

A Border Crossing Station

Brownsville, Texas

by

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I. ABSTRACT

The increasing influx of Latin Americans into the Southwest United States as a result of social, political and economic upheaval in their homelands is a growing concern for the state of Texas.

A new immigration station is proposed for the Texas-Mexico Border which would be essential to the journey of the international migrant. Serving simultaneously both as an administrative and educational facility, this place of entry into the United States would serve to enhance the immigrant's arrival and adaptation to their new world. The complex would represent the freedoms provided by the Constitution, serving symbolically as a haven of opportunity for the American immigrant.

A paradox exists in the placing of opposing gateways, one of opportunity with one of control, in close proximity to each other. The complex proposes to celebrate the continued traditions of the United States' acceptance of new immigrants, examine the consequences of the country's right to maintain the flow of migration and finally to establish a prototype for which the two gateways can coexist.

These goals would be realized in the design of the following facilities:

1. Management of the Border crossing and Border patrol facilities.

2. Educational centers for the benefit of the immigrants' desires for opportunity and advancement in their new environment.

3. Resource centers for the aid of displaced persons and refugees.

4. Temporary housing for political refugees seeking asylum in the United States.

5. Immigration and Naturalization processing facilities with public spaces for the celebration of the immigrant's arrival and naturalization toward American citizenship.

6. A market area for the sale of Mexican goods to the abundant tourist trade.

II. INTRODUCTION

The world of the immigrant is one of opposition between dreams and reality, myths and limitations. [The nationality of the immigrant is forever changing yet their role in American history is timeless.] In this world, the social, political, economic and environmental factors are equally controversial. Somewhere between these forces is the immigrant and his world.

The immigrant is viewed socially as a stranger by the natives. [At times immigrants feel unwelcomed, misunderstood and confused by both language and culture.] Ideally they are the latest of the tired, hungry immigrants yearning to partake in the American Dream. They may also be another burden on social welfare group, perceived as one more mouth to feed and possible dependents to an already depressed state of economy. At the same time, the immigrant is an integral link in the economy of the Southwest, taking the lowest paying jobs which other citizens of the United States would decline and providing seasonal labor forces for the agricultural industry. Politically the immigrant is equally controversial. They may be seen as a threat to the status quo or as an indirect means to improving foreign relations with neighboring nations. The situational reality of today's new immigrants is as always paradoxial.

Likewise the Borderland frontier is an environment of oppositions. The land is relentless and yet it is an oasis,

a promised land. Together the land and the people of both the United States and Mexico are closely tied, divided only by the international boundary of the Rio Grande River. The river divides, yet also exists as the center of two distinct yet similar worlds.

The religious and political groups of the Border frontier actively work to help the immigrants adjust and adapt to their new home, but the Immigration and Naturalization Service (I.N.S.) and the Border Patrol control the access to their final passage. New legislation introduced in 1986 designed to control the alien tide further complicates the situation of the immigrants as well as for the I.N.S. The new law attempts to provide humane treatment for the illegal migrants living in the United States by giving citizenship for aliens who can prove residency in the country since 1981. The law however has also closed the opportunity for many people still seeking citizenship in the United States. For illegal aliens who have no evidence of their residency much less the fees necessary for amnesty, the danger of these alien disappearing further into the shadows is a more pressing issue.

As more people enter the country, the reality of life as an immigrant becomes more clear. Makeshift colonies, called colonias, are scattered along the Rio Grande River. Often the colonias are without adequate facilities such as

electricity and water with little hope of aid from local or state governments.

Despite the conflicts, the hardships and the stark realities of the scenario, the dreams and the myths continue. The American continent, particularly the United States, is as Walt Whitman phrased our heritage as a "nation of nations."¹ Armed with this dream, the immigrant leaves his home and begins a new life in this country.

III. PROJECT EXPECTATIONS

The immigration station as architecture is to represent hope to newly arrived immigrants. The Border crossing is of two faces: one that guards the international boundary while at the same time welcome those entering the United States. With this arrival, this project's goal is to use the journey of the immigrant as a point of departure for establishing a program for the station. The program develops according to the apparent needs of the international migrant. The focus of the program will attempt to address several levels of programmatic needs to a varied group of migrants: refugees, immigrants, illegal aliens and American tourists.

While the goal of this station will be to examine the benefits such a facility could render for the international migrant, certain other realities of the situation must be also addressed. These issues include a number of controversial topics among which include:

- 1) The use of the military to patrol the Border for the smuggling of contra-band substances.

- 2) The great influx of illegal workers into Texas and the rest of the Southwest due to a collapsed economy, violence from war, political and social persecution as well as natural catastrophes in Mexico and other Central American nations.

- 3) The desire of certain coalitions to drastically

shut down the flow of immigrants versus those who wish to utilize the labor of Mexico for less expensive production of goods.

With these issues and their implications in mind the design of the Border crossing will focus on a number of architectural investigations which will help to establish the validity of this proposal of a crossing which contains both the Border Patrol station as well as a center for immigrants. The following lists the architectural investigations which will help to establish this hypothesis of two opposing groups which coexist at the Border:

1. To investigate the role of buildings which represent symbols of immigration. These emblems of the New World both illustrate how in the past structures have welcomed the immigrants while at the same time regulated their the flow of aliens. for example the juxtaposition of the Statue of Liberty with Ellis Island and Spanish missions with fortified garrison towns or presidios.

2. To investigate the immigration station as a prototype for the advancement of displaced persons using existing facilities as guide for the development of a program. Using the vast array of mixed facilities waiting for the international migrant as models, the program will combine these elements for the new station. Among these models are peace gardens and refugee missions as well as

patrol stations which house zeppelins and watch towers.

3. To study the journey of the immigrant from arrival to their final Pledge of Allegiance. Preparation for adaptation to the United States lends itself to two categories which the program for the refugee mission can distinguish . First the Border crossing will include a formal education facility as well as a social resource center to help the immigrant establish a new life in America. Second, the station will include public spaces for the celebration of the ritual of naturalization towards citizenship. The first concentrates on the program involved with classrooms, meeting rooms, temporary housing, medical facilities , legal aid in addition to a Border patrol station, customs, toll booths and Immigration and Naturalization Service administration. The second part deals with the celebration of the Border frontier through a sequence of spaces and addresses the use of architectural elements which complement one another. These elements will include bridges, ceremonial gateways, a marketplace and a small amphitheater.

4. To analyze historical precedent in terms of genius loci, form and organization, symbolic and functional spaces including those which are indigenous to Texas such as the Spanish missions and presidios.

5. Investigate the utilization of models, metaphors, transformation as communicative devices which are analogous

to the journey of the international migrant. These are included below (Figure 1 and 2):

Figure 1: [Faint text]

Figure 2: [Faint text]

Figure 3: [Faint text]

Figure 4: [Faint text]

Figure 5: [Faint text]

Figure 6: [Faint text]



SYMBOLIC MODELS

Figure 1a: AXIS/ PATH/ TERMINUS

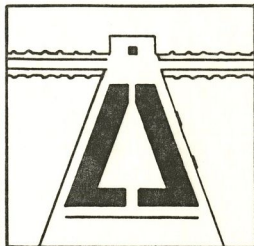
Place Dauphine, Paris

Figure 1b: GATEWAY

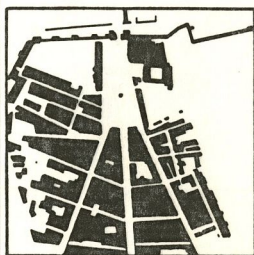
Piazza de Popolo, Rome

Figure 1c: MONUMENT

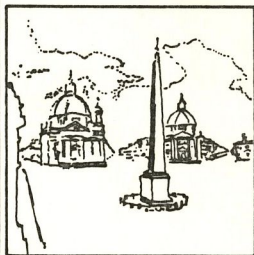
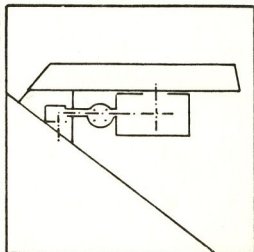
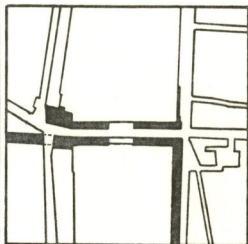
Piazza de Popolo, Rome

Figure 1d: PROCESSIONAL

Cite de Refuge, Paris

METAPHORS

Figure 2a: BRIDGE

Ponte Vecchio, Florence

○ Figure 2b: GATEWAY

Design for a city-gate, Paris

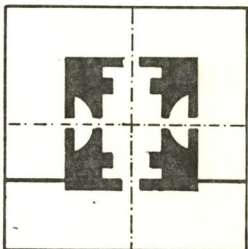
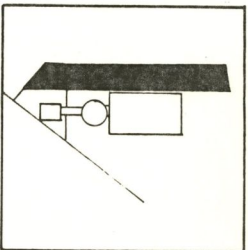


Figure 2c: SHIP

Asile Flottant, Paris

Figure 2d: WALL

Cite de Refuge, Paris

6. Conduct analysis of various sites prior to the selection of one in terms of the following criteria:

- a. Historical significance (ruins)
- b. Physical amenity (mountain, sea, desert, river, dam)
- c. Social and political requirements.

IV. HISTORICAL BACKGROUND

Immigration is the movement of people across an international boundary to establish residency within another country. Immigration refers to the shift of people from the point of view of the receiving country while emigration distinguishes the movement from the country of departure.

Immigration is essentially a phenomenon of modern history resulting from Europe's expansion since 1400. With the creation of national states in the sixteenth century, immigration expanded rapidly up until the 19th century reflecting social changes in Europe.

The history of immigration in the United States is important in perspective to the country's development. Immigration continues to be a critical issue today as movements have changed their geographic setting, reasons, and consequences.

The reasons for modern international migration are varied. Three categories separate the international migrant.² These are the legal permanent immigrants, refugees and temporary migrants both legal and illegal. The first category of legal permanent immigrants is traditional associated with the history of the United States in its role as "a nation of nations"³ and yet this group is the smallest in numbers today. Legal permanent immigrants have between 1975 and 1985 totaled only one million worldwide with half that number entering the United States.⁴

The number of refugees or persons "leaving their homelands due to persecution"⁵ is estimated to be about 9.1 million persons. This conservative figure is estimated to be much greater since 1985.⁶ The definition of refugee was recently changed by the Refugee Act of 1980. Prior to this act, a refugee was defined as a person fleeing:

"because of persecution on account of race, religion or political opinion..or uprooted by catastrophes, natural calamity as defined by the President."

The act adopted the definition to one based on international law which essentially excluded people leaving their country because of "drought, flood, earthquakes, war, poverty, racial and other discrimination."⁸ In other words the category has limited the number of people who can be legally defined as refugees and subsequently seek asylum in the United States. (Figure 3)

<u>Refugees Defined prior to 1980</u>	<u>International Law</u>
Persecution: [Race Religion Political Opinion Communism	Race Religion Nationality Social Group Political Opinion
Fleeing: [Middle East Catastrophe	

Figure 3: Chart showing refugee definition before and after 1980.

The third category of temporary migrants compose the largest group of international migrants totaling between 20 to 30 million persons. The number of migrants for temporary residency is about ten to fifteen million concentrating mostly in Western Europe and the Persian Gulf region.⁹ The other half of illegal or undocumented migrants are found mostly in the Western Hemisphere particularly in the United States and Venezuela.¹⁰ The accuracy of the number in this category should recognize a parallel estimate of outflow which significantly reduces the net flow of illegal immigrants into the United States.¹¹

V. THE RIO GRANDE FRONTIER

For a distance of approximately 1930 kilometers, the Rio Grande River marks the international boundary between the United States and Mexico illustrating one of the most abrupt and contrasting lines of demarcation between two cultures. A line that separates one of the most affluent countries from one that continues to struggle with intense poverty and political turbulence. A place where the Third World of deprivation and unemployment meets the First World of industry and opportunity.¹² Very few borders in the world are there so extreme economic and social diversity. While the Israeli-Arabic boundary might be comparable, the Border at the Rio Grande is quite different with its unique problems. In the Middle East, the border is "a fortified, warlike zone of contact with deeply entrenched and bitterly conflicting concepts on whose ancestral home is Palestine."¹³ while the Texas-Mexico Border is, likewise, a troubled zone, strictly enforced boundary, between two cultures where the physical barriers are almost non-existent.

The Treaty of Guadalupe Hidalgo of 1848 ending the United States-Mexican War established the Rio Grande Boundary. The initial delineation specified demarcation by the center of the deepest channel.¹⁴ The original river bed however was unstable making the path of the Rio Grande was random and irregular. Due to either low precipitation or

run-off over the basin, the river course was broad and shallow, running along valley floors with almost imperceptible edges. Accretion, the process of a slow, gradual lateral movement in a watercourse or erosion, and avulsion, the sudden, abrupt shift in a river course due to flood surges relate directly to the issue of demarcation.¹⁵ Together these inherent characteristics of the River have caused legal headaches for more than a century in determining the river boundary. (Figure 4)



Figure 4: Texas and United States-Mexican Boundaries 1816-53. John House, Frontier on the Border: A Geography of Development and Social Deprivation (Oxford: Clarendon Press, 1982), 24.

El Chamizal, El Paso, Texas

"Men of goodwill, working together, can reach equitable solutions to mutual problem and, in working together, they will find friendship and gain understanding."

(Inscription on Monument at El Chamizal, El Paso, Texas)

An investigation of the El Chamizal settlement in El Paso of 1963 is beneficial in an analysis of border cooperation. For the United States the resulting development of the river rendered an impressive public works program that can be used as a model for other border crossings.

In the eastern outskirts of El Paso, Texas and Ciudad Juarez, Mexico, a territory of some six hundred acres, known as El Chamizal, was the source of bitter tensions between the United States and Mexico, a result of vague border demarcation. The river channel's extensive shifts through Chamizal resulted in many disputes over property rights and legal sovereignty. Before any major urban development, the problem existed only locally in the 1850's. During that decade eighty-nine hectare shifted from Mexico's side and immediately claimed by a Texan rancher.¹⁶ Continuous shifts in the river course added about three hundred and twenty-three hectare more to the Texas side in the 1860's.¹⁷ In 1864, floods causing the most violent shifts in the Rio Grande prompted the Mexican government to address the boundary demarcation problem to appease the growing demands of local nationals. The United States however refused to

take notice of the issue.

Finally in 1910 an international arbitration took place to settle the dispute. Each side's argument confronted the shifting river boundary. For Mexico, the sovereignty over the six hundred acre Chamizal tract rested on the 1848 Treaty and the subsequent 1853 confirmation which stated the river as a "fixed and invariable line."¹⁸ The United States argued to the contrary insisting both the 1848 and the 1853 Treaties established a "fluvial boundary, not a fixed and invariable line."¹⁹ Thus by definition of international law the Rio Grande was a river prescribing the boundary between both countries, disregarding any shifts of lands as a result of accretion/erosion or avulsion.²⁰ The outcome of the arbitration resulted in the bulk of the land to be awarded back to Mexico.²¹ The decision was regrettably rejected by the United States on the basis that the arbitrator had no jurisdiction to determine the divided awards.²²

The dispute was not settled until 1963 when President Kennedy in an effort to improve relations with Latin America stated that "the Chamizal dispute is not a matter the United States could continue to treat with indifference."²³ The Chamizal Treaty of 1963 accepted the 1910 arbitration ruling, providing its results to contemporary circumstances: "3700 United States citizens had to be compensated for land and resettled at an estimated cost of twenty million dollars."²⁴ The Rio Grande was

relocated in a seven kilometers concrete channel which would then settle a fixed international boundary. The new channel was much longer than the natural river course so much that "this is the only reach of the international Rio Grande that was lengthened, rather than shortened, by the works of the Boundary Commission."²⁵ (Figure 5)

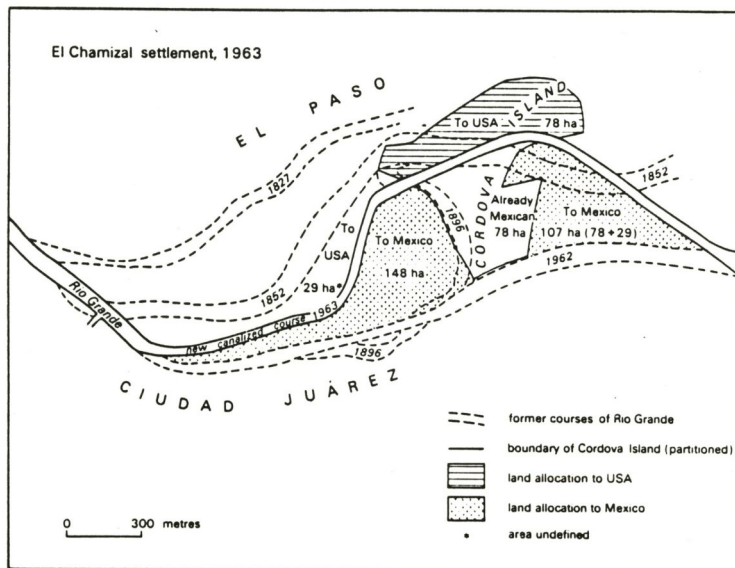


Figure 5: Map showing disputed land at El Chamizal, El Paso. House, 41.

The results of the Treaty of Chamizal are of particular interest to the Border development. On the United States side, a National Monument park was planned along with a high

school and vocational school built. A spacious port of entry with a new international bridge leads a multi-lane highway into Mexico. So what was once an area of smugglers and squatters as well as a source of tension between two sister countries was transformed by means of the National Frontier Programme (Programa Nacional Fronterizo) of 1961 program into parklands and a major tourist commercial center. The most important outcome of the Chamizal project was the settlement of the 100 year dispute thereby improving relations with Mexico.²⁵ (Figure 6)

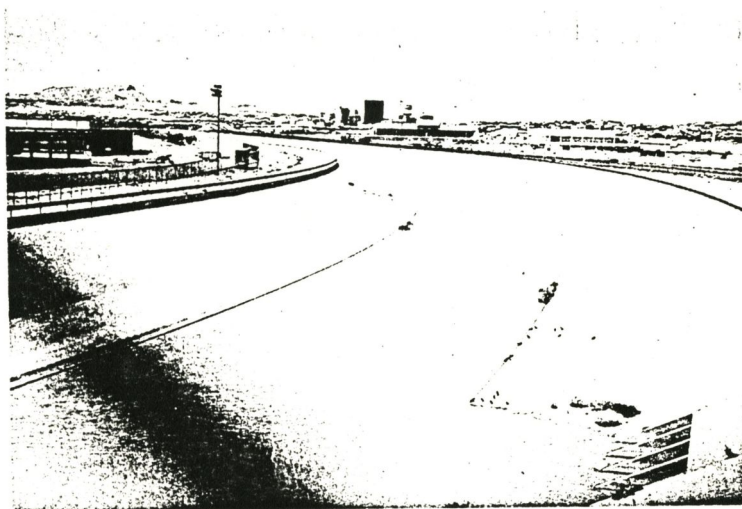
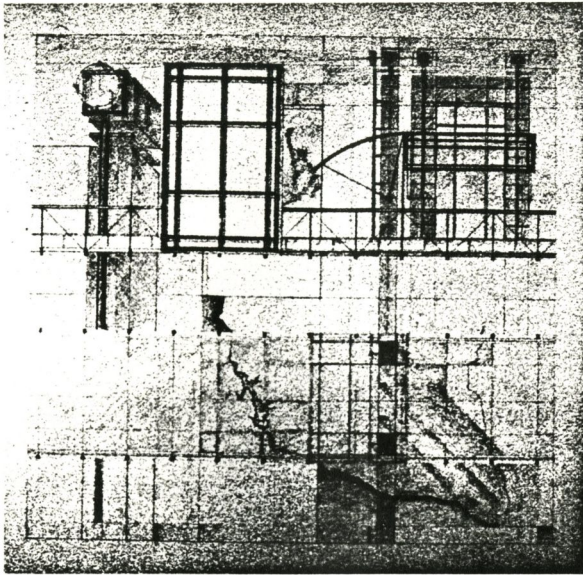


Figure 6: El Chamizal Channel. House, 43.



Imagery

VI. Symbols and Imagery

The Seven Cities of Cibola

During the Spanish occupation of the New World, rumors of great cities in the north aroused the thirst for gold in many adventurers. The seven cities of Cibola were reportedly great centers of abundant wealth and dreams of Spanish conquest were inflamed with several expeditions to find these cities. The origins of this stories are linked to an Indian slave named Tejos. According to Tejos, the cities were located to the north where as a youth he had traveled with his father to trade feathers for gold and silver. These tales caused Tejos' master, Nino de Guzman, to begin the first journey in search for Cibola.²⁷ As head of the Royal Audience of Spain, Guzman collected four hundred Spaniards and twenty thousand Indians for their six hundred mile expedition. Rumors of an Island of Amazons also found their way to Guzman's ears but neither the island nor the seven cities were to be found.²⁸

A second journey led by Fray Marcos set out to find the seven cities of Cibola rekindled by Cabeza de Vaca who told stories of populous cities to the north ready for plunder. Marcos declared he had found the cities but not allowed to enter.²⁹

The last quest led by Francisco Vasquez de Coronado again traveled over mountains, rivers, and deserts in search of the mysterious cities. Coronado found two cities, Cibola

and Quivira, but these were not the cities of the great wealth in the legend. Although the ruins of an marvelous village were discovered, the current inhabitants were semi-barbarians with no great wealth of gold or silver. The Spanish searches ended with Coronado returning to New Spain leaving behind two friars missionaries with the tribe. Later the friars were killed for their part in the conquest.³⁰

The story of the seven cities of gold tells a tale of an never ending search for opportunities that wait for those just across the river to the north. The legend continues even today as thousands search for the receding cities of great wealth. Each year tens of thousands of illegal aliens from Mexico and Central America cross the Border in search for jobs, escaping violence and fleeing poverty.

The journey to el Norte is usually one of painful experiences. Often the journey involves the sale of valuables essential to the immigrant's way of life³¹ for payment to illegal alien smugglers or coyotes. The aliens often encounter brutal treatment from the smugglers and arriving in the United States they risk further brutalities from the Border patrol and the Mexican police forces upon their return.³² Even so, many times illegal aliens try repeatedly to gain admittance risking their lives to cross over the Border. Like the immigrants crossing thousands of miles of ocean to reach New York harbor in the nineteenth century, the immigrants from Latin America face as much

danger.

Like the Spanish conquistadors, however, the immigrants might not find the great cities of opportunity they seek. In a recent interview with Bishop Emilio C. Berlie Belaunzaran, the bishop of Tijuana, Mexico, one of the goals for the church in Mexico is to instruct Mexicans that the myths about life and opportunities in the United States is not what they might expect.³³

The cities for which the pilgrims search are also like the continuous cities described in Italo Calvino's Invisible Cities. The city of Penthesilea is place where the visitor is never certain whether he is still within the city or outside of the city and even if the city he seeks exists at all.

"The question that now begins to gnaw at your mind is more anguished: outside Penthesilea does an outside exist? Or, no matter how far you go from the city, will you only pass from one limbo to another, never managing to leave it?"³⁴

The image of mirage cities that disappear before the traveler can find them also finds another image in the story of the city of Bagdad. Established as a port on the mouth of the Rio Grande, the population of Bagdad experienced a surge in growth from trade during the United States Civil War. Growing to a city of over 20,000 in less than one year, Bagdad served as the only free port during the war from which cotton could be sent to Europe. Bagdad's fortune helped the economy of the twin cities of Brownsville and

Heroica Matamoros, which today continue to share parallel development. When the war ended, Bagdad faded into the sands of the river. Today nothing remains of this city.

The images of hidden cities is also evident in the early immigration stations in New York harbor. From Ellis Island, the view of New York City appeared from a distance as a place of opportunity to the immigrants. Though the city laid just within reach, the restrictions on Ellis Island and the eventual problems involved with acculturation the immigrants faced, the journey of the immigrants somehow never ends.

Statue of Liberty and Ellis Island

The Statue of Liberty and Ellis Island are the most prominent images of arrival for immigrants to the United States. Together these icons represented the end of the immigrant's journey across the Atlantic and the beginning of their new life in America. As much as the statue is impressive standing in New York harbor signaling the safe passage to the refugees, Ellis Island is a reminder of the realities the immigrants faced gaining admittance into the country.

The French sculptor, Fredric-Auguste Bartholdi, first envisioned the colossal monument of liberty personified as a woman brandishing a flame of freedom in 1869 for an entrance to the Suez Canal. In an era of democratic upsurge the image was not original. Liberty crushing the barricades of tyranny is seen in Eugene Delacroix's allegorical painting of July 1830. Liberty leading the People epitomizes a period of revolution. A crowd incited by the spirit led by the encouragement of Liberty's upheld arm captures the vision of emancipation. This is an scene of destiny and movement³⁵: an image which surely must have influenced Bartholdi in his design of the Statue of Liberty. (Figure 7)

The statue also has precedence in the legendary Colossus of Rhodes. One of the seven wonders of the ancient world, this towering figure stood over the harbor of the city of Rhodes serving as an entrance for incoming ships.



Figure 7: Liberty leading the People, Delacroix, 1830, Louvre, Paris. Lee Johnson, The Paintings of Eugene Delacroix: A Critical Catalog 1816-1831 (Oxford: Clarendon Press, 1981) plate 126.

Although originally proposed for a symbol for Egypt, the idea was realized in 1871 when the French-American Union accepted his concept and set out to build the statue.³⁶ Located on Bedloe's Island, the statue would stand one

hundred and fifty-one feet tall on a pedestal designed by the American architect, Richard Morris Hunt.³⁷ At the base the remains of citadel serves as the foundation for the statue. (Figure 8)

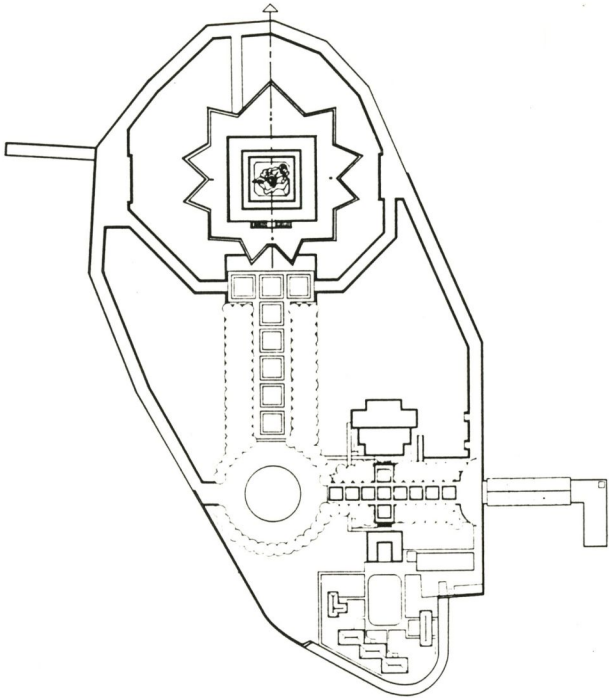


Figure 8: Plan of Liberty Island. Richard Seth Hayden and Thierry W. Despont, Restoring the Statue of Liberty: Sculpture, Structure, Symbol (New York: McGraw-Hill Book Company, 1986), 107.

Bartholdi chose copper to sheath his statue for both economy and facility of transportation. Originally he selected Eugene Emmanuel Viollet-le-Duc, the foremost architect-restorationist, to design the structural and skin attachment system for the statue. The untimely death of Viollet-le-Duc before the design was finished resulted in only the adoption of his system in the support for the head of the statue.³⁸

In 1878, Bartholdi sought the help of the engineer Alexandre-Gustave Eiffel. Eiffel at this time had earned a reputation for his revolutionary iron bridge designs. Eiffel's structural system was radically different from Viollet-le-Duc. Using concepts previously developed for his bridges, Eiffel designed a central tower as the statue's primary support. A secondary system would frame around the tower connecting the iron bar supports. The significance of Eiffel's work is the departure from traditional masonry-wall structures of the period. Nothing of this magnitude had been attempted before in an enclosed structure using metal as the structural support.³⁹

Castle Garden, Manhattan, was the first receiving station for immigrants coming to the United States. Prior to 1847, immigrants were deposited on New York docks where they were often defrauded by New Yorkers. The New York State Immigration Commission, created in 1847, provided the first landing procedures. The Commission also created Castle

Garden in 1855.⁴⁰

The site of Castle Garden was originally the abandoned Fort Clinton, part of the Battery defense system which in 1822 had previously been converted into a resort and concert hall. Castle Garden operated for thirty-five years serving as the port of entry for seventy-five per cent of all immigrants landing in the United States in the nineteenth century.⁴¹

The processing procedure at Castle Garden was relatively simple. Immigrants passed quickly through Customs and Registration which involved little more than the recording of names. The immigrants could then change money, purchase train tickets, get any communications, receive awaiting relatives, send letters or telegrams, store their valuables temporarily and meet with representatives from various welfare organizations. Here they were protected from molestation. Instead translators were available and even an employment agency was located nearby to help the immigrants find work quickly. The addition of a hospital for minor illnesses and restaurant completed the program of Castle Garden.⁴²

Next to the Statue of Liberty is Ellis Island, another island associated with the history of immigration. Ellis Island opened on January 1, 1892.⁴³ The original structure of wood consisted of a large two-story processing building with separate hospital facilities, a boiler house, laundry,

utility plant and dormitories.⁴⁴ A fire in 1897 destroyed the building. The commission of the new station was awarded to the firm of Boring and Tilton, the first time an important government architectural project was given to a private firm.⁴⁵ By 1908, the facility included hospitals, a dining room for 1000 persons, a baggage building, seventeen contagious disease buildings, a bakery and a seawall. During the island's history the area was increased in size dramatically. Originally the total area of the island was only three and a half acres when the site was first commissioned as the first federal immigration station. Between 1890 until 1934 the island's size grew to a total of twenty-seven and a half acres.⁴⁶ (Figure 9)



Figure 9: Ellis Island: Landform Development between 1890-1934.

The design of the building on Ellis Island was predominately French Renaissance style reflecting the eclectic use of styles in American architecture at the time.⁴⁷

Conditions worsened for new immigrants with the opening of Ellis Island as the flow of immigrants increased. In 1907, over 1,150,000 people passed through the docks of Ellis Island marking the year as the peak year for immigration.⁴⁸ Even with a staff of 350 civil servants, Ellis Island could not accommodate all the immigrants resulting in waiting periods up to four days in the steerage of ships docked in the harbor. Even with new additions, the station could only handle 5,000 persons in a twelve hour period. 10,000 to 15,000 immigrants waiting on ships or on the island was all too common.⁴⁹

During the Ellis Island period, immigrants were the subjects of many abuses and prejudices. Often corrupt baggage handlers would ransack or steal their luggage, sometimes representing all their worldly goods. Led by attendants up a long flight of stairs, the immigrants were secretly watched by a team of doctors for any signs of physical difficulties while ascending the stairs.⁵⁰ Upon arrival at the top of the stairs, they would receive a mandatory medical examination for any physical or mental defects. With the volume of immigrants, doctors had on an average only two to three minutes to find any dangerous

diseases. Failure of the first examination, the immigrants would be sent to a second one, which would again result in a period of detainment and separation from their families.⁵¹

Following their medical examinations, the immigrants were questioned by inspectors about their names, destinations, financial status, race, employment, health and mental conditions, education, marital status and any prior criminal records. Despite the number of questions, the whole process only lasted a few minutes after which the inspectors would render a decision as to whether the immigrants could continue or again be detained. Despite these impediments eighty per cent of the immigrants gained admittance and only two per cent of all detainees were deported back to their homeland each year.⁵²

The conditions of those detained on Ellis Island included many hardships resulting from the volume of immigrants coming daily to the island. The length of detention rarely, however, lasted more than two weeks. Even then, the detainees were housed, fed, and given medical care free of charge, but often the conditions were crowded especially during the peak years of immigration, 1900 to 1915.⁵³

In November 1954 at a naturalization ceremony, the Attorney General of the United States announced the closing of Ellis Island and the end of immigration detainment.⁵⁴ Following this ruling, except for "those regarded as likely

to abscond, or might be risks to national security or public safety" the era of immigrants waiting for days was over and the role of Ellis Island had ended.⁵⁵

Between 1954 and 1982, the abandoned island slowly deteriorated. The buildings many of them still with furniture and equipment remained as ghostly reminders of the island's past. Even the derelict ferry boat, the Ellis Island, remained in the dock half sunken. (Figure 10)

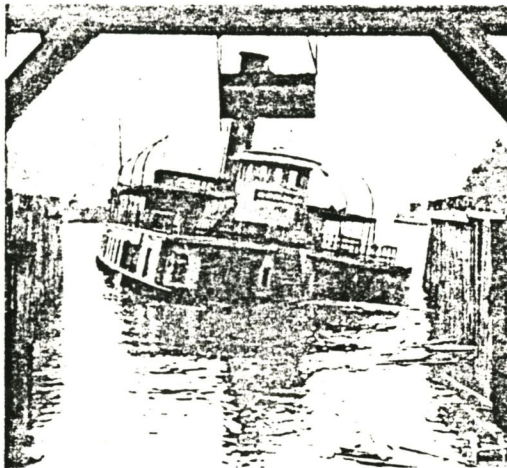


Figure 10: The Ferry Boat "Ellis Island." August Bolino, The Ellis Island Source Book (Washington D.C.: Kensington Historical Press, 1985), 57.

Although many proposals were made for its restoration as a national park. it was not until 1982 when President Reagan announced the formation of the Statue of Liberty-Ellis

Island Centennial Commission that would restore both monuments. From the ruins and its bleak past, Ellis Island is scheduled to become a new monument to the history of immigration. The renovation calls for the transformation of the old station into a modern museum which will celebrate the history the island played. The museum will include a genealogy library, exhibits and a restaurant. (Figure 11)

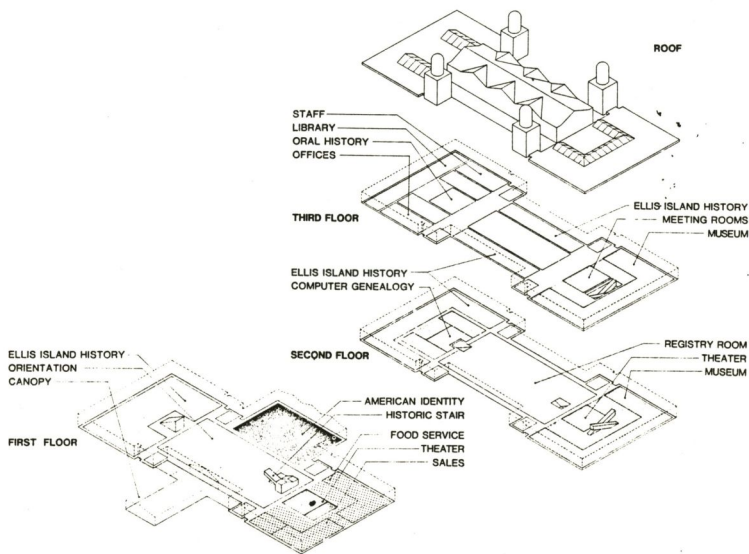


Figure 11: Isometric Drawing of Restoration Plan for Ellis Island. Barbara Benton, Ellis Island: A Pictorial History (New York: Facts on File Publications, 1985), 185.

VII. HISTORICAL PRECEDENTS

In the selection of historical models for a Border crossing and immigration facility, the limitation of choices suitable for the program development establishes three categories of investigations. The theory of architectural precedents sets up three levels in which to view the use of historical paradigms. These are place, type and principle.⁵⁶

Place: Place refers to the continuation of a historic fabric or setting. Place-grounded precedents lend themselves to analysis of context within the city.⁵⁷ Place establishes a context for which to build into an adjacent landscape. The task can be as simple as alignments to pre-existing forms to a more complex issue of the genius loci. The making of place attempts to create a coherence and continuity within the urban fabric.⁵⁸

Type: Type refers to a "cultural rooted form-function analogues" which have inspired the "general culture with a durable and important content."⁵⁹ Type-grounded precedents are in reference to their understood meaning divided between the collection of a set of diverse examples or the generation of a diagrammatic abstraction which exemplifies a typicality of the precedent.⁶⁰

Principle: The third category of principle pertains to an effective technique and the continuation of its efficiency in a new setting. Principle then does not necessarily connect itself with the established doctrine of

the time from which the model were derived.⁶¹

Examination of several architectural models relating to the Border crossing involves an investigation of history, program, form, and imagery. Each paradigm represents images and models for the various user requirement program of the proposed Border crossing. These examples include Spanish missions, forts and pueblos, bridges, gateways and hostels. While each model selected is varied in its source and function, the models illustrate how each address issues of context, and symbolism. The selection of these examples reflects a desire to show how the sequence of spaces, entry, path and transition has been used in the pasts.

SPANISH MISSIONS, PRESIDIOS AND PUEBLOS

The investigation of precedents begins with the Spanish presidios, missions and pueblos in terms of place, type and principles. The presidios or fortified garrison accompanied by the missions and pueblos are imbued of the first interlopers on the Texas landscape. The Spanish Empire's attempt to infiltrate the frontier with its government and religion by means of an army of soldiers and friars has had a continuous effect on the culture of the Southwest United States particularly in Texas.⁶² These outposts were some of the earliest manifestations of a migrating nation. The Spanish brought with them a rich source of architecture to the Rio Grande Valley to establish their culture. (Figure 12) The scheme of the Spanish colonial system combined the presidios with the missions and pueblo. Each entity was intended to develop parallel with the others.⁶³ The goals of all three worked to "extend, hold, Christianize and civilize the frontiers".⁶⁴ The presidio was the garrison for the troops who protected the mission. The pueblo was the village for the Indian converts. The mission was a combination of a church, school and factory. The mission worked as "a school of industry, agriculture and government besides a religious institute."⁶⁵

Like the European cities and towns where the church became the focus of the urban setting, the missions were in essence an Indian village centered around the church.

were the fields of agriculture irrigated by ditches dug by the Indians.⁶⁶ (Figure 13)

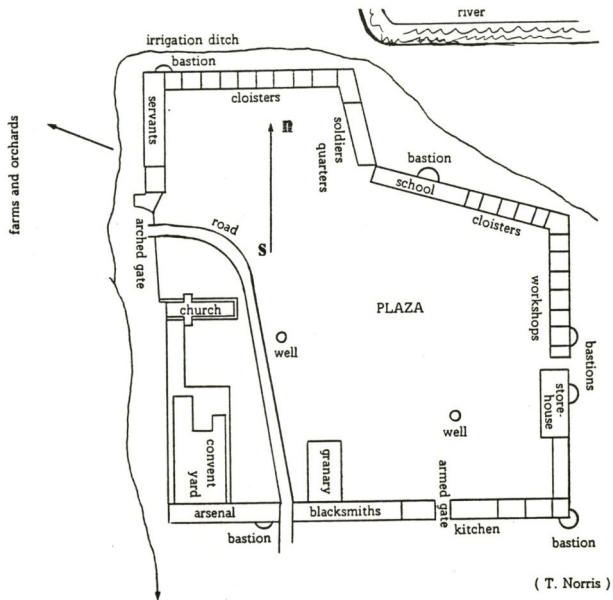
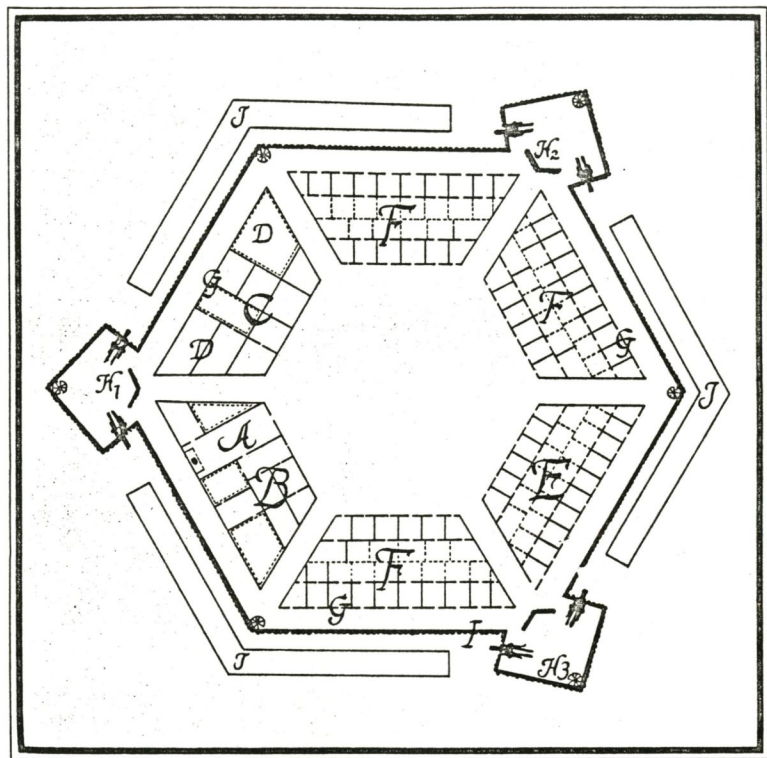


Figure 13: Plan of typical Spanish mission. Burke, p. 59.

Nearby the presidios provided barracks for the residency of the soldiers. The presidios were established to protect the mission as well as "impress the Indian with a sense of respect."⁶⁷ In addition the presidios acted as to hold the frontier against any acts of aggression towards Spanish territories. (Figure 14)



PRESIDIO LOS ADAES

- A. CHURCH
- B. PRIESTS' QUARTERS
- C. COMMANDANT'S QUARTERS
- D. STOREHOUSES
- E. JUNIOR OFFICER'S QUARTERS
- F. ENLISTED MEN'S QUARTERS AND CORRALS
- G. CURTAIN
- H-1. BULWARK SAN JOSE
- H-2. BULWARK SANTIAGO
- H-3. BULWARK SAN MIGUEL
- I. PALLISADE
- J. TRENCHES (to be connected and thus become a Moat.)

Figure 14: Plan of Presidio Nuestra Senora del Pilar of Los Adaes. Frank W. Blackmar, Ph.D., Spanish Institutions of the Southwest (Glorieta, New Mexico: The Rio Grande Press, Inc., 1976)

The symbolic use of the mission-presidios-pueblo as a historical precedent is both ironic and relevant to the design of the immigration station. The irony exists in that the missions were institutions of a migrating conquer and not that of the native culture. Today the work administered by missions is from the country which receives immigrants. Thus the intended use of the model is recognized as a model of place and principle. The facilities of the proposed immigration station would be opposite in terms of the reversal of roles. Now the "mission" of the immigration station would address the international migrant entering the country as opposed to the traditional mission where the missionaries came to a conquered land to spread their beliefs.

The mission-presidio-pueblo model is relevant for today since there exists similar oppositions of like institutions. The United States Border Patrol juxtaposed against the many church and political organizations suggests a continuation of the mission-presidio precedent. Further the pueblo survives in two modern examples. First, is the desperate situation of the colonias, and secondly, the provisions for refugees in sanctuaries.

Examining the use of the historic precedent in terms of place, type and principle, the model is effective on several levels. The mission system created by the Spaniards was expansive in its scope. Often missions were sub-stations of

larger missions already established in Mexico. Since the Border towns are usually twin-cities separated only geographically by the river, the mission-presidio-pueblo model becomes understood in its historical and contextual connotations with regards to its setting. The use of the mission as a place-grounded model suggests the continuation of the historical setting found in the Rio Grande Valley. Along both sides of the Border, ruins of Spanish mission are reminders of the architecture of the early Spanish settlements. This influence can still be seen today in the Border towns on both side of the river. The model suggests that the Border crossing could link the twin cities acting as a connector of the two contexts.

As a type-grounded model, the Spanish mission has similar characteristics to present conditions existing in Border towns today. Like the Spanish missions, these towns are the settings where both social service facilities and Border garrison are placed. These social organizations include the Immigration and Naturalization Service as well as independent groups like the Catholic Charities. As a model of type, the mission serves as an inspiration stemming from both the culture of the site and the understood meaning of the model.

In principle, the mission is a model of effective technique. The organization of the various components of the proposed Border crossing may be linked like the early

missions were grouped with the presidios and pueblo.

Symbolically the mission-presidio-pueblo model confirms the Border frontier as a world of oppositions between opportunity and authority. Metaphorically the mission represents the immigrant. Like the immigrant, the missions were created as temporal institutions, intending only to establish the Indians in Spanish culture before advancing further into the frontier. One mission near El Paso, the Nuestra Senora de la Concepcion, literally crossed the Border. After a flood in the 19th century, the ruins of the mission were transported across the Mexican side of the river to the Texas side. The image of the refugee leaving his homeland following some catastrophe quickly comes to mind.

BRIDGES

The bridge as an architectural element is rich in imagery. It functions as a means of crossing from one point to another, but the diversity of its meanings is abundant. The bridge simultaneously connects the divided earth while standing alone as a link between two entities. The bridge is a realization of a destiny, known or unknown, linking places and within itself a point of reflection. The bridge defies natural boundaries with a manmade element. The bridge rises above confrontations. It is an element which applaud man's conquest of nature and glorifies his engineering talents.

Classical bridges are divided typically in much the same manner as classical buildings. In many historically significant bridges, architectonic ordering of tripartite separation is evident. In Palladio's unbuilt design for the Rialto Bridge, Venice, (Figure 15) the classical separation of base, piano nobile and capitol are readily apparent.

The image of the bridge as building continues in more dramatic examples. Further evidence is found in the Ponte Vecchio, Florence, in which the buildings of the city become the bridge or where the bridge as building. Built in 1345 by Taddeo Gaddi, this bridge is the oldest in Florence. The bridge links two palazzos across the River Arno, the Palazzo Vecchio with the Palazzo Pitti.⁶⁸ (Figure 16) On the urban scale, the bridge is a vital spatial link between the monuments of the city. Within its own parameters the bridge

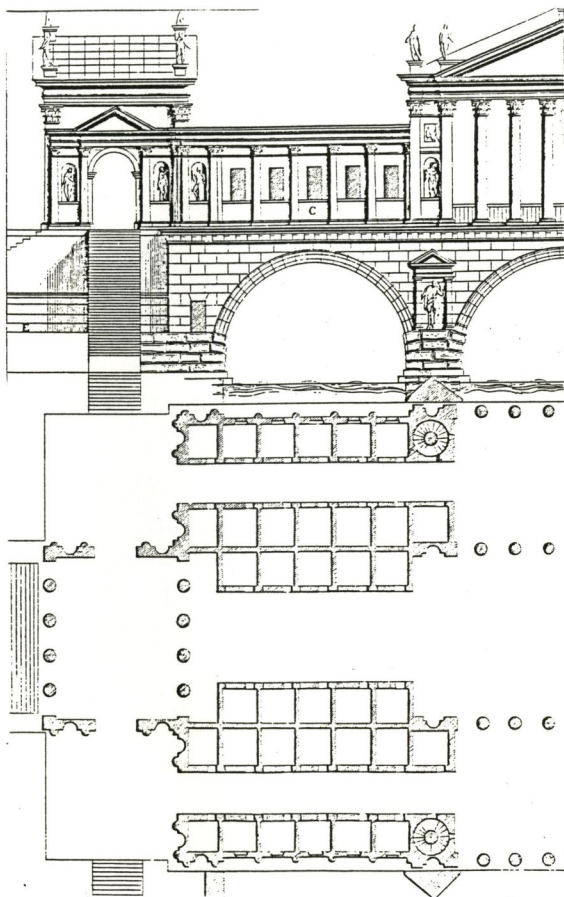


Figure 15: Elevation and plan of Rialto Bridge. Andrea Palladio, The Four Books of Architecture, (New York: Dover Publications, Inc., 1965), plate 10.



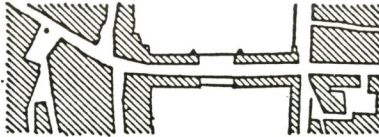
Figure 16: Urban context of Florence showing the Ponte Vecchio linking the Palazzo Pitti with the Palazzo Vecchio. Giovanni Fanelli, Firenze Architettura e Città', (Florence: Vallecchi Editore Firenze, 1973), 242.

is a district of the city itself for the buildings grouped on the Ponte Vecchio house the shops of the goldsmiths. Interestingly the bridge itself completes an urban path with its own buildings while at the same time defines the edges of the Arno with a third facade. (Figure 17)

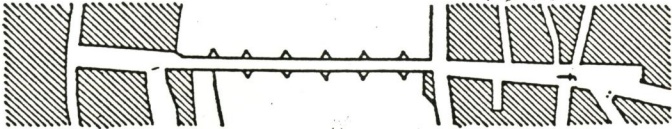


Figure 17: Perspective of the Ponte Vecchio. Fanelli, 150.

Contrasting the Ponte Vecchio is another bridge found in Florence. The Ponte alle Grazie separates itself from the character of the buildings adjacent to it. Like the Ponte Vecchio, the Ponte alle Grazie continues the urban path of the street (Figure 18), this bridge maintains a unique character. Marching across the top of the bridge are small



Ponte Vecchio



Ponte alle Grazie

Figure 18: Ponte Vecchio and the Ponte alle Grazie. Florence. Fanelli, 344.

garrison-like pavilions placed above each pier defining a clear architectural function of the bridge as building/fortress. (Figure 19)

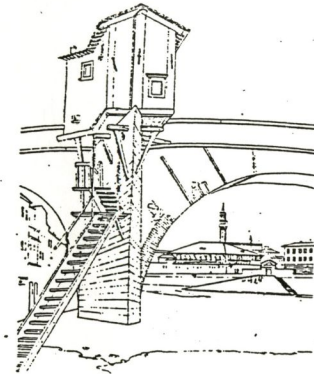


Figure 19: Perspective of the Ponte alle Grazie, Florence. Fanelli, 358.

The Pont Neuf, Paris, is another example of the use of a bridge which acts as link between the urban fabric. Started in 1578 by Henry IV, the bridge was one of several projects

in an urban development scheme for the Baroque city.⁶⁹ The bridge spans the river Seine crossing the Ile de la Cite connecting both sides of Paris through the Place Dauphine. The original plan of the Pont Neuf included a double row of apartment units on the actual bridge span. Civil War, however, interrupted the construction of the bridge and the housing was never built.⁷⁰ The placing of housing on bridges had an extensive tradition in France, as seen in the example of the Pont Notre-Dame, Paris. (Figure 20) The lack of these dwellings made the Pont Neuf somewhat unique. The bridge is also part of an integral urban scheme. The Pont Neuf serves as a link between the church of St. Eustache and the Porte Germaine.⁷¹

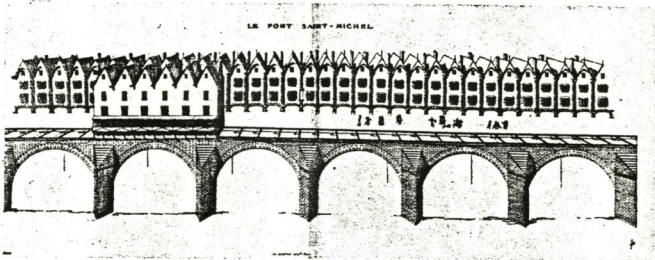


Figure 20: The Pont Notre-Dame, Paris. Engraving by Androuet du Cerceau. David Thomson, Renaissance Paris: Architecture and Growth (Berkeley and Los Angeles: University of California Press, 1984), 74.

Henry IV planned many public square for Paris, places. Usually defined with dwellings, the French places became a major design focus in the development of the city. The Place Dauphine was the earliest Baroque places in Paris. This square is located on the tip of the Ile de la Cite. (Figure 21) The form of Place Dauphine is triangular. Two blocks of

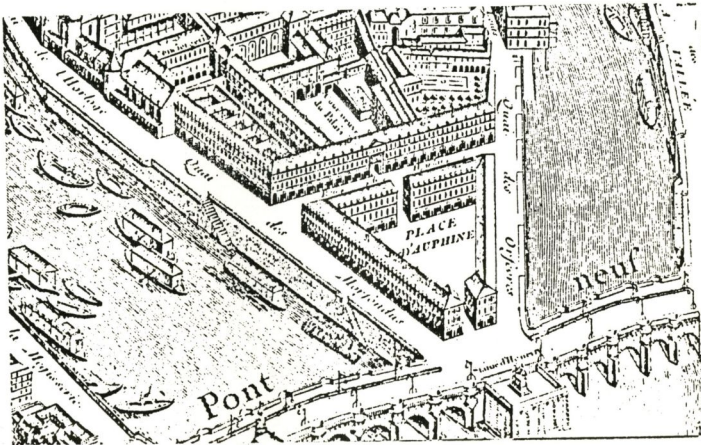


Figure 21: Perspective of Place Dauphine and Pont Neuf, Paris. Pierre Lavedan, French Architecture (London: Scolar Press, 1979), 50.

housing define the sides this place. With wings on the ends, the housing creates a strong lateral axis which relates with center of the Pont Neuf. The focus of the Place Dauphine is directed towards an equestrian statue of the king.⁷²

Other bridges was relevant to examine for imagery. There is a small bridge in Berlin called the Devil's Bridge designed by Stuler.⁷³ The bridge is an excellent example of an architecture as a fragment. This small park bridge original transformed from a solid stone structure to one fragmentation. The perfect became the imperfect as the pure technology appears to decay.⁷⁴ Although the bridge was mistakenly repaired in the 20th century following the war, the original design illustrated ideas of transformation in a small project.⁷⁵

GATEWAYS

Among the program requirements for the Border crossing are a number of tollhouses for the collection of customs duties. The United States Customs Service collects import duties and assists the United States Public Health Service in regulating the import of animals and food. The United States Department of Agriculture places restrictions on items brought to the United States from foreign countries as well as those brought from Hawaii, Puerto Rico and the United States Virgin Islands. Contraband can harbor foreign animal and plant pests and diseases that could seriously damage America's crops, livestock, pets, and the environment. Declarations are made orally, written or both to a customs inspector. Officers of the United States Department of Agriculture's Animal and Plant Health Inspection Service check passenger baggage for undeclared agricultural products. At some ports, the officers employ Beagle, a breed of dogs, known as the "Beagle Brigade", to sniff out hidden items. At other ports the use of low-energy x-ray machines reveal undeclared fruits and meats. During an average month more than 1,250 violations are uncovered. Failure to declare a prohibited item can result in fines of fifty dollars or more as well as the items being confiscated. At both ends of the international bridges each country inspects cars at tollbooths and pedestrians at a customs desk inside the Border station.

During the 17th century, the city of Paris erected tollhouses to collect taxes levied on imported goods. The city enlisted the services of the French architect, Claude-Nicolas Ledoux, to design the majority of the city-gates.⁷⁶

The collection of duties was a difficult task. It was decided that the tax could be best be enforced if Paris was enclosed within a wall.⁷⁷ In 1783, the revenue commissioners enlisted Ledoux, the customs architect, to design the plan for the city-gates. The plan required the construction of a "continuous wall, some 3.3 meters high and over 23 km long."⁷⁸ For Ledoux this was the chance to "de-village Paris" by creating grandiose city-gates or barrieres.⁷⁹ The commission also required the building of "seventeen large tollhouses and thirty small ones and thirty-three observation posts."⁸⁰ In 1785, with the monarch's permission, work began. Of the planned 60 buildings most were built.

Ledoux used many images to create his city gates. In his design for the gate on the Seine, he employs the image of the ship. (Figure 22) The barrieres were designed as "single pavilions, sometimes a double pavilion flanking the gate, together with additional sentry boxes, storehouses and workshops."⁸¹ (Figure 23 and Figure 24) With the Revolution came public outcry over the expense of these city gates designed to collect taxes. Further criticism labeled the barrieres as a "useless investment in urban embellishment

and the evils of a monopoly system of centralized taxation."⁸² Journalists attacked their strange forms and "ubiquity as objects"⁸³ in thinly veiled criticisms of the

Fragments des Propylées.
Patache de la Rapée.
Vue Perspective.

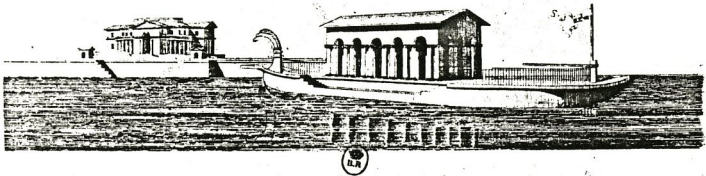


Figure 22: A City-gate on the Seine, Ledoux, Paris, 1783-89. J.C. Lemagny, Visionary Architects: Boullée, Ledoux, Lequeu (Houston: University of St. Thomas, 1968), 95.

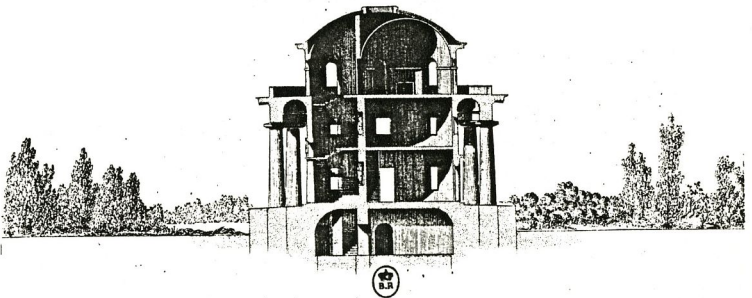


Figure 23: Section and elevation of the Monceau Rotunda, Paris, Ledoux. 1783-89. Lemagny, 97.

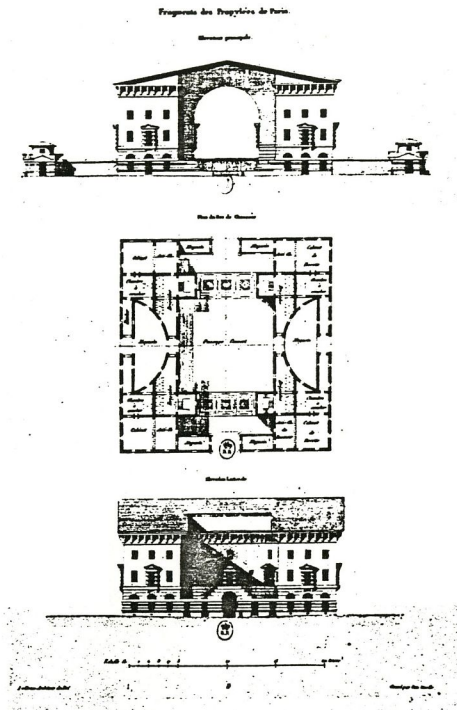


Figure 24: Design for a city-gate ,Ledoux ,Paris, 1783-89. Lemagny, 101.

king. Of course the tavern owners whose illegal profits would be tapped by the gates rallied against their construction.⁸³ Finally critics of Ledoux's architecture charged that the barrieres flouted all classical canons. Eventually with public opinion against this "mur murant Paris" diminished funding Ledoux was relieved of his duties

and the work was continued by another architect until ultimately the project was stopped.⁸⁴

The study of these gatehouse nonetheless is appropriate and useful for several reasons. First the design of these gatehouses despite their authoritarian functions represent a general improvement of the urban circulation around Paris with the design of a sixty meter wide boulevard surrounding this new zone. The project was truly grand in scale articulating the need for organizing the city plan of Paris.

Secondly, the use of an experimental typology by Ledoux represents a departure from the tendency to rely on paradigms of the ancient Classical regime such as the triumphal arch. Here Ledoux elevated the minor, utilitarian function of tax collection to a monumental dignity. Jacques Guillaume Legrand in his Annales du Musee of 1804 defends Ledoux's controversial yet new genre.⁸⁵ Seeing the barrieres as an intermediate, yet public subject between high architecture and strictly utilitarian architecture, LeGrand reasons that Ledoux's mixture of classical orders is justified. "Modern cities demanded triumphal arches for symbolic grandeur, but with different functions that endowed them with fiscal rather than purely representational importance."⁸⁶ Thus by dissociation of the forms from previous uses of antiquity, Ledoux could still utilize their monumental significance.

The design of the Piazza del Popolo, Rome is another

example of the use of city-gate as an integral part of an urban design scheme. The barrieres of Paris had negative connotations in that they were designed to collect taxes and were gateways that controlled access to Paris. The Popolo on the other hand exhibits how an urban space with many elements works together as an impressive entrance to the city.

The planning of the city of Rome by Pope Sixtus V provided a synthesis of streets, piazzas, monuments, fountains, and obelisks to link the major religious foci of Rome. The aim of this plan was to facilitate the pilgrimage of religious travelers visiting the seven churches of the Holy City.⁸⁷ While work had already started on the planning of the Piazza del Popolo in the Renaissance, the grand scheme of Sixtus V included the piazza by designating the gate as the most important entrance to the city. The impetus of the design links foci building with the piazza by means of three radiating streets.⁸⁸ This system of integrated buildings with the paths of movements created a "new interaction between old and new".⁸⁹ The design of the piazza represents the prototype of Baroque planning for public spaces as seen with the French Place Dauphine where likewise three radiating streets converge to a foci.

The Piazza del Popolo marks the main entry to Rome from the north. The city-gate is located at the separation of the Tiber River and the Parioli-Pincio hills.⁹⁰

The three streets original meet at the piazza forming a trident shaped space. An obelisk from ancient Rome is placed at the center of the space. In 1662, Carlo Rainaldi transformed this intersection into a grand Baroque piazza with the building of twin churches. The pairing of these two churches greet the traveling pilgrims. Rainaldi's design for the two churches ingeniously place the symmetrically appearing structures on blocks with different widths. Rainaldi accomplished the building of these churches by designing one dome over an oval and the other over a circle. Identical porticoes form with proportioned and repeating openings the boundaries of the space. Bernini designed the ceremonial gateway of the piazza in 1655 for the arrival of Queen Christina of Sweden. Together the gateway, the twin churches, obelisk and the streets are integral forms of a "space definition and the movement of depth."⁹¹ (Figure 25)

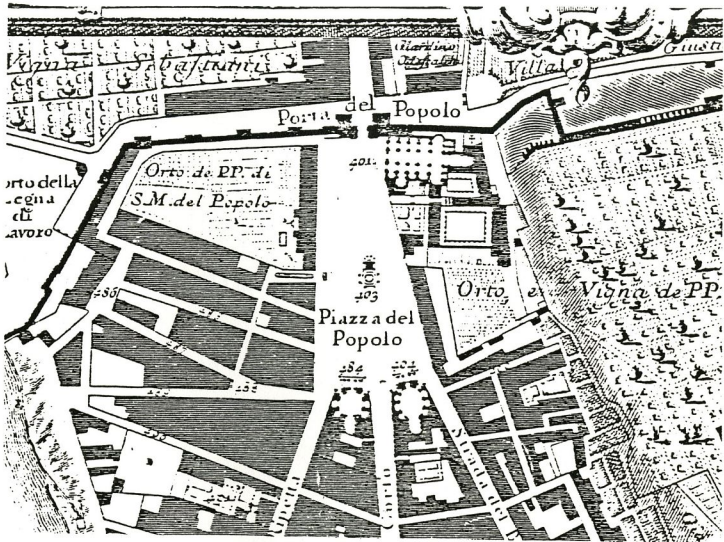


Figure 25: Piazza del Popolo, Rome. 1662. Nolle Map

Cite de Refuge"savior d'habiter, savior vivre"-Le Corbusier⁹¹

The design for Cite de Refuge, Paris of 1933 by the architect Le Corbusier serves as an important model for the mission at the Border crossing. The Salvation Army's program for saving displaced persons through an education of the fundamentals of daily existence found a compatible and sympathetic design from Le Corbusier. The ideology of both client and architect complemented each other. Le Corbusier believed in the need for paternalistic organizations like the Salvation Army to facilitate the needy of society; the architect's role according to Le Corbusier was that of a "benefactor of society."⁹² Le Corbusier's association with the Salvation Army shows a harmony between both philosophies. "Idealism and Christian charity, organized with military determination in order to work and internal life" for everyone.⁹³ Thus the program of the Salvation Army had a complete concordance with Le Corbusier's own convictions that "to know how to dwell is to know how to live."⁹⁴

The Asile Flottant, or floating island, symbolically represents the charitable purpose of the Army's mission with Le Corbusier's architecture. Here the image of a ship as a place of refuge for vagrants and prostitutes signifies the program of the Army. (Figure 26) This floating asylum is

quite literally a converted barge for housing the displaced individuals. The ship represented to Le Corbusier a "model

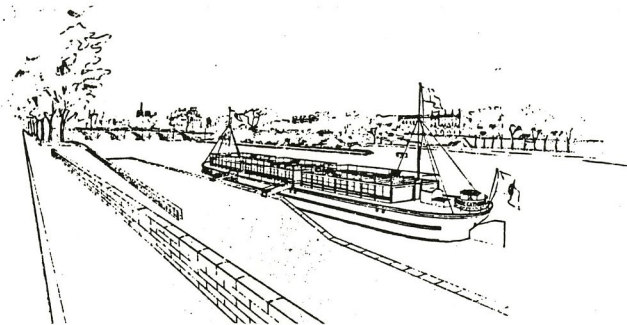


Figure 26: Perspective of Asile Flottant, Paris, 1929. H. Allen Brooks, ed., The Le Corbusier Archives (New York: Garland Publishing, Inc., 1984), 356.

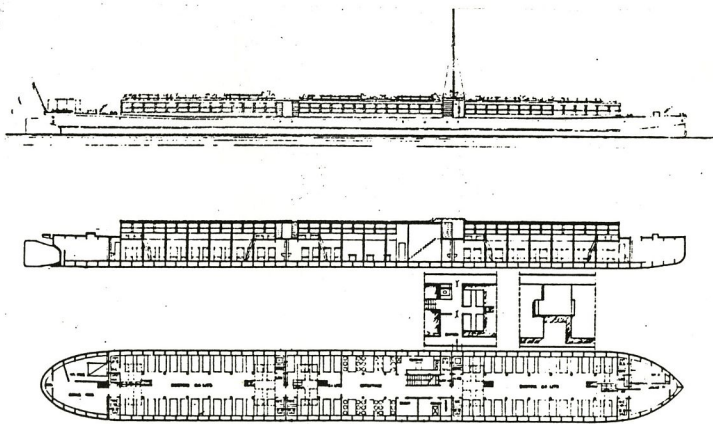


Figure 27: Plan of the Asile Flottant, Paris, Le Corbusier, 1929. Brooks, 357.

community based on a balance of individual freedom and collective life."⁹⁵ Moored on the Seine near the Louvre, this small hospice provided communal dormitories for 160, a dining room, kitchen, bath, separate apartments for sailors and the director as well as a roof terrace and playground for poor children .(Figure 27) The boat was originally an old barge left over from World War I which Le Corbusier transformed. The Asile Flottant symbolizes the mythical ark, a place of shelter for the refugees of life's flood. Engineered to promote moral elevation with a program enhanced by physical improvement for the displaced, the Asile Flottant worked as a paradigm for "urban reformism."⁹⁶ The building is a vehicle intent on transporting people from one stage of life to another.⁹⁷

Likewise the Cite de Refuge, Paris, takes on similar vessel-like qualities. In 1933, Le Corbusier designed the Cite de Refuge as the headquarters for the Salvation Army. Included in its program are separate dormitories for men and women, single rooms for mothers with children, and communal facilities including dining rooms and workshops. The social themes of the Salvation Army manifest themselves in Le Corbusier's architecture.⁹⁸ The design of the Cite again metaphorically echoes the ship in its content and form. The entry sequence alludes to smoke stacks, bridges and control cabins of a vessel. The dormitory slab protrudes like a massive hull with its pointed prow. The sequence of

events the residence experience upon entrance to the Cite are marked by Platonic volumes juxtaposed against the wall of the dormitory. Like the Soviet communal housing projects which also grouped dwelling with social facilities, Le Corbusier used a similar program for the Cite. (Figure 28) Upon leaving the Streets, the new resident enters a cube entry pavilion ascend a flight of stairs leaving the street life behind for a new life. Thus elevated above an old world, the neophyte crosses a bridge linking the entrance to the reception drum. Here with the idea of commitment to a new set of values, a new way of life residents would register with a receptionist and leave their worldly possessions behind at a long serpentine desk.⁹⁹ The sequence would then continue the lobby flanked by offices where the new arrivals would begin their initiation to the program of the Salvation Army.¹⁰⁰ (Figure 29)

By disposing the volumetric forms outside the dormitory slab, Le Corbusier almost didactically illustrates the functions of the building's metaphoric journey while at the same time inverts the geometric episodes of his purist villas outside their envelope. These objects appear independent of the slab yet carefully set against it and the city as a whole. Raised on a podium Le Corbusier separates the street from the assemblage while providing a ground plane for these objects to exist. A modern allusion again to classical ordering.

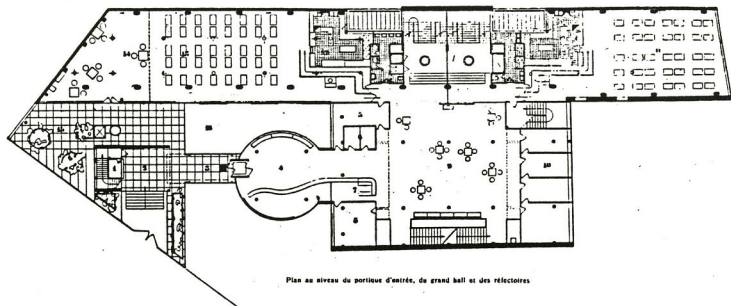


Figure 28: Plan of the Cite de Refuge, Le Corbusier, Paris, 1933. Le Corbusier, Le Corbusier et Pierre Jeanneret: Oeuvre Complete 1910- 1929 (Switzerland: W. Boesiger and O. Stonorov, 1964), 356.

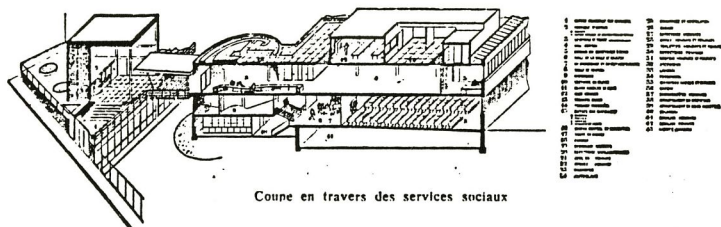
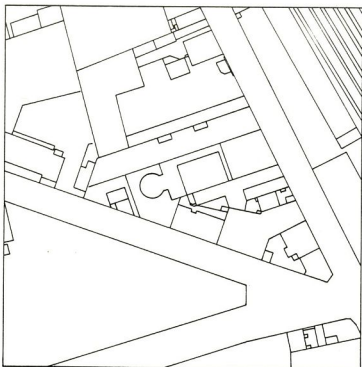


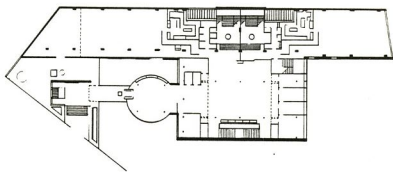
Figure 29: Section of the Cite de Refuge, Le Corbusier, Paris, 1933. Le Corbusier, 101.

As a model, the Cite de Refuge works at all three levels of place, type and principle for the mission part of the Border crossing. As a model for place, the Cite illustrates how Le Corbusier was successful in placing his building within a larger urban fabric respectful of the confined site conditions yet still maintaining the symbolic metaphor. As a model for a type-grounded precedent, the imagery of a vessel for rescue and usine de bien, a factory of good, serves as an significant prototype for the sanctuary of the mission.

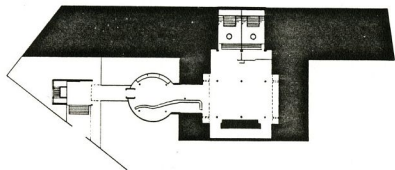
Finally, as a model of principle the effective technique of the Cite shows how the combination of temporary housing grouped with a program of education can be handled. The form of the building separated into the social facilities and the temporary housing reiterates through symbology and metaphors the journey of the displaced person as he crosses the new threshold into a new way of life.



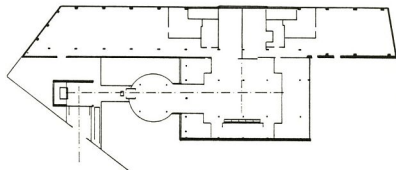
Site Plan



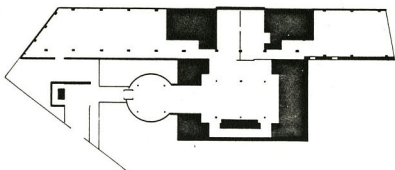
Plan



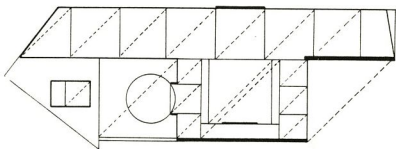
Sequence



Center Recentering



Public-Private



Proportions



Site

VIII. Site

The city of Brownsville, Texas is a major port of entry on the Texas-Mexico border. Although the city is 25 miles from the Gulf of Mexico, linked by a manmade channel, Brownsville serves the United States and northeastern Mexico as a seaport for such industries as fishing, food processing and chemical production. Founded in 1846 by General Zachary Taylor, Brownsville was originally a military outpost, Fort Brown, named after Major Jacob Brown, a war hero who died defending the site. The historical significance of this fort pertains to its role as the site for the opening battle of the Mexican-American War and the closing battle of the Civil War. During the Civil War, Brownsville was a vital link to foreign trade with Europe. Nicknamed the ^{BACK DOOR} lifeline of the Confederacy, this port was able to continue the valuable cotton trade. This route of commerce was called the Bagdad-Matamoros line extending through neutral Mexico to Europe. The original township of Brownsville was established on a strict grid of lots measuring 50 by 120 feet. Streets running NE to SW are 60 feet wide with cross streets 40 feet wide. Alley right of ways are 20 feet. (Figure 29) The downtown area of Brownsville still maintains this grid despite recent economic growth on the northern edge and more than fifty buildings are registered as historical structures, among which are ruins of old Fort Brown. Building heights average between two to three stories with ^{"MEXICAN" GENIUS LOG}

only recent buildings of the last two decades standing taller.

Currently two bridges, Gateway Bridge and the older B&M railway bridge link Brownsville to its twin city of Matamoros, Mexico. Plans for a third bridge are already underway pending the selection of a site. The growing problem of traffic congestion in the downtown area is the major concern for the planning of the next bridge. One of the objectives for the future bridge is to redirect traffic trade route from the center of the city to the edges.

Nearly a thousand cars and trucks wait on the average of one hour to cross the bridges, daily. The main bridge, Gateway, has monthly more than 480,000 people and 275,000

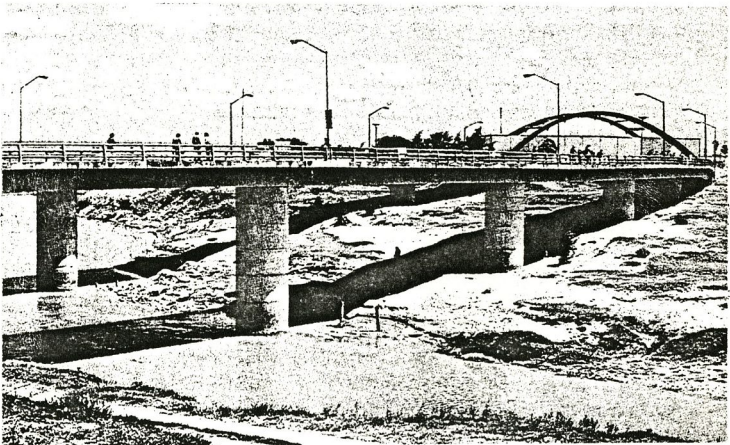


Figure 30: Gateway Bridge at Brownsville, Texas-Matamoros, Mexico. House, 207.

cars and trucks crossing. Toll revenues more than cover the annual operating expenses providing \$1.5 million annual windfall to Cameron County which is responsible for operating the bridge. (Figure 30)

An increase in tourism and the emergence of maquiladoras, manufacturing plants, have created phenomenal growth to the twin cities of Brownsville and Matamoros in the last three years. About 67 maquiladoras or twin-plant operations where U.S. companies employ about 40,000 Mexican workers in assembly plants in the neighboring Mexican border towns. City officials are concerned with the growing congested downtown area, disturbed that the very economic development that created the problem now threatens future growth.

The construction of a new bridge linking the two countries involves more than 40 Mexican and U.S. government agencies including the appropriation of funds for a new U.S. Custom Service Inspection station.

IX. CLIENT/USER/PROGRAM

In the Brownsville area there exists a sanctuary for refugees. The Casa Oscar Romero shelter houses 75 to 150 people who have escaped Central America. More than two-thirds of them are from Nicaragua who have travelled 1,500 miles through Mexico and slipped across the Rio Grande. The shelter is operated by the Catholic Diocese of Brownsville and has a special hands-off status with the Immigration and Naturalization Service as the shelter is considered a church. For five years this shelter has provided refuge for over 20,000 refugees. Confronted by local groups, the alien shelter has already moved from its original site in San Benito, a small town 20 miles west of Brownsville, to a new location just outside of Brownsville. Faced again with opposition the shelter is currently watched by a 25 foot tower erected by a local political group, known as The United We Stand Committee. The "Illegal Alien Movement Control Tower" as its sponsors call it sits adjacent to the sanctuary.

The tower was constructed from the lumber of an old World War II barge, a strange contrast to Le Corbusier's Aisle Flottant, which was built from an old World War I vessel.

With comparison to a social program similiar to that of the Cite de Refuge, the services provided by Catholic Charities at the Casa Romero are to temporally house

displaced persons. The routine at the Casa Romero includes early rising and lights out by 10 p.m., English classes, religious instruction and lessons on American Geography and Civics. In addition to classes aimed at helping the immigrant's gain legal admission into the United States, the residents assist the general maintenance of the mission as well as look for employment either around the area or elsewhere in the country. The stay of the refugees usually lasts between two to three weeks. With a similiar building program to that of the Cite de Refuge, this mission could be housed in a like facility: temporary housing for single men, women and families with social meeting facilities. A sequence of spaces representing the journey of the refugee in architecural episodes and subsequent social function spaces juxtaposed to a housing block for the refugees would illustrate the goal of the border station as a symbol of hope, alluding to an idealistic yet important respect for America's role of harboring immigrants.

Mapping



MAP OF
BROWNSVILLE AND MATAMOROS
1890

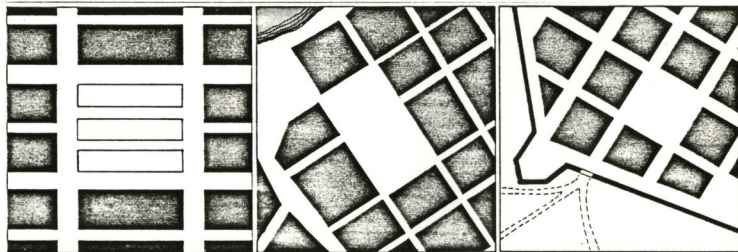
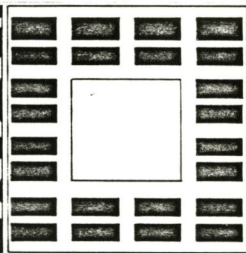
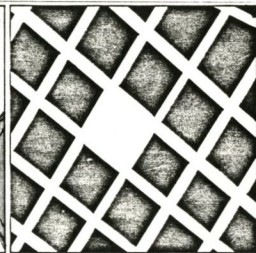
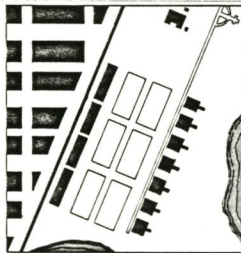
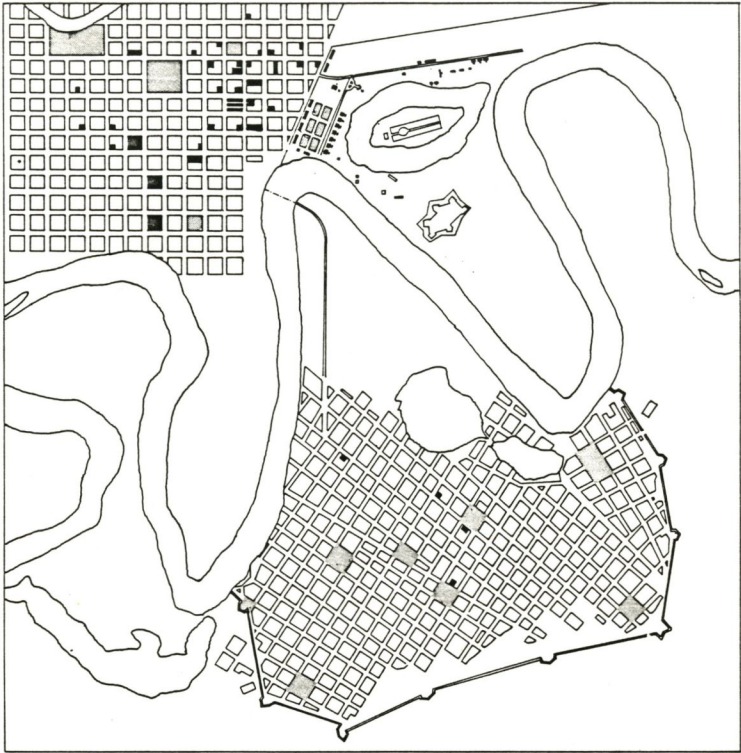
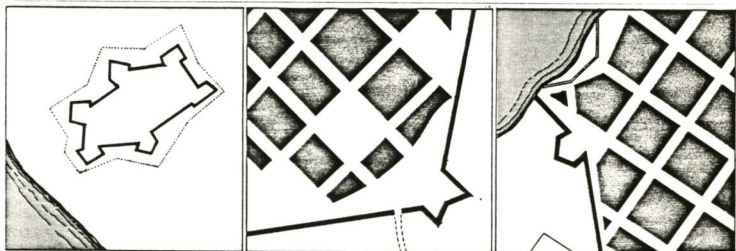
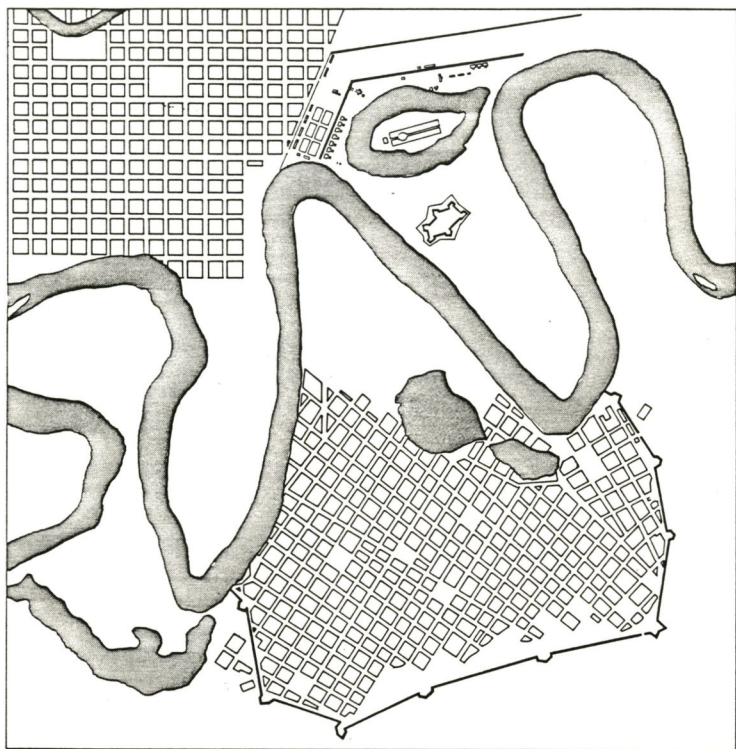


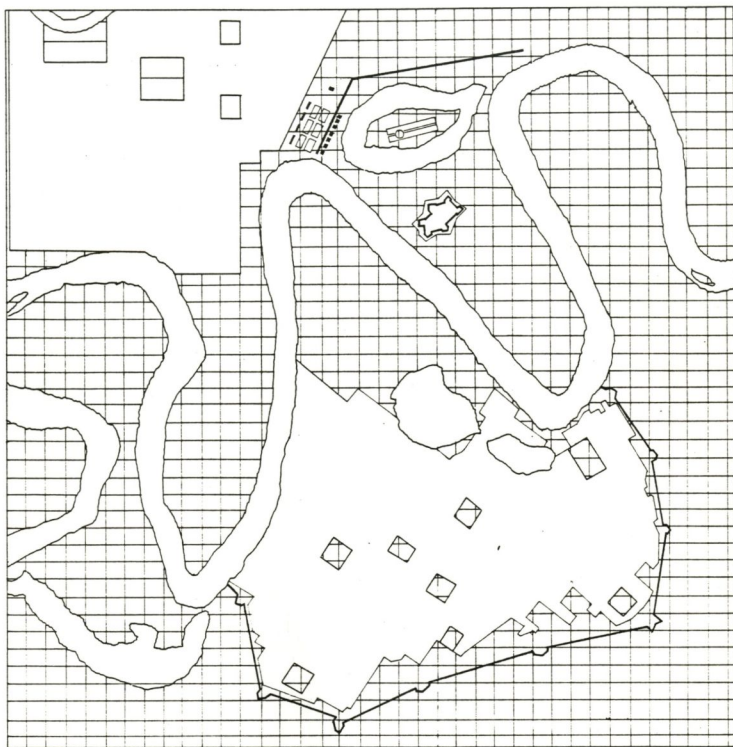
FIGURE GROUND



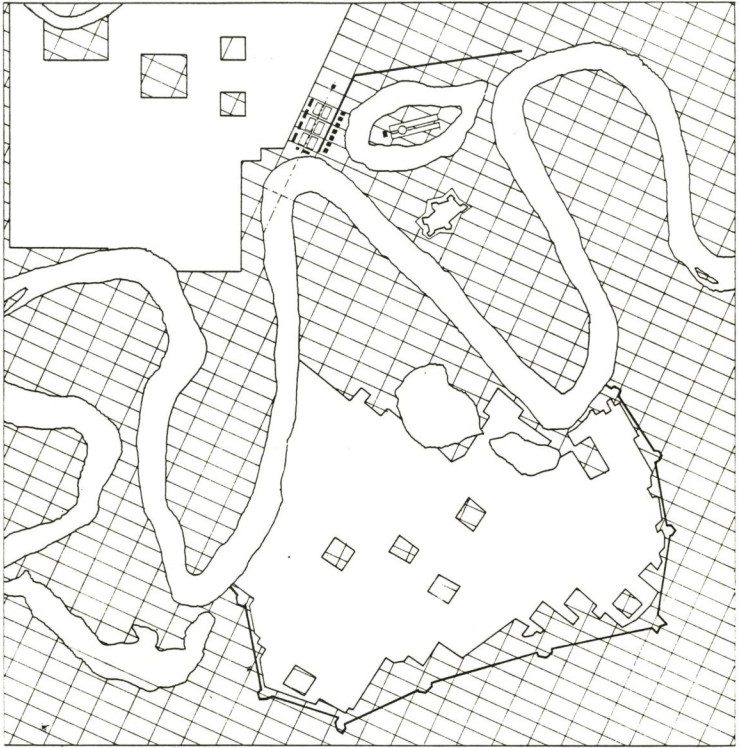
MONUMENTS AND PUBLIC SPACES



WALLS AND RIVERS



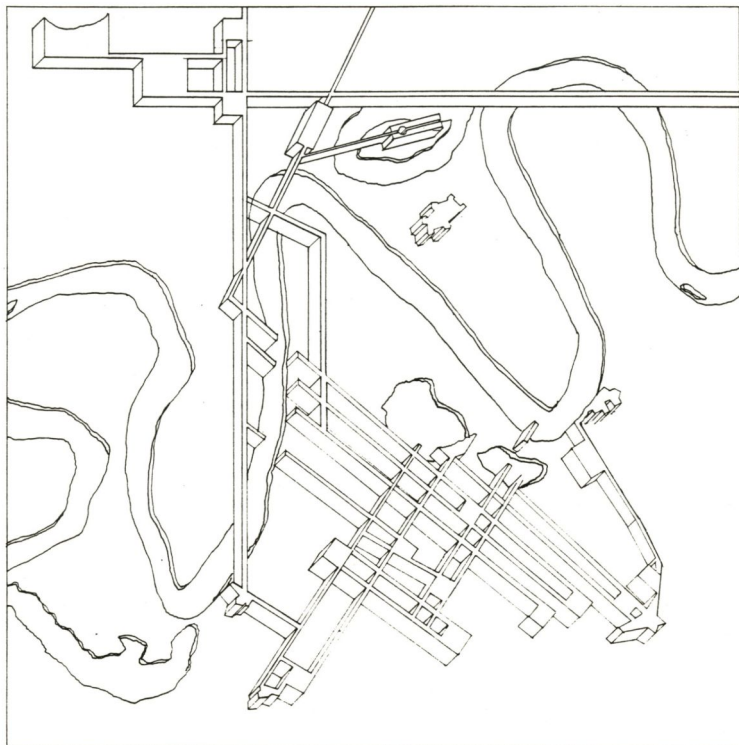
Superposition of Brownsville



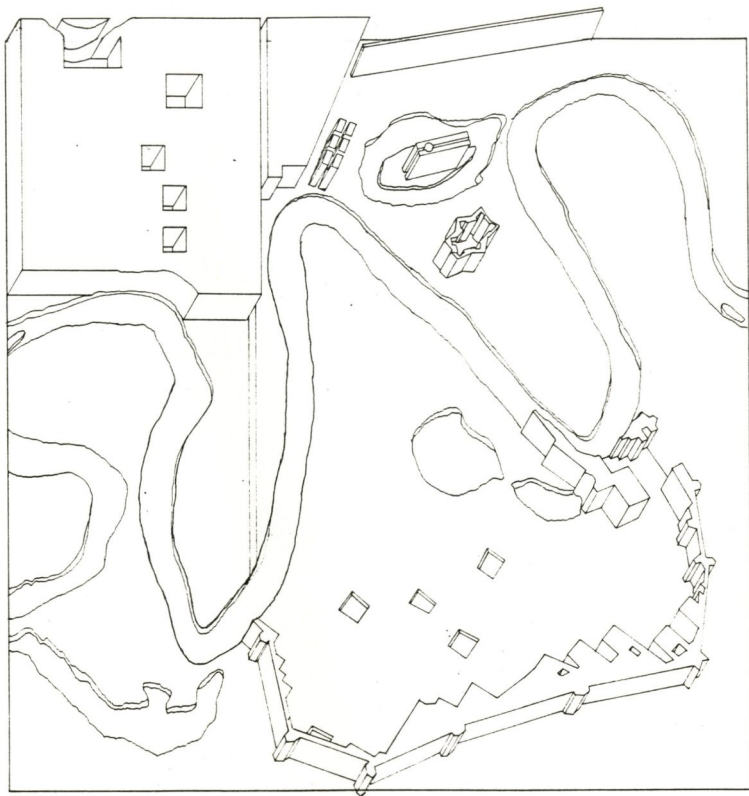
Superposition of Fort Brown



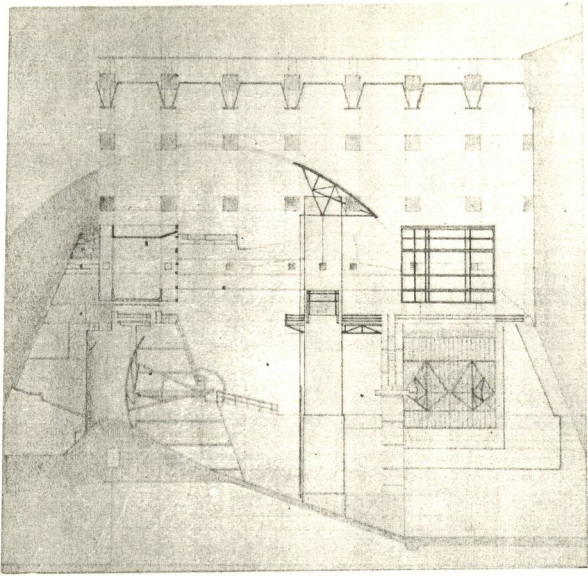
Cardo and Decumanus



Spatial Sequence



Elements



Design

Design

The design process began with a series of conceptual drawings addressing two sets of imagery. The first deals with the collision of opposite forces articulated in architectonic elements. This first drawing collages watch towers, bridges and gates set against a facade of images of American immigration: the Statue of Liberty and the overrun border at the Rio Grande River. The second drawing is part of an analysis involving dams and spillways. Elements of the dam become appropriate for the design of the bridge, a Human Rights Control watchtower and the emergency shelter.

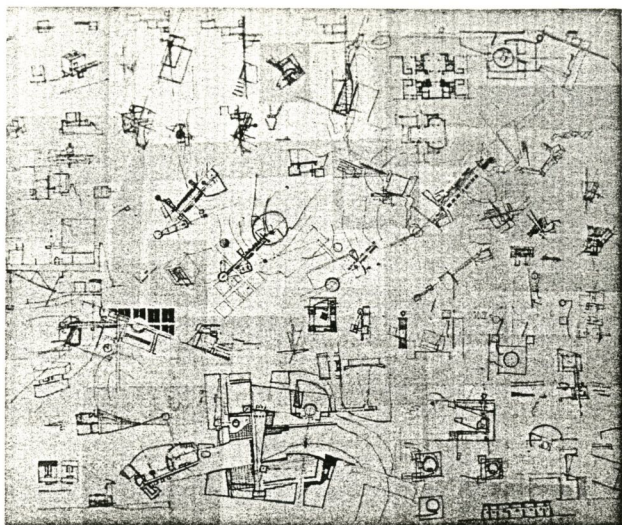
The second phase of the design involved a mapping process of the two cities using a 1890 map which distinctly illustrates the differences between the urban fabric of Brownsville and Matamoros. Brownsville is a city of an infinite orthogonal grid while Matamoros is walled and thus contained. Fort Brown located to the east of the original township of Brownsville offers another system of ordering and shares with the city a common site of the Parade Grounds. This zone is today the site of International Boulevard and the site of the proposed Border Crossing.

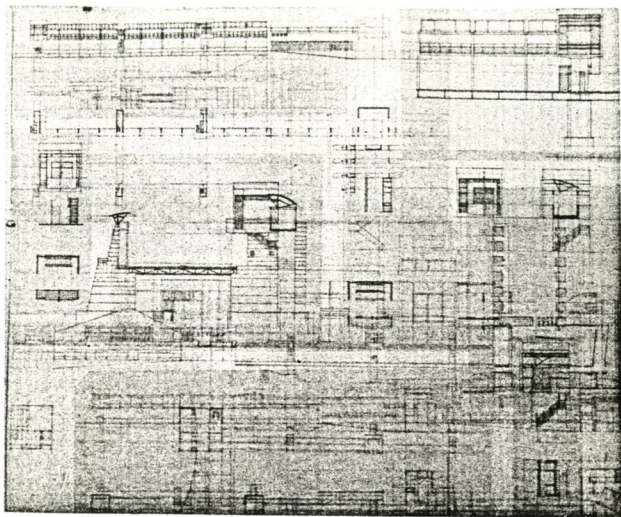
The mapping process locates significant sites within the two cities and led to the decision for the selection of the site. Using the grid of Brownsville to create a new street into Matamoros, a datum line for the two facilities is established. This line manifests itself in the bridge as

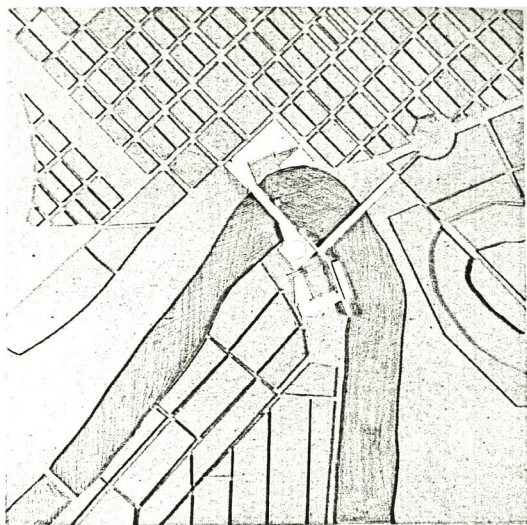
well as the introduction of seven ceremonial pavilions that march across the site. On the United States' side, the mission and Border station face opposite sides of the bridge. In Mexico, a center for tourist and a market repeat a similiar parti only an inverted scheme of the American side. Connecting the two complexes are the seven pavilions which recall the legend of the lost cities of Cibola and metaphorically represent the journey to "el Norte". Beginning in Mexico, the first is an enclosed space with strict symmetry and order. This pavilion functions as a restaurant. The second pavilion houses the Mexican Border station and begins to break apart the outer facade of the first building. The next three pavilions located on the bridges itself are smaller in scale each containing the mapping studies from the earlier design phase. Juxtaposed across the vehicular lanes from the three pavilions are a series of guard stations. Both the pavilions and the guard stations are set upon piers which again recall the imagery of the damn. The three bridge pavilions are seen as released forms situated on the piers and continue the transformation from traditional spaces to free form spaces.

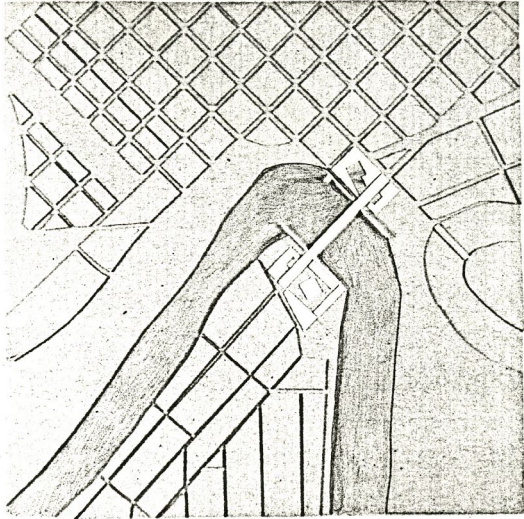
The sixth pavilion enters the United States becoming symbolically sheltered by the original geometry found in the design of the Mexican pavilions, but this form has now become deconstructed on the site. This pavilion acts as the entry onto the elevated pedestrian crosswalk on the American

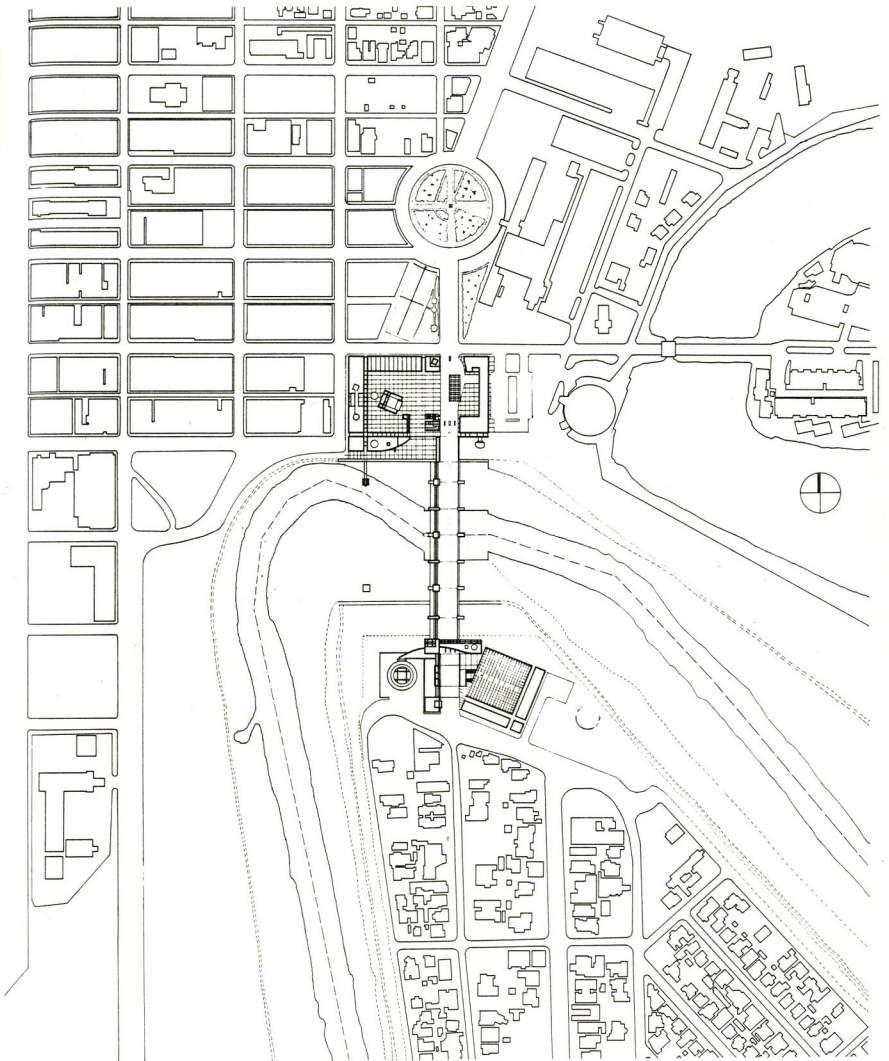
side. Finally the seventh pavilion works as the entry into the mission itself where now the smaller scaled cube becomes rotated to address the city's grid and framed by the larger enclosure.



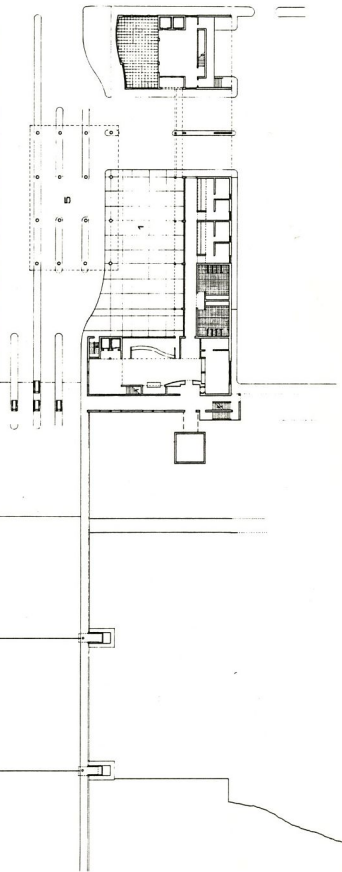
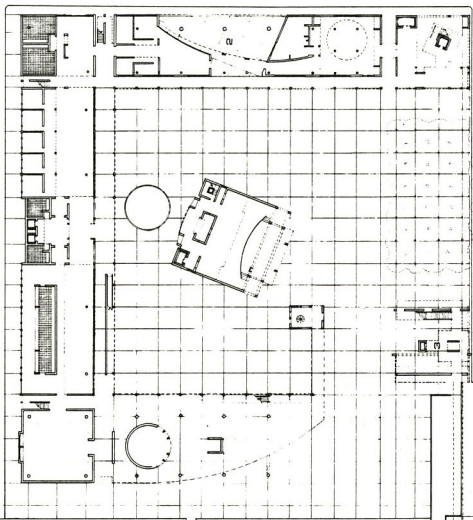


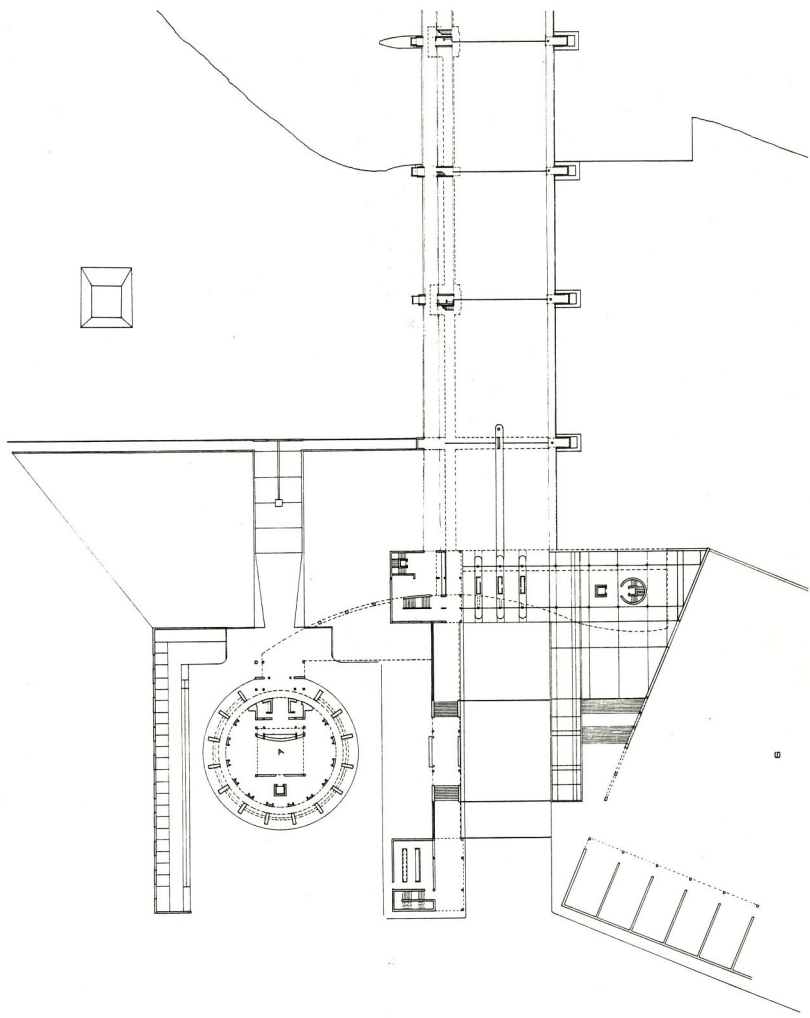


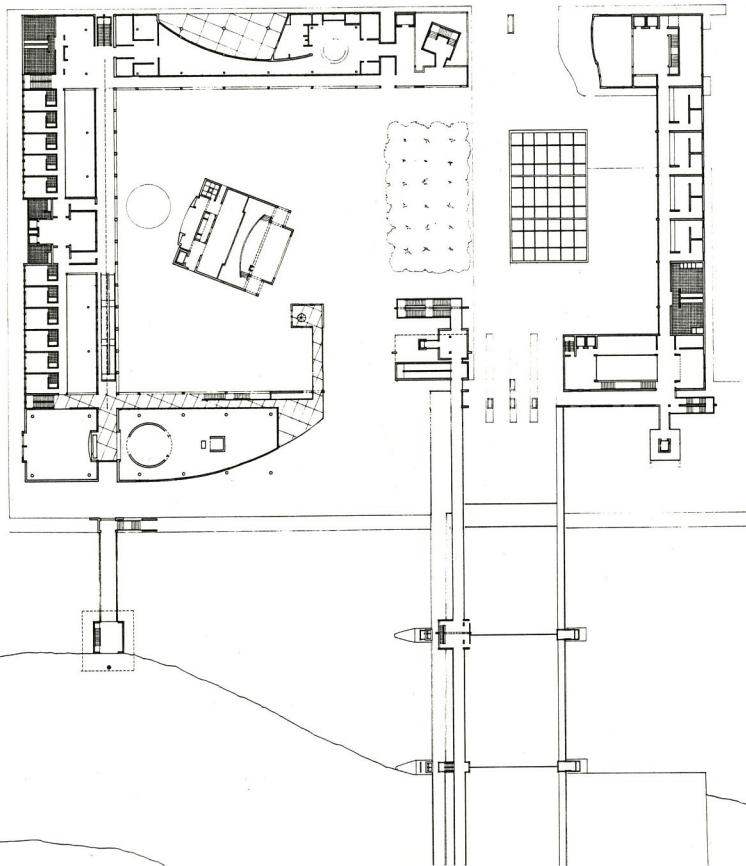


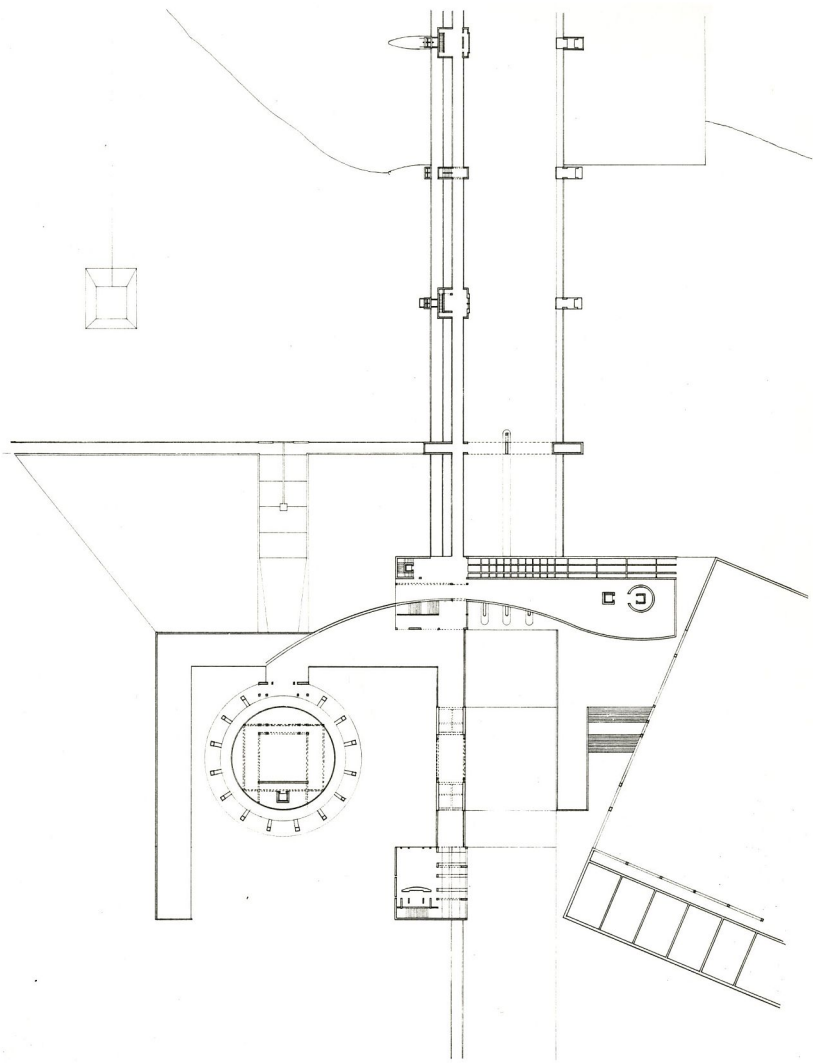


- Key
- 1 Mission
 - 2 Mission
 - 3 Bridge Entry
 - 4 Inspection
 - 5 Inspection
 - 6 Inspection
 - 7 Blue Terminal



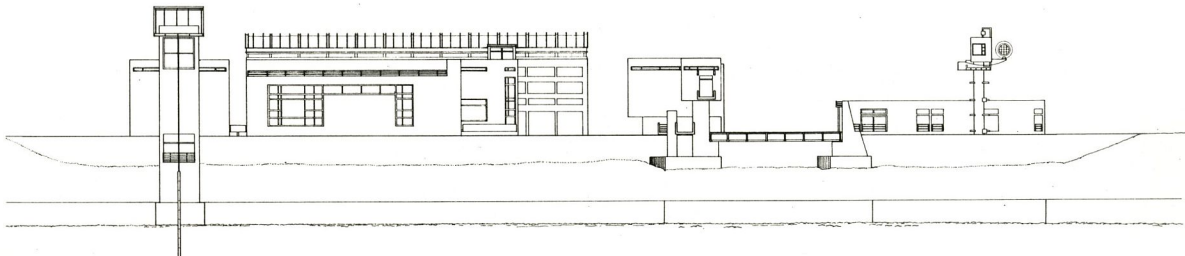




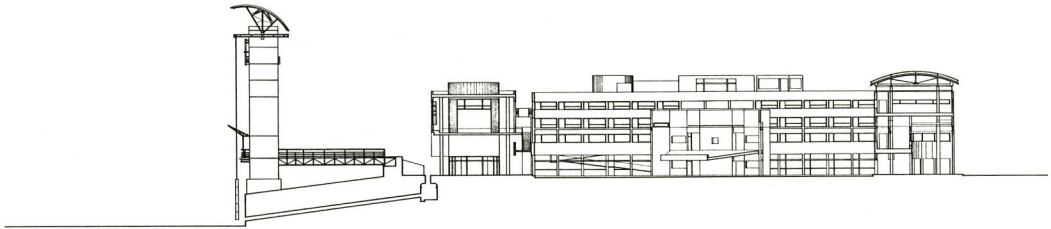
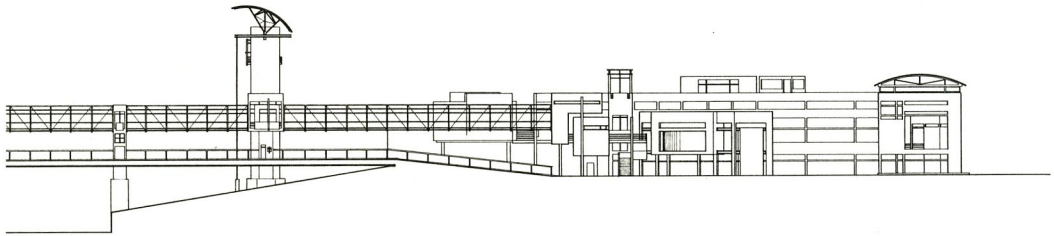


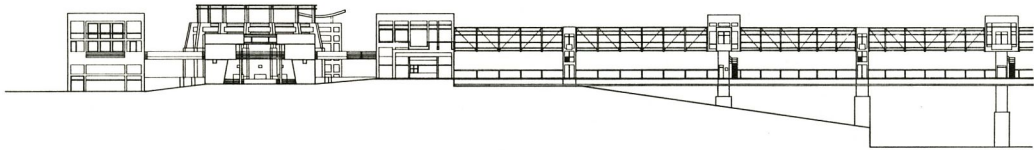


NORTH ELEVATION

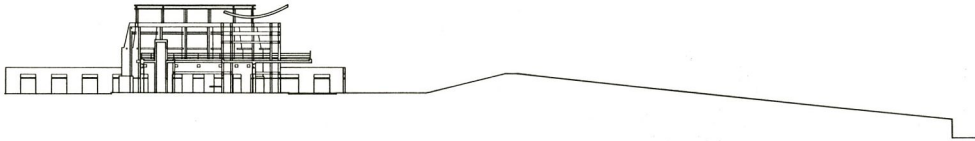


SOUTH ELEVATION

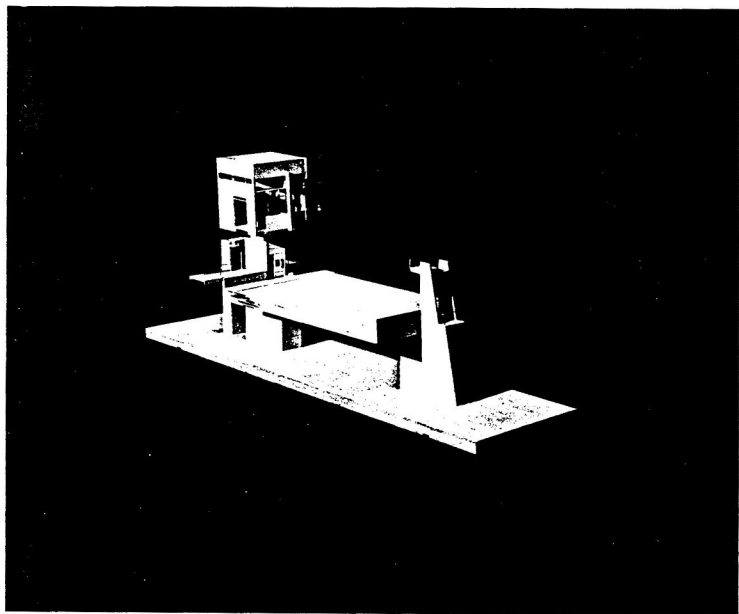


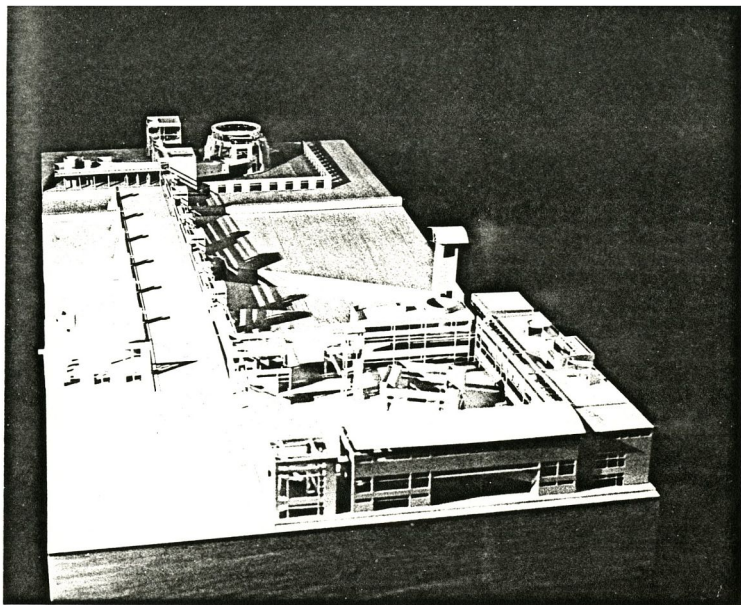


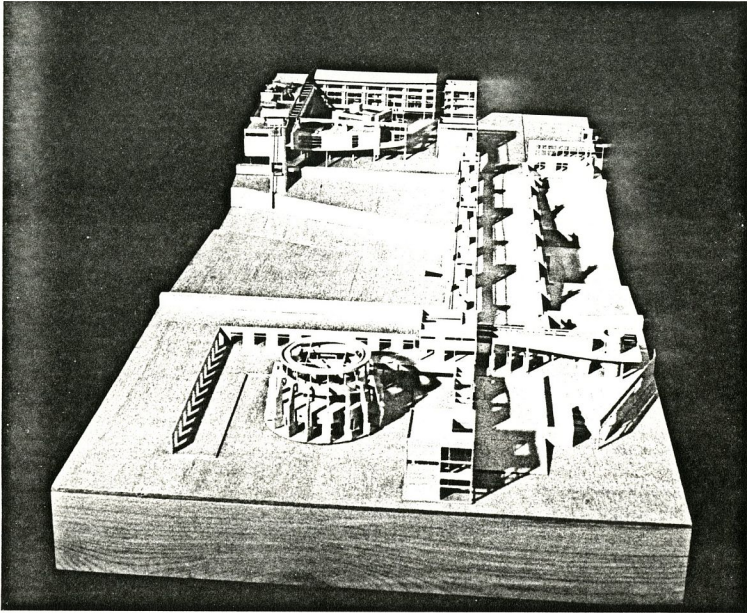
Section A A

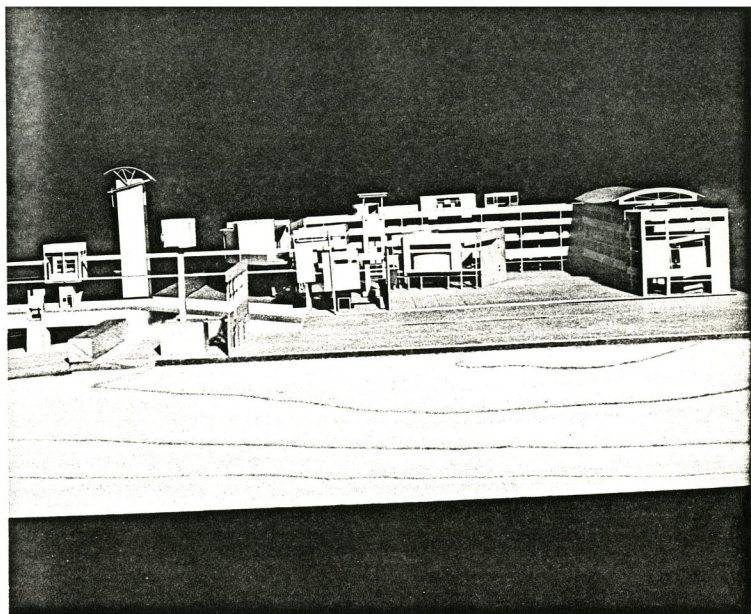


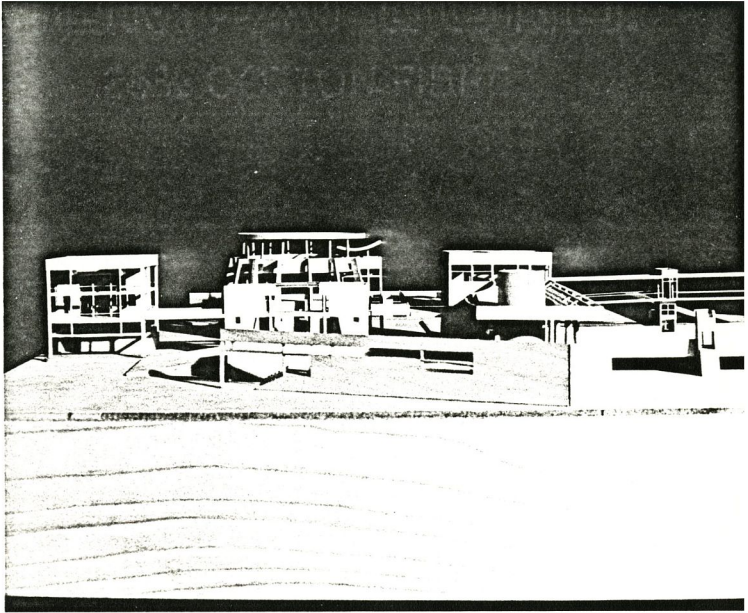
Section B B

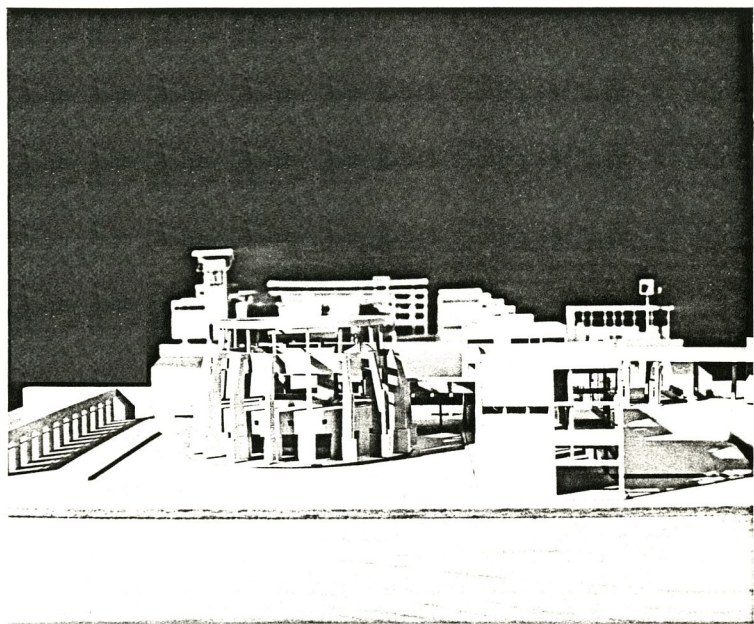












PROGRAM REQUIREMENTSBORDER PATROL STATION/CUSTOMS OFFICES

Entry/lobby
restrooms
reception desk
waiting room
coffee area
Director's office
Staff offices
Conference rooms (2)
Staff lounge/cafeteria/ kitchen
U.S. Agriculture office
Inspection hall
Warehouse
Mechanical
Service entry
Auto Inspection Port

MISSION

Entry/Lobby
Chapel
Bell/clock tower
Missionary's office
Staff offices
Conference Rooms
Classrooms
Medical Examination Rooms
Waiting Rooms
Counseling Chambers
Lawyer's Offices
Secretary Stations
Law Library
Social Worker's Office
Service Entry
Mechanical
Restrooms
Staff lounge/cafeteria/kitchen
Underground Tunnel
Housing -72 units for families
-Emergency Housing

MERCADO

Bar/Cafe
Liquor Shop
Bakery
Textile Shop
Jeweler's
Leather Shop

GARDENS OF FRIENDSHIP

AMPHITHEATRE

BRIDGE

SYMBOLIC GATEHOUSES/PAVILIONS

TOURIST CENTER AND BUS TERMINAL

Endnotes

¹John F. Kennedy, A Nation of Immigrants (New York and Evanston, New York: Harper and Row, Publishers, 1964), 3.

²Micheal s. Teitelbaum, Latin Migration North: the Problem for U.S. Foreign Policy (New York: Council on Foreign Relations, Inc., 1985), 17.

³Kennedy, 3.

⁴Teitelbaum, 17.

⁵Ibid.

⁶Ibid., 18.

⁷Ibid., 71.

⁸Ibid., 18.

⁹Ibid., 17.

¹⁰Ibid., 18.

¹¹Ibid.

¹²Mark Kramer and Danny Lehman, "Life on the Line: the U.S.- Mexican Border," National Geographic, June 1985, 722.

¹³John W. House, Frontier on the Rio Grande: A Political Geography of Development and Social Deprivation (Oxford: Clarendon Press, 1982), 1-2.

¹⁴Ibid., 37.

¹⁵Ibid.

¹⁶Ibid., 44.

¹⁷Sheldon B. Liss, A Century of Disagreement: the Chamizal Conflict, 1864-1964 (Washington D.C.: University of Washington Press, 1965), 9-10.

¹⁸House, 44.

¹⁹Ibid.

²⁰Ibid.

²¹Norris Hundley, Jr., Dividing the Waters: A Century of Controversy Between the United States and Mexico (Berkeley and Los Angeles: University of California Press, 1966) 98.

²²House, 45.

²³Ibid.

²⁴Ibid.

²⁵Jerry E. Mueller, Restless River: International Law and the Behavior of the Rio Grande (El Paso: Texas Western Press, 1975) 101.

²⁶House, 46.

²⁷Frank W. Blackmar, Ph.D., Spanish Institutes of the Southwest (Glorieta, New Mexico: The Rio Grande Press, Inc., 1976), 217.

²⁸Ibid.

²⁹Ibid.

³⁰Ibid., 220.

³¹Laurie Hansen, "The Border, Whispered Prayers and Mad Dashes," Texas Catholic 2 December 1988, 16.

³²Ibid.

³³Ibid.

³⁴Italo Calvino, Invisible Cities, trans. William Weaver (New York: Harcourt Brace Jovanovich, Inc., 1974) 15.

³⁵Colin Rowe and Fred Koetter, Collage City. (Cambridge, Massachusetts: The M.I.T. Press, 1978) 24.

³⁶Richard Seth Hayden and Thierry W. Despont, Restoring the Statue of Liberty: Sculpture, Structure, Symbol. (New York: McGraw-Hill Book Company, 1986) 24.

³⁷Ibid. 33.

³⁸Ibid. 24-25.

³⁹Barbara Benton, Ellis Island: A Pictorial History. (New York: Facts on File Publications, 1985), 25.

⁴⁰Ibid.

⁴¹Ibid.

42Ibid.

43Ibid., 37.

44Ibid.

45Ibid., 40.

46August C. Bolino, The Ellis Island Source Book (Washington D.C.: Kensington Historical Press, 1985), 6.

47Ibid., 40.

48Benton, 48.

49Ibid., 62.

50Ibid., 50.

51Ibid., 74.

52Ibid., 90.

53Ibid., 97.

54Ibid., 165.

55Ibid.

56John E. Hancock, "Between History and Tradition: Notes Towards a Theory of Precedent," The Harvard Architectural Review 5 (1986) : 70.

57Ibid.

58Ibid.

59Ibid.

60Ibid., 71.

61Ibid.

62James Wakesfield Burke, A Forgotten Glory: The Missions of Old Texas (Waco, Texas: Texian Press, 1979), 43.

63Ibid.

64Texas Historical Commission, An Archeological and Historical Survey of the Proposed Parkway (San Antonio, Texas: Office of the State Archeologist, 1977), 19.

65Burke, 43.

66Ibid.

67Ibid.

68Giovanni Fanelli, Firenze Architettura e Citta' (Florence: Vallecchi Editore Firenze, 1973), 334.

69Christian Norberg-Schultz, Baroque Architecture (New York: Harry N. Abrams, Inc., 1972), 32.

70Ibid.

71Ibid., 34.

72Ibid.

73Liselotte and Oswald Mathias Ungers, "The Humanist City," Architectural Design 7/8 (1982): 73.

74Ibid.

75Ibid.

76J.-C. Lemagny, Visionary Architects: Boullée, Ledoux, Legueu (Houston: University of St. Thomas, 1969), 94.

77Ibid.

78Anthony Vidler, "The Rhetoric of Monumentality: Ledoux and the Barrières of Paris," AA Files (September 1984): 15.

79Lemagny, 94.

80Ibid.

81Vidler, 15.

82Ibid., 14.

83Ibid.

84Ibid., 15.

85Ibid., 26.

86Ibid.

87Norberg-Schultz, 11.

88Ibid., 12.

89Ibid.

⁹⁰Ibid., 20.

⁹¹Deborah Gans, The Le Corbusier Guide (Princeton: Princeton Architectural Press, 1987), 34.

⁹²Stanilaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge, Massachusetts: The M.I.T. Press, 1979), 156.

⁹³Gans, 34.

⁹⁴Ibid.

⁹⁵Ibid., 35.

⁹⁶von Moos, 156.

⁹⁷Ibid.

⁹⁸Gans, 35.

⁹⁹Ibid.

¹⁰⁰Ibid.

Bibliography

- Abrams, Richard I. and James B. Bell. In Search of Liberty: The Story of the Statue of Liberty and Ellis Island. Garden City, New York: Doubleday & Company, 1984.
- Bartholdi, Frederic Auguste. The Statue of Liberty Enlightening the World. New York: New York Bound, 1984.
- Benton, Barbara. Ellis Island: A Pictorial History. New York: Facts on File Publications, Inc., 1985.
- Blackmar, Frank W., Ph.D. Spanish Institutions of the Southwest. Glorieta, New Mexico: The Rio Grande Press, Inc., 1976.
- Burke, James Wakefield. A Forgotten Glory: The Missions of Old Texas. Waco, Texas: Texian Press, 1979.
- Bustamante, Jorge A. "Mexican Migration: The Political Dynamic of Perceptions," U.S.-Mexico Relations: Economic and Social Aspects, ed. Clark W. Reynolds and Carlos Tello, 259-276. Stanford: Stanford University Press, 1983.
- Bolino, August C. The Ellis Island Source Book. Washington, D.C.: Kensington Historical Press, 1985.
- Calvino, Italo. Invisible Cities. Translated by William Weaver. New York: Harcourt Brace, Jovanovich, Inc., 1974.
- Fanelli, Giovanni. Firenze Architettura e Citta'. Florence: Vallecchi Editore Firenze, 1973.
- Gamio, Manuel. The Mexican Immigrant. New York: Arno Press and The New York Times, 1969.
- Gans, Deborah. The Le Corbusier Guide. Princeton: Princeton Architectural Press, 1987.
- Hancock, John E. "Between History and Tradition: Notes Towards a Theory of Precedent." Harvard Architecture Review 5 (1986): 64-77.
- Handlin, Oscar. Statue of Liberty. New York: Newsweek Book Division, 1971.
- Hansen, Laurie. "The Border, Whispered Prayers and Mad Dashes." Texas Catholic, 2 December 1988, 16.

- Hayden, Richard Seth, Thierry W. Despont and Nadine M. Post, Restoring the Statue of Liberty: Sculpture, Structure, Symbol. New York: McGraw-Hill Book Company, 1986.
- House, John W. Frontier on the Rio Grande: A Political Geography of Development and Social Deprivation. Oxford: Clarendon Press, 1982.
- Hundley Jr., Norris. Dividing the Waters: A Century of Controversy Between the United States and Mexico. Berkley and Los Angeles, 1966.
- Kennedy, John F. A Nation of Immigrants. New York and Evanstown, N.Y.: Harper and Row, Publisher, 1964.
- Kramer, Mark and Danny Lehman. "Life on the Line: the U.S.-Mexican Border." National Geographic, June 1985.
- Lavedan, Pierre. French Architecture. London: Scolar Press, 1979.
- Le Corbusier. Le Corbusier et Pierre Jeanneret: Oeuvre Complete 1910-1929. Switzerland: W. Boesiger and O. Stonorov, 1964.
- Lemagny, J.-C. Visionary Architects: Boulee, Ledoux, Lequeu. Houston: University of St. Thomas, 1968.
- Leutenegger, Fr. Benedict and Fr. Marion A. Habig. The Zacatecan Missionaries in Texas, 1716-1834. Austin, Texas: Texas Historical Survey Committee, 1973. Office of the State Archeologist Reports, no. 23.
- Liss, S. A Century of Disagreement: The Chamizal Conflict, 1864-1964. Washington: University of Washington Press, 1965.
- Mueller, J.E. Restless River. International Law and the Behavior of the Rio Grande. El Paso: Texas Western Press, 1975.
- Norberg-Schultz, Christian. Baroque Architecture. New York: Harry N. Abrams, Inc., 1972.
- Palladio, Andrea. The Four Books of Architecture. New York: Dover Publications, Inc., 1965.
- Pitkins, Thomas M. Keepers of the Gate: A History of Ellis Island. New York: University Press, 1975.

- Rowe, Colin and Fred Koetter. Collage City. Cambridge, Massachusetts: The M.I.T. Press, 1978.
- Santos, Richard G. Aguayo Expedition in Texas: 1721. Austin, Texas: Jenkins Publishing Company, 1981.
- Thomson, David. Renaissance Paris: Architecture and Growth. Berkeley and Los Angeles: University of California Press, 1984.
- Teitelbaum, Michael S. Latin Migration North: The Problem for U.S. Policy. New York: Council on Foreign Relations, Inc., 1985.
- Texas Historical Commission. An Archeological and Historical Survey of the Proposed Parkway. San Antonio: Office of the State Archeologist, 1977.
- Trachtenberg, Marvin. Statue of Liberty. New York: Elisabeth Sifton Books Penquin Books, 1986.
- Ungers, Liselotte and Oswald Mathias. "The Humanist City." Architectural Design 7/8 (1982): 70-73.
- Vidler, Anthony. "The Rhetoric of Monumentality: Ledoux and the Barrieres of Paris." AA Files 7: (September 1984): 14-29.
- von Moos, Stanilaus. Le Corbusier: Elements of a Synthesis. Cambridge, Massachusetts: The MIT Press, 1979.
- Weisberger, Bernard A. Statue of Liberty: The First Hundred Years. New York: American Heritage Press, Inc., 1985.