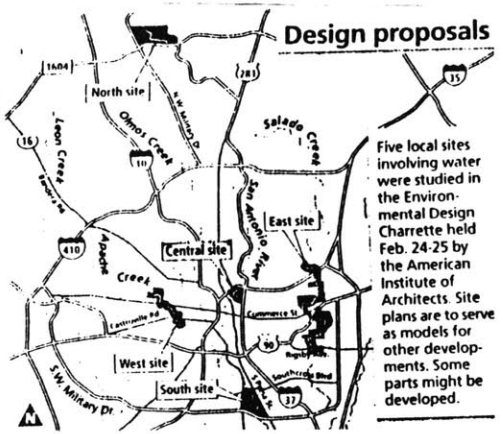


Figure 63: Locations of Design Proposals

20) Hensley, William Information provided by the City Architect

The design concept developed from the following process. The river and Broadway are parallel forces which unify the site. To the south is downtown, north museums, parks and the affluent neighborhood. The goal was to link those forces with east and west finger parks and strengthen the north and south pedestrian activity. The central design group also has a series of concepts that were established to help guide the conceptual development of this site.

These concepts were as follows: 1) To establish a node adjacent to the current site of the San Antonio Museum of Art; 2) To define a gateway to the museum and to the sector of Broadway bounded by Jones Avenue on the north, proceeding South to the Central Business District; 3) To encourage the renovation of Broadway within the area, and to establish the notion of a corridor; 4) To rehabilitate the existing river corridor to the level of the Hugman plan downtown, and to maximize the use of water; 5) To relieve pressure on the existing downtown river loop; 6) To establish an urban neighborhood in order to relieve suburban development / sprawl; 7) To maximize existing land uses. Establish mixed use development to facilitate interaction within the sector; 8) To set in motion the ideals of economic and ecological sustainability. It is important to note that the design teams consisted of an architect, a civil engineer, a planner, a landscape architect, an ecologist, a developer and a neighborhood advocate. The final plan of the Central Team consisted of the following aspects.

- Creating a gateway to downtown, a commercial district, and urban neighborhood, and unused areas into green spaces;
- Linking the river with areas along Broadway;
- Excavating the river channel for green spaces;
- Establishing hike and bike trails along the river;
- Building a dam at Brooklyn Street with a funicular, or railway, in the assistance of river barges;

21) Habraken, John N. Tools of the Trade pg.27.

- Creating finger parks extending from the river to link Maverick Park off Broadway;
- Landscaping the river banks with vegetated terraces;
- Developing an urban neighborhood west of the river;
- Using the railroad tracks near Maverick Park and Jones Street as a possibility for transportation.

In the process followed above, by the city of San Antonio and the local AIA, it is apparent that the majority of their concentration was on the site and its immediate surroundings. Therefore, one can say that the determined results presented in this section shows that their processes only focused on the local forces and possibilities of the site. Thus, the projections in the following images, will only be presented and not intended to provide an explanation more than what is directly understood by analyzing the images themselves. (Figure 64-68) The author will not try to express the taughts of members of the design team, therefore, the intent is to present their results as a comparison to this documents results. However, through a series of sketches explanating the process for analyzing the site of Broadway, these propositions are explained and thus an understanding of this design process or design perameters as well as a comparison begins to emerge.

Figure 64: Diagram of the Broadway Area

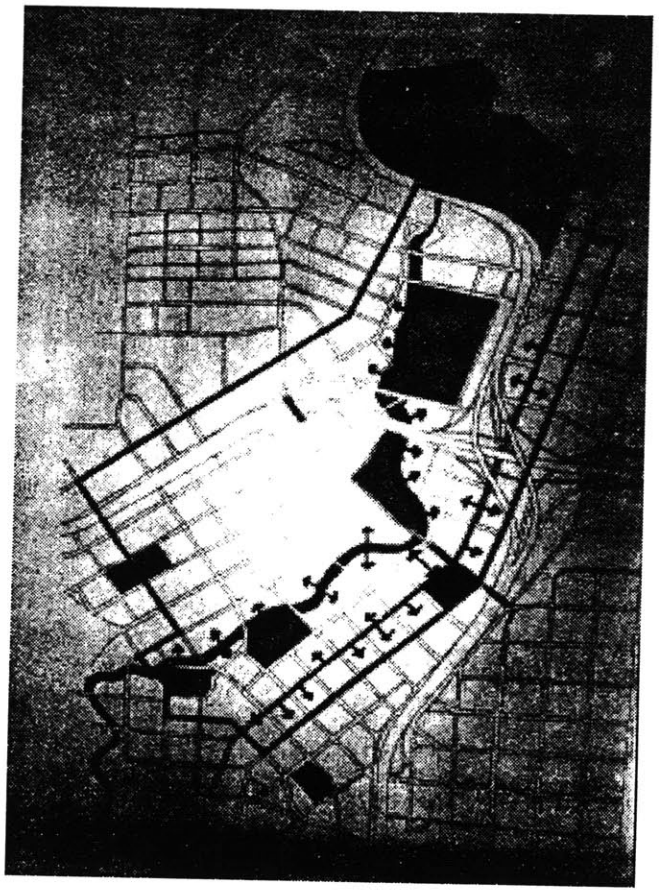


Figure 65: Diagram showing Green Space Linkages

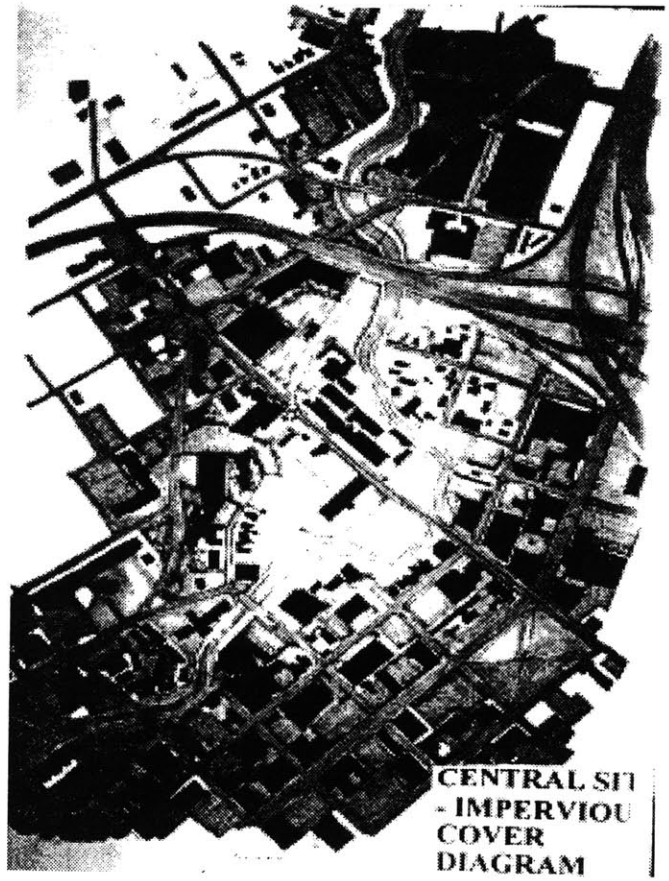


Figure 66: Central Site - Impervious Cover Diagram

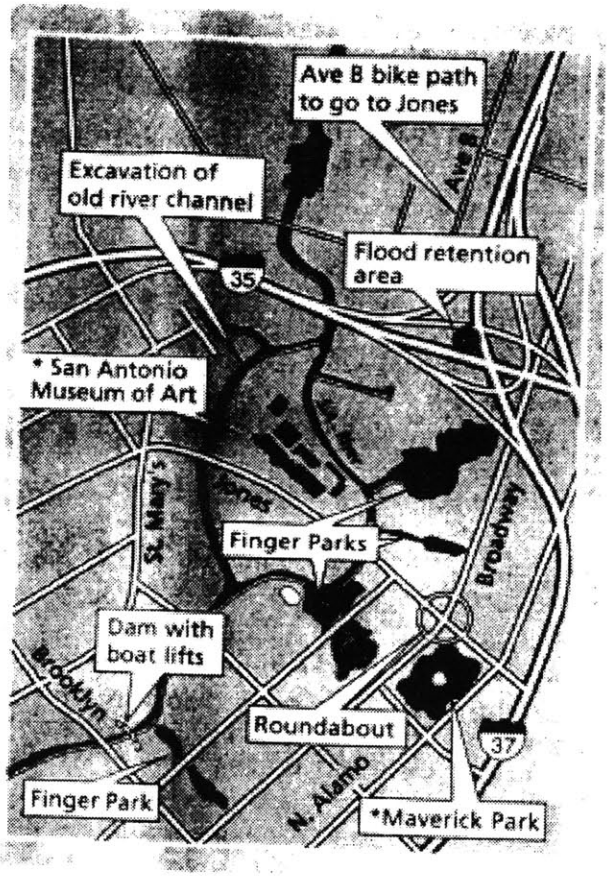


Figure 67: Image Shows Major Concepts

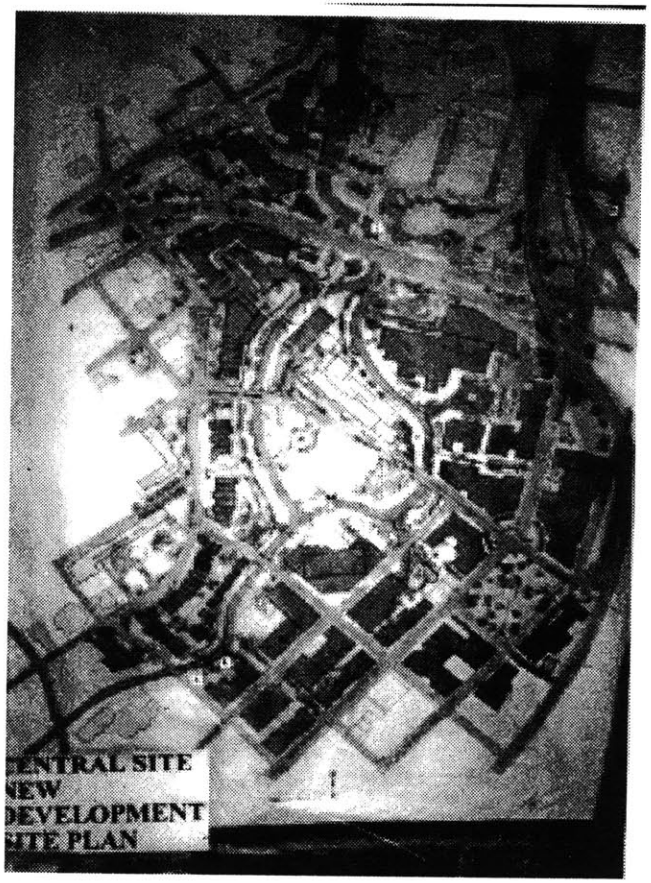


Figure 68: Central Site New Development Site Plan

3.2 OBSERVATIONS ON THIS PROCESS OF DESIGN

In comparison to the solutions attained by San Antonio and the AIA, this document provides yet another approach to the process of design for the determination of rules and guidelines that provides a framework for the understanding of place. The previous information outlined in Chapters One and Two contain all the forces and influences that were considered in understanding the urban fabric of San Antonio. Once this information is gathered, prioritized, evaluated, and organized then the last point of interpretation is the Presenting process. The process of creating a concept design for the site of Broadway, north of downtown, can now begin. This phase of design was also conducted as a design charrette, by the author. The idea was to analyze the site, determine what forces were present, how to react to these forces, how to incorporate them, and how all the information provided during the gathering phase can influence the design process. The following 9 sketches (Figures 69-77) will present the step by step process by which the site was analyzed from its larger urban scale to its internal local scale. The result remains at the master plan level and provides the interpretation of how the prior observations can be integrated into the site. Again, the results of this method are based on the overall understanding of the urban fabric through observations and interpretations of the previous selected data.

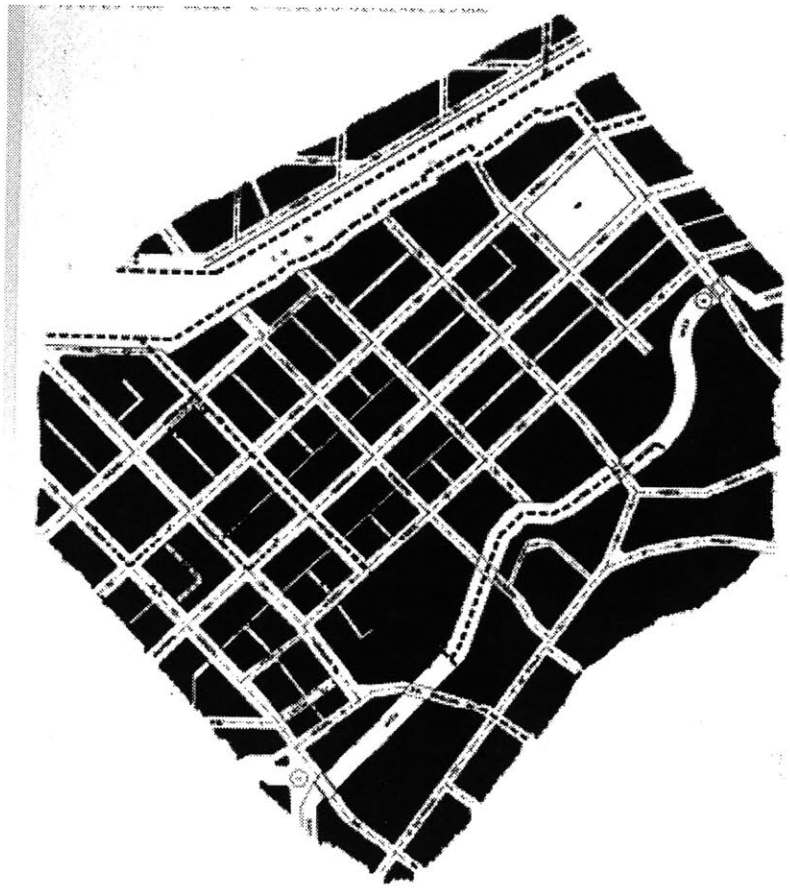


Figure 69: Figure Ground of Broadway Site

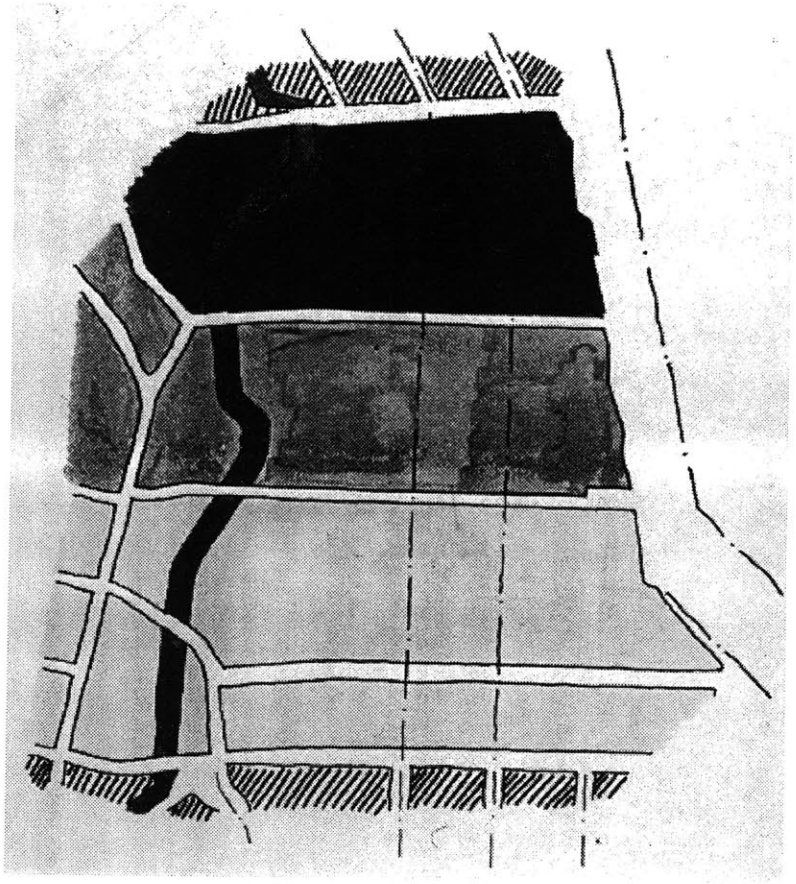


Figure 70: Segmentation of Site into Three Zones

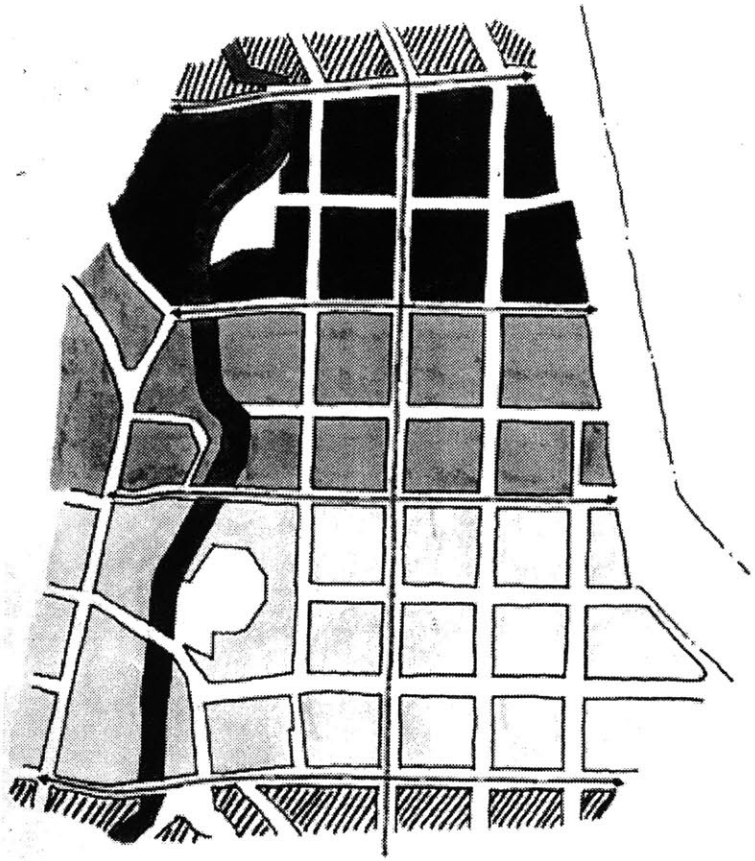


Figure 71: Diagram of Major * Local Collectors

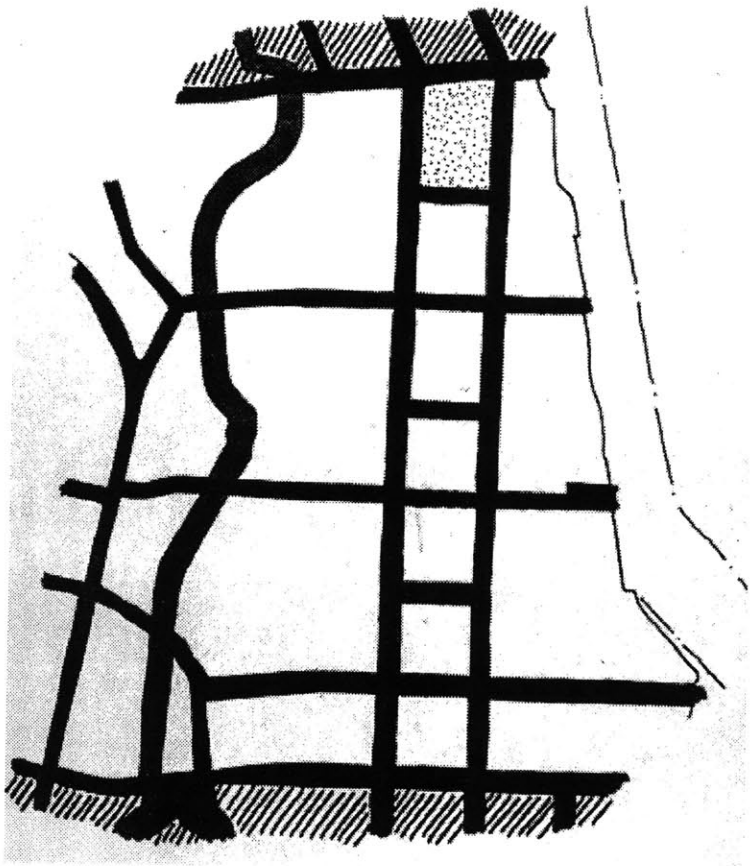


Figure 72: City Block Organization in Each Zone

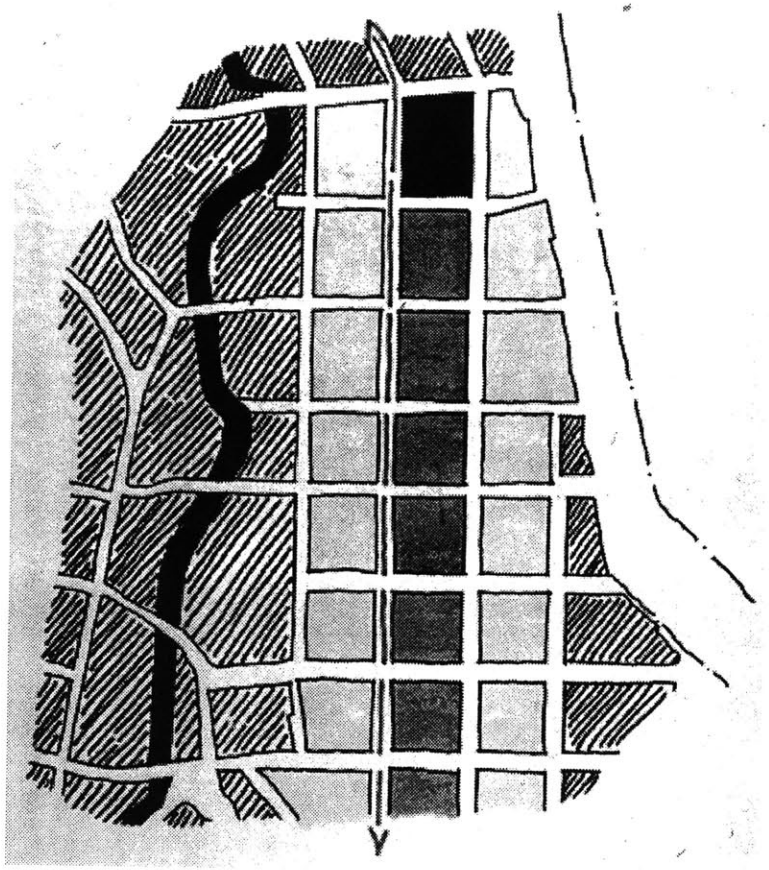


Figure 73: Areas Affected by the River and Plaza

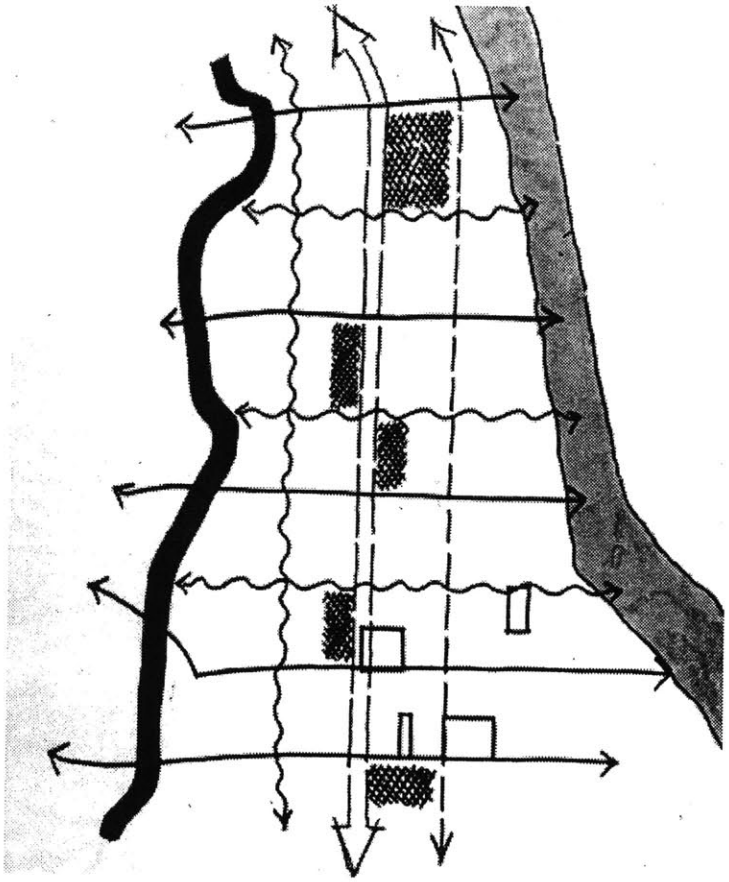


Figure 74: Diagram of the Integration of All Major Influences

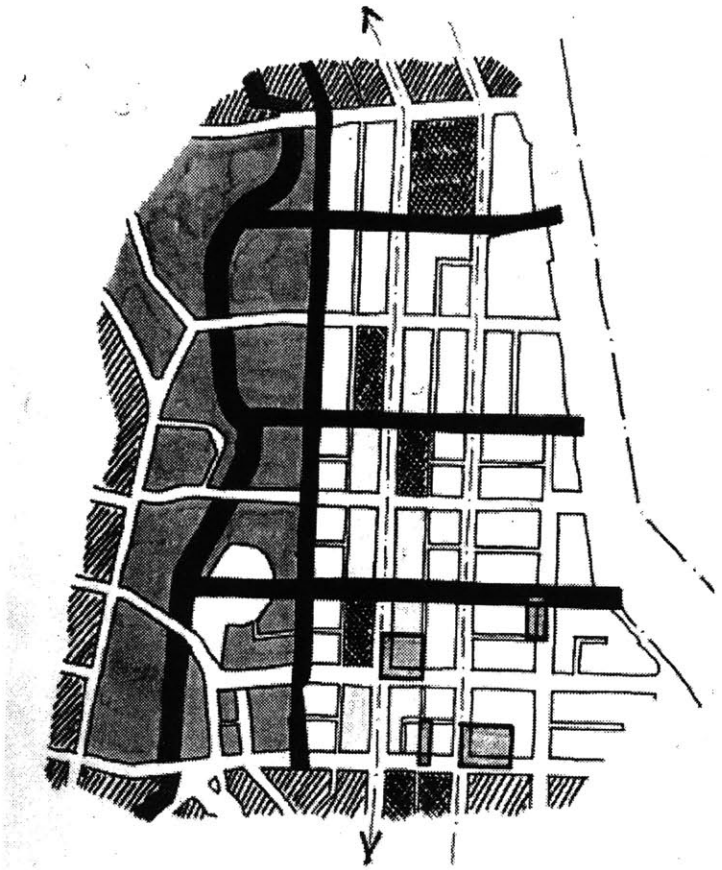


Figure 75: Influences Overlayed on the Urban Fabric

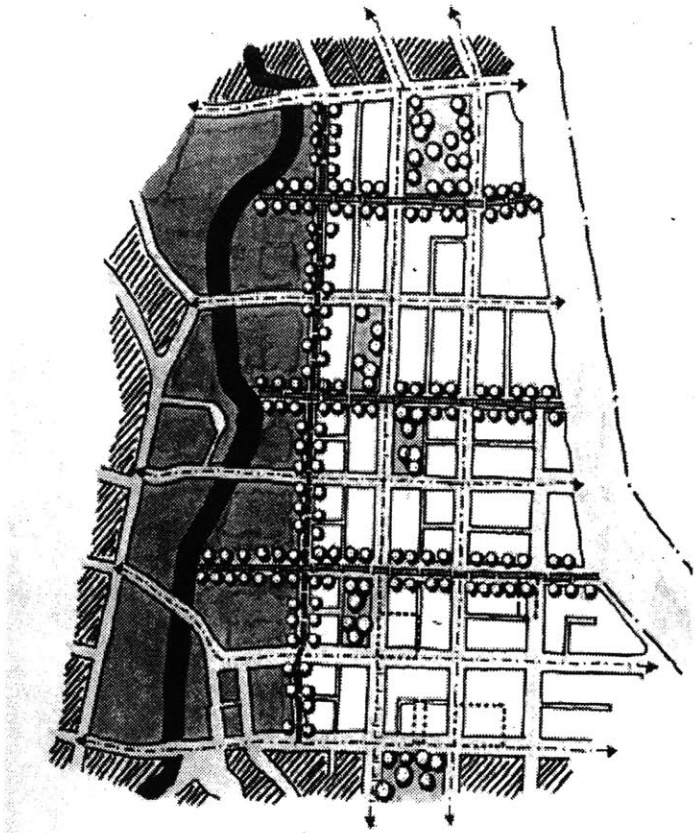


Figure 76: Linking Pedestrian Crossings to the River, Site, & Parks

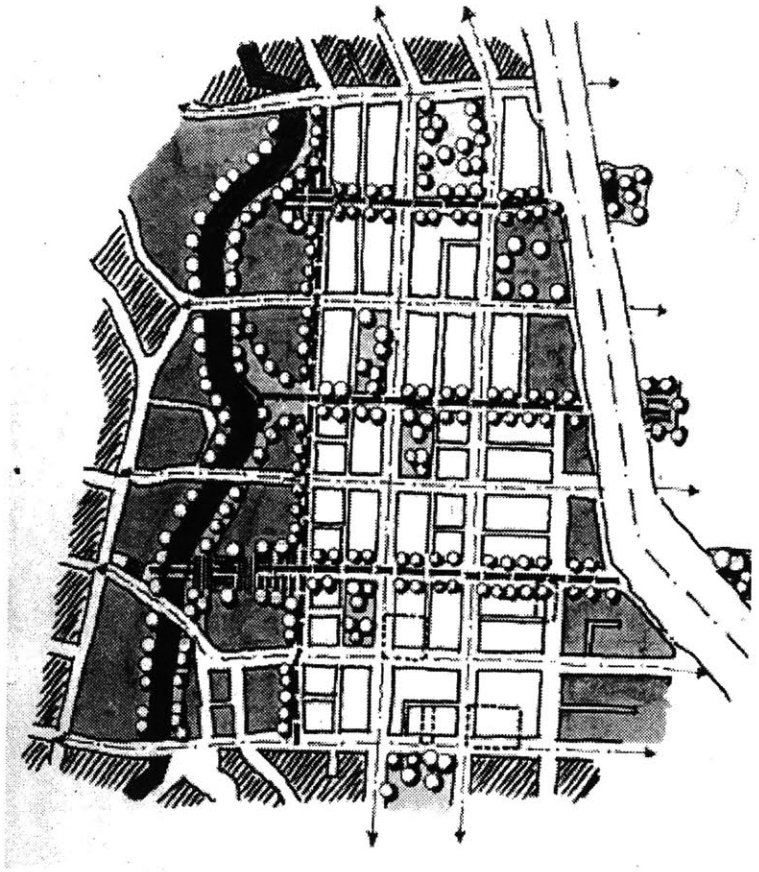


Figure 77: Final Concept Desihn for the Broadway Site

CHAPTER 4:

CONCLUSIONS

The processes of design mentioned throughout this document and its results provides a set of possible guidelines to examine the most effective method of approaching the understanding of place. Throughout this document, the method of a cyclic observation is presented through the following points: Gather ing; Prioritizing; Evaluating; Organizing and Presenting. Again, it is important to note that the information presented is not a collection of existing documentation, nor an influence of market, economic or political forces, but a selective process for information gathering through direct observation of the urban fabric of San Antonio, Texas. This design process and case study of San Antonio, is intended to provide a change in the thought process of architects during the approach referred to as concept design for the implementation of an architectural form.

The understanding of the architectural characteristics of place provides the observor a greater framework for the implementation of a new architectural form. The goal for any project is to develop, to the best of one's ability, an architectural form that responds and enhances the quality of the existing fabric. Through the method of direct observation, one can begin to develop an understanding to place, and its surrounding forces that could possibly begin to integrate the common architectural elements that exist in any given site.

The findings of this document provids the foundation for the development of an architectural process. This method in the process of design reached only a Conceptual Master Plan Design, leaving the next phase to the readersas well as the author. The assumptions raise the question, What would be the implementation of all this gathered information on the more block to street develeopment?

LIST OF ILLUSTRTIONS

37) The Mission San Juan

38) Trinity University in the North Side

77) Final Concept Desigh: Broadway

39) Building Detail along Broadway

40) Parking Garage Detail - Ricardo Legorretta

41) Typical Building Type along Navarro Street

42) Typical Buildings along Commerce Street

43) Wall at La Mansion Hotel Courtyard

44) Wall at the River Walk Entrance

45) Residential Home in Pleasanton

46) The Mission San Juan

47) The Mission San Jose

48) The Corridor at La Mansion Hotel

49) The Mission Concepcion

50) Alamo Restaurant

51) Indigenous Houses in the South Side

52) Indigenous Houses in the South Side

53) The Mission Concepcion

54) The Mission San Jose

55) Typical Texas Landscape

56) Door at Ninfa's Restaurant

57) Texture of Local Walls

58) Texture of Local Walls

59) Downtown Rendering by Jose de Urrutia, 1767

60) Organizational Development of Streets

61a & b) The Tripartite Schema of Classical Architecture

62) An Abstraction of the Tripartite Schema

63) Locations of Design Proposals in San Antonio

64) Diagram of the Broadway Area

65) Diagram showing Green Space Linkages

66) Central Site - Impervious Cover Diagram -

67) Newspaper Summary showing Major Concepts

68) Central Site New Development Site Plan

69) Figure Ground of Broadway Site

70) Segmentation of Site into Three Zones

71) Diagram of Major & Local Urban Collectors

72) City Block Organization in each Zone

73) Areas Affected by the River and Plaza

74) Diagram of the Integration of all Major Influences

75) Influences Overlayed on the Urban Fabric

76) Linking Pedestrian Crossings to the River, Site, & Parks

BIBLIOGRAPHY

Alberti, Leon Battista . The Ten Books of Architecture. The 1755 Leoni Edition. New York: Dover Publishing, Inc.. 1986.

Alexander, Christopher, Sara Ishikwa, and Murray SilverStein. A Pattern Language. New York: Oxford University Press. 1977.

Aniol, Claude B. San Antonio- City of Missions. New York: Hastings House Publishers. 1942.

Argyris, Chris, Schon, Donald A. Theory in Practice: Increasing Professional Effectiveness. Jossey-Bass Publishers. 1974.

Curtis Nathaniel CortLandt. Architectural Composition. Jansen, J.H. Cheverd. Jay Printing Company. 1935.

Everette, Donald E. San Antonio. The Flavor of its Past, 1845-1898. San Antonio: Trinity University Press. 1975.

Guillermo, Frontado S. Las Leyes de Indias: Observations of its Influences on the Structure of Physical Space in the Latin American Cities. MIT Thesis. Cambridge, MA: MIT Press. 1980.

Habraken, John N. Tools of the Trade: Thematic Aspects of Designing. Draft. January 1996.

Habraken, John N. Transformations of the Site. A Water Press Limited Edition. 1982.

Habraken, John N., Gross, Mark D. Concept Design Games Book Two: Playing. Cambridge, MA: MIT Press. 1989.

Kentish Town Projects. Architecture and Continuity. Diploma Unit 1. Architectural Association 36. London: Redford England. 1986.

Ramsdell, Charles. San Antonio- A Historical and Pictorial Guide. Austin: University of Texas Press. 1985.

San Antonio Chapter of the American Institute of Architects. A Guide to San Antonio Architecture. 1986.

Schön, Donald A. Educating the Reflective Practitioner Towards a New Design for Teaching and Learning in the Professions. Jossey- Bass Publishers 1987.

Schön, Donald A. The Design Studio- An Exploration of its Traditional Potentials. Architecture and the Higher Learning. RIBA Building Industry Trust. 1985.

Schön, Donald A. The Reflective Practitioner. How Professional Think in Action. New York: Basic Book, Inc. Publishers. 1983.

Tzonis, Alexander, Lefaure, Liane. Classical Architecture. The Poetics of Order. Cambridge, MA: MIT Press. London, Square WC1. 1978-81.

White, Edward T. Introduction to Architectural Programming. Cambridge, MA: MIT Press. 1972.